



**GENERAL NOTES:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO VERIFY SITE CONDITIONS AND FOR COMPLETELY UNDERSTANDING THE REQUIRED SCOPE OF WORK SHOWN ON THESE DRAWINGS AND CONTAINED IN THE PROJECT SPECIFICATIONS.
2. ALL PARTS OF THIS PROJECT - INCLUDING SOIL PREPARATION, EARTHWORK, AND PLANTING - ARE SUBJECT TO FIELD DESIGN BY THE ENGINEER'S REPRESENTATIVE. AT ANY TIME, THE CONTRACTOR'S OPERATIONS AND CONSTRUCTION MAY BE SUBJECT TO OBSERVATION BY THE ENGINEER'S REPRESENTATIVE. WHEN REQUESTING THE PRESENCE OF THE ENGINEER'S REPRESENTATIVE AT THE PROJECT SITE FOR DESIGN CLARIFICATION, STAGE ACCEPTANCE, OR OTHER APPROVALS, THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE DIRECTLY TO THE ENGINEER'S REPRESENTATIVE.
3. NO UTILITIES ARE KNOWN TO EXIST WITHIN THE PROJECT SITE, HOWEVER, THE CONTRACTOR SHALL CONFIRM THE ABSENCE OF UNDERGROUND UTILITIES BEFORE THE START OF ANY CONSTRUCTION OPERATIONS, INCLUDING AND NOT LIMITED TO EXCAVATION OR TRENCHING. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 811/1-800-227-2600. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE FOR LOCATING UTILITIES.
4. THE CONTRACTOR SHALL STAKE AND FLAG THE LIMITS OF GRADING AT LOCATIONS SHOWN ON THE DRAWINGS BEFORE THE START OF ANY OTHER SITE WORK INCLUDING DEMOLITION, CLEARING AND GRUBBING, AND EARTHWORK.
5. THE CONTRACTOR SHALL CONTACT THE ENGINEER'S REPRESENTATIVE IMMEDIATELY UPON FINDING ANY FIELD CONDITIONS THAT WOULD CONFLICT WITH THE INFORMATION INDICATED ON THESE DRAWINGS OR THE PROJECT SPECIFICATIONS. ALL FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER'S REPRESENTATIVE BEFORE CONSTRUCTION OF SAID ADJUSTMENTS; FAILURE TO DO SO SHALL RESULT IN THE CONTRACTOR ASSUMING FULL RESPONSIBILITY FOR ANY REQUIRED REVISIONS OR FIELD MODIFICATIONS, AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE, AT NO ADDITIONAL COST.
6. CONFORM TO EXISTING GRADES AND CONDITIONS WHENEVER POSSIBLE. ANY ADJACENT OR OFFSET AREAS DISTURBED BY THE CONTRACTOR'S OPERATION MUST BE RESTORED BY THE CONTRACTOR TO THE PRE-DISTURBANCE CONDITIONS TO THE SATISFACTION OF THE ENGINEER'S REPRESENTATIVE.
7. ALL LUBRICATION, REFUELING, OR MAINTENANCE OF CONSTRUCTION VEHICLES SHALL BE CONDUCTED WITHIN APPROVED CONSTRUCTION STAGING AREAS.
8. STAGING AREAS MUST BE CONTAINED BY MEANS DESCRIBED IN THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) TO CONFINE THE AREA AND PREVENT CONTAMINANTS FROM ENTERING NEARBY CHANNELS AND WATER BODIES.
9. ELEVATIONS ARE RELATIVE TO THE NAVD 88 DATUM, AND ARE BASED ON LIDAR DATA COLLECTED BY THE USFS IN 2013. SUPPLEMENTAL SURVEY DATA MAY BE REQUIRED.
10. PRESERVE TREES AND VEGETATION OUTSIDE OF THE LIMITS OF WORK. ANY TREES OR VEGETATION DISTURBED OUTSIDE OF THE LIMITS OF WORK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY TREES GREATER THAN 6" DBH THAT ARE OUTSIDE OF THE GRADING LIMITS AND INTERFERE WITH THE WORK MAY ONLY BE REMOVED WITH APPROVAL FROM THE ENGINEER'S REPRESENTATIVE.

**EARTHWORK NOTES:**

1. EARTHWORK OPERATIONS SHALL BE EXECUTED ACCORDING TO THESE PLANS AND THE RELEVANT PROJECT PERMITS.
2. THE CONTRACTOR SHALL CONSTRUCT FINISHED SURFACES TO ±0.3' OF THE ELEVATIONS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE.
3. EXCAVATING, FILLING, AND GRADING WORK SHALL NOT BE PERFORMED DURING WEATHER CONDITIONS WHICH MIGHT DAMAGE OR BE DETRIMENTAL TO THE CONDITION OF EXISTING GROUND, IN-PROGRESS WORK, OR COMPLETED WORK. WHEN THE WORK IS INTERRUPTED BY RAIN; EXCAVATING, FILLING, AND GRADING WORK SHALL NOT RESUME UNTIL THE SITE AND SOIL CONDITION (MOISTURE CONTENT) ARE SUITABLE FOR COMPACTION.
4. SOIL MATERIAL THAT IS TOO WET FOR COMPACTION SHALL BE LEFT TO DRAIN UNTIL THE MOISTURE CONTENT OF THE MATERIAL IS UNIFORM AND WITHIN THE SPECIFIED LIMITS.
5. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS FOR THE EROSION CONTROL MEASURES DESCRIBED IN THE PROJECT SWPPP.
6. MATERIAL USED FOR FILL SHALL BE AN INERT SOIL, FREE FROM DELETERIOUS SUBSTANCES, AND OF SUCH QUALITY THAT IT WILL COMPACT THOROUGHLY WITHOUT THE PRESENCE OF VOIDS WHEN ROLLED. EXCAVATED ON-SITE MATERIAL WILL BE CONSIDERED SUITABLE FOR FILL, IF IT IS FREE FROM OTHER DELETERIOUS SUBSTANCES AND CONFORMS TO THE REQUIREMENTS SPECIFIED HEREIN.
7. EXCAVATED MATERIAL THAT IS SUITABLE FOR FILL SHALL BE CONDITIONED FOR REUSE AND PROPERLY STOCKPILED FOR LATER FILLING OPERATIONS. CONDITIONING SHALL CONSIST OF SPREADING MATERIAL IN LAYERS NOT TO EXCEED 8 INCHES THICK AND RAKING FREE OF DEBRIS AND RUBBLE. CONDITIONING MAY TAKE PLACE WITHIN THE GRADING LIMITS AND STAGING AREAS. EXCAVATED MATERIALS SHALL BE DEEMED SUITABLE IF MATERIALS CONFORM TO THE NOTES HEREIN AND ARE ACCEPTED BY THE ENGINEER'S REPRESENTATIVE. DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF.
8. MATERIAL EXCAVATED FROM THE PROJECT SITE SHALL BE DEEMED UNSUITABLE FOR REUSE IF IT IS: OF

SUCH NATURE AS TO BE INCAPABLE OF BEING COMPACTED TO SPECIFIED DENSITY USING ORDINARY METHODS, TOO WET TO BE PROPERLY COMPACTED AND CIRCUMSTANCES PREVENT SUITABLE DRYING PRIOR TO INCORPORATION INTO THE WORK, FOUND TO CONTAIN DEBRIS WASTE, VEGETATION OR OTHER DELETERIOUS MATTER, OR OTHERWISE DEEMED UNSUITABLE BY THE ENGINEER'S REPRESENTATIVE.

9. MAINTAIN SLOPES AND EMBANKMENTS UNTIL SUBSTANTIAL COMPLETION AND ACCEPTANCE OF THE WORK. PROMPTLY REPAIR SLIDES, SLIPOUTS, WASHOUTS, SETTLEMENTS, AND SUBSIDENCES THAT OCCUR FOR ANY REASON, AND REFINISH THE SLOPE OR EMBANKMENT TO THE INDICATED LINES AND GRADES. COMPLY WITH APPLICABLE REQUIREMENTS OF CCR, TITLE 8, TRENCH CONSTRUCTION SAFETY ORDERS.
10. THE CONTRACTOR SHALL TAKE ALL MEANS NECESSARY TO PREVENT THE INTRODUCTION AND SPREAD OF NON-NATIVE PLANTS.
11. EXCAVATE AND SEPARATELY STOCKPILE SUITABLE MATERIAL FOR FILL. STOCKPILE COARSE MATERIAL EXCAVATED FROM THE RIVERBED SEPARATELY (FOR POSSIBLE REUSE AS CBF) FROM FINER MATERIAL EXCAVATED FROM THE UPPER BANK. ESTABLISH STOCKPILES ON SITE ONLY IN LOCATIONS WHERE THEY DO NOT INTERFERE WITH THE PROGRESS OF WORK.
12. FILL MATERIAL SHALL BE PLACED IN LIFTS NO GREATER THAN 8 INCHES EACH. COMPACT EACH LAYER OF FILL MATERIAL TO NOT LESS THAN 85 PERCENT RELATIVE COMPACTION, AS DETERMINED BY ASTM D1557. THE CONTRACTOR IS RESPONSIBLE FOR ACHIEVEMENT OF PROPER COMPACTION DURING FILL AND BACKFILL PLACEMENT.
13. IMPORTED FILL MATERIAL (IF NEEDED) SHALL BE CERTIFIED WEED-FREE, GRANULAR MATERIAL NEARLY FREE OF ORGANIC DEBRIS WITH A LIQUID LIMIT LESS THAN 40, A PLASTICITY INDEX LESS THAN 15, 100 PERCENT PASSING THE 8-INCH SIEVE, AND LESS THAN 30 PERCENT PASSING THE NO. 200 SIEVE.
14. ENSURE THAT THE TOP 2" OF SOIL IN PLACED FILL IS FREE OF CONCRETE, RUBBLE, DEBRIS, BRANCHES, ROOTS, STUMPS, WIRE, OR OTHER DELETERIOUS MATTER 1" IN DIAMETER AND LARGER. DISPOSE OF DEBRIS OFFSITE ACCORDING TO STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST.
15. THE CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL MEASURES DURING EARTHWORK OPERATIONS THAT ARE IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS, ALONG WITH PERMIT CONDITIONS.
16. THE ENGINEER'S REPRESENTATIVE SHALL APPROVE FINISH GRADE ELEVATIONS.

**GRADE CONTROL RIFFLE NOTES:**

1. GENERAL
  - 1.1. REFER TO SHEET 3.3 FOR THE LOCATION OF THE GRADE CONTROL RIFFLE AND SHEET 4.3 FOR DETAIL VIEWS.
  - 1.2. CONSTRUCT THE GRADE CONTROL RIFFLE AT THE LOCATION INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE.
  - 1.3. IF A CONFLICT EXISTS BETWEEN THE INFORMATION ON THE PLANS AND SITE CONDITIONS, NOTIFY THE ENGINEER'S REPRESENTATIVE IMMEDIATELY.
  - 1.4. PURPOSE: THE GRADE CONTROL RIFFLE IS INTENDED TO BE AN IMMOBILE FEATURE DESIGNED TO INCREASE WATER SURFACE ELEVATIONS THROUGHOUT THE LOWER MEADOW AND PREVENT REACH-SCALE INCISION (HEADCUTTING) OF THE CHANNEL FILL TREATMENTS.
2. MATERIALS
  - 2.1. RIFFLE MIXTURE
    - 2.1.1. THE RIFFLE MIXTURE SHALL BE A WELL-GRADED MIXTURE OF BOULDERS, COBBLES, AND GRAVELS.
    - 2.1.2. THE RIFFLE MIXTURE CAN BE COMPOSED OF A VARIETY OF ROCK TYPES TYPICALLY USED IN CONSTRUCTION SUCH AS IGNEOUS ROCKS (GRANITE, DIORITE, BASALT, ANDESITE). ROCKS SHOULD HAVE NO CRACKS, BEDDING PLANES, OR OTHER WEAKNESSES. ROCKS SHOULD NOT HAVE CRACKS FILLED, OR HEALED, WITH CALCITE.
    - 2.1.3. EXCAVATED MATERIAL FROM THE RIVERBED MAY BE SUITABLE FOR THE GRAVEL AND A PORTION OF THE COBBLE COMPONENTS OF THE MIXTURE. HOWEVER, IT IS ANTICIPATED THAT ADDITIONAL COBBLES AND BOULDERS WILL NEED TO BE IMPORTED TO MEET THE SPECIFIED GRADATION FOR THE MIXTURE.
    - 2.1.4. ALL IMPORTED MATERIAL SHALL COMPLY WITH THE FOLLOWING:
      - 2.1.4.1. MATERIAL SHALL BE CLEAN AND SUBANGULAR TO SUBROUNDED ROCK.
      - 2.1.4.2. MATERIAL SHALL NOT CONTAIN EXCESSIVE FINES.
      - 2.1.4.3. UNSATISFACTORY MATERIAL SHALL INCLUDE OR BE EQUIVALENT TO ASTM D2487 SOIL CLASSIFICATION GROUPS GM, GC, SW, SP, SM, SC, ML, CL, OL, MH, CH, OH, AND PT. OTHER UNACCEPTABLE MATERIAL WOULD INCLUDE RIP-RAP UNLESS OTHERWISE SPECIFIED HEREIN.
    - 2.1.5. THE RIFFLE MIXTURE SHALL HAVE THE FOLLOWING GRADATION:
 

SIEVE OPENING	% PASSING, BY WEIGHT
48"	100
18"	84
12"	50
4"	16
3/4"	5
  - 2.1.6. THE RIFFLE MIXTURE SHALL BE WELL MIXED PRIOR TO PLACEMENT.

3. EXECUTION
  - 3.1. LAY OUT THE WORK, ESTABLISH ALL NECESSARY MARKERS, BENCHMARKS, GRADING STAKES, AND OTHER STAKES AS REQUIRED. THE ENGINEER'S REPRESENTATIVE SHALL STAKE THE GRADE CONTROL RIFFLE AND MAY MAKE FIELD ADJUSTMENTS FROM WHAT IS SHOWN ON THE DRAWINGS, IF NECESSARY. AT MINIMUM THE FOLLOWING FEATURES WILL BE MARKED:
    - 3.1.1. UPSTREAM LIMIT OF RIFFLE
    - 3.1.2. DOWNSTREAM LIMIT OF RIFFLE
    - 3.1.3. CREST OF RIFFLE (LOCATION AND ELEVATION)
    - 3.1.4. LIMITS OF SILL (INCLUDING BOTTOM ELEVATION)
  - 3.2. EXCAVATE TRENCHES FOR THE SILLS ACCORDING TO THE LAYOUT PROVIDED BY THE ENGINEER'S REPRESENTATIVE.
  - 3.3. PLACE THE RIFFLE MIXTURE IN THE CHANNEL AND IN THE TRENCHES ACCORDING TO THE DRAWINGS AND AS DIRECTED BY THE ENGINEER'S REPRESENTATIVE. THE MIXTURE SHALL BE PLACED IN LIFTS NO GREATER THAN 24" EACH. UPON COMPLETING EACH LIFT, COMPACT THE RIFFLE MIXTURE BY RUNNING OVER WITH TRACK EQUIPMENT UNTIL UNYIELDING.

**ABBREVIATIONS:**

'	FEET
"	INCH
APPROX	APPROXIMATE
CBF	CHANNEL BED FILL
DIA. Ø	DIAMETER
E	EASTING
EG	EXISTING GRADE
ELEV	ELEVATION
EX	EXISTING
FG	FINISH GRADE
FT	FEET
H	HORIZONTAL
IN	INCH
LB	POUND
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
PROP	PROPOSED
STA	STATION
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TYP	TYPICAL
V	VERTICAL
WSE	WATER SURFACE ELEVATION



DESIGNED BY	D. SHAW	DRAWN BY	P. KULCHAWIK	CHECKED BY	D. SHAW	IN CHARGE	P. KULCHAWIK	DATE	2/28/19
BY	DS	DS	DS	DS					
SUBMITTALS / REVISIONS	95% DESIGN	REVISED 95% DESIGN	REVISED 95% DESIGN						

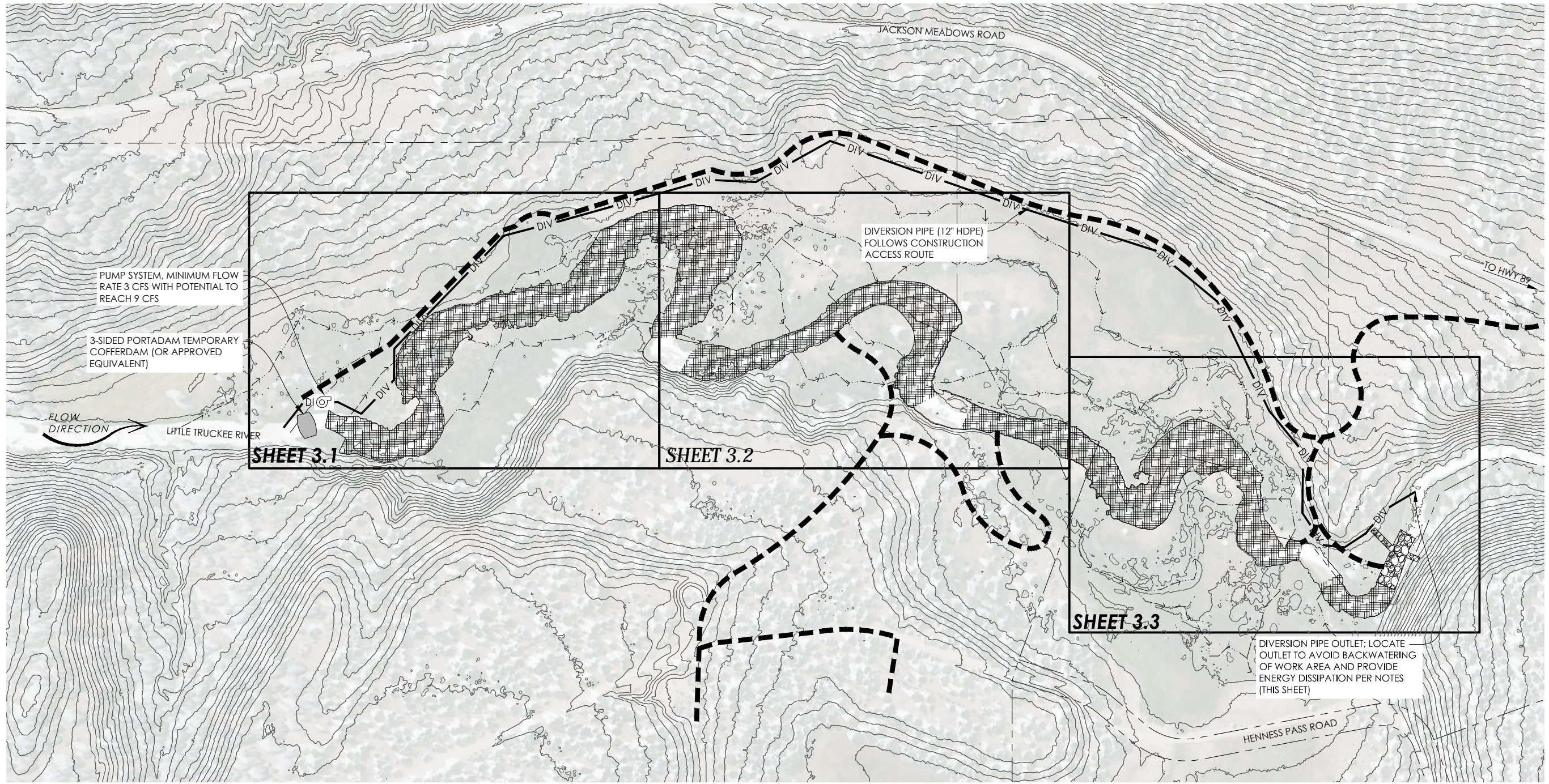
**NOTES AND ABBREVIATIONS**  
**LOWER PERAZZO MEADOW RESTORATION**  
SIERRA COUNTY, CALIFORNIA  
TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER	218116
SCALE	-
SHEET	

**2.0**



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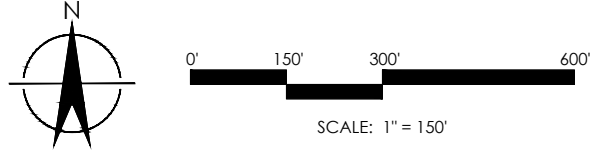
DESIGNED BY	DATE	BY	SUBMITTALS / REVISIONS
D. SHAW	4/16/18	DS	95% DESIGN
B. TRUSTMAN	7/27/18	DS	REVISED 95% DESIGN
D. SHAW	2/28/19	DS	REVISED 95% DESIGN
P. KULCHAWIK			
IN CHARGE			
DATE	2/28/19		

**DEWATERING AND DIVERSION PLAN**  
 LOWER PERAZO MEADOW RESTORATION  
 SIERRA COUNTY, CALIFORNIA  
 TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER	218116
SCALE	1" = 150'
SHEET	

**LEGEND:**

- TEMPORARY CONSTRUCTION ACCESS ROUTE
- TEMPORARY DIVERSION PIPE
- CHANNEL FILL AREA (CHANNEL TRAVERSING TO BE ALLOWED FOR CONSTRUCTION ACCESS)
- GRADE CONTROL



**NOTES:**

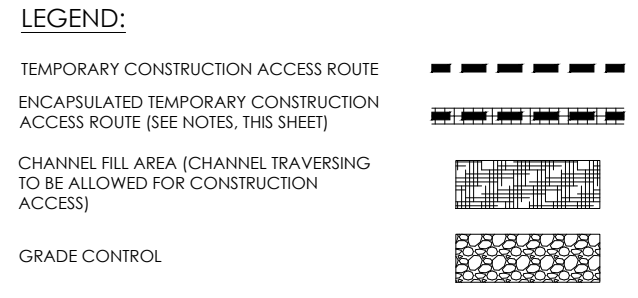
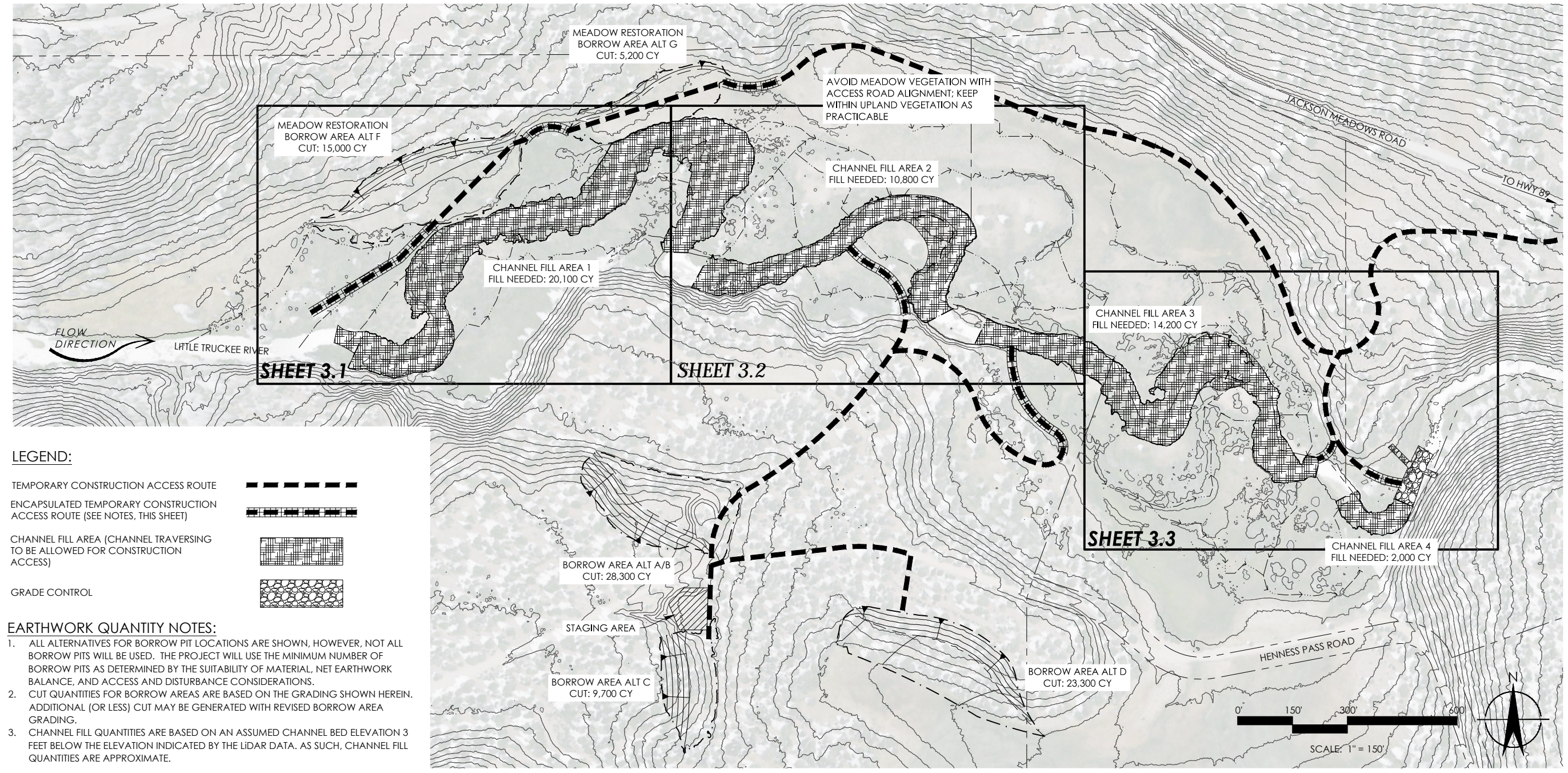
1. ADDITIONAL PUMPING WILL BE REQUIRED TO REMOVE INCIDENTAL GROUNDWATER FROM THE DEWATERED REACH. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR TO PUMP INCIDENTAL GROUNDWATER, AS NEEDED TO COMPLETE THE WORK, FOR THE DURATION OF THE PROJECT.
2. FISH RESCUE TO BE COMPLETED AHEAD OF DEWATERING (BY OTHERS).
3. TEMPORARY ENERGY DISSIPATION:
  - 3.1. INSTALL ENERGY DISSIPATION AT THE OUTLET OF THE DIVERSION PIPE. MAINTAIN ENERGY DISSIPATION THROUGHOUT CONSTRUCTION AND REMOVE UPON COMPLETION.
  - 3.2. ENERGY DISSIPATION SHALL CONSIST OF A 5' X 5' X 1' (MINIMUM DIMENSIONS) PATCH OF RIFFLE MIXTURE MATERIAL (CLASTS LARGER THAN 18 INCHES EXCLUDED) PLACED ON TOP OF GEOTEXTILE FABRIC.
  - 3.3. THE ENERGY DISSIPATION SHALL BE LOCATED ON AN UNVEGETATED BAR SURFACE ADJACENT TO THE LITTLE TRUCKEE RIVER. THE FINAL LOCATION SHALL BE APPROVED BY THE ENGINEER'S REPRESENTATIVE. AFTER PASSING THROUGH THE ENERGY DISSIPATION, THE EFFLUENT FROM THE DIVERSION PIPE IS INTENDED TO PERCOLATE THROUGH BAR GRAVELS BEFORE REACHING THE LITTLE TRUCKEE RIVER.
  - 3.4. THE OUTLET OF THE DIVERSION PIPE SHALL BE DIRECTED TO FLOW ONTO THE ENERGY DISSIPATION. ARRANGE LARGE CLASTS FROM THE RIFFLE MIXTURE TO DIFFUSE FLOW AS IT LEAVES THE ENERGY DISSIPATION.
4. AT LEAST 30 DAYS PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL SUBMIT A DEWATERING AND DIVERSION PLAN THAT, AT MINIMUM, INCLUDES THE FOLLOWING INFORMATION:
  - 4.1. PUMP, PIPE, AND COFFERDAM SPECIFICATIONS AND/OR SHOP DRAWINGS;
  - 4.2. PLAN FOR CONTINUOUS OPERATION, INCLUDING CONTINGENCY PLAN FOR UNANTICIPATED BREAKDOWN OR OTHER ISSUES THAT MAY OCCUR WHEN STAFF ARE NOT PRESENT;
  - 4.3. PIPE COUPLING SPECIFICATIONS AND METHODS TO MINIMIZE LEAKAGE;
  - 4.4. DAILY MONITORING PLAN AND REPAIR/CONTINGENCY PLAN IF SIGNIFICANT LEAKAGE OR FAILURES ARE OBSERVED; AND
  - 4.5. ANY DEVIATIONS FROM THE GENERAL DIVERSION CONFIGURATION SHOWN HEREIN.



DESIGNED BY	DATE	BY	SUBMITTALS / REVISIONS
D. SHAW	4/16/18	DS	95% DESIGN
B. TRUSTMAN	7/27/18	DS	REVISED 95% DESIGN
D. SHAW	2/28/19	DS	REVISED 95% DESIGN
P. KULCHAWIK	DATE		
	2/28/19		

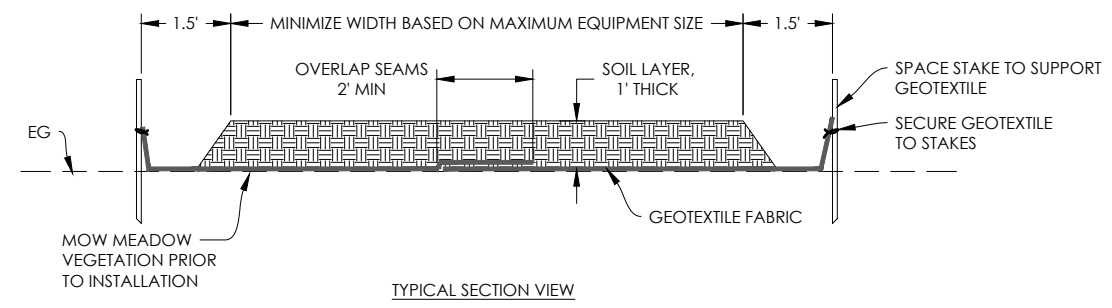
OVERVIEW MAP AND ACCESS AND STAGING PLAN  
LOWER PERAZZO MEADOW RESTORATION  
SIERRA COUNTY, CALIFORNIA  
TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER 218116  
SCALE 1" = 150'  
SHEET



- EARTHWORK QUANTITY NOTES:**
- ALL ALTERNATIVES FOR BORROW PIT LOCATIONS ARE SHOWN, HOWEVER, NOT ALL BORROW PITS WILL BE USED. THE PROJECT WILL USE THE MINIMUM NUMBER OF BORROW PITS AS DETERMINED BY THE SUITABILITY OF MATERIAL, NET EARTHWORK BALANCE, AND ACCESS AND DISTURBANCE CONSIDERATIONS.
  - CUT QUANTITIES FOR BORROW AREAS ARE BASED ON THE GRADING SHOWN HEREIN. ADDITIONAL (OR LESS) CUT MAY BE GENERATED WITH REVISED BORROW AREA GRADING.
  - CHANNEL FILL QUANTITIES ARE BASED ON AN ASSUMED CHANNEL BED ELEVATION 3 FEET BELOW THE ELEVATION INDICATED BY THE LIDAR DATA. AS SUCH, CHANNEL FILL QUANTITIES ARE APPROXIMATE.

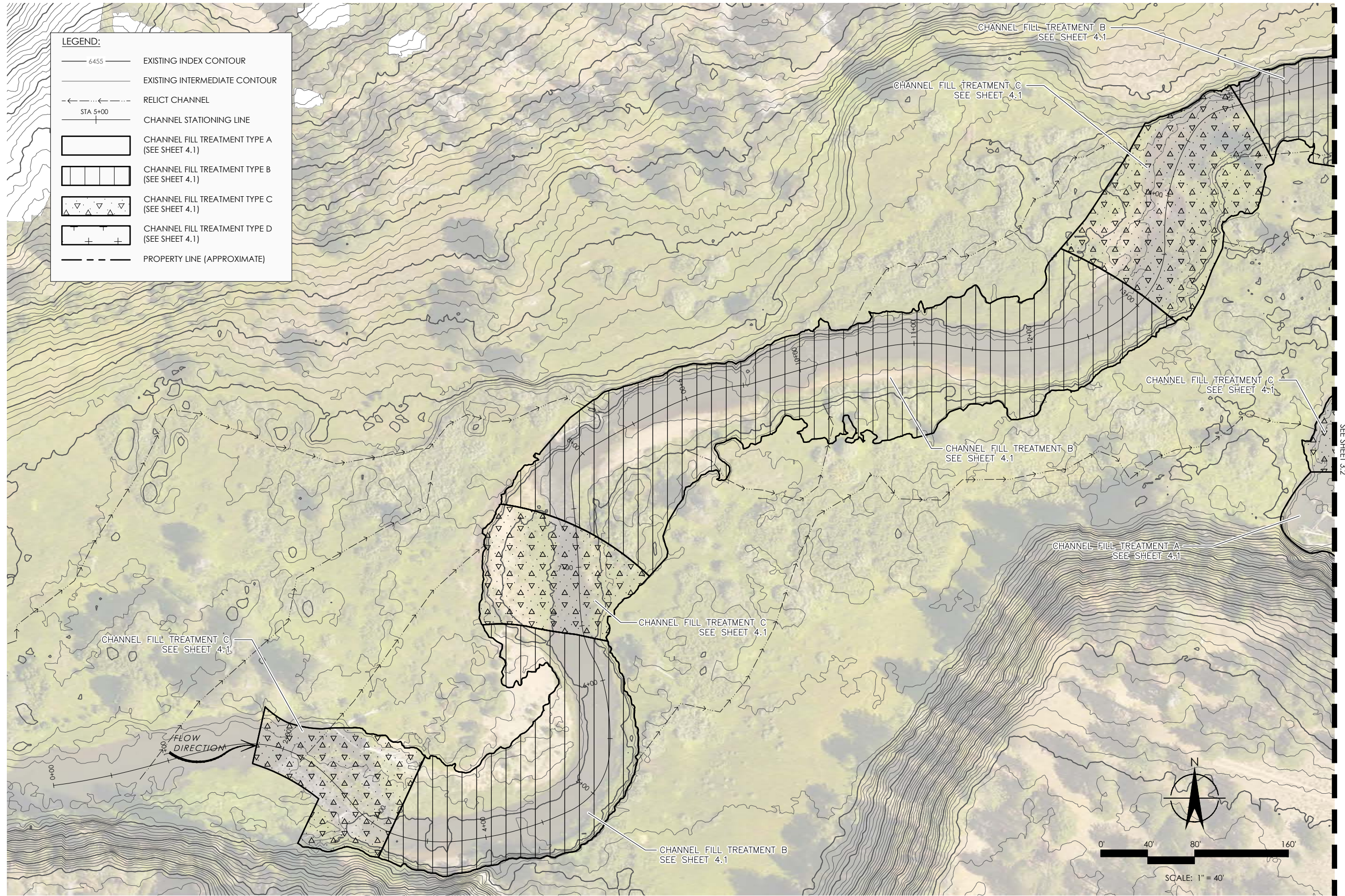
- STAGING AND ACCESS NOTES:**
- PERFORM CORRECTIVE MAINTENANCE TO ACCESS ROUTES THROUGHOUT THE CONSTRUCTION PERIOD TO ADDRESS EROSION AND POTENTIAL SOURCES OF FINE SEDIMENT. ANY RUTS EXCEEDING 3 INCHES IN DEPTH OR 25 FEET IN LENGTH SHALL BE CORRECTED IMMEDIATELY.
  - ENCAPSULATED TEMPORARY CONSTRUCTION ACCESS ROUTES ARE INTENDED TO PREVENT COMPACTION OF MEADOW SOILS AND SHALL BE IMPLEMENTED AS FOLLOWS:
    - INSTALL ENCAPSULATED ACCESS ROUTES AT THE LOCATIONS SHOWN HEREIN. DEPENDING ON FIELD CONDITIONS, THE ENGINEER'S REPRESENTATIVE MAY ADJUST THE LOCATIONS OF ENCAPSULATED ACCESS ROUTES BY UP TO 20 PERCENT OF THE TOTAL LENGTH OF ALL ENCAPSULATED ACCESS ROUTES.
    - LAY GEOTEXTILE FABRIC ON THE MEADOW SURFACE ALONG THE ACCESS ROUTE ALIGNMENT. OVERLAP SEAMS BY 2' (MIN). THE GEOTEXTILE FABRIC SHALL BE A WOVEN MONOFILAMENT PRODUCT.
    - INSTALL STAKES ON BOTH SIDES OF THE ACCESS ROUTE SPACED TO SUPPORT THE GEOTEXTILE FABRIC. FOLD THE GEOTEXTILE UPWARD AND SECURE TO THE STAKES WITH TWINE OR ZIP TIES. THE PURPOSE OF FOLDING IS TO CONTAIN SOIL AND PREVENT FINE SEDIMENT FROM WASHING INTO THE MEADOW.
    - PLACE SOIL FROM BORROW AREAS ON TOP OF THE GEOTEXTILE FABRIC AND COMPACT WITH TRACKED EQUIPMENT. THE COMPACTED SOIL LAYER SHALL HAVE A MINIMUM DEPTH OF ONE FOOT. TAKE CARE TO ENSURE THAT SOIL IS NOT PLACED BEYOND THE EDGE OF THE GEOTEXTILE FABRIC.
  - REMOVE ENCAPSULATED ROAD UPON COMPLETION OF THE PROJECT. TAKE EXTREME CARE TO PREVENT SOIL FROM SPILLING ON TO THE MEADOW. INCORPORATE THE SOIL INTO THE FINAL GRADING OF THE BORROW AREAS.
  - DECOMPACT SOIL ALONG ACCESS ROUTES (INCLUDING THE MEADOW SURFACE BENEATH ENCAPSULATED ACCESS ROUTES) AND STAGING AREAS TO A DENSITY NO GREATER THAN 300 PSI (APPROX 2,000 KPA) AS MEASURED WITH A PENETROMETER. DECOMPACT SOILS TO A DEPTH NO LESS THAN 1 FOOT BELOW GROUND. WITHIN 30 DAYS OF DEMOBILIZATION THE CONTRACTOR SHALL SUBMIT A PLAN SPECIFYING THEIR METHODS FOR DECOMPACTION. FOR APPROVAL BY THE ENGINEER'S REPRESENTATIVE.
  - AT LEAST 30 DAYS PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL SUBMIT A STAGING AND ACCESS PLAN THAT, AT MINIMUM, INCLUDES THE FOLLOWING INFORMATION:
    - PROPOSED DEVIATIONS FROM THE ACCESS ROUTE ALIGNMENTS AND STAGING AREA CONFIGURATION FROM WHAT IS SHOWN HEREIN;
    - FUELS/CHEMICAL STORAGE AREAS;
    - MATERIALS/EQUIPMENT STAGING AREAS; AND
    - EMPLOYEE PARKING AREAS.



① TEMPORARY ENCAPSULATED ACCESS ROUTE  
SCALE: NTS



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LEGEND:	
6455	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
←---←	RELICT CHANNEL
STA 5+00	CHANNEL STATIONING LINE
[Pattern]	CHANNEL FILL TREATMENT TYPE A (SEE SHEET 4.1)
[Pattern]	CHANNEL FILL TREATMENT TYPE B (SEE SHEET 4.1)
[Pattern]	CHANNEL FILL TREATMENT TYPE C (SEE SHEET 4.1)
[Pattern]	CHANNEL FILL TREATMENT TYPE D (SEE SHEET 4.1)
- - - -	PROPERTY LINE (APPROXIMATE)



DESIGNED BY	DATE	BY	SUBMITTALS / REVISIONS
D SHAW	4/16/18	DS	95% DESIGN
D JEPSEN	7/27/18	DS	REVISED 95% DESIGN
D SHAW	2/28/19	DS	REVISED 95% DESIGN
IN CHARGE			
P KULCHAWIK			
DATE			2/28/19

**UPPER REACH  
RESTORATION PLAN**  
  
**LOWER PERAZZO MEADOW RESTORATION**  
 SIERRA COUNTY, CALIFORNIA  
 TRUCKEE RIVER WATERSHED COUNCIL

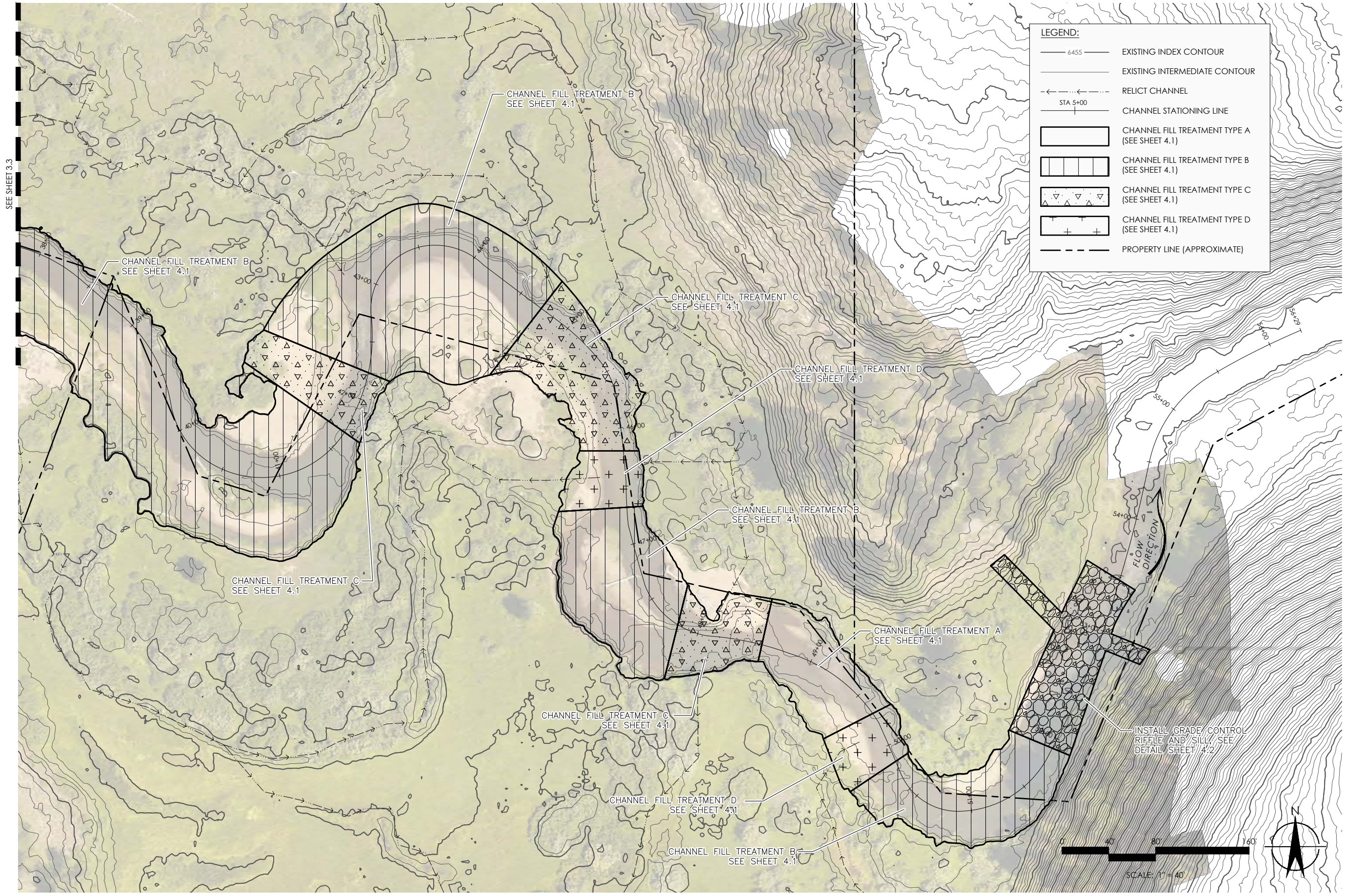
PROJECT NUMBER	218116
SCALE	1" = 40'
SHEET	







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**LEGEND:**

- 6455 EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- RELICT CHANNEL
- STA 5+00 CHANNEL STATIONING LINE
- CHANNEL FILL TREATMENT TYPE A (SEE SHEET 4.1)
- CHANNEL FILL TREATMENT TYPE B (SEE SHEET 4.1)
- CHANNEL FILL TREATMENT TYPE C (SEE SHEET 4.1)
- CHANNEL FILL TREATMENT TYPE D (SEE SHEET 4.1)
- PROPERTY LINE (APPROXIMATE)

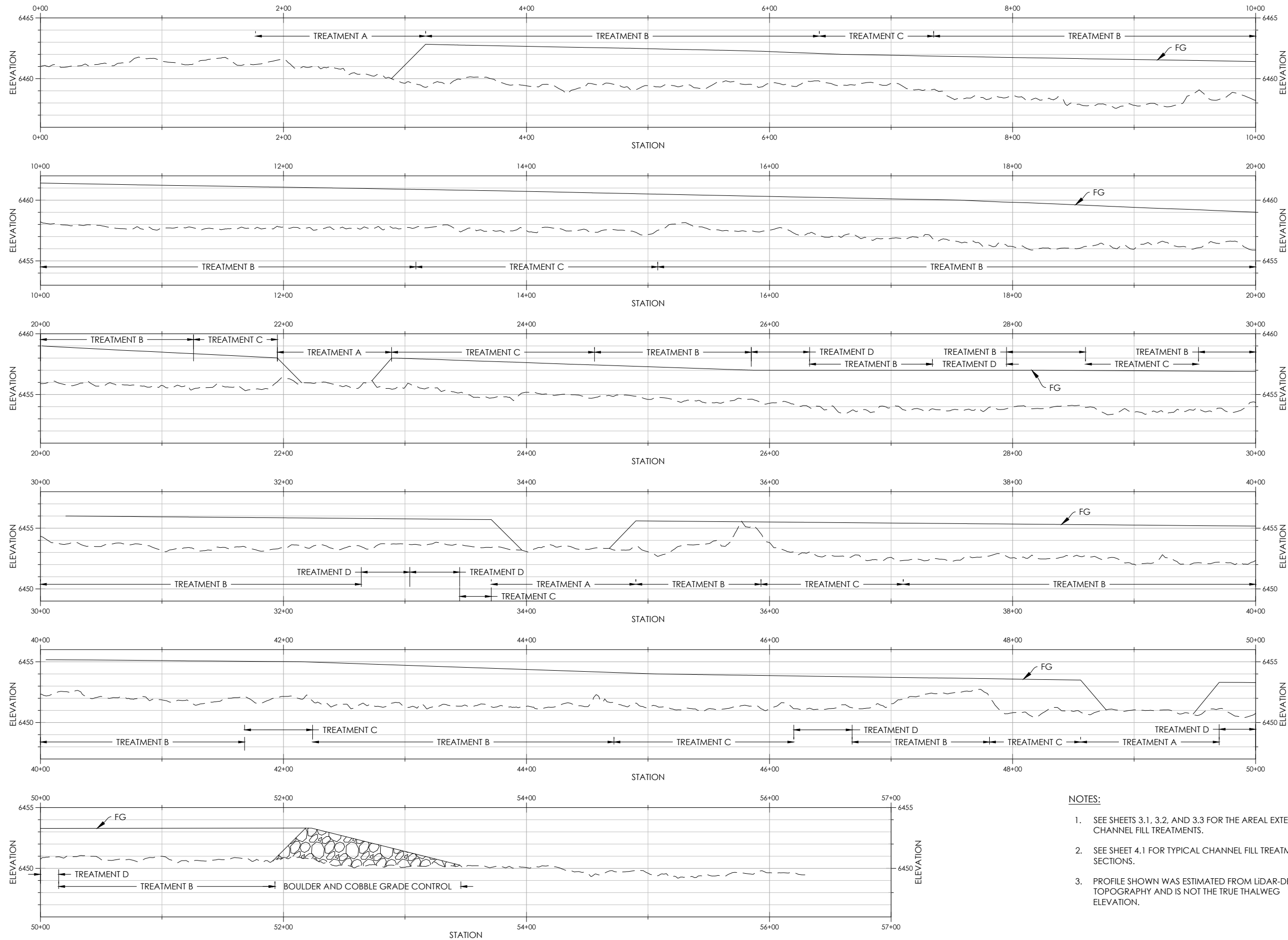
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D. SHAW	4/16/18	DS	95% DESIGN
D. JEPSEN	7/27/18	DS	REVISED 95% DESIGN
D. SHAW	2/28/19	DS	REVISED 95% DESIGN
P. KULCHAWIK			
IN CHARGE			
DATE	2/28/19		

**LOWER REACH RESTORATION PLAN**  
 LOWER PERAZZO MEADOW RESTORATION  
 SIERRA COUNTY, CALIFORNIA  
 TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER	218116
SCALE	1" = 40'
SHEET	



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NOTES:

- SEE SHEETS 3.1, 3.2, AND 3.3 FOR THE AREAL EXTENTS OF CHANNEL FILL TREATMENTS.
- SEE SHEET 4.1 FOR TYPICAL CHANNEL FILL TREATMENT SECTIONS.
- PROFILE SHOWN WAS ESTIMATED FROM LIDAR-DERIVED TOPOGRAPHY AND IS NOT THE TRUE THALWEG ELEVATION.



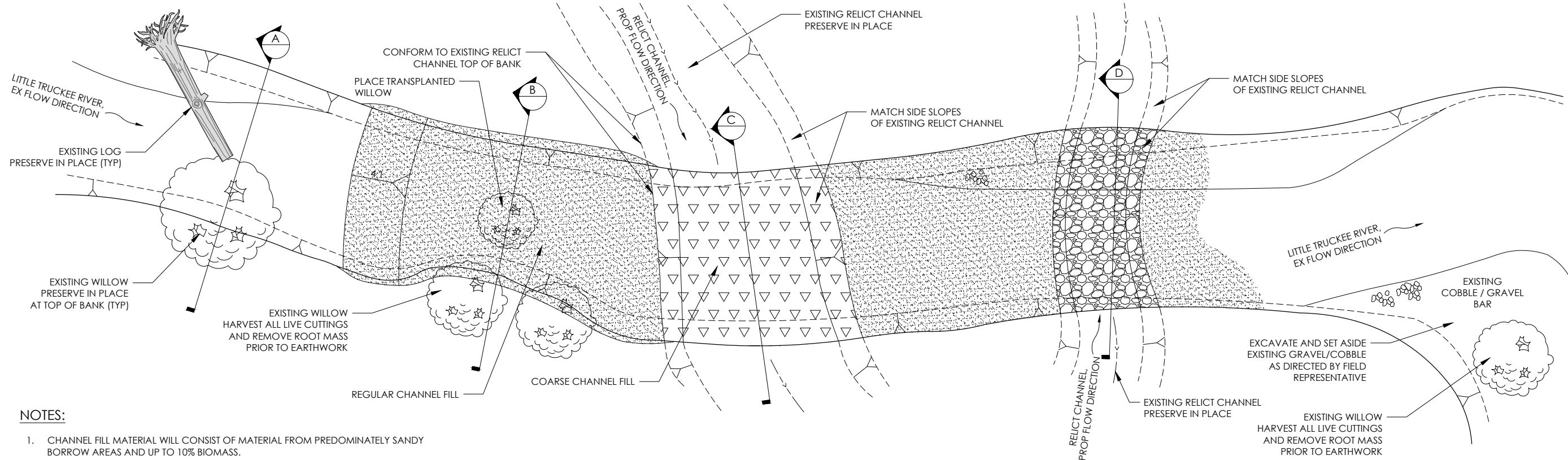
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D. SHAW	4/16/18	DS	95% DESIGN
D. JEPSEN	7/27/18	DS	REVISED 95% DESIGN
D. SHAW	2/28/19	DS	REVISED 95% DESIGN
P. KULCHAWIK			
IN CHARGE			
DATE	2/28/19		

**CHANNEL PROFILE**  
 LOWER PERAZZO MEADOW RESTORATION  
 SIERRA COUNTY, CALIFORNIA  
 TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER  
218116  
 SCALE  
1" = 40' (H) ; 1" = 4' (V)  
 SHEET

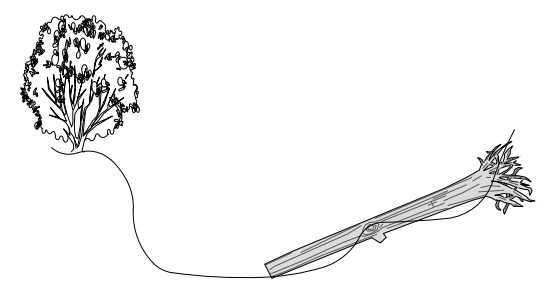
4.0



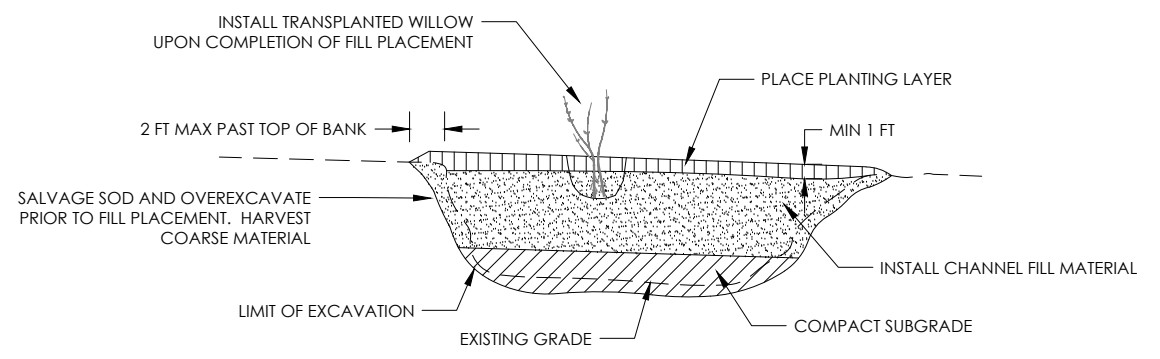


- NOTES:**
1. CHANNEL FILL MATERIAL WILL CONSIST OF MATERIAL FROM PREDOMINATELY SANDY BORROW AREAS AND UP TO 10% BIOMASS.
  2. COARSE CHANNEL FILL MATERIAL WILL CONSIST OF GRAVEL AND COBBLE HARVESTED FROM BED AND BANKS.
  3. LAYOUT OF TREATMENTS MAY BE REFINED ACCORDING TO FIELD CONDITIONS AS PER DIRECTION OF THE ENGINEER'S REPRESENTATIVE.

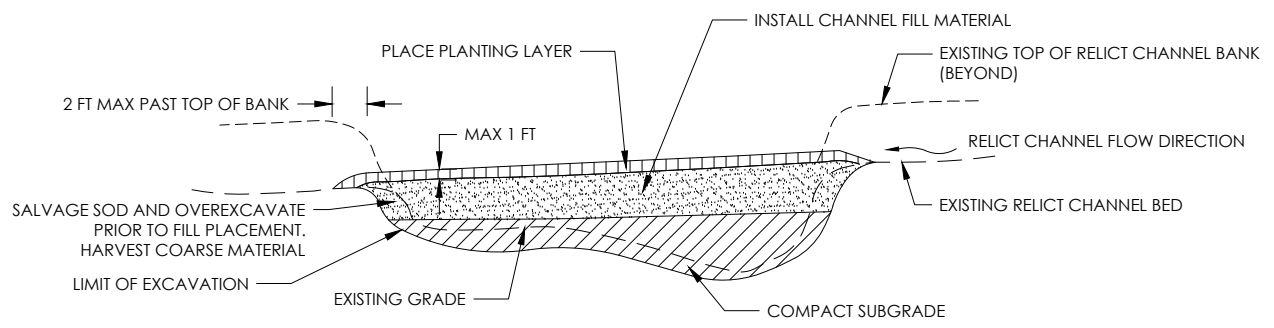
**1 CHANNEL TREATMENT TYPES**  
SCALE: NTS



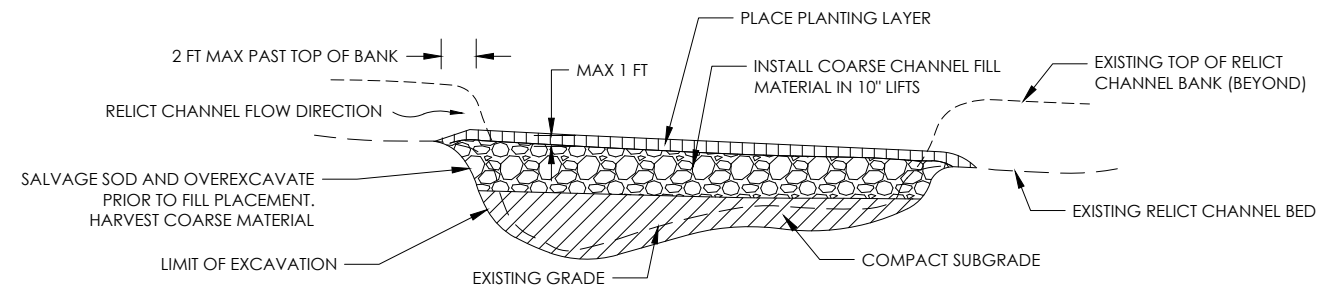
**A PRESERVE AMPHIBIAN HABITAT**  
SCALE: NTS



**B CHANNEL FILL**  
SCALE: NTS



**C REGULAR CHANNEL FILL AT RELICT CHANNEL OR SWALE CROSSING**  
SCALE: NTS



**D COARSE CHANNEL FILL AT RELICT CHANNEL CROSSING**  
SCALE: NTS

DESIGNED BY	DATE	BY	SUBMITTALS / REVISIONS
D. SHAW	4/16/18	DS	95% DESIGN
D. JENSEN	7/27/18	DS	REVISED 95% DESIGN
D. SHAW	2/28/19	DS	REVISED 95% DESIGN
IN CHARGE			
P. KULCHAWIK			
DATE	2/28/19		

**CHANNEL FILL TYPICAL TREATMENTS**

LOWER PERAZZO MEADOW RESTORATION

SIERRA COUNTY, CALIFORNIA  
TRUCKEE RIVER WATERSHED COUNCIL

PROJECT NUMBER  
218116

SCALE  
AS NOTED

SHEET



