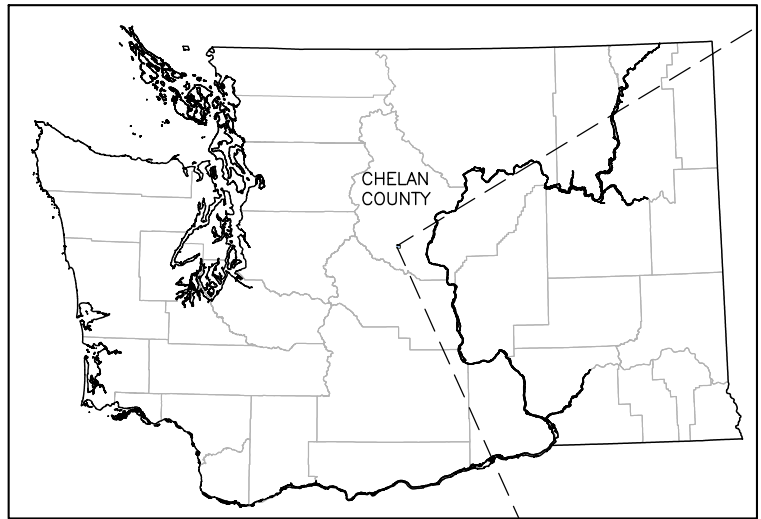


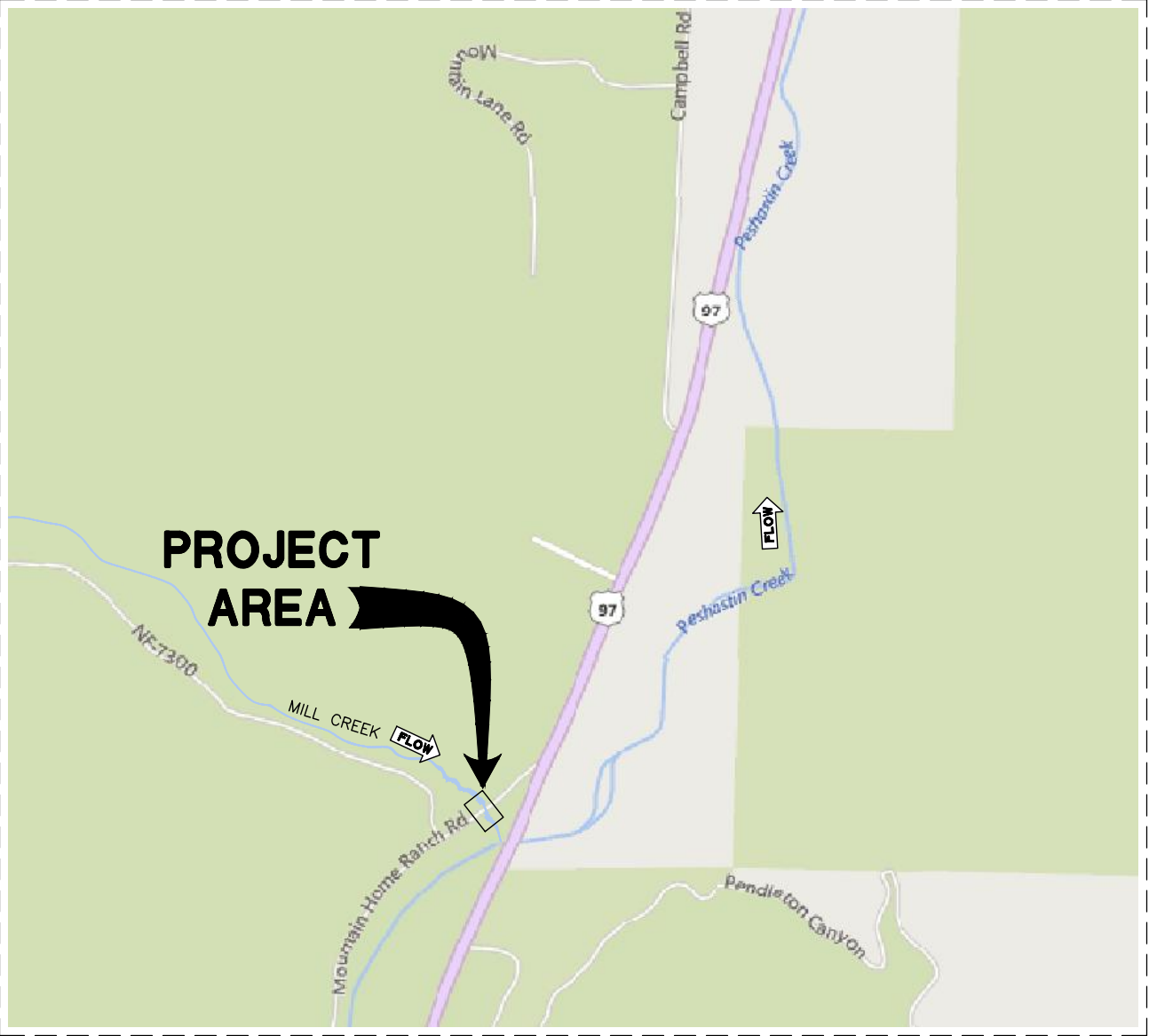
# MILL CREEK

## FISH PASSAGE PROJECT

### CHELAN COUNTY NATURAL RESOURCES



WASHINGTON STATE  
SCALE: 1" = 50 MILES  
50 25 0 50 100



VICINITY MAP  
SCALE: 1" = 500'

DRAWING LIST	
SHEET NO.	SHEET TITLE
1	COVER SHEET
2	NOTES & SUMMARY OF QUANTITIES
3	SITE PREPARATION AND DEWATERING PLAN
4	GRADING PLAN & PROFILE
5	TYPICAL GRADING SECTIONS
6	ROADWAY PAVING, STRIPING, AND GUARDRAIL PLAN

**CONTACT INFORMATION**  
**NATURAL SYSTEMS DESIGN, INC**  
305 FLORA STREET  
BELLINGHAM, WA 98225  
(360) 656-5207  
**CHELAN COUNTY NATURAL RESOURCES**  
411 WASHINGTON STREET, SUITE 201  
WENATCHEE, WA 98801  
(509) 667-6533



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IF THIS BAR DOES NOT  
MEASURE 1" THEN  
DRAWING IS NOT PLOTTED  
TO ORIGINAL SCALE.



NAME OR INITIALS AND DATE	GEOGRAPHIC INFORMATION
DESIGNED NT	LATITUDE 47°30'49"N
CHECKED RH	LONGITUDE 120°37'55"W
DRAWN NT	TN/SC/RG T23N/S6/R18E
CHECKED JS	DATE MARCH 27, 2018

MILL CREEK FISH  
PASSAGE PROJECT

COVER SHEET

1  
SHEET 1 OF 6

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GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE OF CHELAN COUNTY NATURAL RESOURCES, HEREAFTER REFERRED TO AS "CONTRACTING AGENCY" AND THEIR AUTHORIZED AGENTS "CONTRACTOR".
2. NATURAL SYSTEMS DESIGN HEREAFTER REFERRED TO AS "ENGINEER" IS RESPONSIBLE FOR THE PREPARATION OF THESE ORIGINAL PLANS AND ASSOCIATED SPECIFICATIONS; AND WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGE, OR USE, OF THESE PLANS WHICH INCLUDES ALTERATION, DELETION, OR EDITING OF THIS DOCUMENT WITHOUT EXPLICIT WRITTEN PERMISSION FROM THE ENGINEER. ANY OTHER UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED.
3. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTRACT AND SPECIFICATIONS.
4. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE CONTRACTING AGENCY. IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD PLANS FOR CONSTRUCTION OF ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION UNLESS NOTED OTHERWISE. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" SHALL MEAN THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION. CONSTRUCTION NOT SPECIFIED ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO EXAMINE THE PROJECT SITE PRIOR TO THE OPENING OF BID PROPOSALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, SUCH AS THE NATURE AND LOCATION OF THE WORK; AND THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE AFFECTING THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, GROUNDWATER, THE EQUIPMENT AND FACILITIES NEEDED FOR AND DURING THE PERFORMANCE OF THE WORK, AND THE COSTS THEREOF. ANY FAILURE BY THE CONTRACTOR AND SUBCONTRACTOR(S) TO ACQUAINT THEMSELVES WITH ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE THE CONTRACTOR AND SUBCONTRACTOR(S) FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CONTRACT DOCUMENTS AND FOR ALL SUBMITTALS REQUIRED TO THE CONTRACTING AGENCY FOR REVIEW AND ACCEPTANCE.

PERMIT NOTES

1. EVERY REASONABLE EFFORT SHALL BE MADE TO CONDUCT THE ACTIVITIES SHOWN IN THESE PLANS, IN A MANNER THAT MINIMIZES THE ADVERSE IMPACT ON WATER QUALITY, FISH AND WILDLIFE, AND THE NATURAL ENVIRONMENT.
2. ALL WORK WILL BE IN COMPLIANCE WITH PERMIT CONDITIONS ISSUED BY PERTINENT REGULATORY AGENCIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE COPIES OF ALL PERMITS ON THE JOB SITE, UNDERSTAND AND COMPLY WITH ALL PERMIT CONDITIONS.
3. ALL WORK THAT DISTURBS THE SUBSTRATE, BANK, OR SHORE OF A WATERS OF THE STATE THAT CONTAINS FISH LIFE SHALL BE CONDUCTED ONLY DURING THE WORK PERIOD FOR THAT WATERBODY AS ALLOWED BY RELEVANT HYDRAULIC WORK PERMITS. THOSE PORTIONS OF THE PROJECT WORK THAT OCCUR OUTSIDE OR ABOVE THE ORDINARY HIGH WATER MARK (ABOVE THE USACE JURISDICTIONAL LINE) ARE NOT SUBJECT TO THE WORK PERIODS DESCRIBED ABOVE UNLESS SPECIFIED IN THE RELEVANT PERMITS.
4. ALL ACTIVITIES THAT INVOLVE WORK ADJACENT TO, OR WITHIN THE WETTED CHANNEL SHALL, AT ALL TIMES, REMAIN CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS; EFFLUENT LIMITATION; AND STANDARDS OF PERFORMANCE, PROHIBITIONS, PRETREATMENT STANDARDS, AND MANAGEMENT PRACTICES ESTABLISHED PURSUANT TO THE CLEAN WATER ACT OR PURSUANT TO APPLICABLE STATE AND LOCAL LAW.
5. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE CONTRACTING AGENCY SHALL BE NOTIFIED IMMEDIATELY.
6. IF, DURING CONSTRUCTION, ARCHAEOLOGICAL REMAINS ARE ENCOUNTERED, CONSTRUCTION IN THE VICINITY SHALL BE HALTED, AND THE STATE OFFICE OF HISTORIC PRESERVATION AND THE CONTRACTING AGENCY SHALL BE NOTIFIED IMMEDIATELY.

SURVEY NOTES

1. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION.
- 2.
3. ALL ALIGNMENTS SHOWN IN THESE DRAWINGS WILL BE MADE AVAILABLE TO THE CONTRACTOR IN ELECTRONIC FORMAT (.DWG, SHAPE FILE, LANDXML, ETC.) FOR THE CONTRACTOR TO USE IN SURVEYING AND STAKING OUT PROJECT ELEMENTS.
4. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUPPLY TO CONTRACTING AGENCY A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE CONTRACTING AGENCY, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS.
5. ELEVATIONS SHOWN ON THE PLANS FOR PIPE INVERTS, TOPS OF BANKS, THALWEG, GRADE CONTROLS, ETC., ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE CONTRACTING AGENCY OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER OPERATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION. THE CONTRACTING AGENCY SHALL BE CONTACTED IN THE EVENT ELEVATIONS ARE INCORRECT SO THAT THE PROPER ADJUSTMENTS CAN BE MADE BY ENGINEER PRIOR TO THE INSTALLATION OF THE FACILITIES, AS SET FORTH IN THE SPECIAL PROVISIONS.
6. LIDAR FOR THIS PROJECT WAS COLLECTED IN 2015 AND IS REPRESENTATIVE OF CONDITIONS AT THE TIME OF COLLECTION. LIDAR DATA HAVE BEEN SUPPLEMENTED WITH LOCAL GROUND SURVEY TO BETTER DEFINE THE CHANNEL; GROUND SURVEY OCCURRED IN 2008. THE HORIZONTAL DATUM IS NAD83 WASHINGTON STATE PLANE NORTH (FT). THE VERTICAL DATUM IS NAVD88 (FT).

EROSION, SEDIMENT CONTROL AND WATER MANAGEMENT NOTES

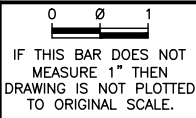
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
2. A SEDIMENT AND EROSION CONTROL PLAN WILL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY CONTRACTING AGENCY AND/OR THE ENGINEER BEFORE ANY CONSTRUCTION MAY BEGIN. THE SEDIMENT AND EROSION CONTROL PLAN WILL IDENTIFY BEST MANAGEMENT PRACTICES TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
3. ACTIVITIES SHALL BE DESIGNED AND CONSTRUCTED TO AVOID AND MINIMIZE ADVERSE IMPACTS TO WATERS OF THE UNITED STATES TO THE MAXIMUM EXTENT PRACTICAL THROUGH THE USE OF PRACTICAL ALTERNATIVES. ALTERNATIVES THAT SHALL BE CONSIDERED INCLUDE THOSE THAT MINIMIZE THE NUMBER AND EXTENT OF IN-WATER WORK AND EQUIPMENT CROSSINGS OF WETTED CHANNELS.
4. AT NO TIME SHALL SEDIMENT-LADEN WATER BE DISCHARGED OR PUMPED DIRECTLY INTO THE SUBJECT RIVER, STREAM, OR WETLAND. WATER SHALL BE DISCHARGED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE PROJECT PERMITS AND / OR SPECIFICATIONS.
5. IF HIGH WATER LEVEL CONDITIONS THAT CAUSE SILTATION OR EROSION ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP UNTIL THE WATER LEVEL SUBSIDES.
6. PERMIT CONDITIONS CONTAIN SPECIFIC REQUIREMENTS FOR THE CONTROL OF EROSION AND TURBIDITY FROM PROJECT OPERATIONS. TURBIDITY WILL BE MONITORED ON A FREQUENT BASIS BY THE PROJECT MANAGEMENT AND INSPECTION STAFF ON-SITE. TURBIDITY AMOUNTS IN EXCESS OF THE PERMITTED CONCENTRATIONS AND/OR DURATIONS WILL CAUSE WORK TO BE STOPPED UNTIL IMPROVED PRACTICES ARE IN EFFECT AND THE PROBLEMS CONTROLLED. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR ANY PROJECT DELAYS THAT OCCUR BY NATURE OF THIS FAILURE TO ADEQUATELY CONTAIN SEDIMENT ON-SITE.
7. CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO CONSTRUCTION AREAS DEFINED ON SITE PLAN OR IDENTIFIED AS ACCEPTABLE BY THE ENGINEER OR CONTRACTING AGENCY.
8. ALL EXTERNAL GREASE AND OIL SHALL BE PRESSURE-WASHED OFF THE EQUIPMENT PRIOR TO TRANSPORT TO THE SITE.
9. ALL EQUIPMENT OPERATING BELOW OHWM SHALL UTILIZE READILY BIODEGRADABLE VEGETABLE-BASED HYDRAULIC FLUIDS.
10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE SUBJECT RIVER, STREAM, OR WETLAND.
11. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL KIT ONSITE AT ALL TIMES.
12. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE SHOWN AND NOTED TO BE REMOVED ON THE PLANS OR AS DIRECTLY SPECIFIED ON-SITE BY THE PROJECT MANAGEMENT STAFF. ALL TREES CONFLICTING WITH GRADING SHALL BE REMOVED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.

13. FOLLOWING CONSTRUCTION, SITE RESTORATION WILL INCLUDE ESTABLISHING LONG-TERM EROSION PROTECTION MEASURES. THESE MEASURES WILL INCLUDE PLANTINGS, EROSION CONTROL FABRIC, SEED, AND MULCH. EQUIPMENT AND EXCESS SUPPLIES WILL BE REMOVED AND THE WORK AREA WILL BE CLEANED. MAINTENANCE ACTIVITIES FOR THE NEWLY CONSTRUCTED RESTORATION PROJECTS ARE ANTICIPATED TO OCCUR PERIODICALLY.

CONSTRUCTION NOTES

1. CONTRACT DOCUMENTS REFER TO THESE PLANS.
2. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL WORK AS INDICATED IN THE CONTRACT DOCUMENTS.
3. CONSTRUCTION HOURS SHALL BE WEEKDAYS BETWEEN 7:00 A.M. AND 6:30 P.M. UNLESS PRIOR APPROVAL IS RECEIVED FROM THE CONTRACTING AGENCY.
4. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE CONTRACTING AGENCY OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
7. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAY, DRAINAGE WAYS, PRIVATE BRIDGE, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED ON THE CONTRACT DOCUMENTS.
8. THE CONTRACTOR SHALL KEEP THE JOB SITE CLEAN AND HAZARD FREE. CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR THE DURATION OF THE WORK. UPON COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.
9. NOTES AND DETAILS ON THE PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES HEREIN.
10. DIMENSIONS CALLOUTS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE PLANS.
11. THE PLANS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF ALL CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURES, WORKS, AND THE PUBLIC DURING CONSTRUCTION.
12. MATERIAL SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STAGING AREAS. THE CONTRACTOR SHALL USE ONLY DESIGNATED SPECIFIC SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.

ITEM NO.	QUANTITY	UNITS	DESCRIPTION
1	LUMP SUM	L.S.	MOBILIZATION
2	0.22	ACRE	CLEARING
3	925	L.F.	HIGH VISIBILITY FENCE
4	LUMP SUM	L.S.	TEMPORARY STREAM DIVERSION
5	LUMP SUM	L.S.	TEMPORARY DETOUR
6	LUMP SUM	L.S.	TEMPORARY BRIDGE
7	1065	C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL
8	LUMP SUM	L.S.	SHORING OR EXTRA EXCAVATION CL. A
9	45	C.Y.	CULVERT BEDDING MATERIAL
10	LUMP SUM	L.S.	HIGH RADIUS ARCH STRUCTURAL PLATE CULVERT
11	560	C.Y.	GRAVEL BACKFILL FOR PIPE ZONE BEDDING
12	LUMP SUM	L.S.	CHANNEL GRADING
13	260	C.Y.	STREAMBED SEDIMENT
14	100	EACH	STREAMBED BOULDER TWO MAN
15	95	C.Y.	CRUSHED SURFACING BASE COURSE
16	80	TON	HMA CL. 1/2 IN. PG 64-22
17	76	L.F.	BEAM GUARDRAIL TYPE 31
18	4	EACH	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
19	2	EACH	BEAM GUARDRAIL PLACEMENT - 25' SPAN
20	685	L.F.	PAINT LINE
21	LUMP SUM	L.S.	SURVEYING
22	LUMP SUM	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL
23	LUMP SUM	L.S.	SITE RESTORATION
24	LUMP SUM	L.S.	UTILITY RECONNECTION
25	5,000	CALC	MINOR CHANGE

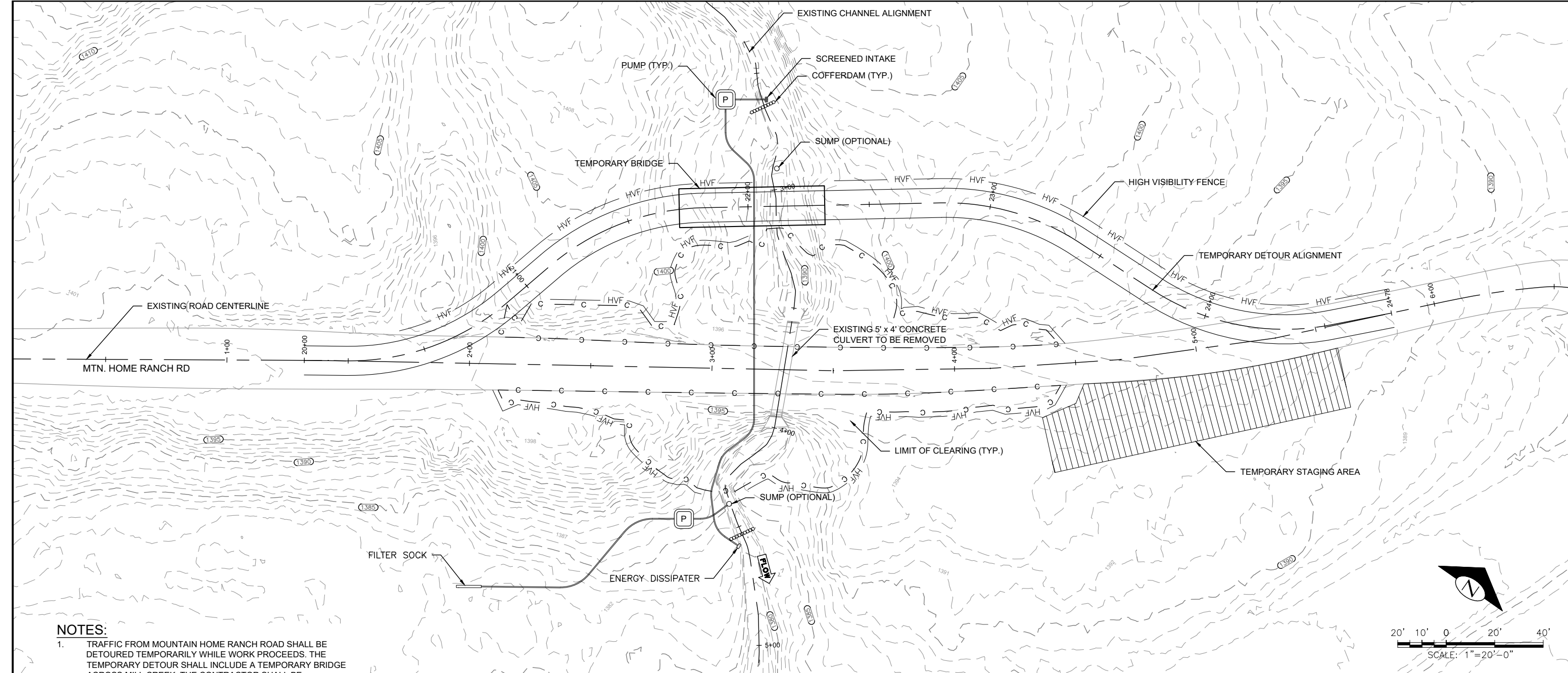


NAME OR INITIALS AND DATE		GEOGRAPHIC INFORMATION	
DESIGNED	NT	LATITUDE	47°30'49"N
CHECKED	RH	LONGITUDE	120°37'55"W
DRAWN	NT	TN/SC/RG	T23N/S6/R18E
CHECKED	JS	DATE	MARCH 27, 2018

MILL CREEK FISH  
PASSAGE PROJECT

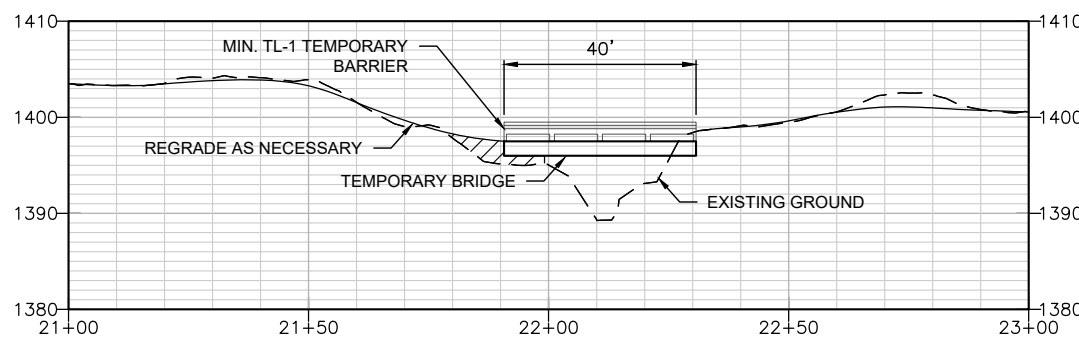
NOTES & SUMMARY  
OF QUANTITIES



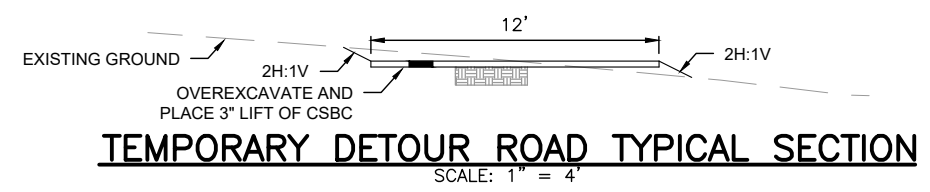


- NOTES:**
1. TRAFFIC FROM MOUNTAIN HOME RANCH ROAD SHALL BE DETOURED TEMPORARILY WHILE WORK PROCEEDS. THE TEMPORARY DETOUR SHALL INCLUDE A TEMPORARY BRIDGE ACROSS MILL CREEK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING A TEMPORARY BRIDGE IN ACCORDANCE WITH THESE DRAWINGS AND THE SPECIAL PROVISIONS.
  2. CONTRACTOR SHALL DEVELOP AND SUBMIT A TEMPORARY TRAFFIC CONTROL PLAN AS REQUIRED IN THE STANDARD SPECIFICATIONS. CONTRACTOR SHALL IMPLEMENT ALL TRAFFIC CONTROL ELEMENTS REQUIRED TO SAFELY CONTROL TRAFFIC FOR THE FULL DURATION OF THE PROJECT.
  3. TEMPORARY BRIDGE DECK SHALL INCLUDE TEMPORARY LONGITUDINAL TRAFFIC BARRIER WHICH SATISFIES THE REQUIREMENTS FOR NCHRP TL-1.
  4. TEMPORARY BRIDGE DECK WIDTH SHALL BE NO LESS THAN 16 FEET TO ACCOMMODATE A 12 FT TRAVEL LANE WITH 2 FEET OF SHY DISTANCE ON EACH SIDE.
  5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUPPORTING CALCULATIONS DOCUMENTING LOAD RATING CALCULATIONS IN CONFORMANCE WITH THE REQUIREMENTS STATED ON THIS SHEET. TEMPORARY BRIDGE SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

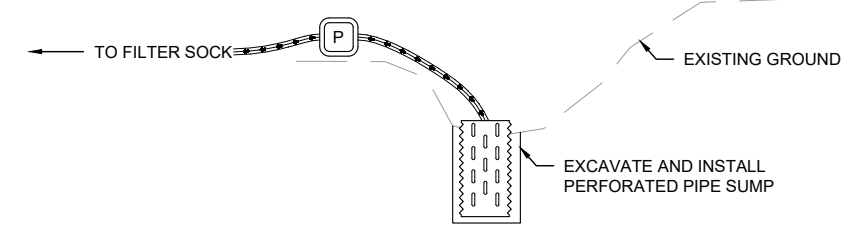
**SITE PREPARATION PLAN**



**TEMPORARY BRIDGE PROFILE**



**TEMPORARY DETOUR ROAD TYPICAL SECTION**



**SUMP DETAIL**



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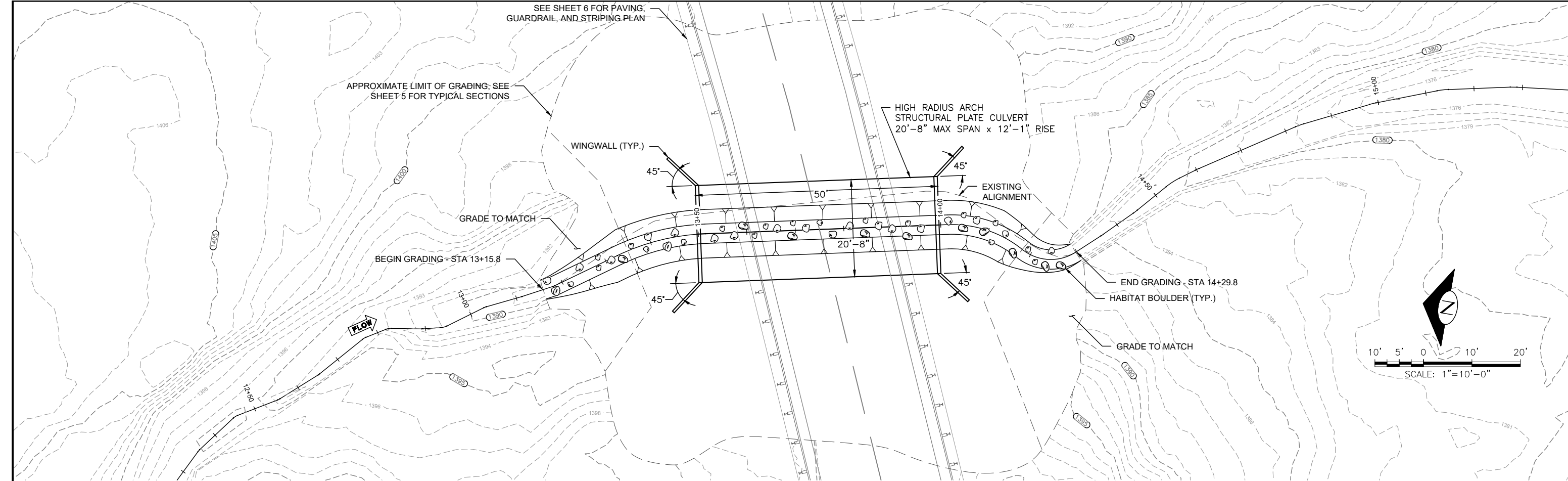
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**MILL CREEK FISH PASSAGE PROJECT**

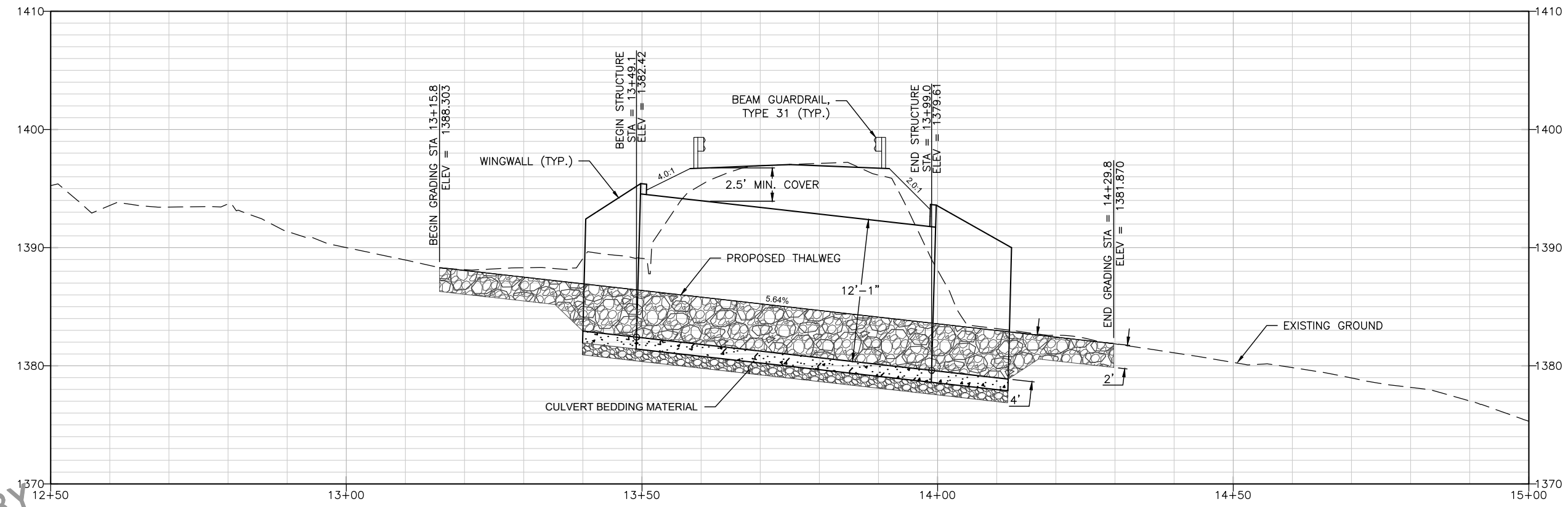
**SITE PREPARATION AND DEWATERING PLAN**

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Mar 28, 2018 PRELIMINARY DESIGN 30% NOT FOR CONSTRUCTION



GRADING PLAN



GRADING PROFILE

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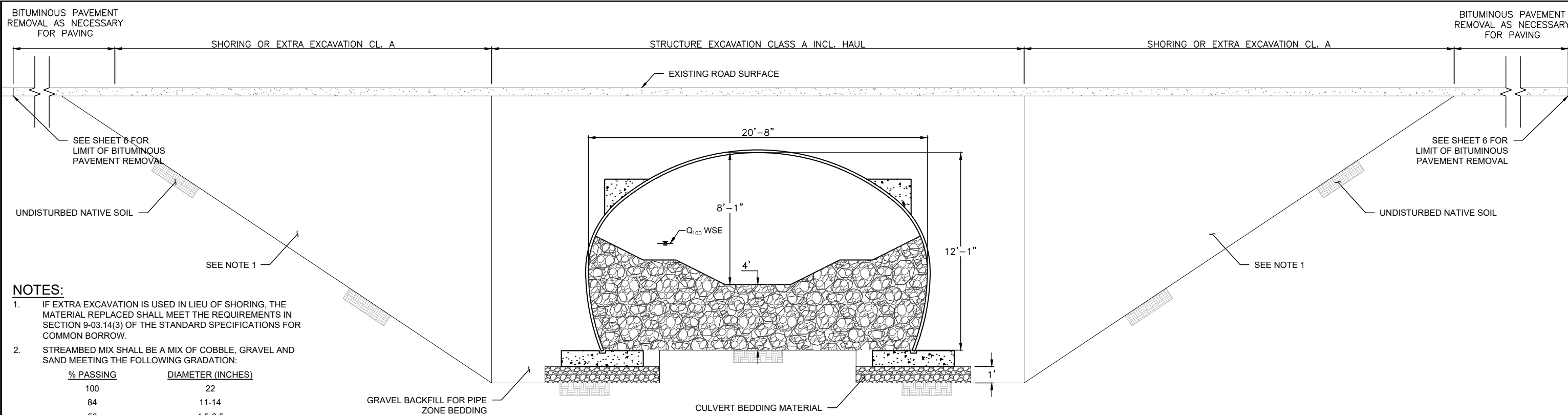
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MILL CREEK FISH  
PASSAGE PROJECT

GRADING PLAN & PROFILE

4  
SHEET 4 OF 6

Mar 28, 2018 PRELIMINARY DESIGN 30% NOT FOR CONSTRUCTION

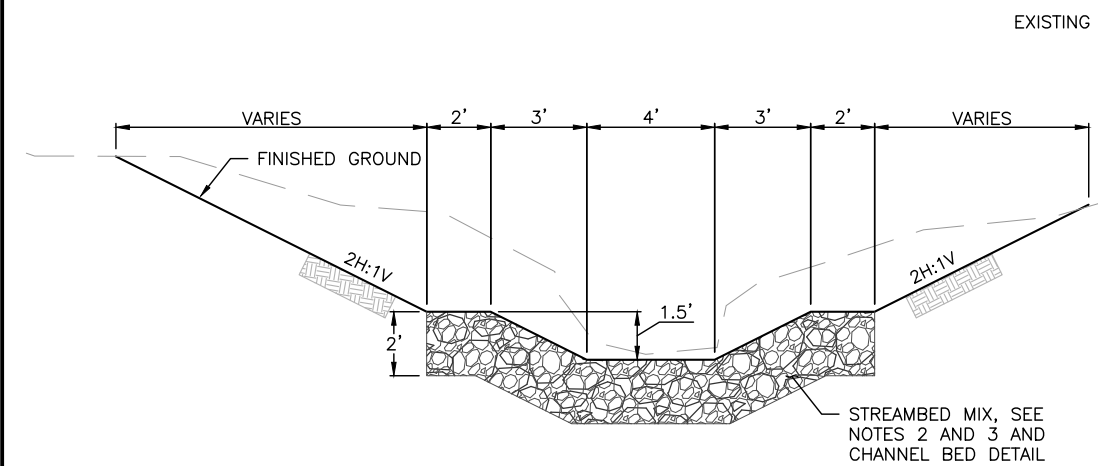


- NOTES:**
1. IF EXTRA EXCAVATION IS USED IN LIEU OF SHORING, THE MATERIAL REPLACED SHALL MEET THE REQUIREMENTS IN SECTION 9-03.14(3) OF THE STANDARD SPECIFICATIONS FOR COMMON BORROW.
  2. STREAMBED MIX SHALL BE A MIX OF COBBLE, GRAVEL AND SAND MEETING THE FOLLOWING GRADATION:
 

% PASSING	DIAMETER (INCHES)
100	22
84	11-14
50	4.5-6.5
16	0.1-0.3
5-10	#200 SIEVE
  3. TWO-MAN STREAMBED BOULDERS SHALL BE INCORPORATED INTO THE CHANNEL BED AS DIRECTED BY THE CONTRACTING OFFICER.

### EXCAVATION PAY ITEMS

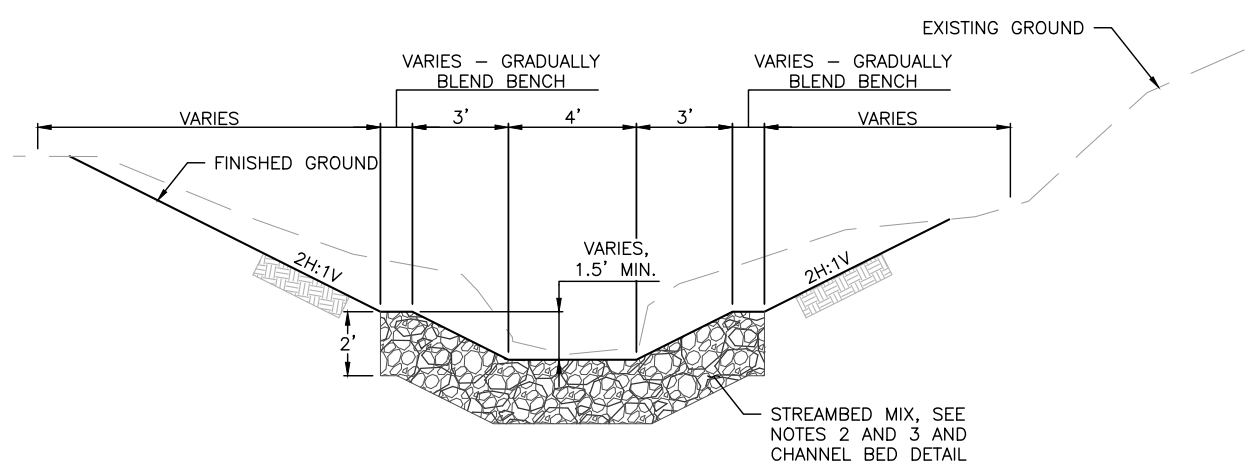
SCALE: 1" = 3'



### TYPICAL CHANNEL SECTION

SCALE: 1" = 3'

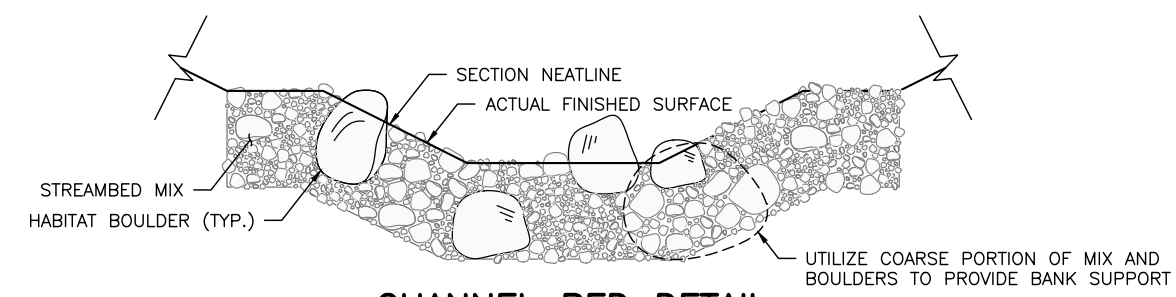
STA 13+35.0 TO 13+49.1  
STA 13+99.0 TO 14+18.0



### TYPICAL TRANSITION SECTION

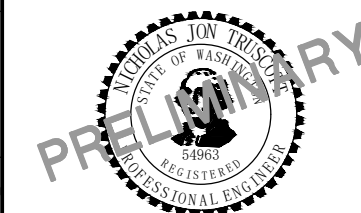
SCALE: 1" = 3'

STA 13+15.8 TO 13+35.0  
STA 14+18.0 TO 14+29.8



### CHANNEL BED DETAIL

SCALE: 1" = 2'



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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.



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MILL CREEK FISH  
PASSAGE PROJECT

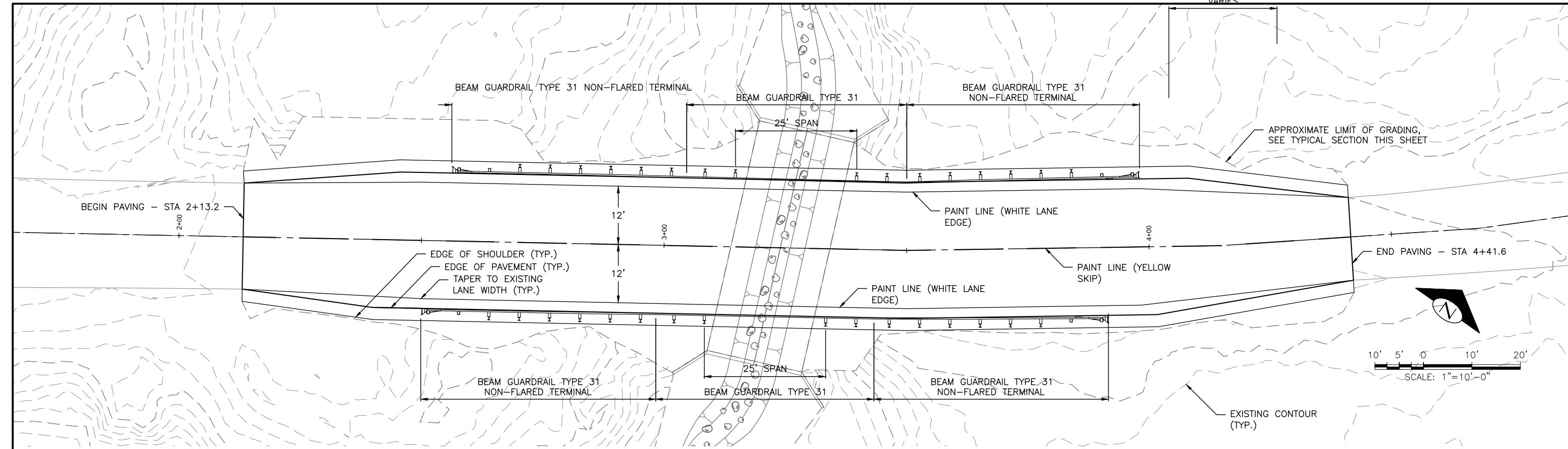
TYPICAL GRADING SECTIONS

5  
SHEET 5 OF 6

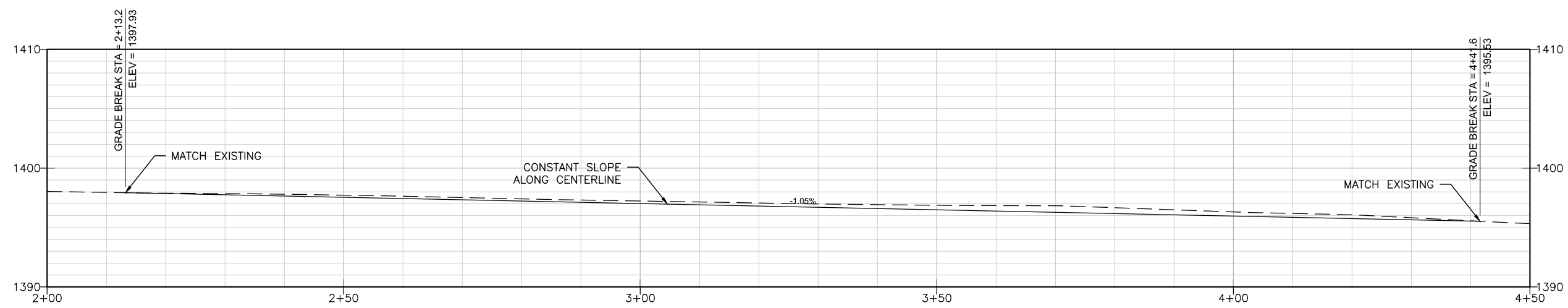
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Mar 28, 2018 PRELIMINARY DESIGN 30% NOT FOR CONSTRUCTION

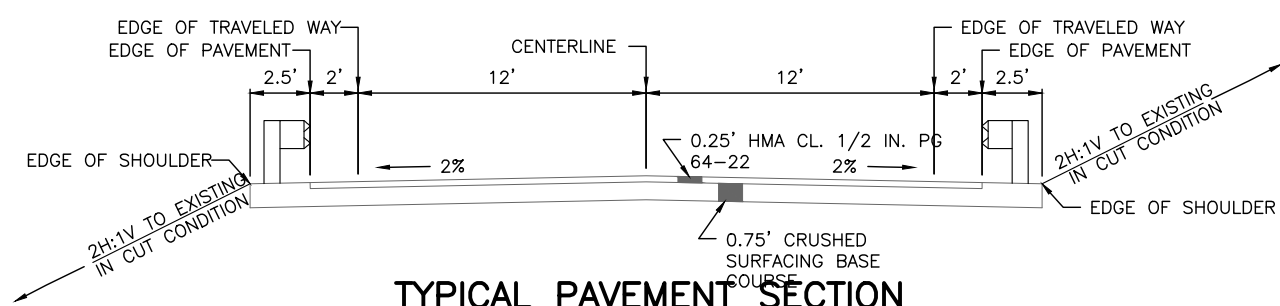




PAVING, STRIPING, AND GUARDRAIL PLAN

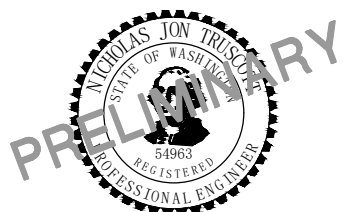


ROAD CENTERLINE PROFILE



TYPICAL PAVEMENT SECTION

PA\MILL CREEK\CAD DWGS - CURRENT\ROAD PAVE\GORDING NC\_3/28/2018 2:40:20 PM



IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.



NAME OR INITIALS AND DATE		GEOGRAPHIC INFORMATION	
DESIGNED	NT	LATITUDE	47°30'40"N
CHECKED	RH	LONGITUDE	120°37'55"W
DRAWN	NT	TN/SC/RG	T23N/S6/R18E
CHECKED	JS	DATE	MARCH 27, 2018

MILL CREEK FISH PASSAGE PROJECT

ROADWAY PAVING, STRIPING, AND GUARDRAIL PLAN

Mar 28, 2018 PRELIMINARY DESIGN 30% NOT FOR CONSTRUCTION