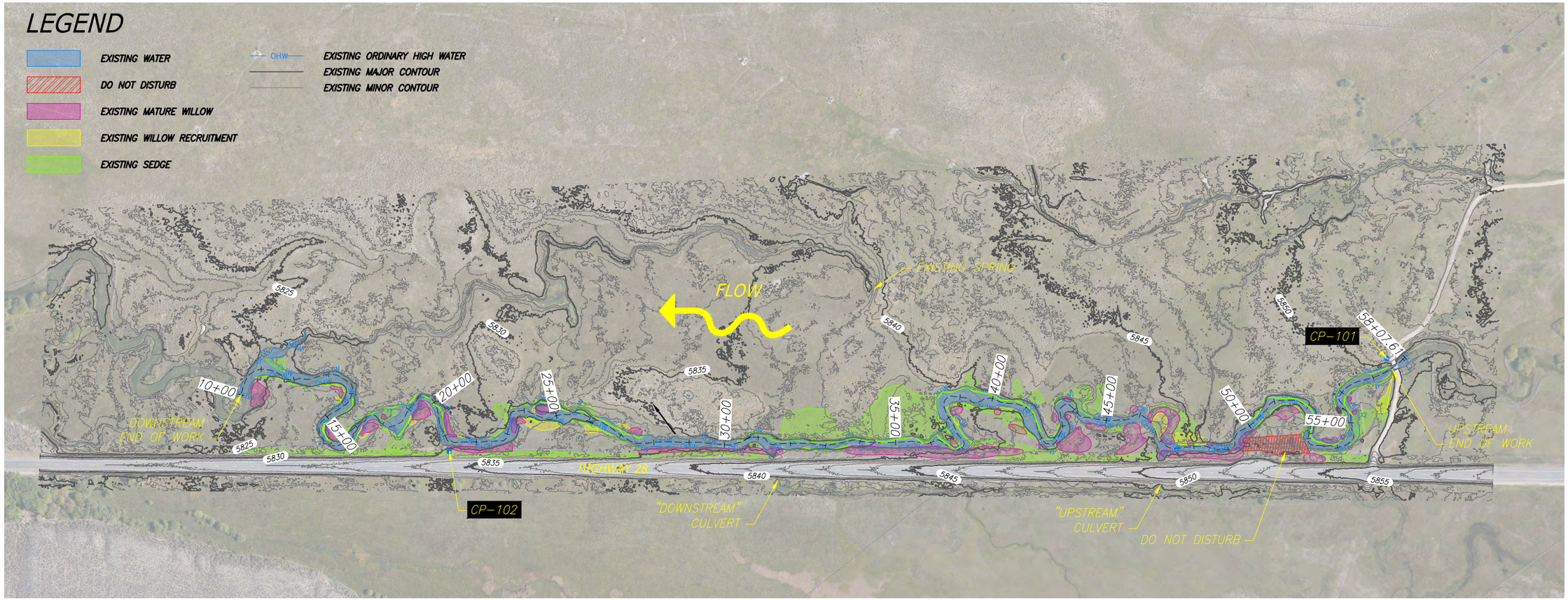
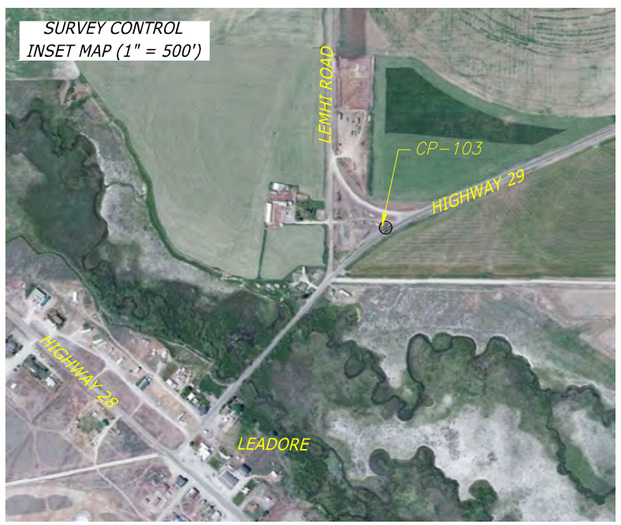


EXISTING CONDITIONS PLAN

0 300 600 Feet



SURVEY CONTROL TABLE:

PT	NORTHING (FT)	EASTING (FT)	ELEVATION (FT)
CP-101	1107553.721	1797336.961	5851.737
CP-102	1108905.125	1795042.178	5830.595
CP-103	1100706.834	1808773.572	5968.127

NOTES:

1. ALL ARES NOT PAVED OR GRAVEL ARE CONSIDERED WETLANDS; A FORMAL WETLAND DELINEATION WAS NOT PERFORMED
2. CP-103 IS LOCATED NORTH OF THE TOWN OF LEADORE, AS SHOWN IN THE INSET MAP
3. PROJECT HORIZONTAL DATUM IS NAD 83 IDAHO STATE PLANE, CENTRAL ZONE, US FOOT; VERTICAL DATUM IS NAVD 88, FOOT

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Big Springs Enhancement Project
Prefinal (80% Design) Drawings
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Big Springs Creek, Lemhi County, Idaho
Project: 014-101-001-01

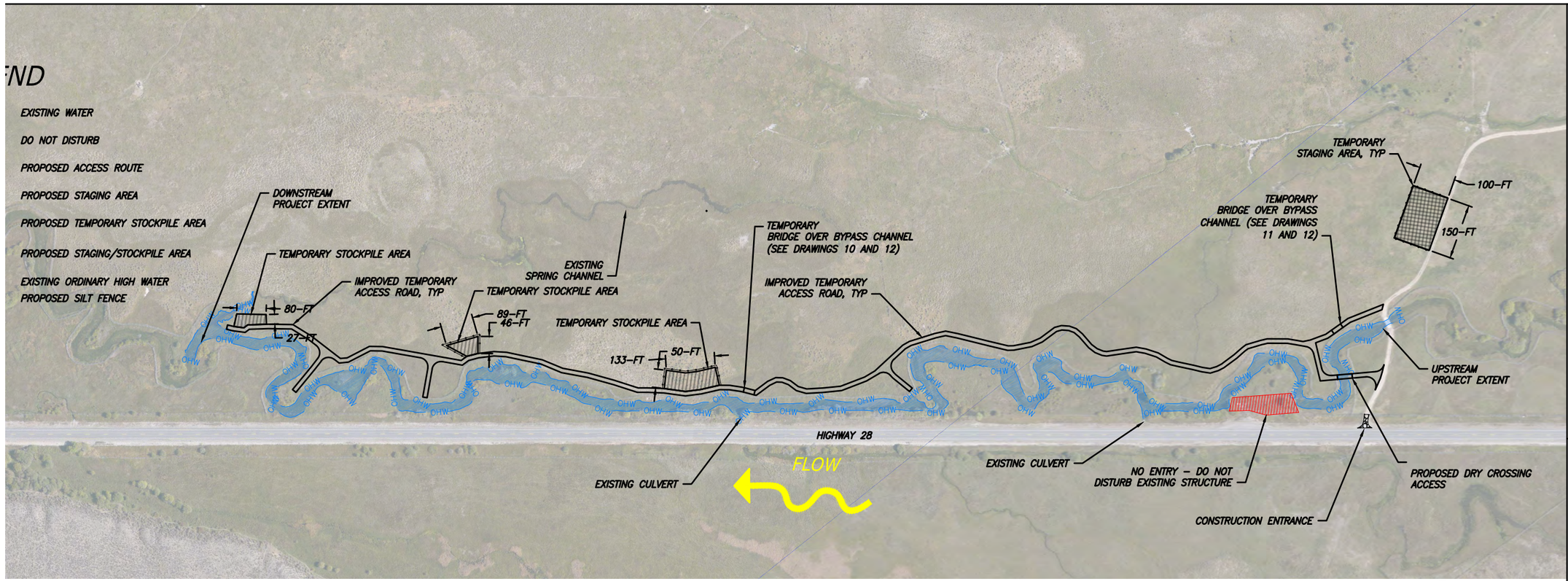
DRAFT- NOT FOR CONSTRUCTION

Date: 06/10/17
Designed: JJF
Drawn: JJF
Checked: JY/KS/BPA
Approved: LRLT

Drawing Name
EXISTING CONDITIONS

Drawing No.
8

Sheet 8 of 44

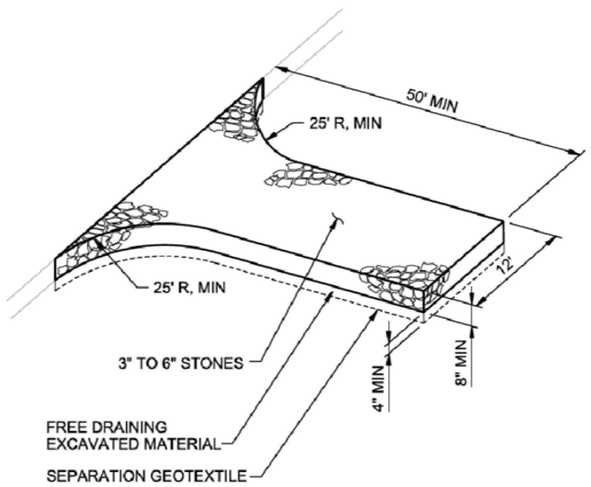


ACCESS AND STAGING PLAN

0 300 600 Feet

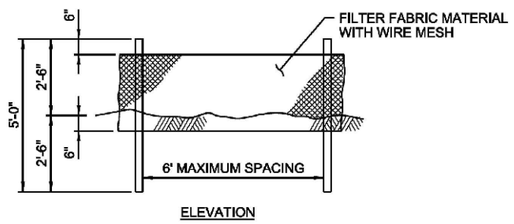
NOTES:

1. ALL SILT FENCES REQUIRED ARE NOT SHOWN AND SHOULD BE DETERMINED BY THE CONTRACTOR DURING THE COMPLETION OF HIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. TWO TEMPORARY BRIDGE CROSSINGS ARE REQUIRED TO PROVIDE ACCESS ACROSS THE BYPASS CHANNELS.
3. TEMPORARY STOCKPILE LOCATIONS CAN BE ADJUSTED IN THE FIELD WITH THE CONTRACTING AGENCY.
4. STAGING AREA MUST BE GREATER THAN 150 FEET FROM OPEN WATER.



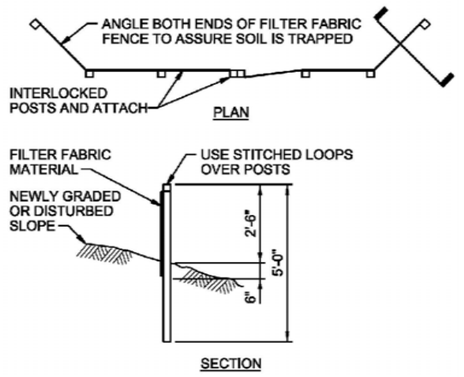
STABILIZED CONSTRUCTION ENTRANCE

NTS



NOTES:

1. BURY BOTTOM OF FILTER FABRIC AND MESH 6" VERTICALLY BELOW FINSIHED GRADE.
2. STEEL FENCE POSTS.
3. STITCHED LOOPS TO BE INSTALLED ON DOWNHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF TRENCH.
5. GROUND MAY BE ROCKY; PLAN ACCORDINGLY FOR PROPER EQUIPMENT SELECTION.



SEDIMENT FENCE

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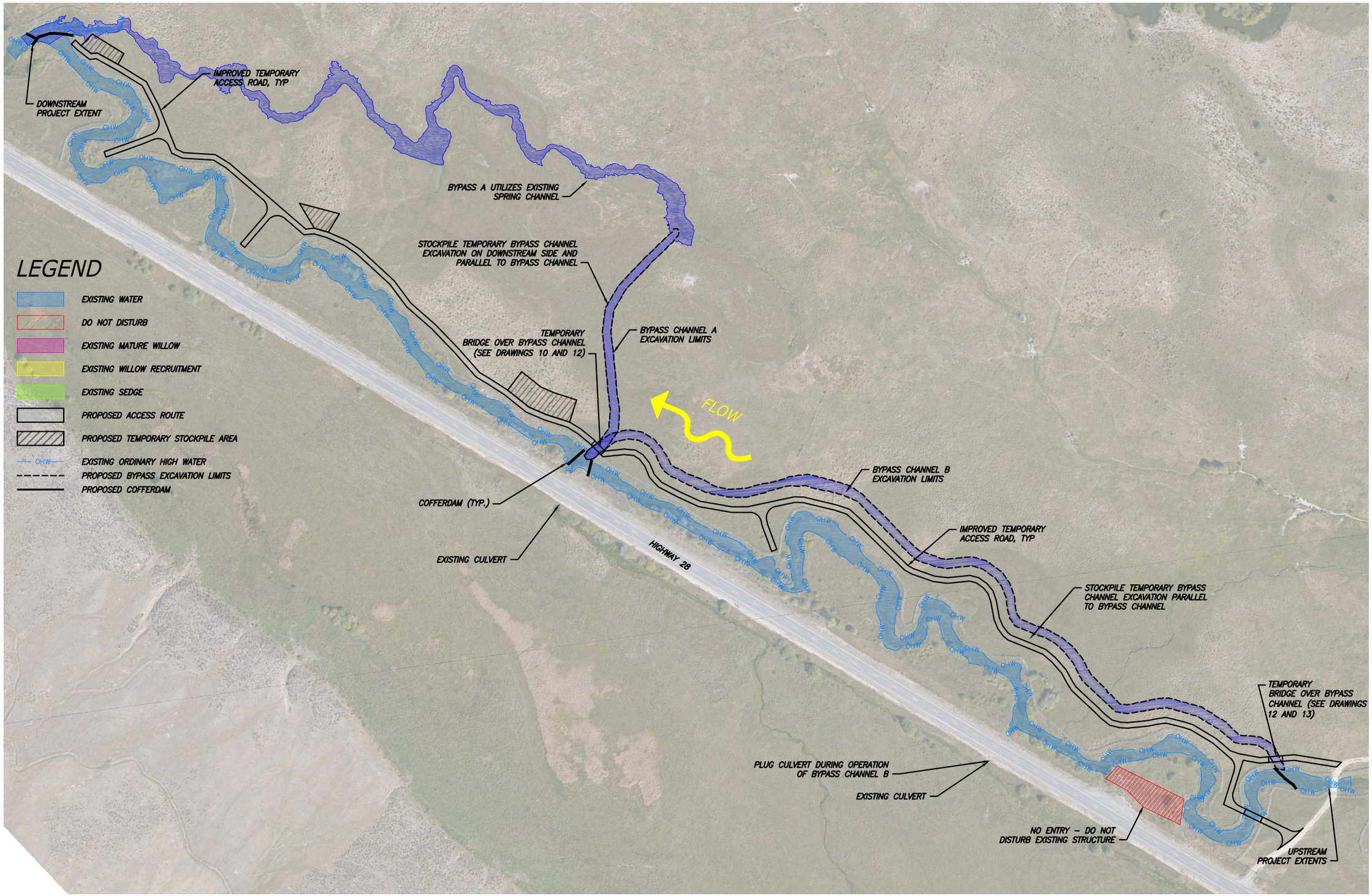
Designed: JJF
Drawn: JCY
Checked: JY, KS, BPA
Approved: LRLT

Drawing Name
ACCESS AND STAGING

Drawing No.
9



DEWATERING OVERVIEW PLAN

0 200 400 Feet

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Approved:	LRLT

Drawing Name
DEWATERING OVERVIEW

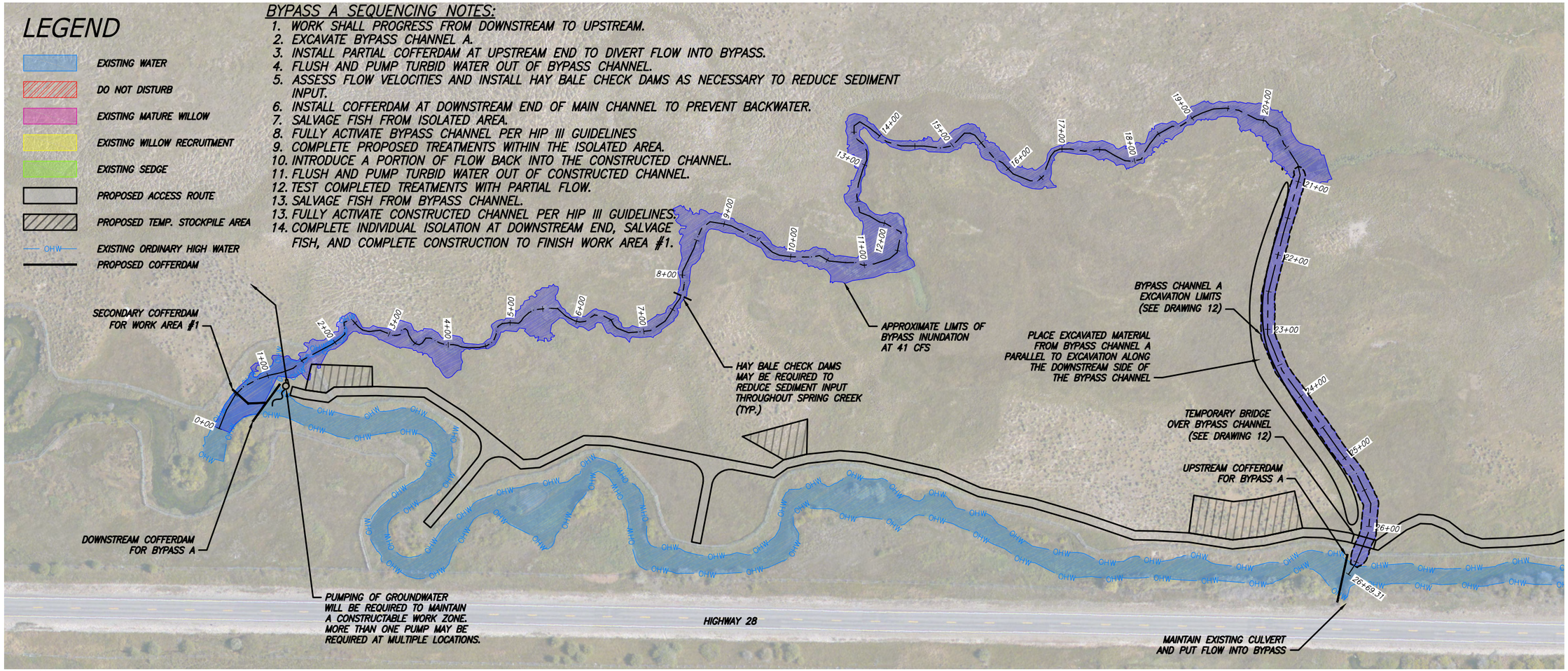
Drawing No.
10

LEGEND

- EXISTING WATER
- DO NOT DISTURB
- EXISTING MATURE WILLOW
- EXISTING WILLOW RECRUITMENT
- EXISTING SEDGE
- PROPOSED ACCESS ROUTE
- PROPOSED TEMP. STOCKPILE AREA
- OHW — EXISTING ORDINARY HIGH WATER
- PROPOSED COFFERDAM

BYPASS A SEQUENCING NOTES:

1. WORK SHALL PROGRESS FROM DOWNSTREAM TO UPSTREAM.
2. EXCAVATE BYPASS CHANNEL A.
3. INSTALL PARTIAL COFFERDAM AT UPSTREAM END TO DIVERT FLOW INTO BYPASS.
4. FLUSH AND PUMP TURBID WATER OUT OF BYPASS CHANNEL.
5. ASSESS FLOW VELOCITIES AND INSTALL HAY BALE CHECK DAMS AS NECESSARY TO REDUCE SEDIMENT INPUT.
6. INSTALL COFFERDAM AT DOWNSTREAM END OF MAIN CHANNEL TO PREVENT BACKWATER.
7. SALVAGE FISH FROM ISOLATED AREA.
8. FULLY ACTIVATE BYPASS CHANNEL PER HIP III GUIDELINES
9. COMPLETE PROPOSED TREATMENTS WITHIN THE ISOLATED AREA.
10. INTRODUCE A PORTION OF FLOW BACK INTO THE CONSTRUCTED CHANNEL.
11. FLUSH AND PUMP TURBID WATER OUT OF CONSTRUCTED CHANNEL.
12. TEST COMPLETED TREATMENTS WITH PARTIAL FLOW.
13. SALVAGE FISH FROM BYPASS CHANNEL.
13. FULLY ACTIVATE CONSTRUCTED CHANNEL PER HIP III GUIDELINES.
14. COMPLETE INDIVIDUAL ISOLATION AT DOWNSTREAM END, SALVAGE FISH, AND COMPLETE CONSTRUCTION TO FINISH WORK AREA #1.

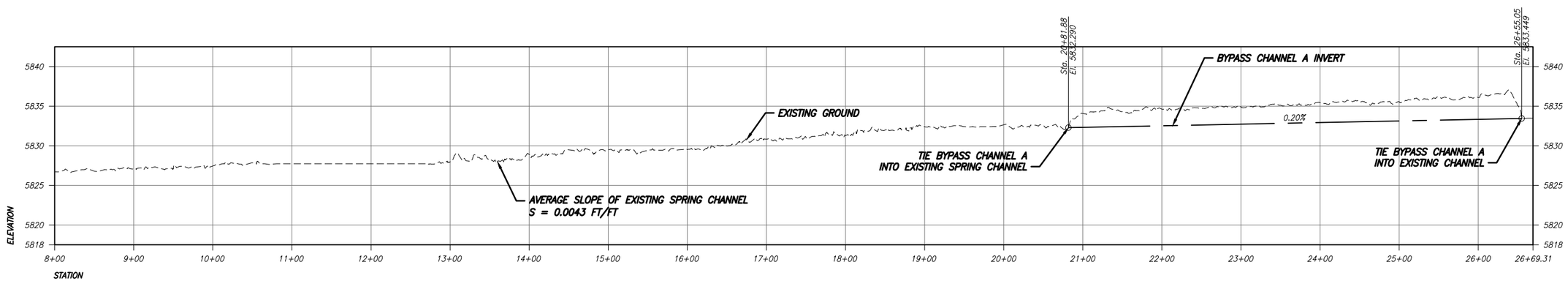


NOTES:

1. PRE-WASH AND PUMP BYPASS CHANNEL A AND DOWNSTREAM SPRING CHANNEL PER THE SPECIFICATIONS PRIOR TO ACTIVATING THE BYPASS CHANNEL.
2. SEE SPECIFICATIONS FOR REQUIREMENTS REGARDING PUMPING OF GROUNDWATER FROM THE ISOLATED BIG SPRINGS CREEK CHANNEL DURING CONSTRUCTION.

BYPASS CHANNEL A PLAN

0 140 280 Feet



BYPASS CHANNEL A PROFILE

Intermountain Aquatics Inc. — Environmental Consulting & Habitat Restoration — Applied Science & Engineering

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Designed: JJF
Drawn: JCY
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Approved:

Drawing Name: BYPASS - A

Drawing No. 11

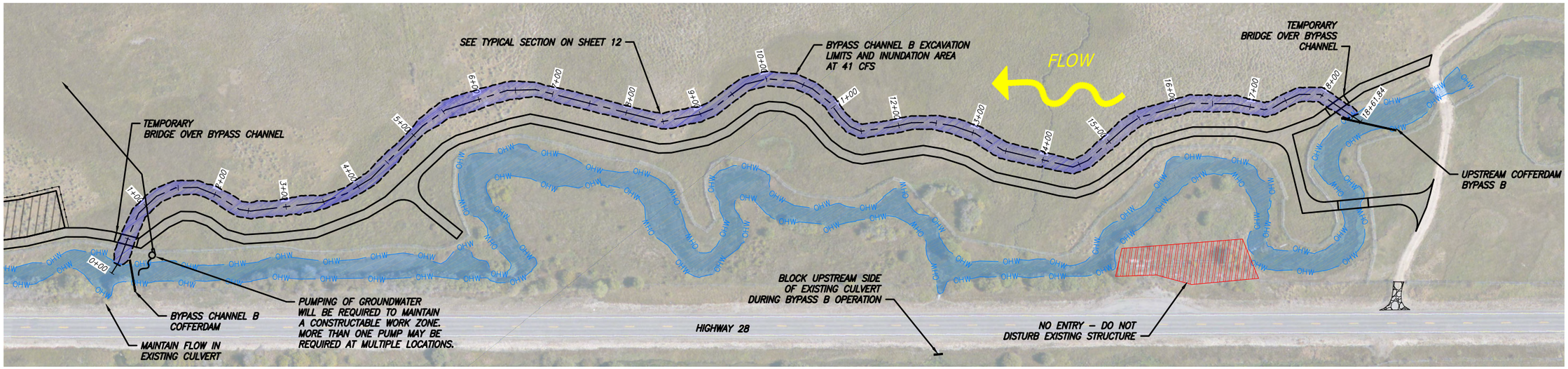
Sheet 11 of 44

LEGEND

- EXISTING WATER
- DO NOT DISTURB
- EXISTING MATURE WILLOW
- EXISTING WILLOW RECRUITMENT
- EXISTING SEDGE
- PROPOSED ACCESS ROUTE
- PROPOSED TEMP. STOCKPILE AREA
- OHW — EXISTING ORDINARY HIGH WATER
- PROPOSED COFFERDAM

BYPASS B SEQUENCING NOTES:

1. WORK SHALL PROGRESS FROM DOWNSTREAM TO UPSTREAM.
2. EXCAVATE BYPASS CHANNEL B.
3. INSTALL PARTIAL COFFERDAM AT UPSTREAM END TO DIVERT FLOW INTO BYPASS.
4. FLUSH AND PUMP TURBID WATER OUT OF BYPASS CHANNEL.
5. ASSESS FLOW VELOCITIES AND INSTALL HAY BALE CHECK DAMS AS NECESSARY TO PROVIDE VELOCITY REFUGE FOR JUVENILE FISH.
6. INSTALL COFFERDAM AT DOWNSTREAM END OF MAIN CHANNEL TO PREVENT BACKWATER.
7. SALVAGE FISH FROM ISOLATED AREA.
8. FULLY ACTIVATE BYPASS CHANNEL PER HIP III GUIDELINES
9. COMPLETE PROPOSED TREATMENTS WITHIN THE ISOLATED AREA.
10. INTRODUCE A PORTION OF FLOW BACK INTO THE CONSTRUCTED CHANNEL.
11. FLUSH AND PUMP TURBID WATER OUT OF CONSTRUCTED CHANNEL.
12. TEST COMPLETED TREATMENTS WITH PARTIAL FLOW.
13. SALVAGE FISH FROM BYPASS CHANNEL.
13. FULLY ACTIVATE CONSTRUCTED CHANNEL PER HIP III GUIDELINES.
14. COMPLETE WORK ZONE #101 AFTER ACTIVATION OF CONSTRUCTED CHANNEL AND REMOVAL OF BYPASS CHANNEL AND ASSOCIATED COFFERDAMS.

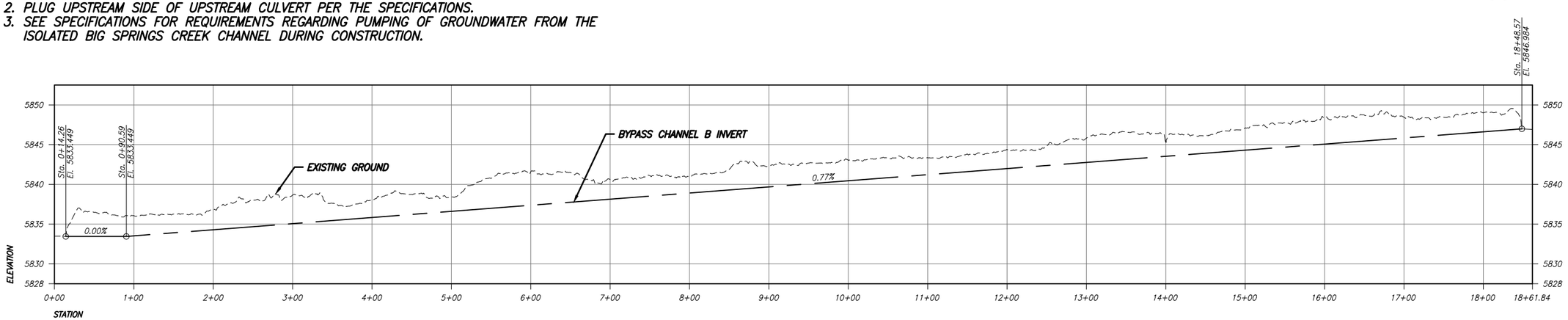


BYPASS CHANNEL B PLAN

0 150 300 Feet

NOTES:

1. PRE-WASH AND PUMP BYPASS CHANNEL B PER THE SPECIFICATIONS PRIOR TO ACTIVATING THE BYPASS CHANNEL.
2. PLUG UPSTREAM SIDE OF UPSTREAM CULVERT PER THE SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR REQUIREMENTS REGARDING PUMPING OF GROUNDWATER FROM THE ISOLATED BIG SPRINGS CREEK CHANNEL DURING CONSTRUCTION.



BYPASS CHANNEL B PROFILE

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Project: 014-101-001-01

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Date:	06/10/17
Designed:	JJF
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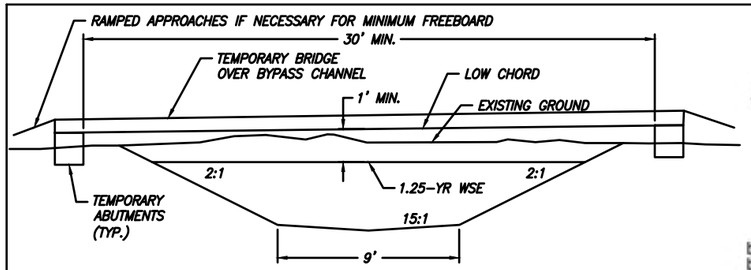
Approved:	

Drawing Name: BYPASS - B

Drawing No. 12

Sheet 12 of 44



NOTES:

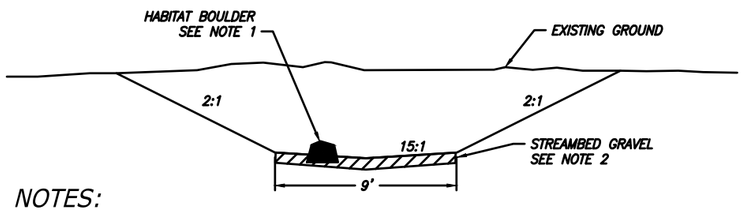
1. TEMPORARY BRIDGES CROSS THE BYPASS CHANNELS AT TWO LOCATIONS.
2. MINIMUM FREEBOARD IS 1 FOOT FROM THE ESTIMATED 1.25-YEAR WATER SURFACE ELEVATION.
3. MINIMUM SPAN IS 30 FEET.

TYPICAL BRIDGE SECTION

NTS

BYPASS CHANNEL GEOMETRY TABLE

BYPASS CHANNEL	LENGTH (FT)	BOTTOM WIDTH (FT)	SIDE SLOPE	SLOPE (FT/FT)
CHANNEL A	575	9	2:1	0.0020
CHANNEL B	1835	9	2:1	0.0077

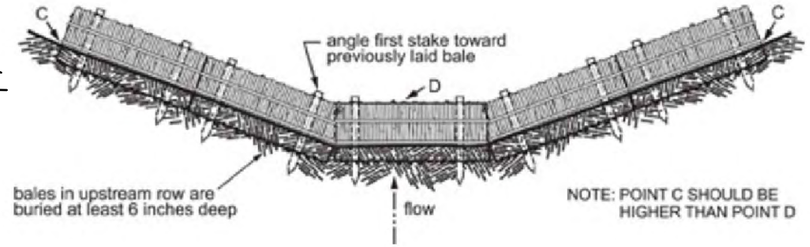


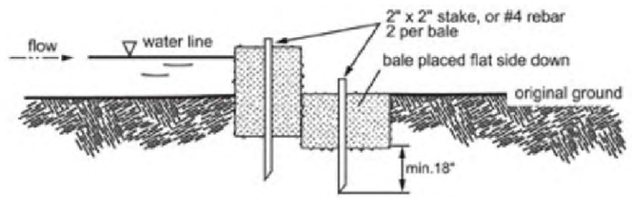
NOTES:

1. INSTALL BOULDER CLUSTERS IN THE BYPASS CHANNEL EVERY 100 LINEAR FEET (MINIMUM) OF CHANNEL LENGTH.
2. INSTALL CLEAN AND WASHED STREAMBED GRAVEL, 6-INCH MINIMUM THICKNESS, AT LOCATIONS ON THE BYPASS CHANNEL BOTTOM WHERE NATIVE GRAVELS ARE NOT ENCOUNTERED.

BYPASS CHANNEL TYPICAL SECTION

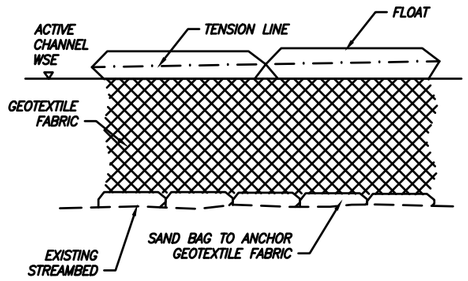
NTS





STRAW BALE CHECK DAM

NTS

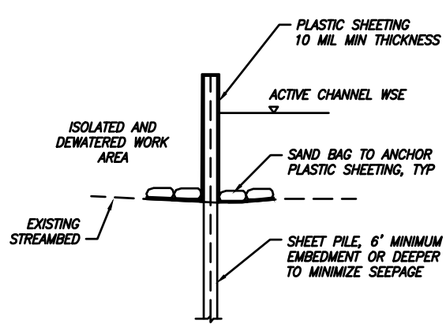


NOTES:

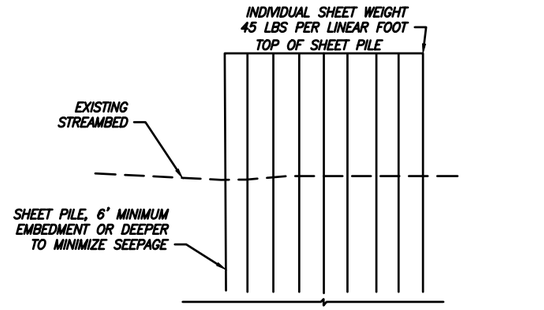
1. SILT CURTAINS SHSALL BE INSTALLED PARALLEL TO FLOW OR NO GREATER THAN 30 DEGREES TO FLOW.
2. SAND BAGS USED AS BALLAST SHALL BE INSTALLED CONTINUOUSLY ALOONG THE INTERSECTION OF THE STREAMBED. ENSURE A TIGHT SEAL BEFORE BEGINNING EARTHWORK ACTIVITIES.
3. ADDITIONAL TURBIDITY CONTROLS MAY BE NEEDED. ACCEPTABLE PRACTICES INCLUDE PUMPING OF SEDIMENT LADEN WATER FROM BEHIND THE SILT CURTAIN PER HIP III CONSERVATION MEASURES.

SILT CURTAIN TYPICAL DETAILS

NTS



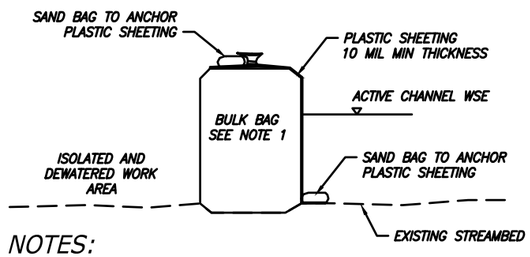
SECTION VIEW



ELEVATION VIEW

SHEET PILE DETAILS

NTS



NOTES:

1. FILL BULK BAG WITH CLEAN/WASHED GRAVEL MEETING THEGRADATION AS SPECIFIED.

COFFERDAM TYPICAL DETAIL

NTS

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES INCLUDING CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING ARE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
2. THE COFFER DAM AND SILT CURTAIN DETAILS SHOWN ON THIS SHEET ARE AN EXAMPLE OF ACCEPTABLE METHODS TO USE DURING CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND SUBMITTING A COFFERDAM PLAN TO INCLUDE SUFFICIENT DETAIL OF MEANS AND METHODS SATISFYINGLY MEETING THE PROJECT SPECIFICATIONS AND PERMIT REQUIREMENTS. COFFERDAMS MAY CONSIST OF OTHER METHODS INCLUDING (AND NOT LIMITED TO) SECLUSION FENCING, SAND BAGS, BULK BAGS, SUPER SACKS, SHEET PILE, INFLATABLE BLADDERS. COFFERDAMS SHALL INCLUDE PLASTIC LINER OR FINE MESH SILT FENCE TO REDUCE TURBIDITY AND FINES FROM ENTERING THE FREE FLOWING PORTION OF LIVE WATER.
3. ALL PUMP INTAKES SHALL BE SCREENED FOR FISH PROTECTION AS REQUIRED BY NOAA.
4. DEWATERING PUMP DISCHARGE FROM WITHIN COFFERDAMMED WORK AREAS SHALL BE RELEASED ONTO FLOODPLAIN AREAS AWAY FROM WETLANDS AND CONSTRUCTION ACTIVITIES. DISCHARGE SHALL NOT CAUSE EROSION OF TOPSOIL AND SHALL SHEET FLOW OVER THE FLOODPLAIN BEFORE ENTERING BIG SPRINGS CREEK OR THE LEMHI RIVER DOWNSTREAM OF THE WORK AREA. ALL RETURN FLOWS MUST MEET PERMIT REQUIREMENTS FOR TURBIDITY.
5. ALL EARTHWORK AND WOOD STRUCTURES CONSTRUCTION WITHIN THE ORDINARY HIGH CHANNEL SHALL CONFORM TO WATER QUALITY STANDARDS ESTABLISHED BY REGULATORY AGENCY PERMITS FOR THIS PROJECT. DURING ANY WORK WITHIN THE ORDINARY HIGH WATER CHANNEL THE CONTRACTOR SHALL MONITOR TURBIDITY OF THE WATER IN BIG SPRINGS CREEK ONCE PER TWO HOURS AT LOCATIONS 100 FEET DOWNSTREAM OF THE IN-CHANNEL WORK. IF MEASURED TURBIDITY EXCEEDS ALLOWABLE LEVELS LISTED IN THE SPECIFICATIONS, THEN CONSTRUCTION ACTIVITIES SHALL BE MODIFIED AS DESCRIBED IN THE SPECIFICATIONS UNTIL TURBIDITY REQUIREMENTS CAN BE MET.

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Approved:	LRLT

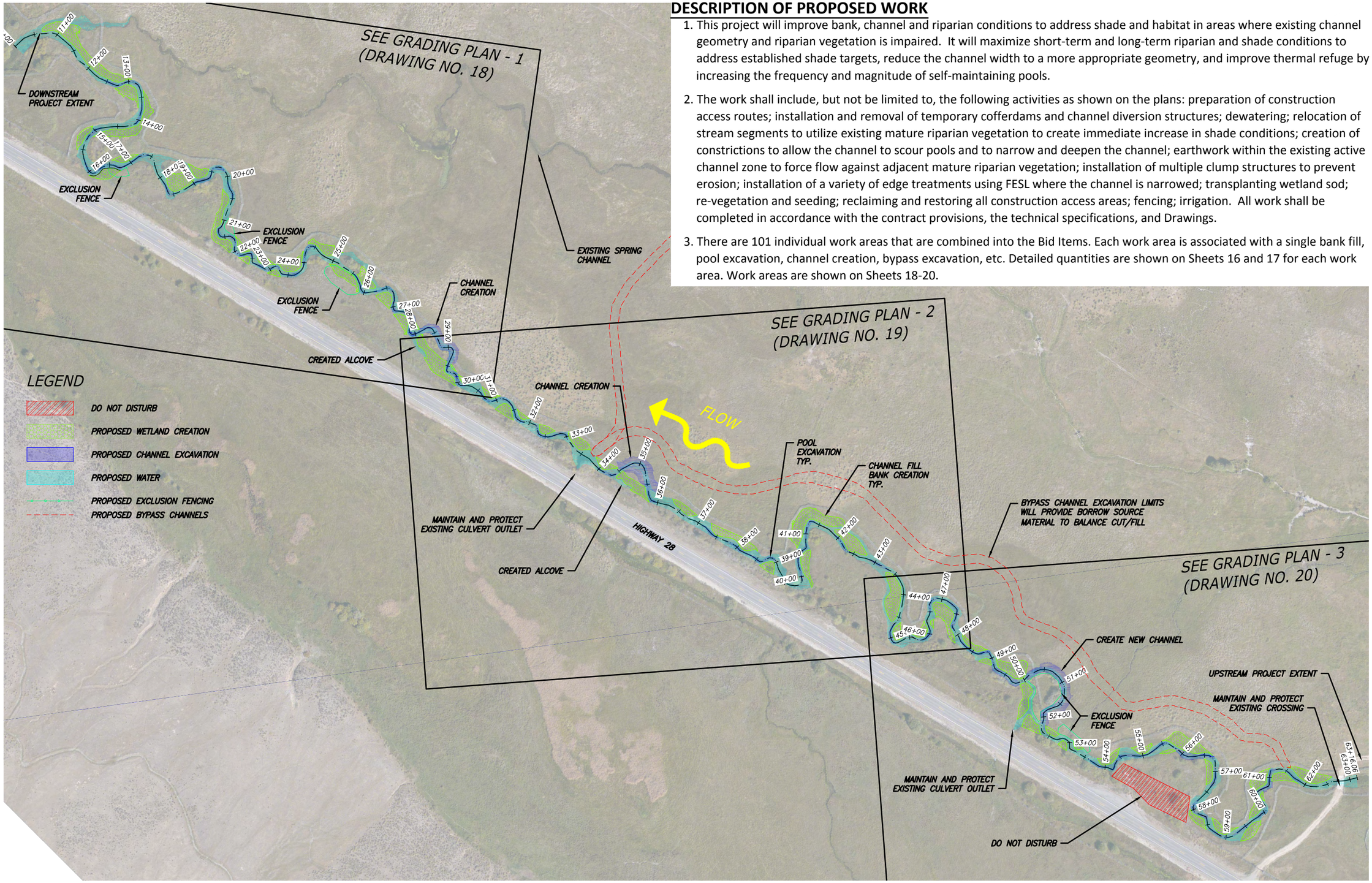
Drawing Name
DEWATERING & EROSION DETAILS

Drawing No.
13

Sheet 13 of 44

DESCRIPTION OF PROPOSED WORK

1. This project will improve bank, channel and riparian conditions to address shade and habitat in areas where existing channel geometry and riparian vegetation is impaired. It will maximize short-term and long-term riparian and shade conditions to address established shade targets, reduce the channel width to a more appropriate geometry, and improve thermal refuge by increasing the frequency and magnitude of self-maintaining pools.
2. The work shall include, but not be limited to, the following activities as shown on the plans: preparation of construction access routes; installation and removal of temporary cofferdams and channel diversion structures; dewatering; relocation of stream segments to utilize existing mature riparian vegetation to create immediate increase in shade conditions; creation of constrictions to allow the channel to scour pools and to narrow and deepen the channel; earthwork within the existing active channel zone to force flow against adjacent mature riparian vegetation; installation of multiple clump structures to prevent erosion; installation of a variety of edge treatments using FESL where the channel is narrowed; transplanting wetland sod; re-vegetation and seeding; reclaiming and restoring all construction access areas; fencing; irrigation. All work shall be completed in accordance with the contract provisions, the technical specifications, and Drawings.
3. There are 101 individual work areas that are combined into the Bid Items. Each work area is associated with a single bank fill, pool excavation, channel creation, bypass excavation, etc. Detailed quantities are shown on Sheets 16 and 17 for each work area. Work areas are shown on Sheets 18-20.



PROPOSED CONDITIONS PLAN

0 200 400 Feet

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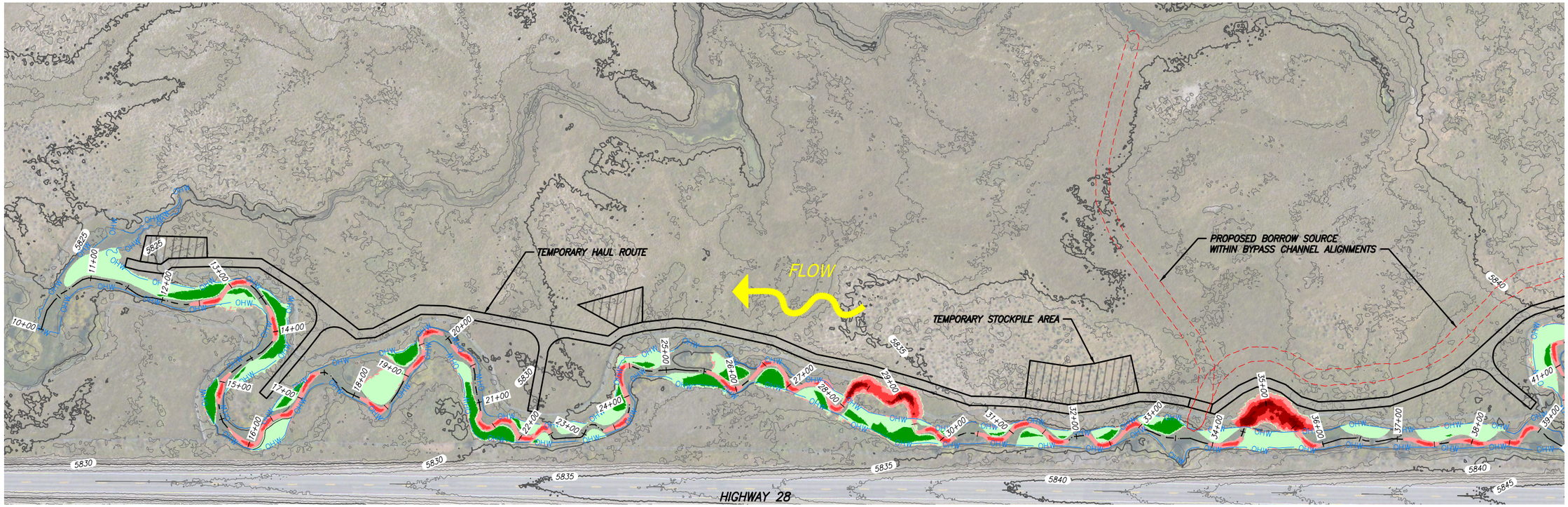
Approved:	LRLT

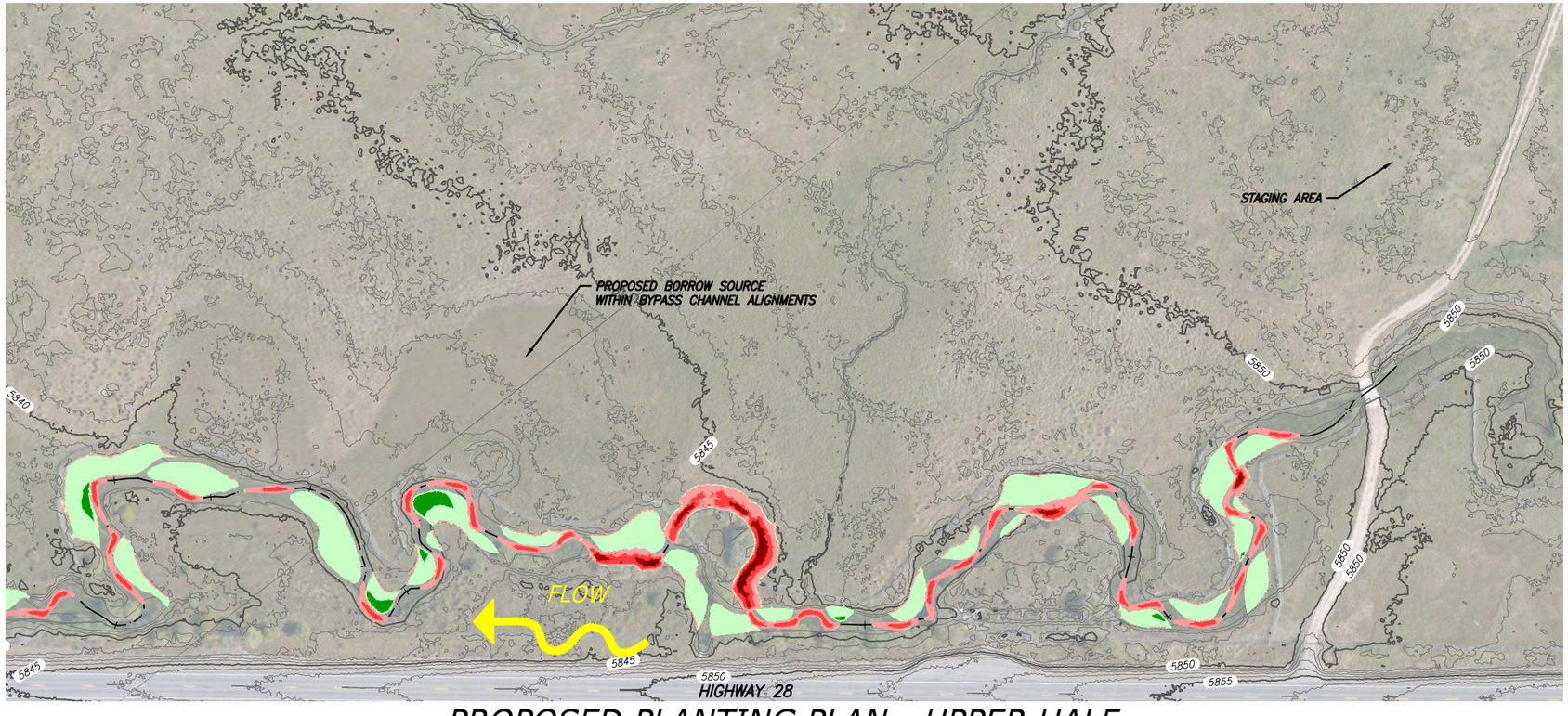
Drawing Name
PROPOSED GRADING PLAN INDEX

Drawing No.
14

Sheet 14 of 44



PROPOSED PLANTING PLAN - LOWER HALF



PROPOSED PLANTING PLAN - UPPER HALF

LEGEND

- DO NOT DISTURB
- PROPOSED ACCESS ROUTE
- PROPOSED STAGING AREA
- PROPOSED TEMPORARY STOCKPILE AREA
- 3+' PROPOSED CUT
- 2–3' PROPOSED CUT
- 1–2' PROPOSED CUT
- 0–1' PROPOSED CUT
- 0–1' PROPOSED FILL
- 1–2' PROPOSED FILL
- 2+' PROPOSED FILL
- OHW — EXISTING ORDINARY HIGH WATER
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED BYPASS CHANNELS

0 140 280 Feet

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Checked:	JY/KS/BPA
Approved:	LRLT

Drawing Name

CUT/FILL

Drawing No.
15

Sheet 15 of 44