

0 10/28/20 MDM ISSUED FOR CONSTRUCTION REV DATE BY DESCRIPT

DESCRIPTION

SHEET NOTES:

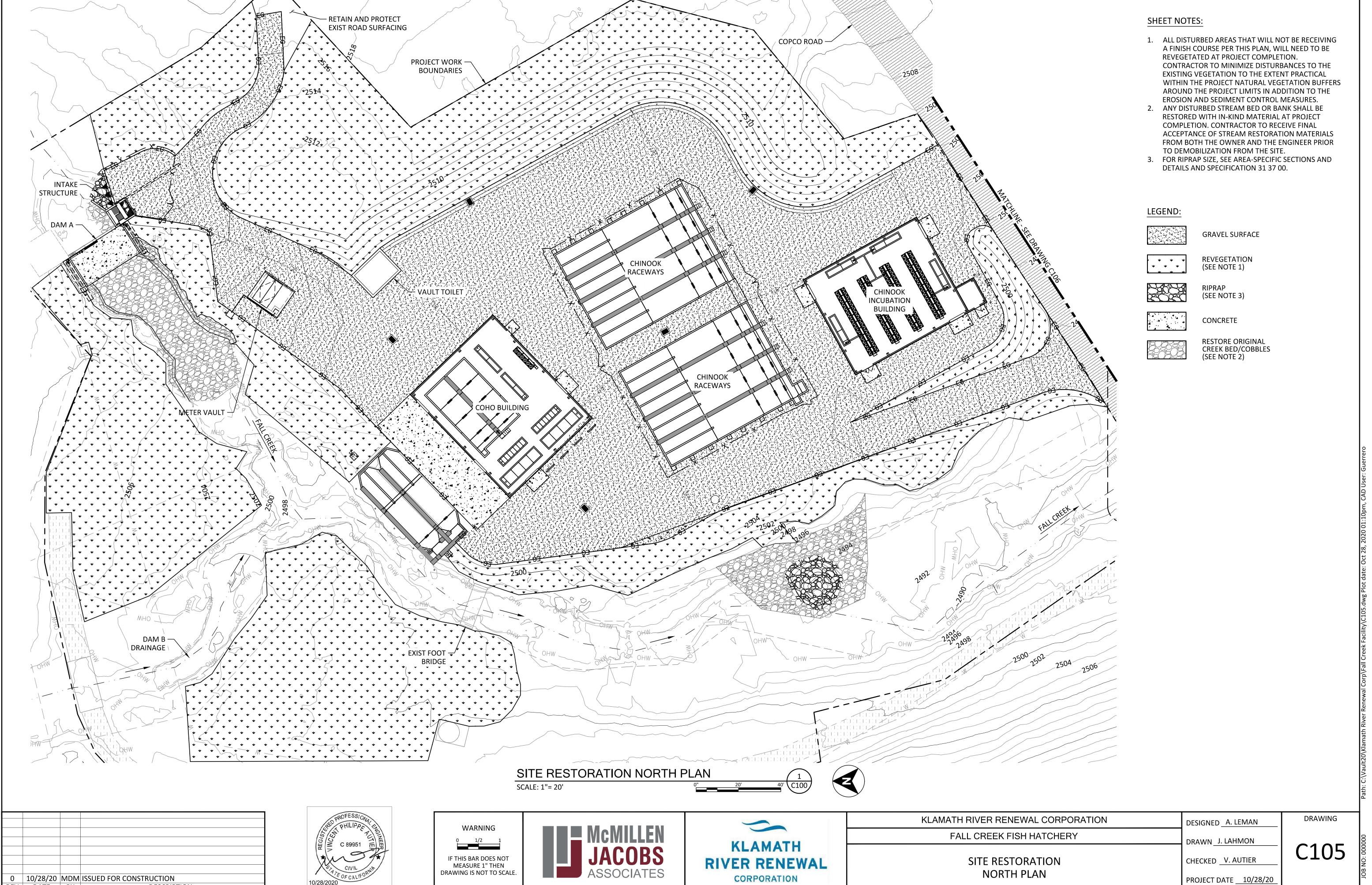
- 1. CUT AND FILL SLOPES SHALL TYPICALLY BE 2H:1V, UNO. EXCAVATION SLOPES MAY BE MODIFIED BASED UPON SOIL AND GROUNDWATER CONDITIONS ENCOUNTERED IN THE FIELD.
- 2. MATCH EXISTING GRADE AND PROVIDE SMOOTH TRANSITION BETWEEN ALL NEW SURFACING AND EXISTING SURFACING.
- 3. PROVIDE POSITIVE DRAINAGE AWAY FROM FACILITIES WHERE POSSIBLE, IN ACCORDANCE WITH THIS GRADING PLAN. WHERE DRAINAGE IS DIRECTED TOWARDS FACILITIES, TRENCH DRAIN SYSTEM TO BE PROVIDED TO DIRECT SURFACE RUNOFF TO CATCH BASINS. SEE SHEET C113.





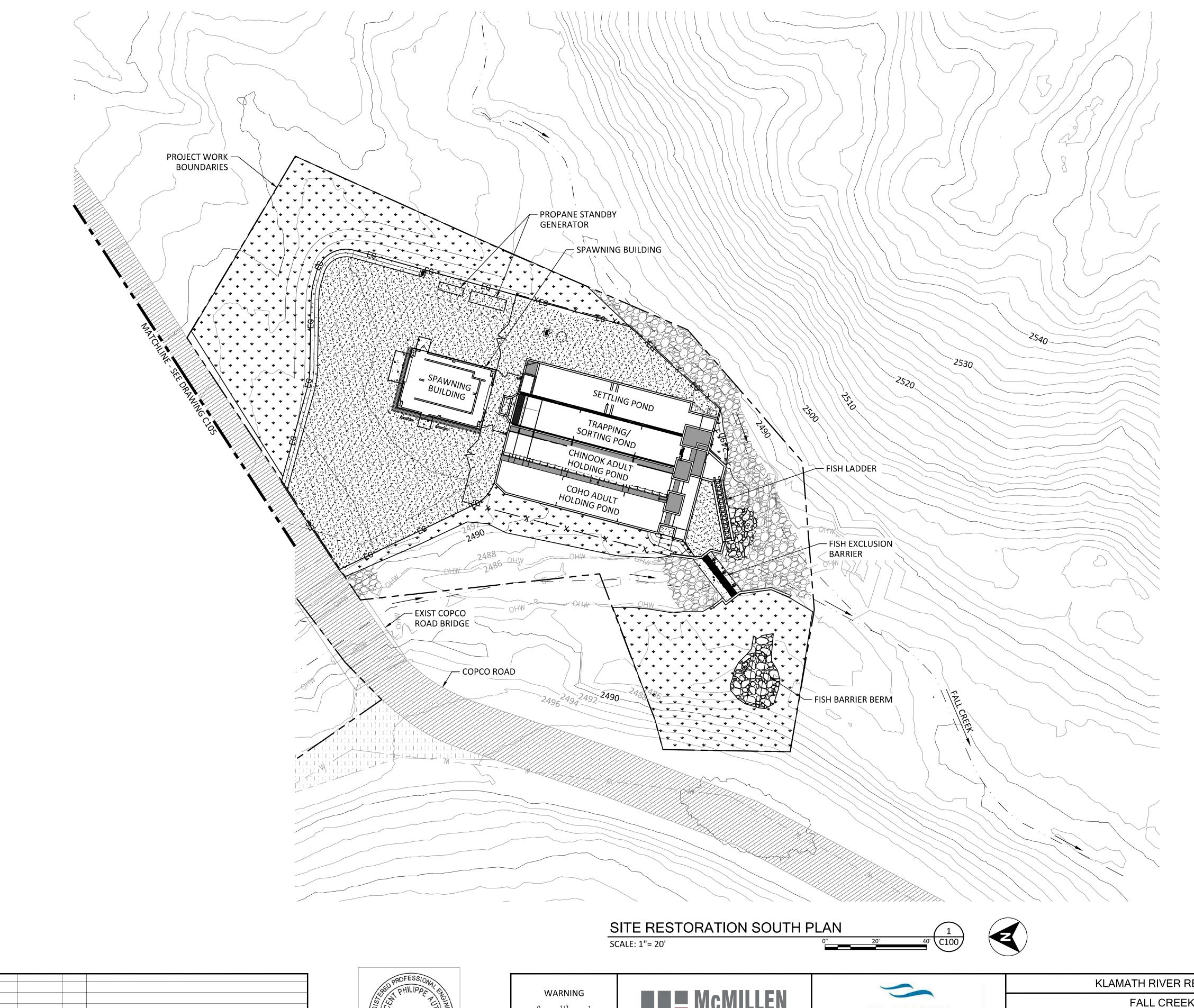
KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON
SITE GRADING	CHECKED V. AUTIER
SOUTH PLAN	PROJECT DATE 10/28

DRAWING



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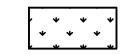


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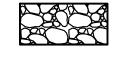
- 1. ALL DISTURBED AREAS THAT WILL NOT BE RECEIVING A FINISH COURSE PER THIS PLAN, WILL NEED TO BE REVEGETATED AT PROJECT COMPLETION. CONTRACTOR TO MINIMIZE DISTURBANCES TO THE EXISTING VEGETATION TO THE EXTENT PRACTICAL WITHIN THE PROJECT NATURAL VEGETATION BUFFERS AROUND THE PROJECT LIMITS IN ADDITION TO THE EROSION AND SEDIMENT CONTROL MEASURES.
- 2. ANY DISTURBED STREAM BED OR BANK SHALL BE RESTORED WITH IN-KIND MATERIAL AT PROJECT COMPLETION. CONTRACTOR TO RECEIVE FINAL ACCEPTANCE OF STREAM RESTORATION MATERIALS FROM BOTH THE OWNER AND THE ENGINEER PRIOR TO DEMOBILIZATION FROM THE SITE.
- 3. FOR RIPRAP SIZE, SEE AREA-SPECIFIC SECTIONS AND DETAILS AND SPECIFICATION 31 37 00.

LEGEND:

GRAVEL SURFACE



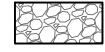
REVEGETATION (SEE NOTE 1)



RIPRAP (SEE NOTE 3)



CONCRETE



RESTORE ORIGINAL CREEK BED/COBBLES (SEE NOTE 2)



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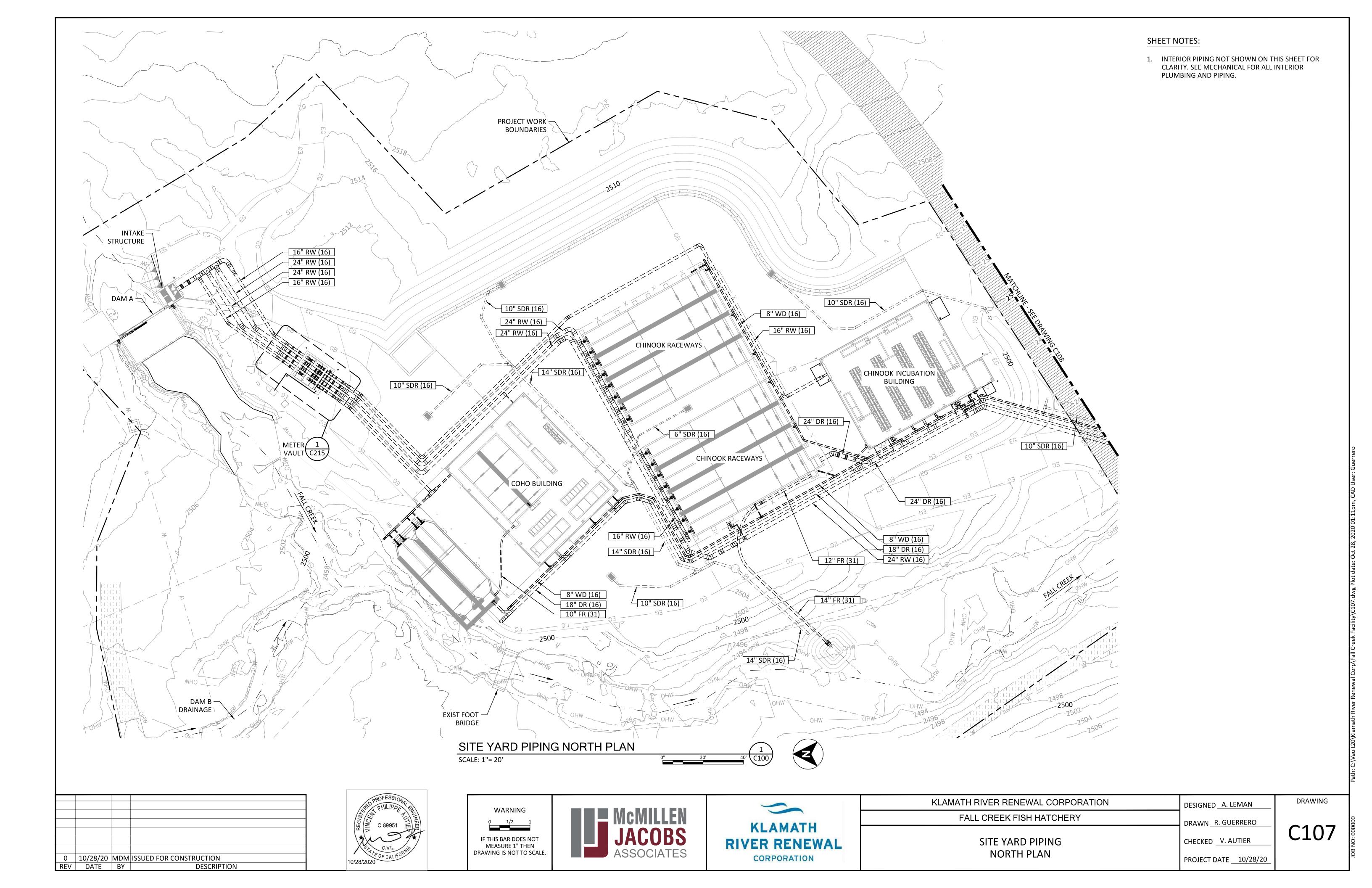


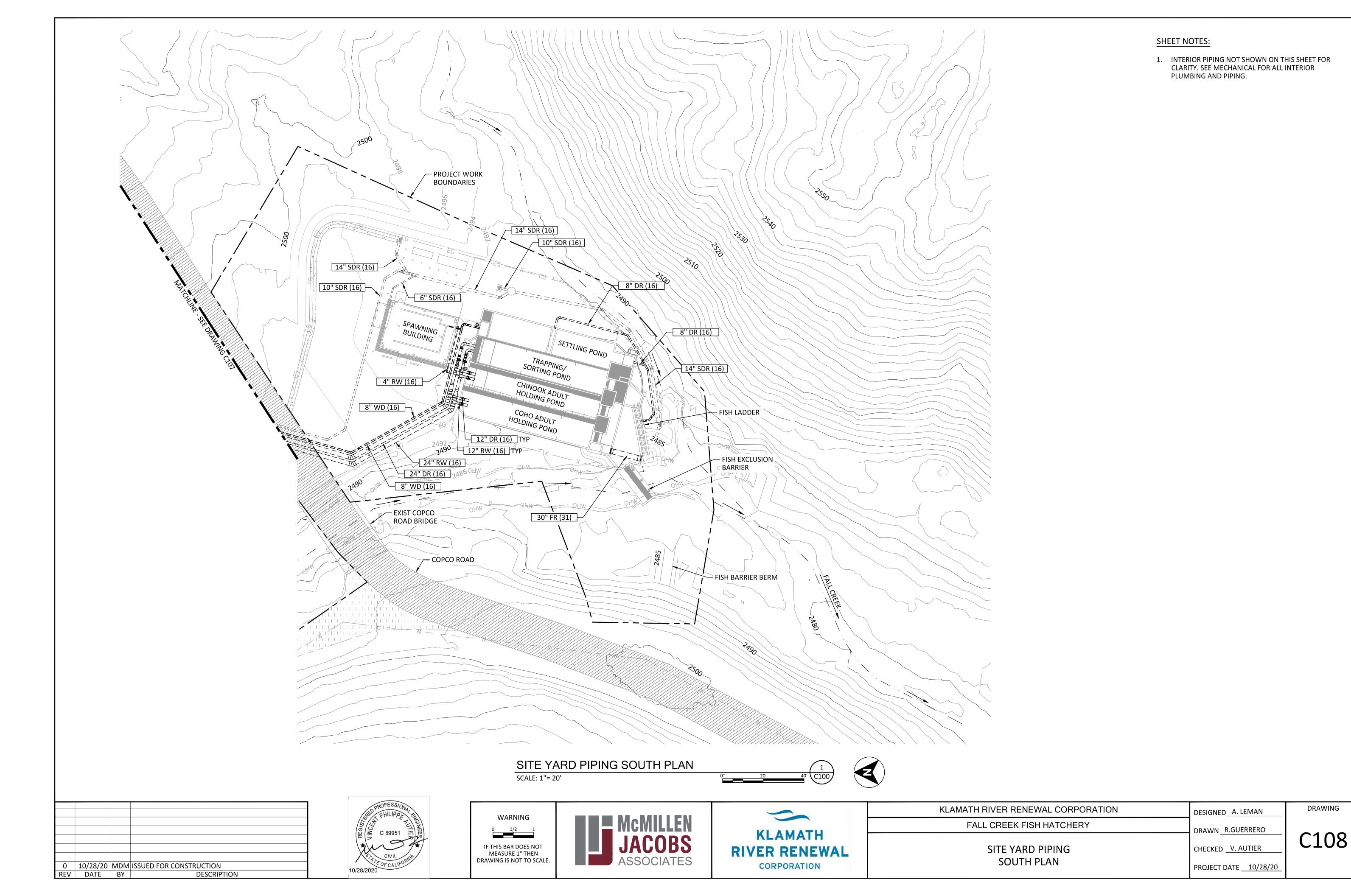
KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON
SITE RESTORATION	CHECKED V. AUTIER
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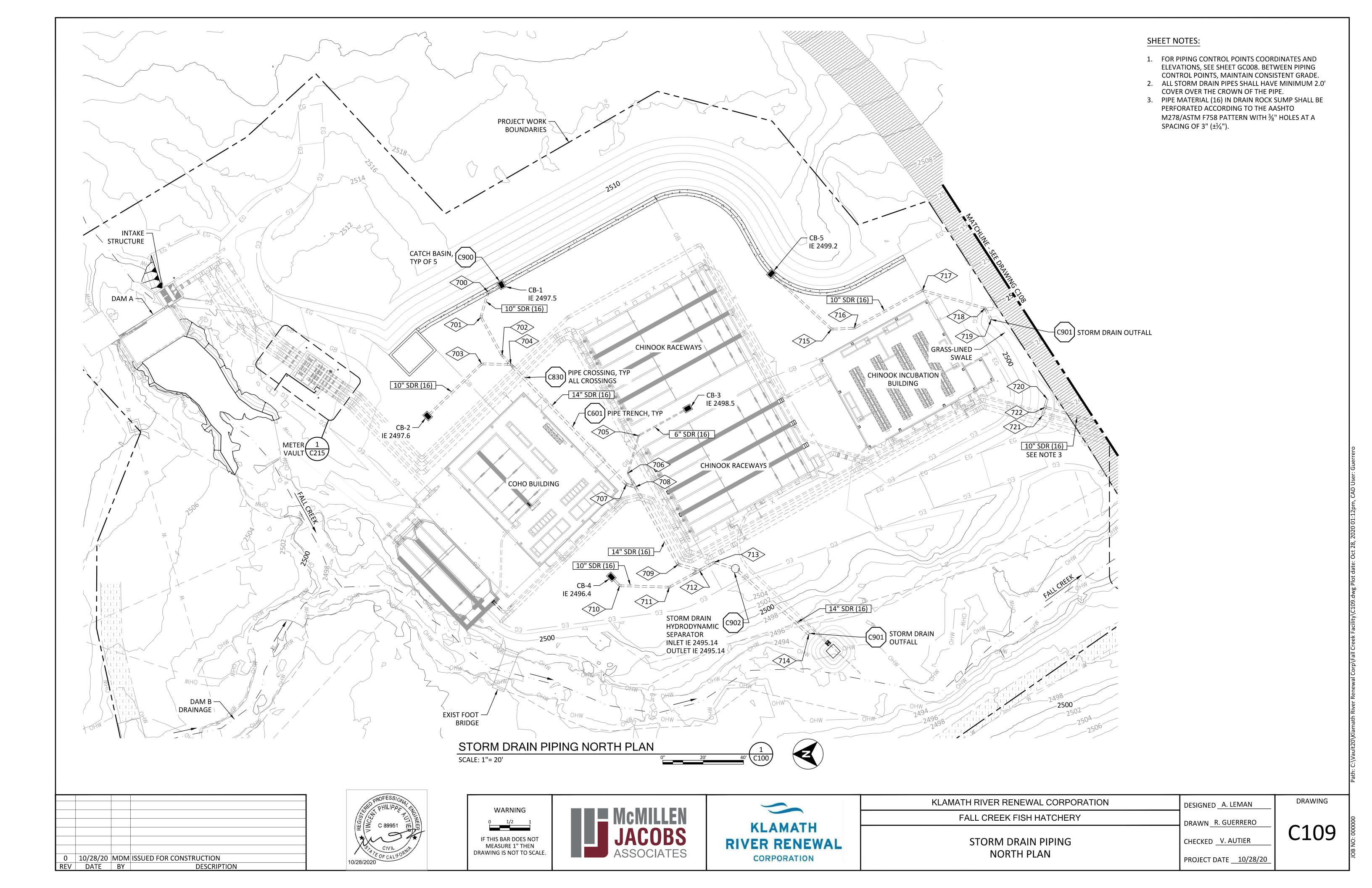
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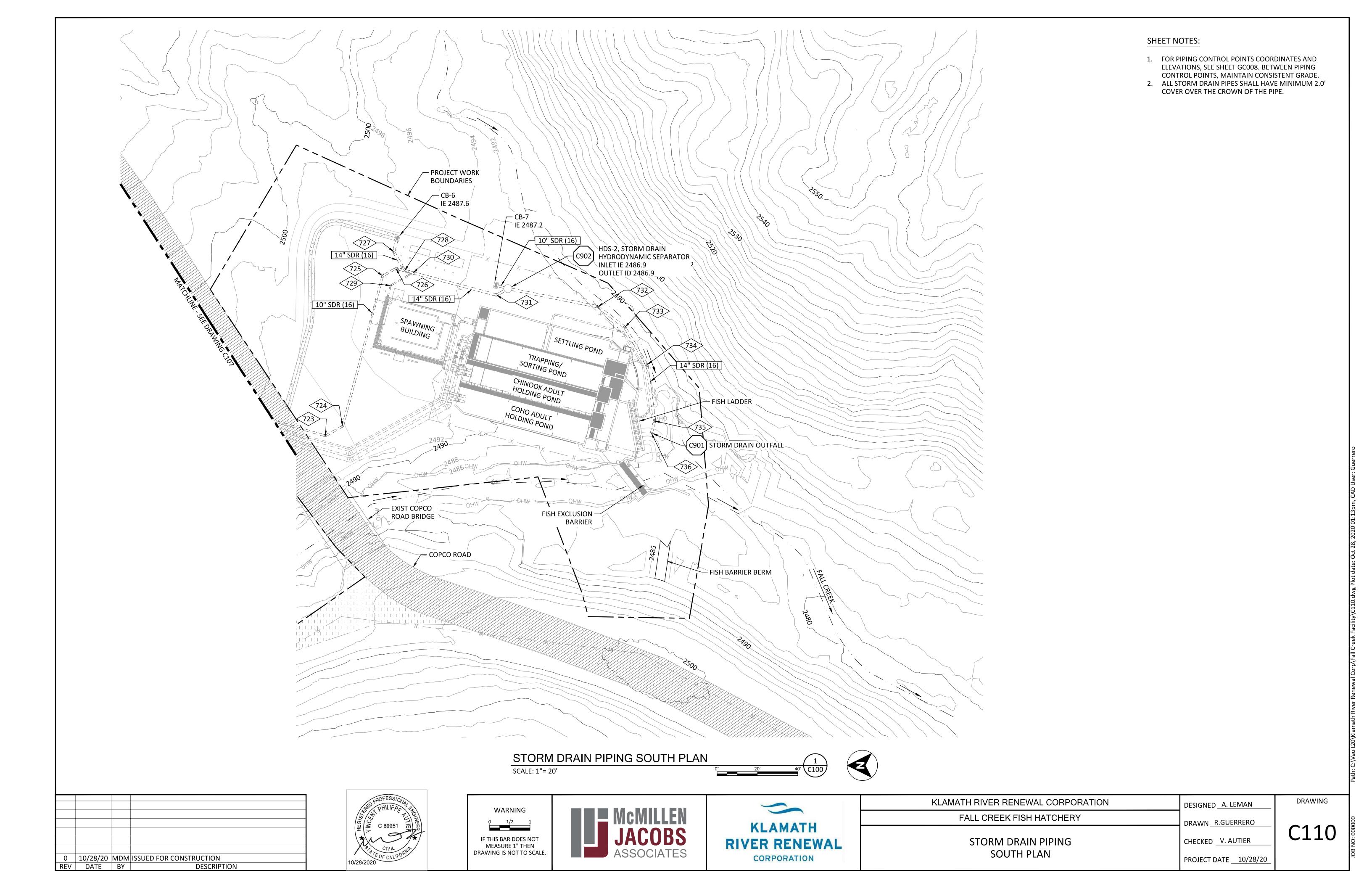
C106

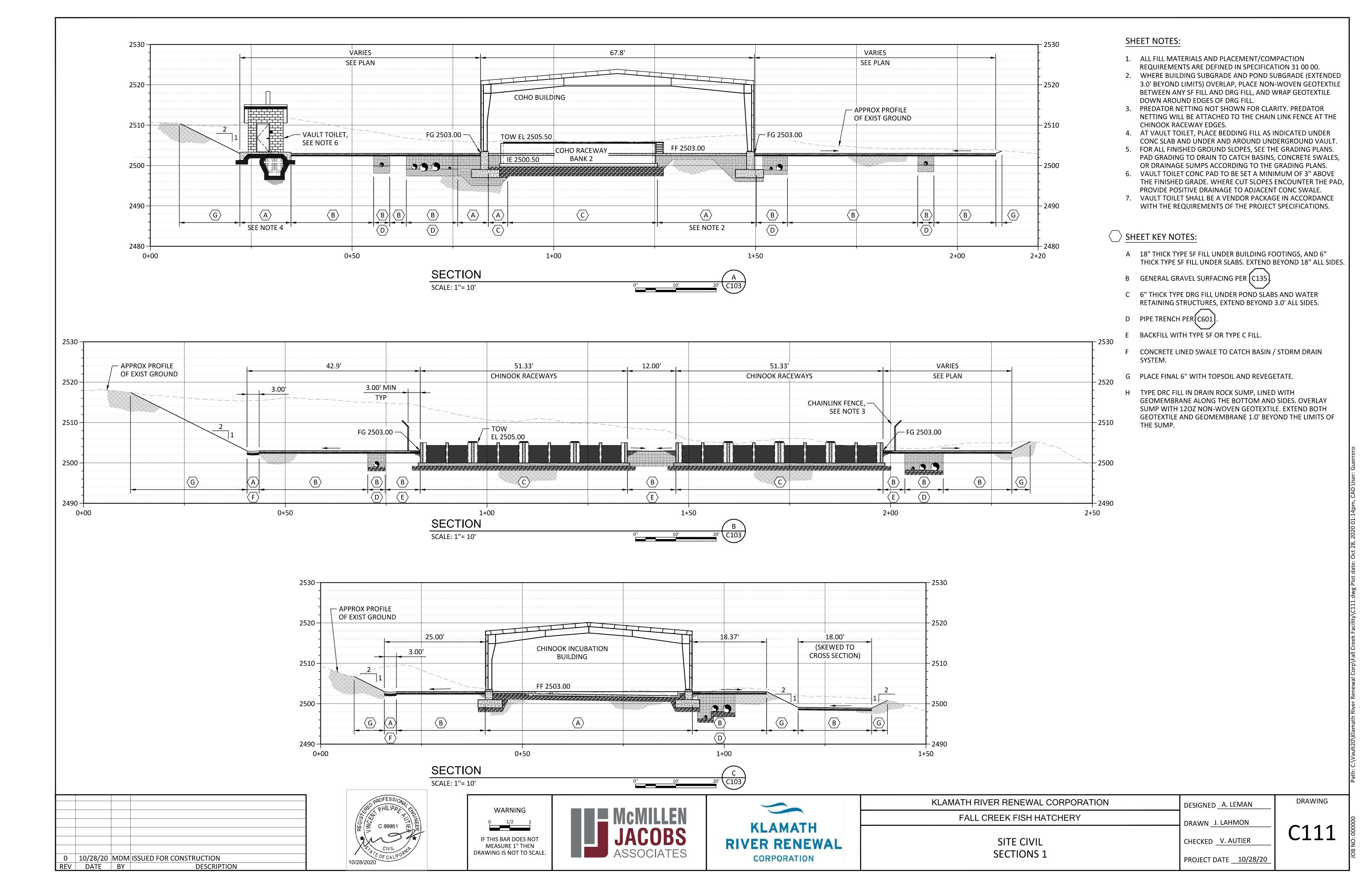
PROJECT DATE <u>10/28/20</u>

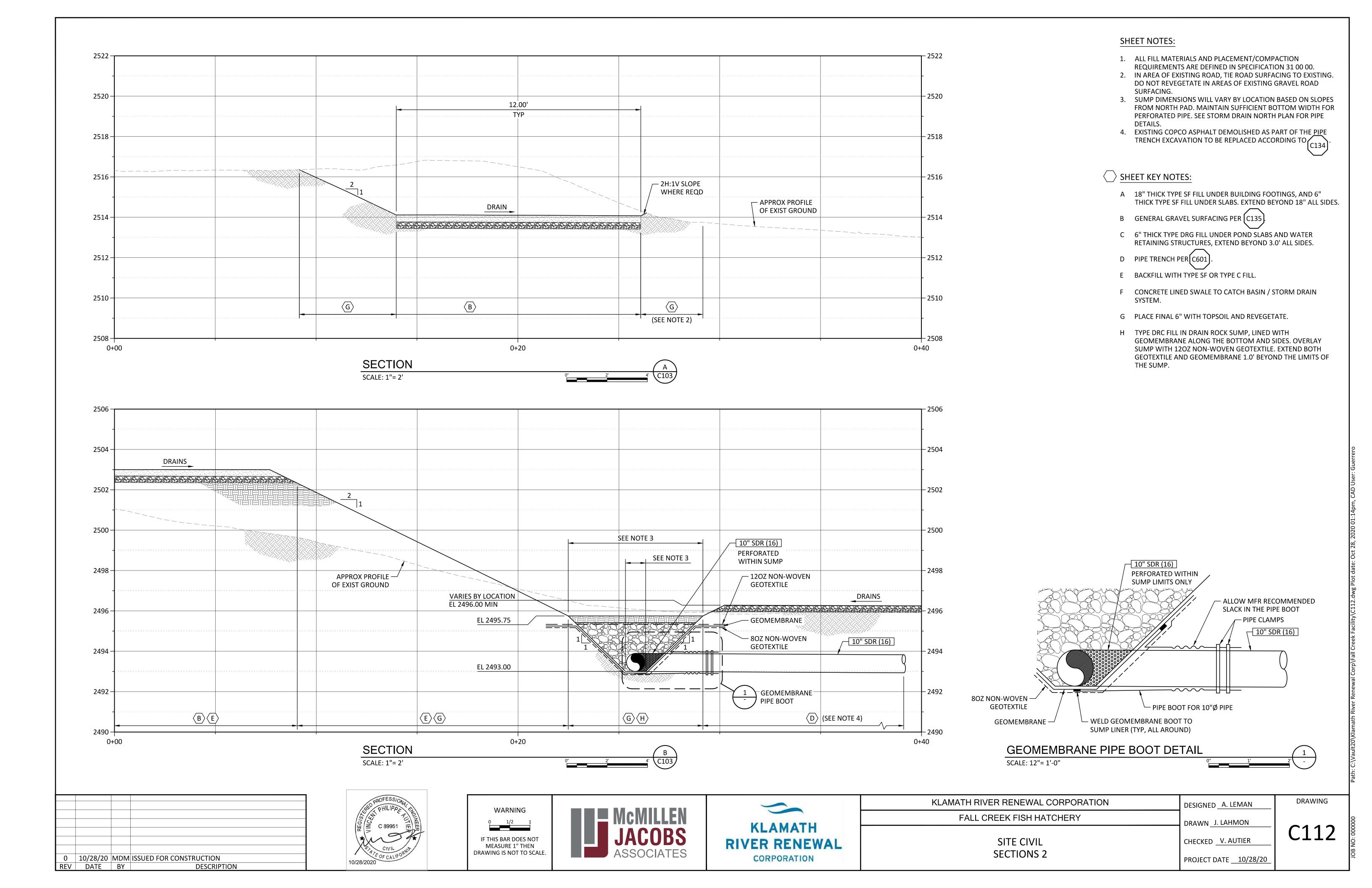


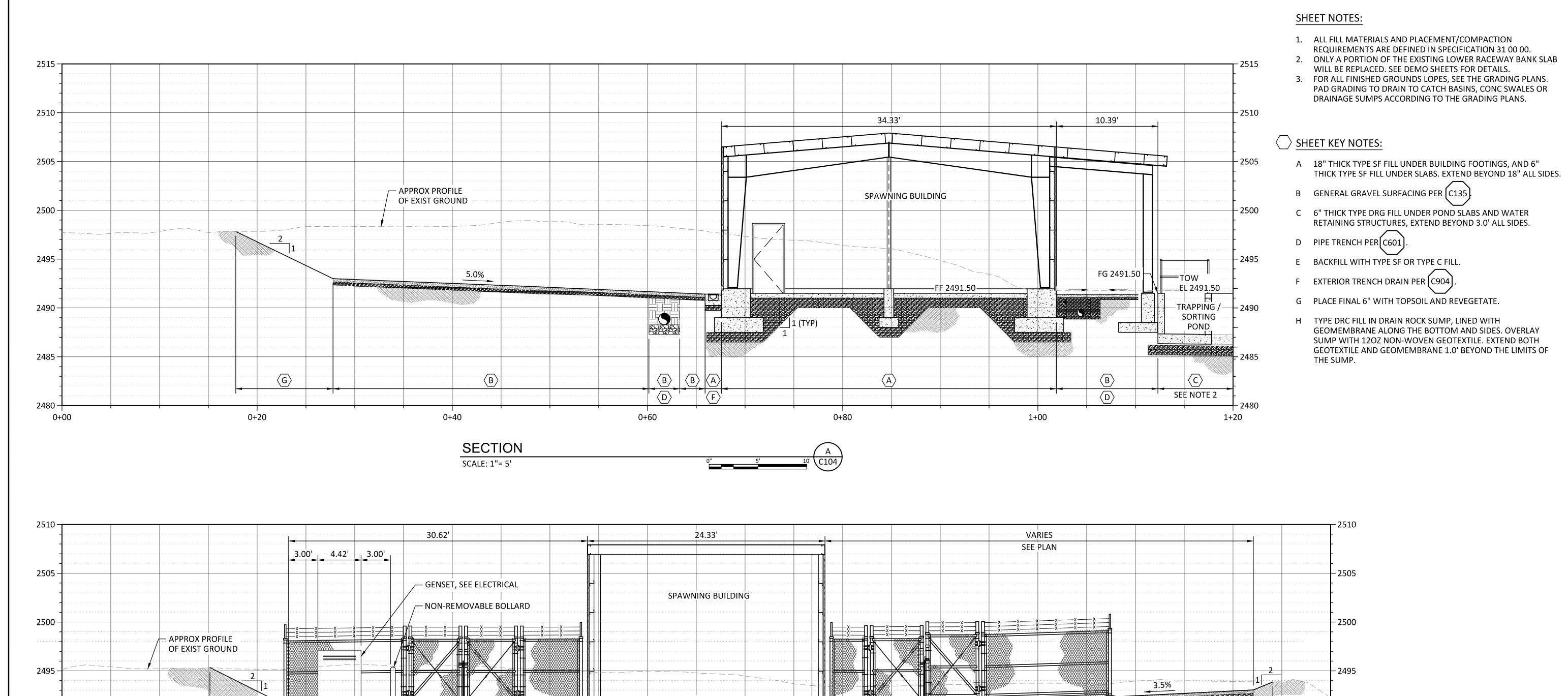


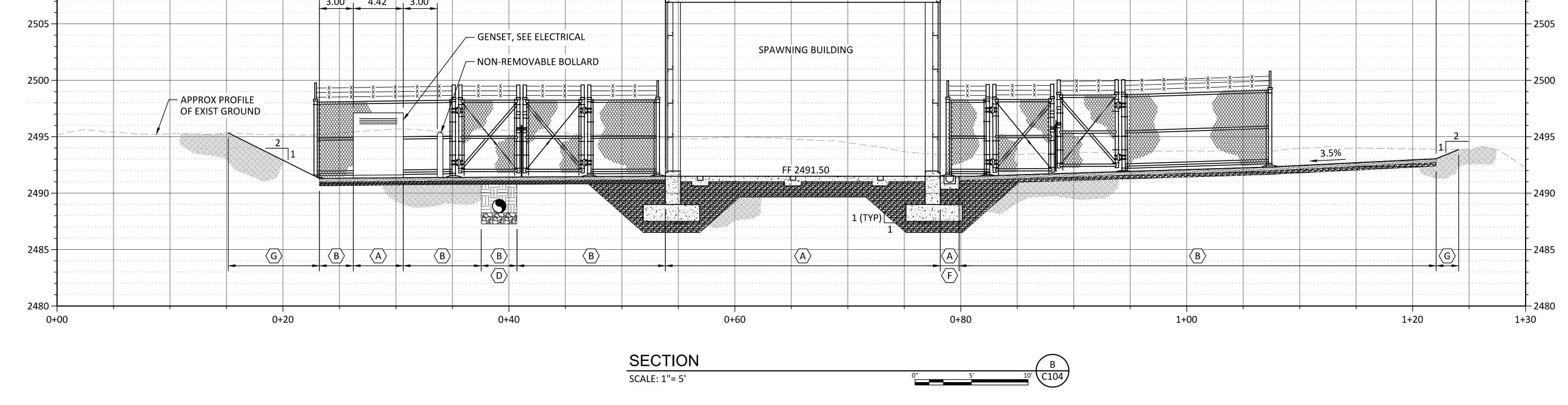




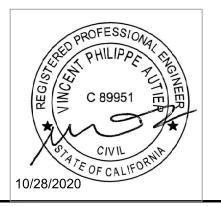


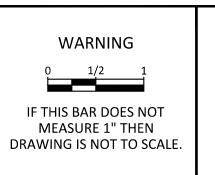






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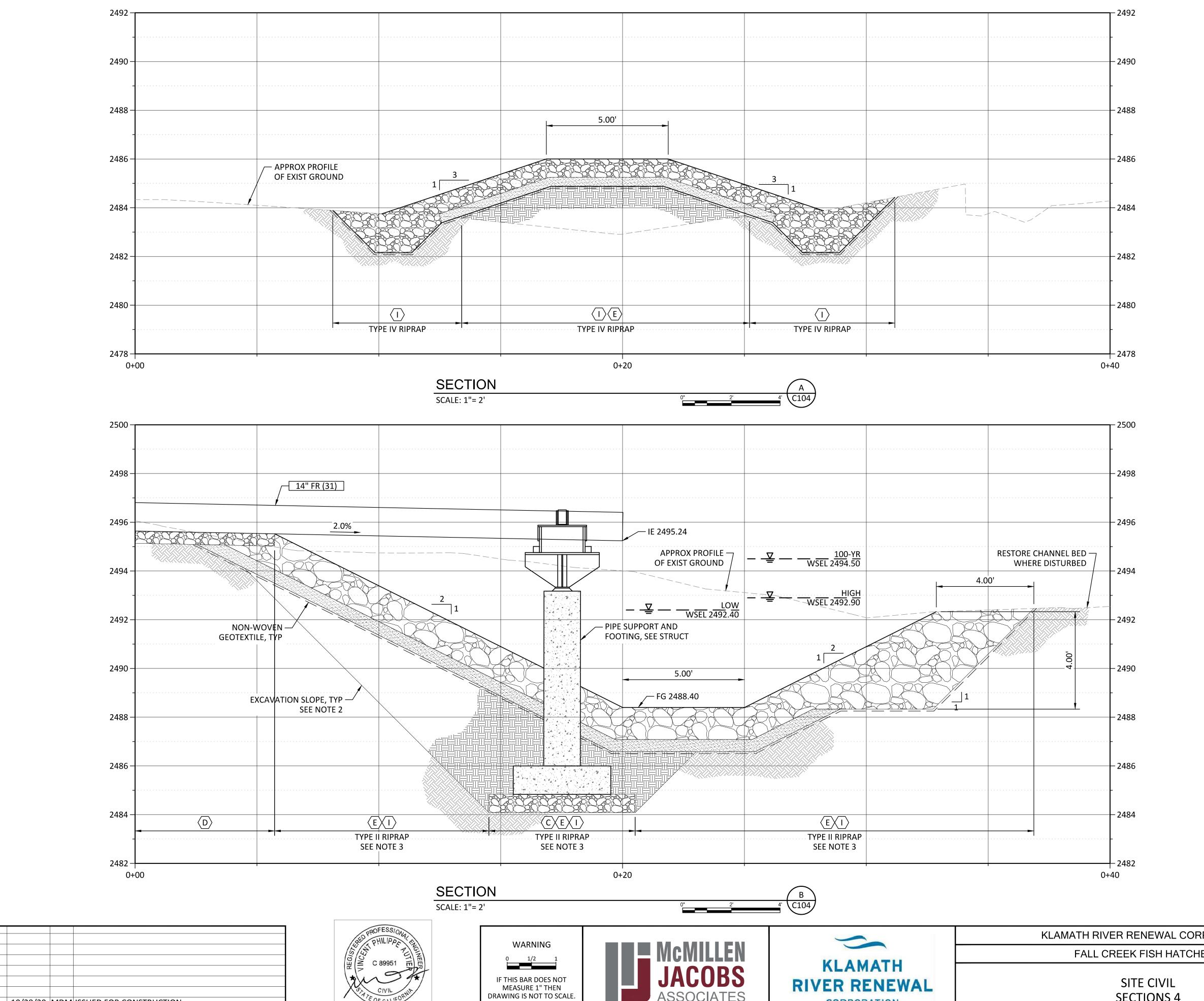


KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON
SITE CIVIL	CHECKED V. AUTIER
SECTIONS 3	PROJECT DATE <u>10/28/20</u>

DRAWING

C113

13



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SHEET NOTES:

- 1. ALL FILL MATERIALS AND PLACEMENT/COMPACTION
- REQUIREMENTS ARE DEFINED IN SPECIFICATION 31 00 00. 2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE WORKING SLOPES BASED ON WORKING CONDITIONS, SOIL TYPE, MOISTURE CONTENT, ETC. ALL SLOPES SHALL MEET LOCAL, STATE, AND FEDERAL (OSHA) REQUIREMENTS.
- 3. IF BEDROCK IS ENCOUNTERED, CONSTRUCT PIPE SUPPORT FOOTING DIRECTLY ON BEDROCK. OTHERWISE, OVER EXCAVATE PIPE SUPPORT FOOTING 6", PLACE NON-WOVEN GEOTEXTILE, AND BACKFILL WITH TYPE DRG FILL TO BOTTOM OF FOOTING ELEVATION.

SHEET KEY NOTES:

- A 18" THICK TYPE SF FILL UNDER BUILDING FOOTINGS, AND 6" THICK TYPE SF FILL UNDER SLABS. EXTEND BEYOND 18" ALL SIDES.
- B GENERAL GRAVEL SURFACING PER C135
- C 6" THICK TYPE DRG FILL UNDER POND SLABS AND WATER RETAINING STRUCTURES, EXTEND BEYOND 3.0' ALL SIDES.
- D PIPE TRENCH PER C601
- E BACKFILL WITH TYPE SF OR TYPE C FILL.
- F CONCRETE LINED SWALE TO CATCH BASIN / STORM DRAIN SYSTEM.
- G PLACE FINAL 6" WITH TOPSOIL AND REVEGETATE.
- H TYPE DRC FILL IN DRAIN ROCK SUMP, LINED WITH GEOMEMBRANE ALONG THE BOTTOM AND SIDES. OVERLAY SUMP WITH 120Z NON-WOVEN GEOTEXTILE. EXTEND BOTH GEOTEXTILE AND GEOMEMBRANE 1.0' BEYOND THE LIMITS OF THE SUMP.
- RIPRAP/ARMOR, FILTER MATERIAL, AND NON-WOVEN GEOTEXTILE PER C202

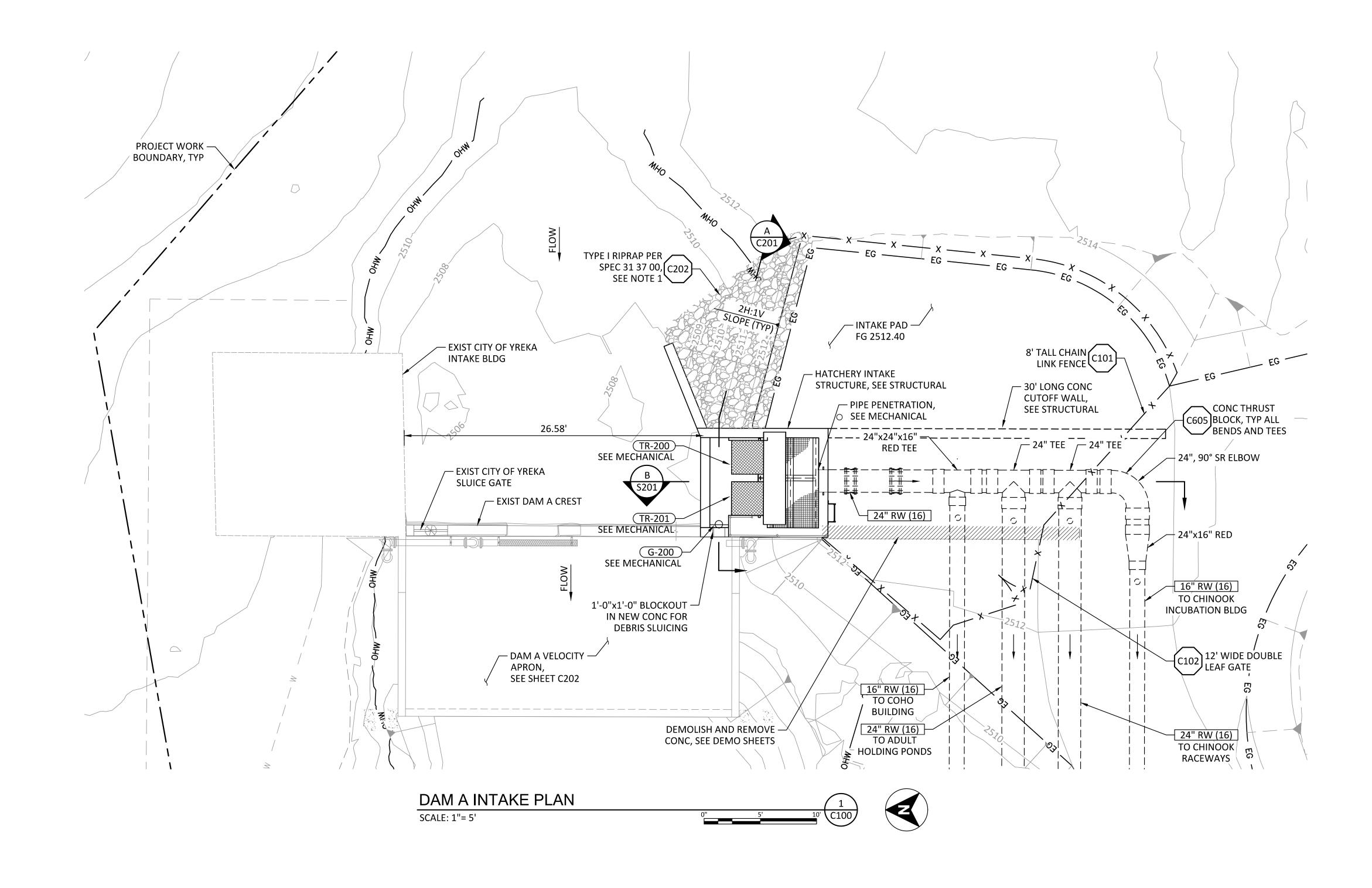
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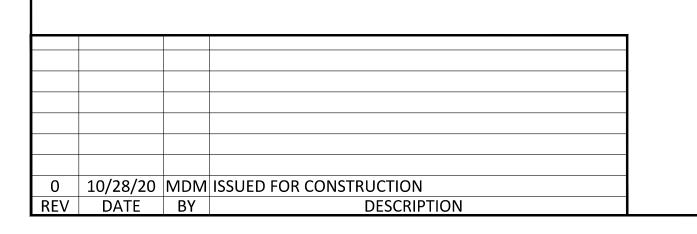
C114

KLAMATH RIVER RENEWAL CORPORATION DESIGNED A. LEMAN FALL CREEK FISH HATCHERY DRAWN J. LAHMON CHECKED V. AUTIER **SECTIONS 4** CORPORATION PROJECT DATE <u>10/28/20</u>

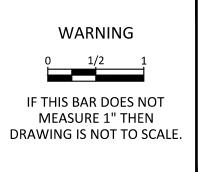
SHEET NOTES:

- 1. LARGE DIAMETER ROCK IS AVAILABLE ON-SITE FROM THE NORTH PAD GRADING. IF ROCK IS ABLE TO BE AMENDED TO MEET SPECIFICATION 31 37 00, IT MAY BE USED IN THIS LOCATION FOR RIPRAP. EXTEND RIPRAP LINING A MINIMUM OF 3.0 FEET BEYOND CONSTRUCTED SLOPE LIMITS.
- 2. SEE MECHANICAL FOR ALL GATES AND EQUIPMENT.









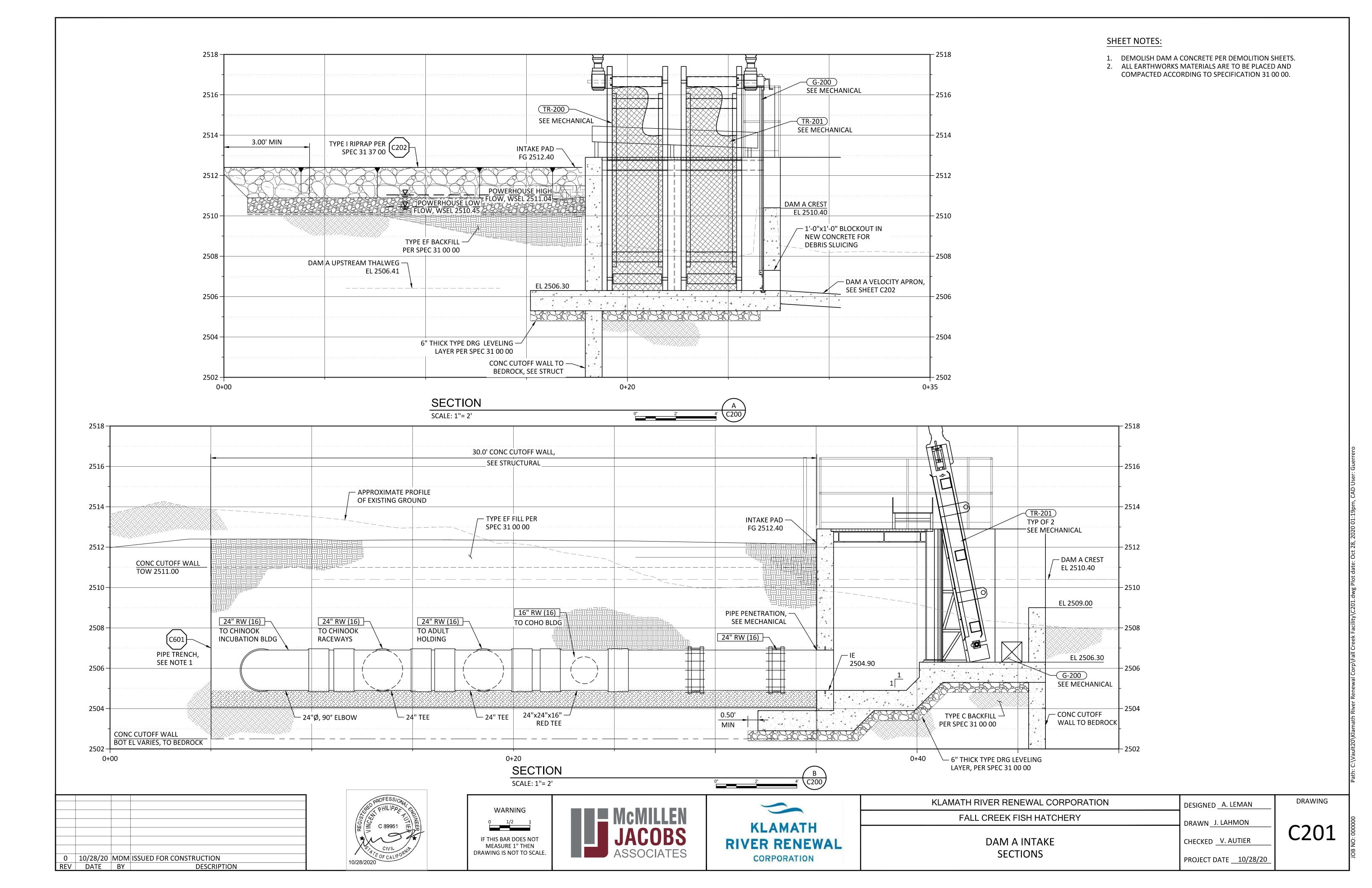


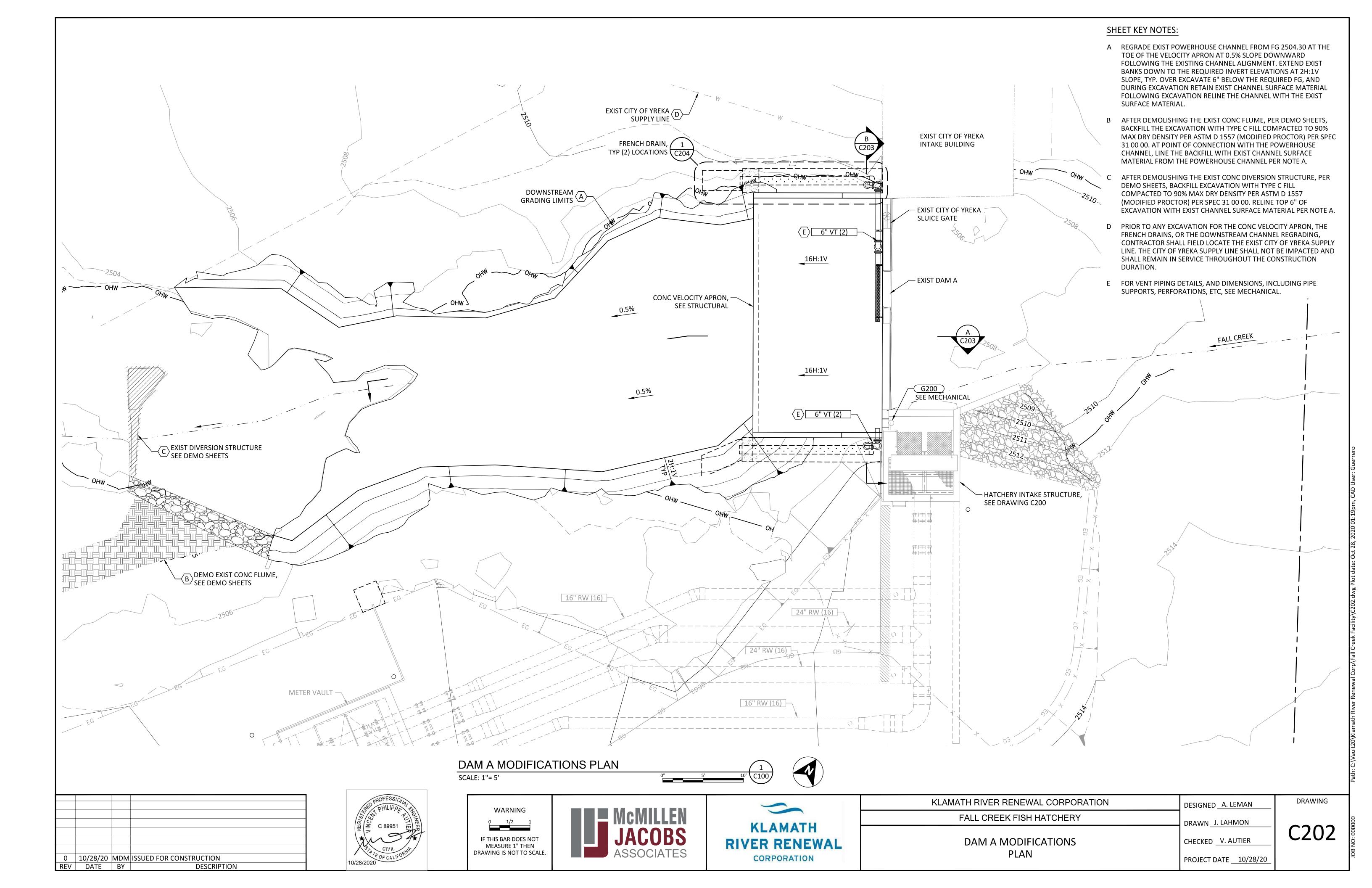


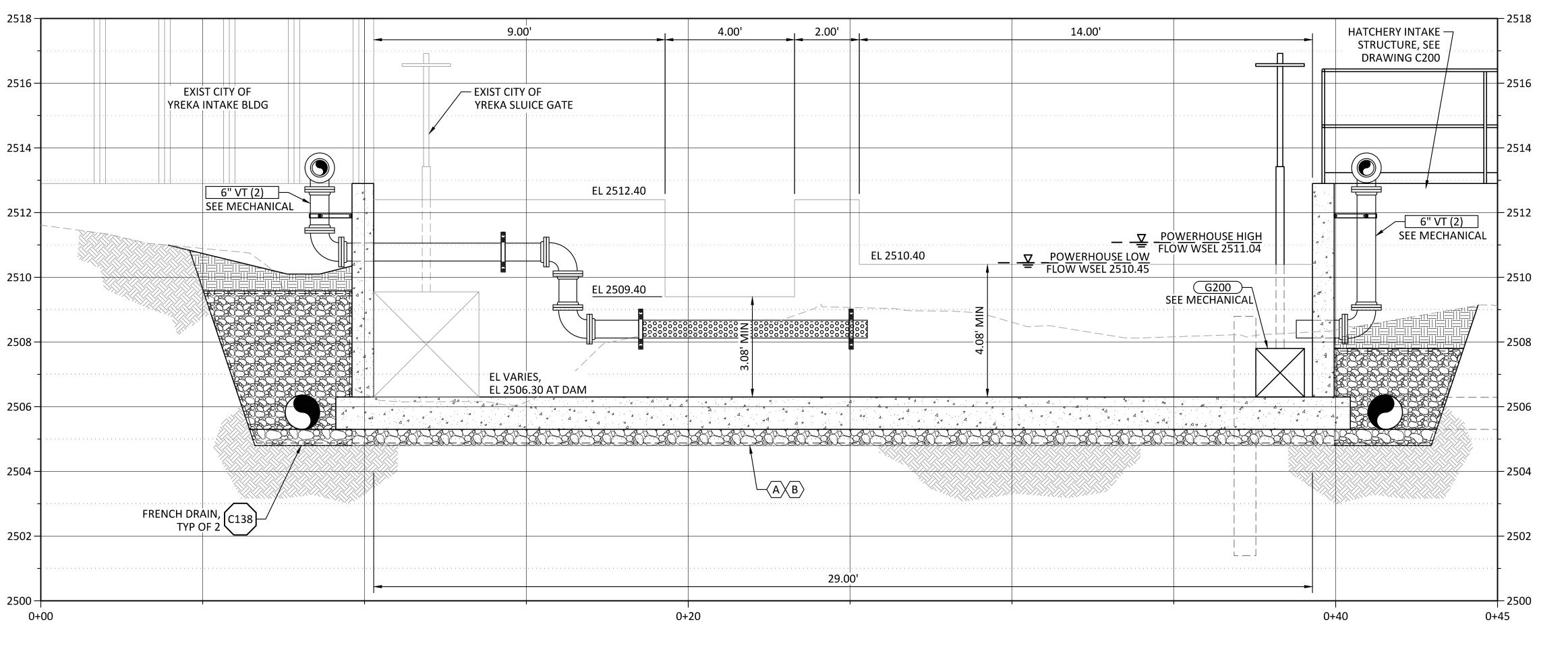
KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON
DAM A INTAKE	CHECKED V. AUTIER
PLAN	PROJECT DATE <u>10/28/20</u>

DRAWING

C200







SHEET NOTES:

- 1. ALL EARTHWORKS MATERIALS ARE TO BE PLACED AND COMPACTED ACCORDING TO SPECIFICATION 31 00 00.
- 2. EXIST DAM A DIMENSIONS ARE BASED ON AS-BUILT DATA PROVIDED BY THE CITY OF YREKA, BUT MAY BE SUBJECT TO SOME VARIATION. PRIOR TO DEVELOPMENT OF SHOP DRAWINGS, CONTRACTOR TO CONFIRM ALL EXISTING DIMENSIONS OF DAM. IF DIMENSIONS VARY SIGNIFICANTLY FROM THOSE REPORTED, CONTRACTOR TO COORDINATE WITH THE OWNER AND ENGINEER.
- 3. FOR CONC VELOCITY APRON DETAILS AND DIMENSIONS. INCLUDING CONNECTIONS TO DAM A, WALL THICKNESS, WALL PENETRATIONS, ETC, SEE STRUCTURAL. FOR VENT PIPING DETAILS AND DIMENSIONS, INCLUDING PIPE SUPPORTS, PERFORATIONS, ETC, SEE MECHANICAL.

⟨ ⟩ SHEET KEY NOTES:

- A HAND EXCAVATION WILL BE REQUIRED WITHIN THE FOOTPRINT OF DAM A AND THE DAM A FOOTING, AS INDICATED IN THE STRUCTURAL DRAWINGS. IN ACCORDANCE WITH NOTE 2 ABOVE AND THE UNCERTAINTY ASSOCIATED WITH THE AS-BUILT DRAWINGS, THE CONTRACTOR SHALL EXERCISE CAUTION DURING EXCAVATION OUTSIDE OF THESE LIMITS TO ENSURE THAT THE DAM A CONC FOOTING IS NOT IMPACTED.
- B OVER EXCAVATE 6" BELOW THE BOTTOM OF THE CONC VELOCITY APRON, PLACE AND COMPACT 6" THICK TYPE DRG LEVELING LAYER WITH 12oz NON-WOVEN GEOTEXTILE UNDERLAY PER SPEC 31 00 00 AND 31 05 19. AT EDGE OF STRUCTURE, TIE-IN THE LEVELING LAYER TO THE DRAIN ROCK OF THE TWO PERIPHERAL FRENCH DRAINS. IF OVER EXCAVATION OCCURS BELOW THE TYPE DRG LEVELING LAYER, BACKFILL TO 6" BELOW THE BOTTOM OF THE STRUCTURE WITH TYPE C FILL COMPACTED TO MIN 90% MAX DRY DENSITY PER ASTM D 1557 (MODIFIED PROCTOR). IF BEDROCK IS ENCOUNTERED AT OR ABOVE THE ELEVATION OF THE 6-INCH OVEREXCAVATION, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY AND AWAIT DIRECTION.
- C THE EXPECTED FLOW CONDITIONS ON THE CONC VELOCITY APRON ARE SUMMARIZED BELOW:

POWERHOUSE HIGH FLOW (50 CFS) FLOW DEPTH: 2.4"

FLOW VELOCITY: 8.5 FT/S

POWERHOUSE LOW FLOW (15 CFS) FLOW DEPTH: 1.2" FLOW VELOCITY: 5.3 FT/S

- D DOWNSTREAM OF DAM A, THE SITE SURVEY INDICATES THAT THERE EXISTS A MOUND OF MATERIAL. IT IS EXPECTED THAT THIS HIGH POINT IN THE SURVEY REPRESENTS SEDIMENT THAT HAS ACCUMULATED IN THE CHANNEL OVER TIME. AS PART OF THE EXCAVATION FOR THE CONC VELOCITY APRON AND DOWNSTREAM CHANNEL, THIS MATERIAL WILL NEED TO BE EXCAVATED AND DISPOSED OF OFF-SITE. THE REQUIRED EXCAVATION OF THIS ACCUMULATED MATERIAL IS EXPECTED TO BE APPROXIMATELY 85 CY (IN ADDITION TO THE CHANNEL REGRADING EARTHWORKS VOLUME).
- E THE EXPECTED FLOW CONDITIONS IN THE REGRADED CHANNEL IMMEDIATELY DOWNSTREAM OF THE VELOCITY APRON ARE SUMMARIZED BELOW:

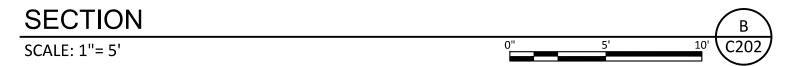
POWERHOUSE HIGH FLOW (50 CFS) FLOW DEPTH: 7.0" FLOW VELOCITY: 2.4 FT/S

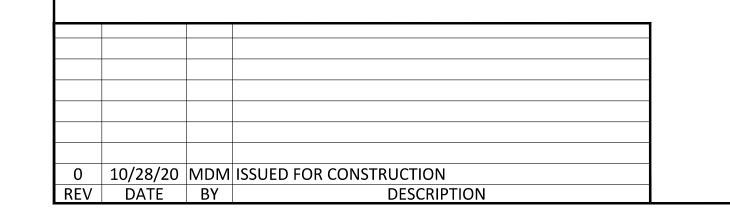
POWERHOUSE LOW FLOW (15 CFS) FLOW DEPTH: 3.4"

FLOW VELOCITY: 1.5 FT/S

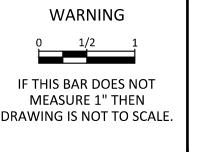
F DURING EXCAVATION RETAIN SEPARATELY THE SURFACE MATERIAL FROM THE EXIST POWERHOUSE CHANNEL. OVER EXCAVATE TO 6" MIN BELOW THE FINISHED GRADE ELEVATION OF THE CHANNEL, AND BACKFILL WITH THE RETAINED EXIST CHANNEL SURFACE MATERIAL.

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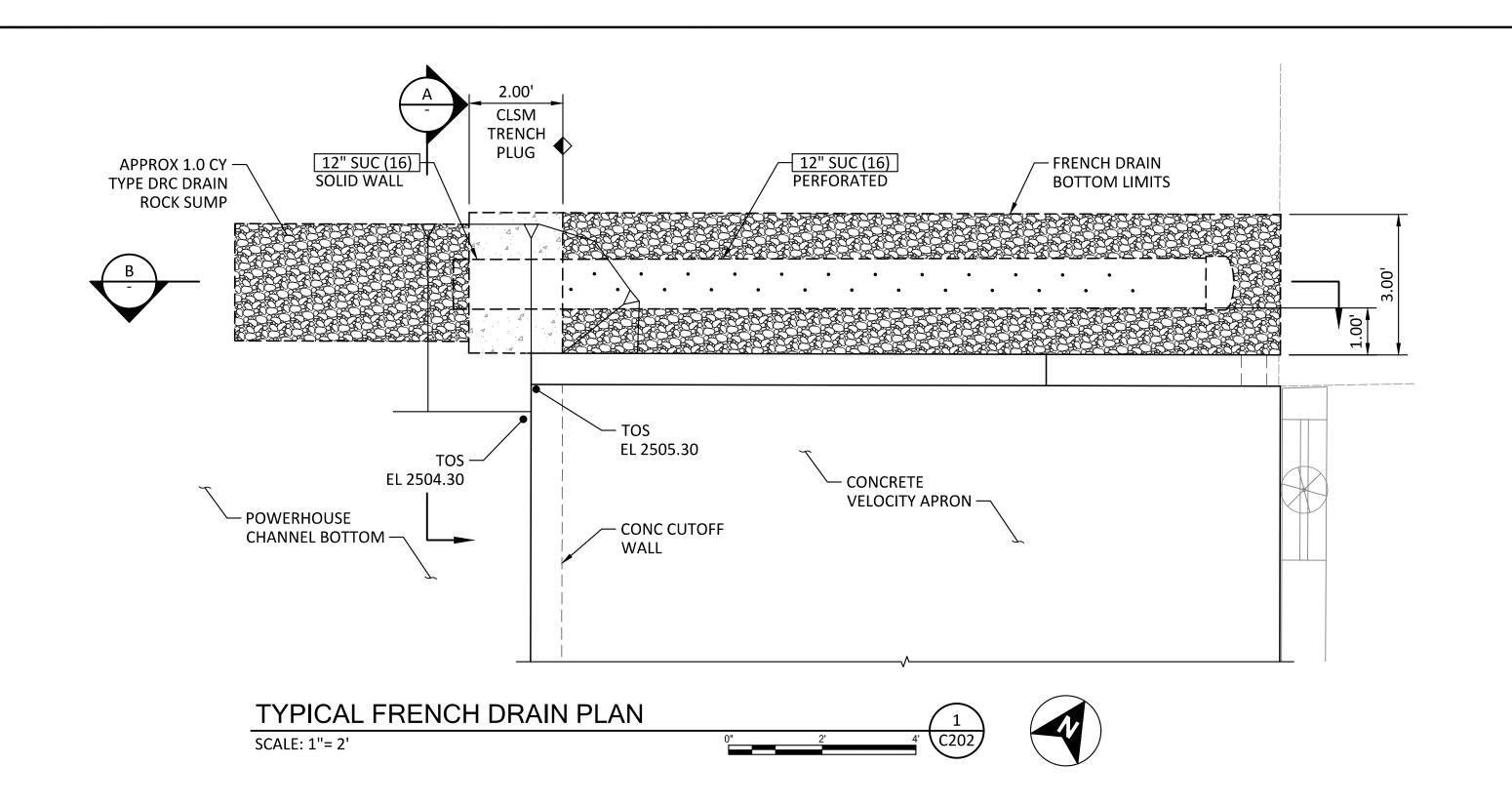


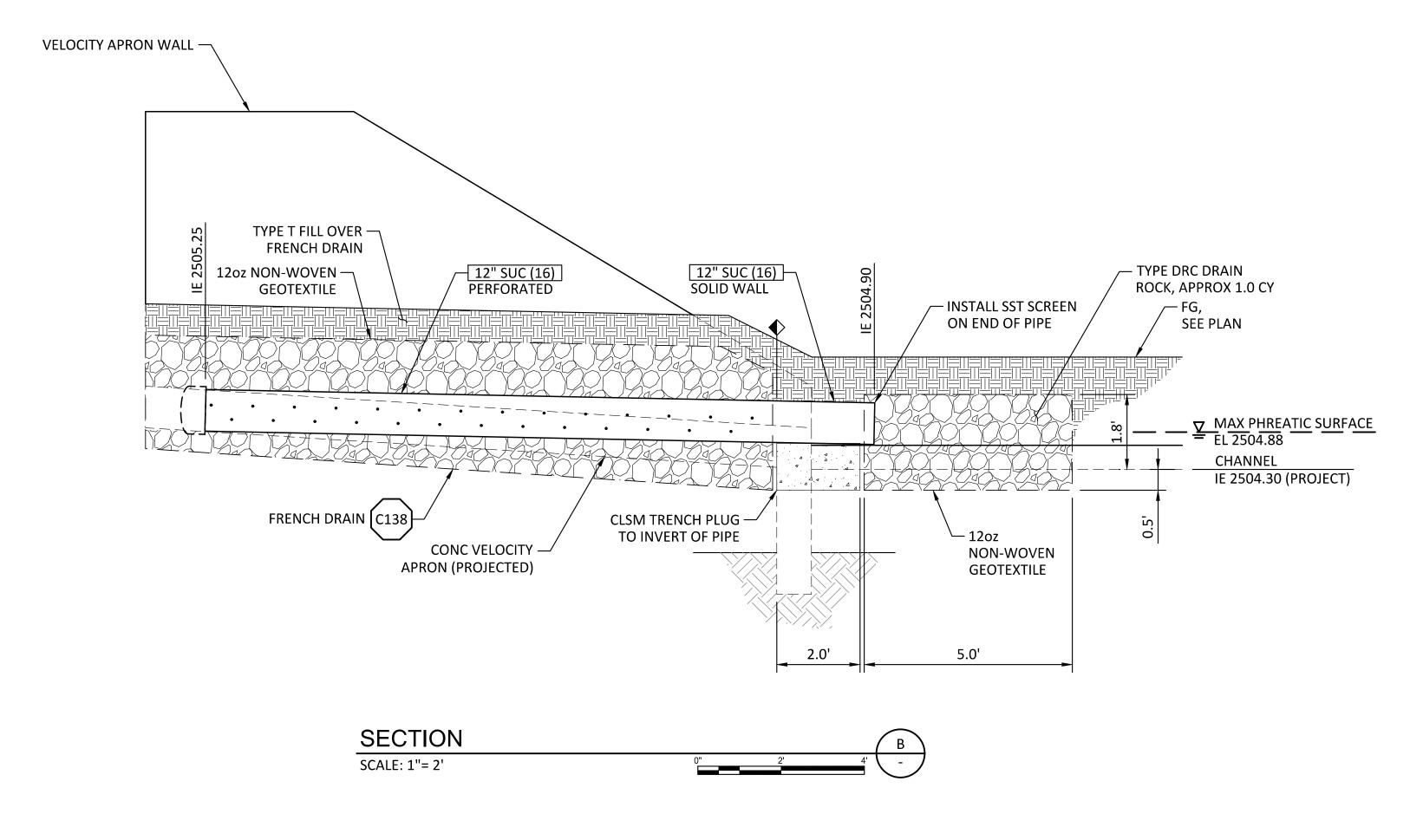


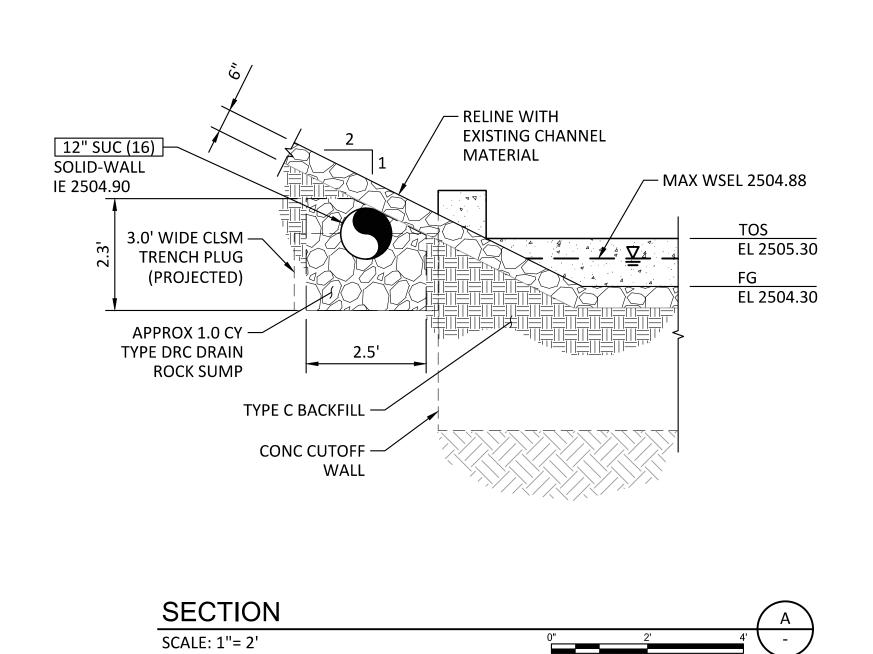


KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON
DAM A MODIFICATIONS	CHECKED V. AUTIER
SECTIONS	DDOIECT DATE 10/28/

DRAWING



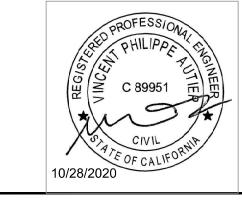


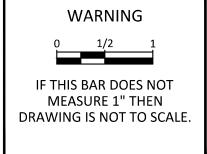


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KLAMATH RIVER RENEWAL CORPORATION	DESIGNED A. LEMAN	
FALL CREEK FISH HATCHERY	DRAWN J. LAHMON	
DAM A FRENCH DRAIN	CHECKED V. AUTIER	
SECTIONS AND DETAILS	PROJECT DATE <u>10/28/20</u>	

DRAWING

SHEET NOTES:

AND ENGINEER.

1. FRENCH DRAIN DETAIL AND SECTIONS TYPICAL OF BOTH SIDES OF

2. ALL EARTHWORKS MATERIALS ARE TO BE PLACED AND COMPACTED

3. ALL NON-WOVEN GEOTEXTILE TO BE OVERLAPPED A MINIMUM OF 1.0' AT SEAMS. CARE SHALL BE TAKEN DURING STORAGE,

EXISTING SOILS. AFTER PLACEMENT AND COMPACTION (AS SPECIFIED) DRAIN ROCK IS TO BE IMMEDIATELY COVERED WITH

4. IF SEEPAGE AT THE DAM IS ENCOUNTERED DURING CONSTRUCTION OF THE FRENCH DRAINS, CONTRACTOR SHALL NOTIFY THE OWNER

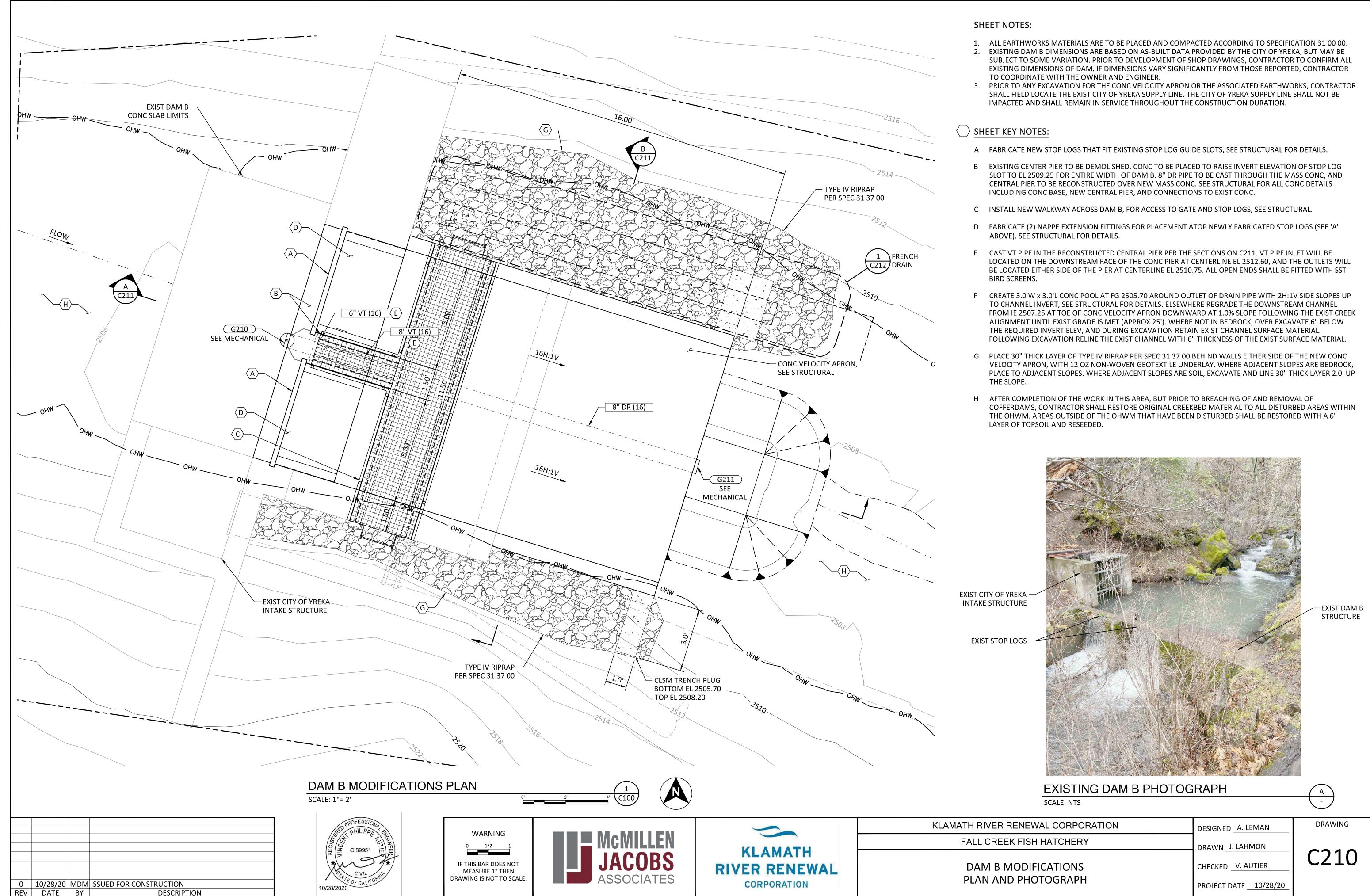
PLACEMENT, AND COMPACTION OF DRAIN ROCK MATERIALS THAT DRAIN ROCK IS NOT CONTAMINATED WITH FINE MATERIALS OR

THE DAM A CONC VELOCITY APRON. CONFIGURATION TO BE

MIRRORED ON OPPOSITE SIDE OF APRON.

ACCORDING TO SPECIFICATION 31 00 00.

GEOTEXTILE PRIOR TO FINAL BACKFILL.



th River Renewal Corp\Fall Creek Facility\C210.dwg Plot date

Path: C:\Vault20\Klama