SECTION 14. BASIC STANDARDS SUBMISSIONS:

14.A Narrative

The proposed Project is located on a mountainside with varied slopes and terrain that consists primarily of forested areas ranging in slope from 10-45%. Aside from typical surface runoff, there are no known existing erosion problems at the proposed Project location. Protected natural resources and other environmentally sensitive areas have been identified and are discussed in detail in other sections of this application.

An Erosion and Sedimentation Control Plan (E&SC Plan), based on the Department's Maine Erosion and Sedimentation Control BMPs, will be provided to the Contractor and will include the location and design of temporary erosion control measures, such as perimeter controls and stabilization standards. For the Project, the E&SC Plan measures have been incorporated directly into the trail grading plans and civil sheets (see Appendix 14-1). Design and implementation of stormwater control features such as basins, soil filters and vegetated buffers will be shown on the plans as needed.

Ski trail construction represents a specialized type of earthwork that will be undertaken with significant oversight and participation by Sugarloaf staff. A typical method of earthwork on steep ski trail grades is via an excavator secured to a bulldozer winch cable. This method results in an maximized work area established by the length of the winch cable, which is generally no longer than 200 ft. This serves to limit extensive exposed soils on the trail and provides an opportunity to install permanent temporary stabilization and water bar diversion prior to the excavation team advancing down the mountain. Sheet CA-1.01 found appendix 14.1 was developed to support this approach.

14.B Implementation Schedule

The best method to limit erosion and sedimentation is to prevent it from occurring by protecting exposed soils or sensitive areas. The location of the limits of work and sensitive resource areas will be provided to the Contractor. Limits of work and resource areas will be clearly demarcated in the field and maintained and updated as necessary by the Project's Environmental Monitor.

The Project has been broken down into essentially three Phases for construction, though these phases may be multi-year construction efforts. Please see the Phasing Plan for visual representation of the Project phasing.

Following presumed Project approval in spring of 2022, the design team will prepare construction plans and bidding documents for the first phase of construction work. It is anticipated that bidding and contractor selection will occur summer into fall of 2022 in preparation of a late fall or winter construction start.

Fall/winter of 2022 is anticipated to consist of timber harvesting and clearing efforts for the phase one construction limits of disturbance, including select Phase 1 ski trails.

The 2023 construction season will kick-off the Phase 1 infrastructure including new lift, roads, stormwater BMPs, utilities, and condominium site work. It is anticipated that Phase 1 improvements will extend into and include the 2024 construction season.

Phase II and subsequent phases will be considered based on the timing of Phase 1 build out and pace of real estate sales, but is likely to start in 2025.

Within Phase 1 construction, clearing and soils disturbance will be limited to an area manageable by, and scaled to, the number of crews or amount of construction effort. Perimeter sediment controls will be installed prior to earthwork in a given area. Gravel, riprap, permanent erosion control blanket, and erosion control mix covered surfaces will be deemed stable, signaling the ability for initial clearing of additional areas. Binder pavement, where paving is specified, will generally lag behind completion of gravel surfaces for one year, allowing time for settlement and construction maturation. Surface paving will be further delayed until risk of damage from construction activity is reduced.

14.C Erosion and Sedimentation Control Plan

The goal of the E&SC Plan is to provide contractors, environmental monitors, and agency personnel with a single, cohesive set of erosion control specifications for the Project. The Plan is designed to provide specifications for the installation and implementation of soil erosion and

sedimentation control measures while allowing adequate flexibility of the application of the most appropriate measures based on site-specific conditions. During construction and continuing until all disturbed areas are properly restored and stabilized after construction, the contractor(s) will adhere to the details and specifications contained in the E&SC Plan. Drainage devices, site access and erosion control features are anticipated to be inspected weekly during construction, as well as promptly after each period of significant rain or snow runoff, and any damage to erosion controls will be repaired. Accumulated silt, broken branches and other debris which interferes with drainage or sediment collection will be removed. Sugarloaf personnel or their designated representatives will ensure that the procedures are followed by regularly inspecting all work and prescribing corrective steps to be taken where necessary.

Typical erosion control measures established by the E&SC Plan consists of a variety of non-structural measures including temporary mulching and seeding; permanent mulching and seeding; dormant seeding and winter mulching; temporary check dams (haybale and stone); silt fence, and hay bale or erosion control mix erosion control barriers to be utilized as appropriate.

14.D Details and Specifications

Detailed drawings showing the plan view of the facility with proposed component locations, including location, function, and ground area of the Project, as well as landowner and political boundaries will be provided to the Contractor.

Construction of the proposed Project will require site grading and excavating. A comprehensive set of erosion and sediment control measure specifications will be included in the E&SC Plan, though it is unlikely that every measure will be implemented for the Project. Having specifications for multiple erosion control measures will allow the contractors and environmental monitor to select the most effective approaches for the site and conditions at the time of construction. No more than 10 acres will be disturbed at any one time without temporary stabilization measures in place.

14.E Design Calculations

The design of the erosion and sedimentation control measures will be based on the MDEP's Maine Erosion and Sedimentation Control BMPs. Sediment trap sizing requirements for ski trail work are included on sheet CA-1.01.

14.F Stabilization Plan

Requirements for soil stabilization are included with the E&SC Plans. Typically, loaming, seeding, and mulching is performed after the completion of construction activities to promote ground cover and erosion control. Loaming, seeding, and mulching shall be done in accordance with the Project E&SC Plan.

14.G Winter Construction Plan

Construction activities conducted between October 15 and April 15 will follow the procedures included in the Project E&SC Plan and BMPs. Construction activities were designed to follow the erosion and sedimentation control BMPs that were developed by the MDEP for winter construction, as applicable (Maine Erosion and Sediment Control Best Management Practices, Manual for Designers and Engineers, October 2016). More frequent, heavier application of temporary mulch, increased dormant seeding rates, the substitution or additional use of erosion control mix berms as erosion control barriers, and other supplemental erosion controls will be used as required. Prior to winter shut down, Sugarloaf will ensure that all soils are properly stabilized and that slopes are adequately protected to prevent erosion during winter storms and spring thaw. This may include the application of erosion control mix on exposed soils located within a slope in place of straw or hay mulch.

APPENDIX 14-1
EROSION & SEDIMENTATION CONTROL PLAN

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF	BLSF	BORDERING LAND SUBJECT TO FLOODING
BZ	BZ	WETLAND BUFFER ZONE
NDZ	NDZ	NO DISTURB ZONE
200'RA	200'RA	200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB AND GUTTER
ECC	ECC	EXTRUDED CONCRETE CURB
MCC	MCC	MONOLITHIC CONCRETE CURB
PCC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
EN	EN	BUILDING ENTRANCE
LD	LD	LOADING DOCK
		BOLLARD
DP	DP	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
(10)	(10)	PARKING COUNT
	(510)	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75×	132.75×	SPOT ELEVATION
45.0 TW× 38.5 BW	45.0 TW× 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
D		DRAIN MANHOLE CONCENTRIC
D		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
P	P	PLUG OR CAP
CO		CLEANOUT
		FLARED END SECTION
		HEADWALL
S		SEWER MANHOLE CONCENTRIC
S		SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GG	GG	GAS GATE
GM	GM	GAS METER
EMH	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
TMH	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE [##] INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
14. THIS PROJECTY IS SUBJECT TO A PERMIT FROM MAINE DEP. THE CONTRACTOR SHALL READ, BE FAMILIAR WITH, AND SHALL FOLLOW THE MAINE EROSION AND SEDIMENT CONTROL BMPs MANUAL (LATEST EDITION); AND SHALL BE ACCOUNTABLE TO THE THIRD PARTY INSPECTOR FOR THE PROJECT AND THE MAINE DEP IN ACCORDANCE WITH MAINE DEP REGULATIONS.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   A. WATER PIPES SHALL BE [TYPE(S)]
   B. SANITARY SEWER PIPES SHALL BE SDR35 POLYVINYL CHLORIDE (PVC) SEWER PIPE
   C. STORM DRAINAGE PIPES SHALL BE DUAL WALL CORRUGATED HDPE UNLESS OTHERWISE NOTED ON PLANS
   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE [##] FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE [TYPE] WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY [WHOM], [AND FROM PLANS OF RECORD]. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY [WHOM], DURING [DATE(S)]. [OTHER SERVICES].
   A. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY: VHB
   B. FLAGS MARKING THE WETLANDS WERE LOCATED BY: [WHOM] , [HOW]
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON [NGVD DATUM].
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM [NAME].

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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Sugarloaf Mtn Corp West Mountain Expansion

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Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN | Checked by PS

Issued for: Review | Date: September 23, 2021

Not For Construction

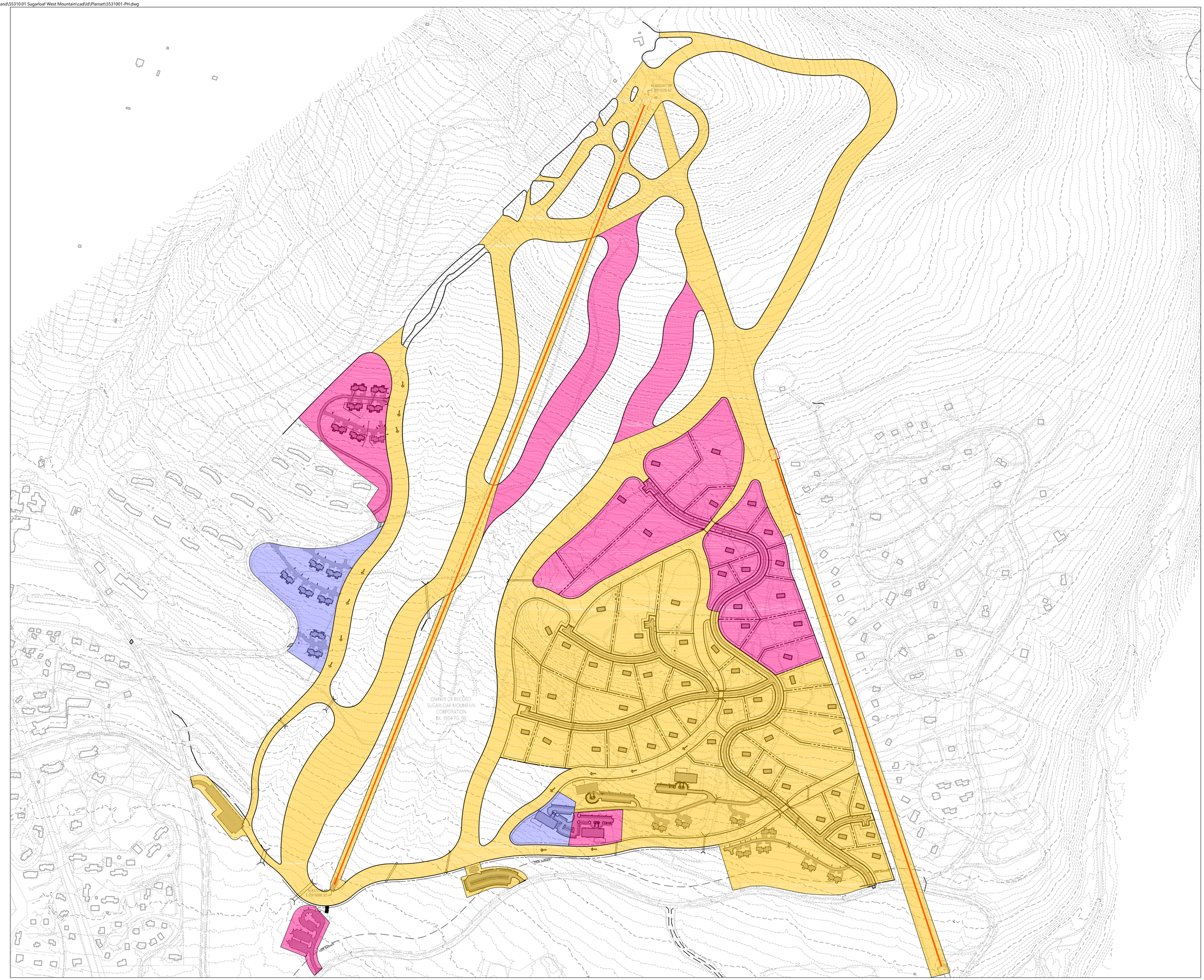
Drawing Title: General Civil Legend and Notes

Drawing Number: G-0.01

Sheet 2 of 58

Project Number: 55310.01

STATE OF MAINE
PETER B. SMIAR
No. 16934
LICENSED PROFESSIONAL ENGINEER



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SUGARLOAF

LEGEND

- Phase One
- Phase Two
- Phase Three

0 125 250 500 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Apprvd.

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Drawing Title: Phasing Plan

Drawing Number: LA-2.00

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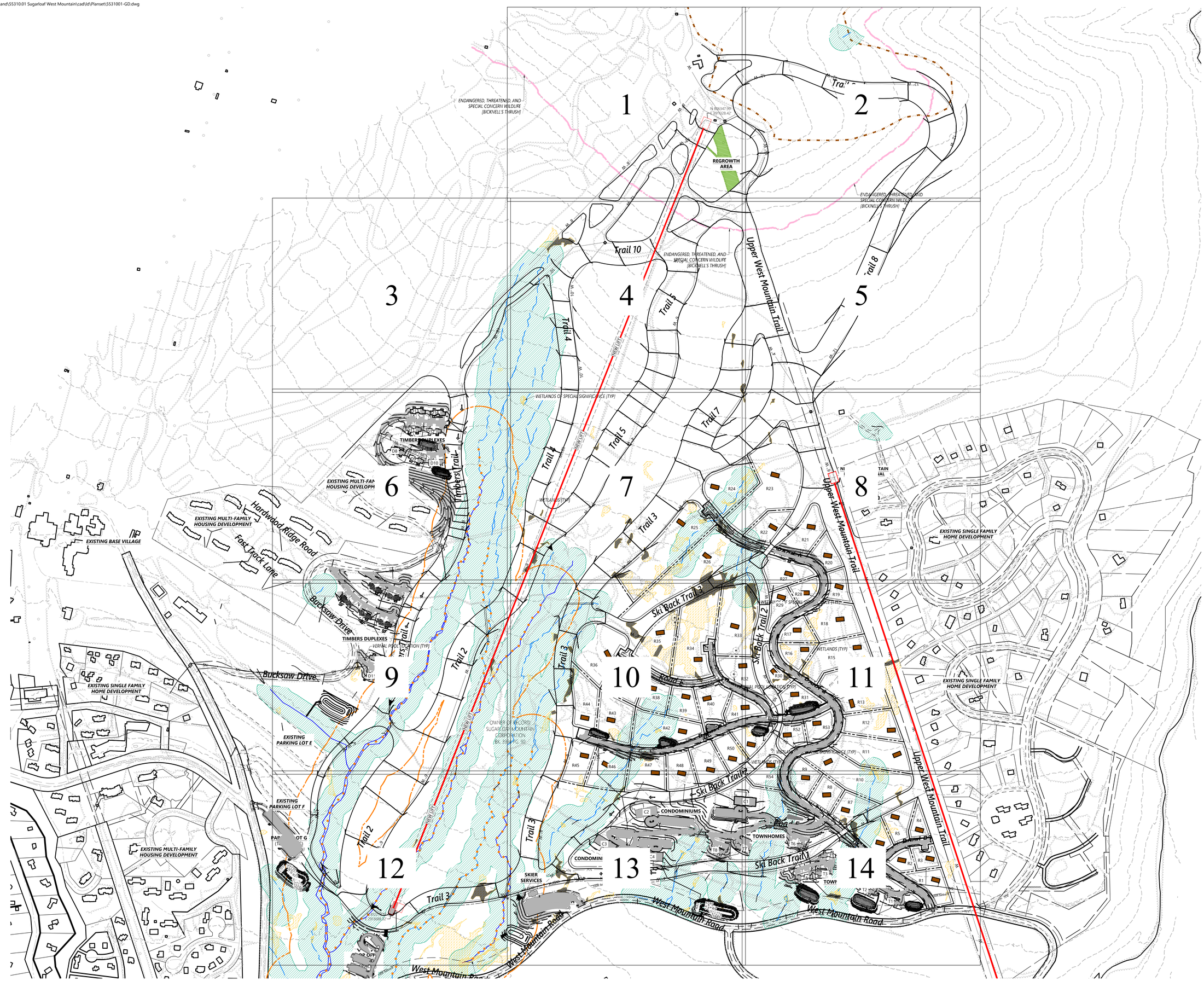

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Drawing Title: Overall Ski Trails Grading

Drawing Number: CG-1.00

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Project Number: 55310.01

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2,700' CONTOUR, SEASONAL RESTRICTIONS APPLY FOR WORK ABOVE THIS ELEVATION. CONFIRM REQUIREMENTS WITH OWNER PRIOR TO WORK.

ATENED, AND SPECIAL CONCERN WILDLIFE (BICKNELL'S THRUSH)

EXISTING SKI TRAIL (TYP.)

PROPOSED SNOWMAKING VALVE HOUSE. FINAL LOCATION TBD.

PREVIOUSLY PERMITTED SNOWMAKING WATERLINE

EXISTING BULLWINKLES BISTRO

N 806347.99'
E 2911328.42'

PROPOSED 14' x 16' SNOWMAKING VALVE HOUSE. FINAL LOCATION TBD.

PROPOSED TOP TERMINAL

EXISTING LIFT TOP STATION TO BE REMOVED

REGROWTH AREA

EXISTING LIFT AND TOWERS TO BE REMOVED. THIS PORTION OF EXISTING LIFTLINE TO BE ALLOWED TO VEGETATE NATURALLY.

0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.01

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Trail 8

ENDANGERED, THREATENED, AND SPECIAL CONCERN WILDLIFE
(BICKNELL'S THRUSH)

0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.02

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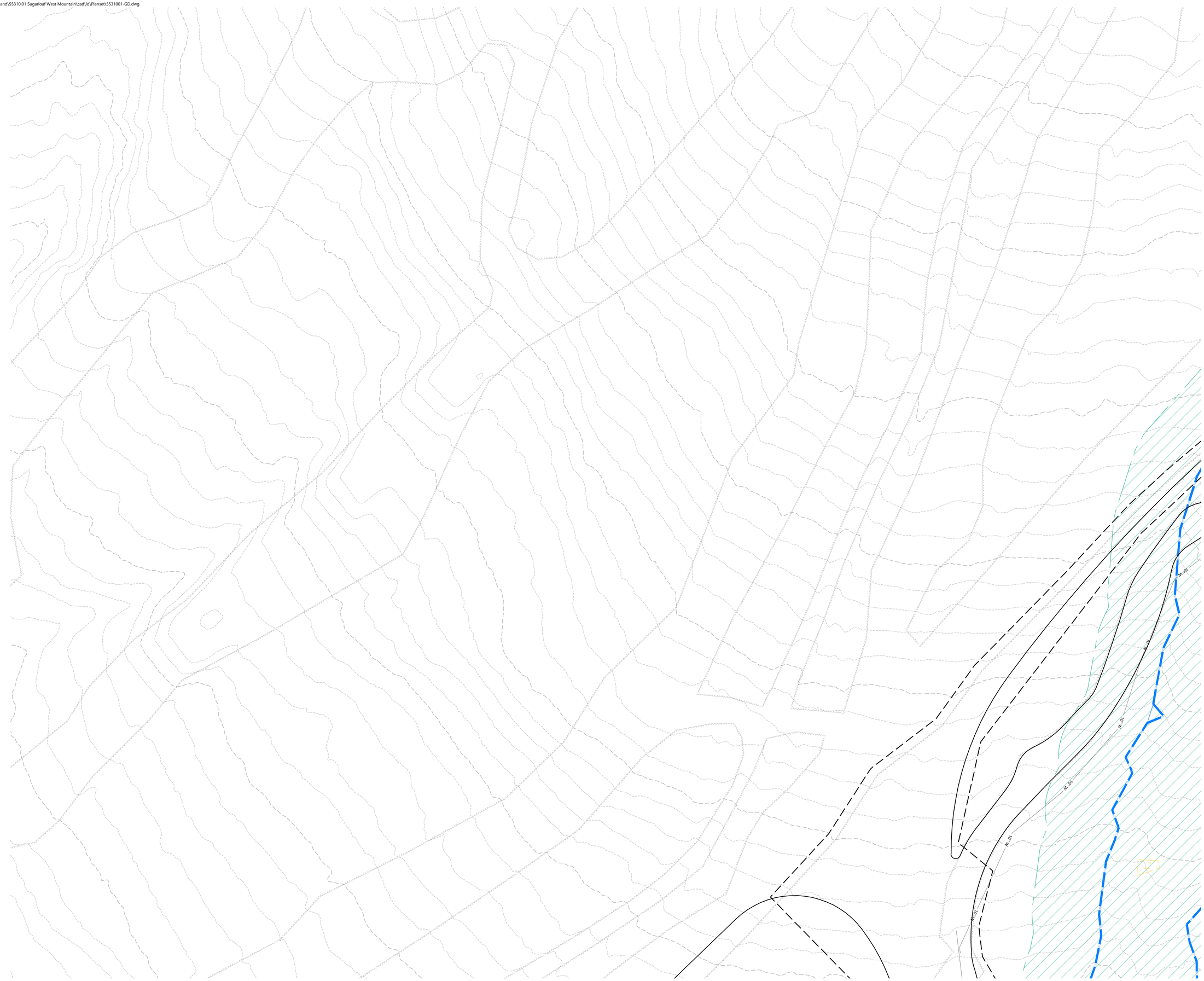

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.03

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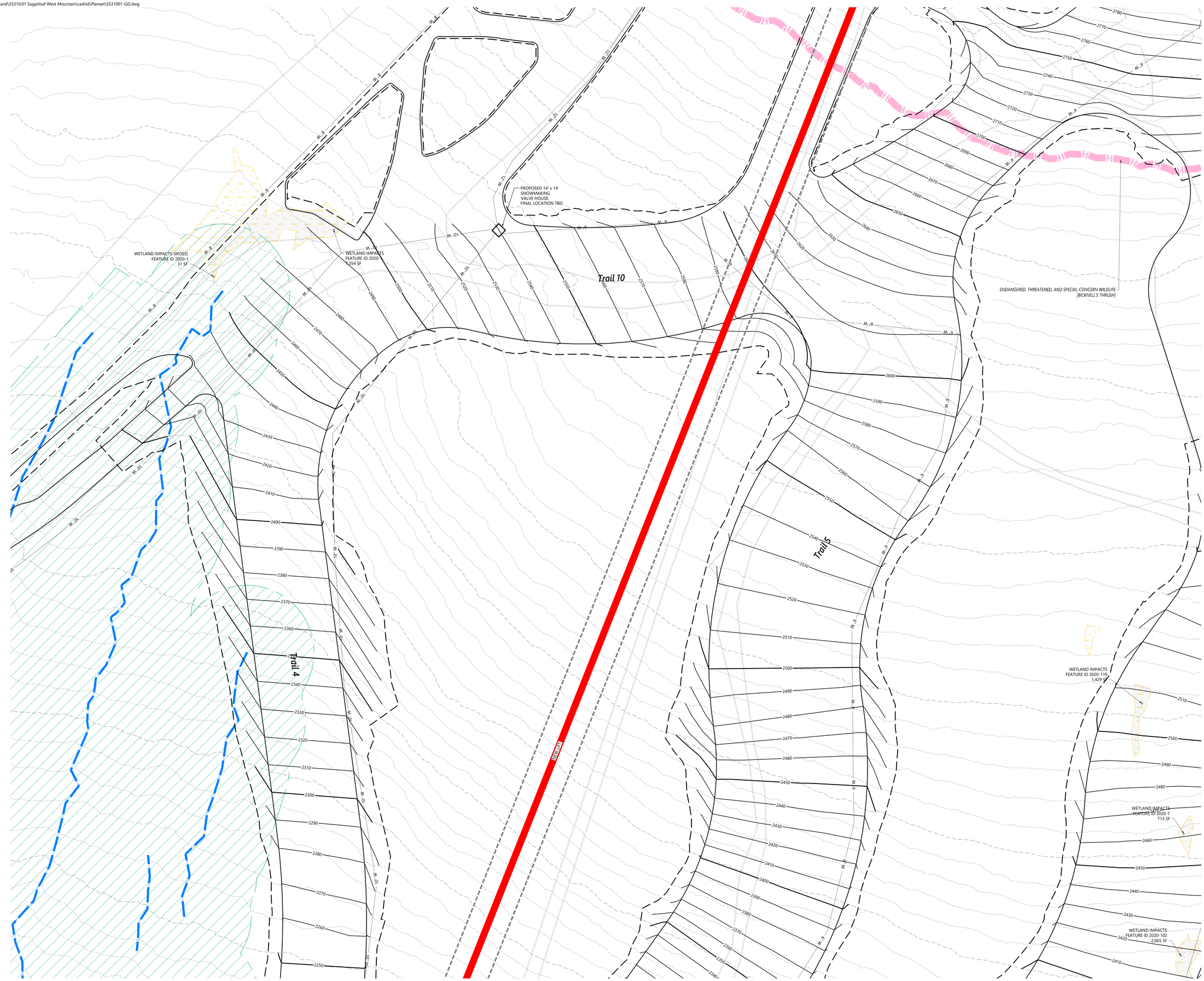

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.04

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.05

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0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.06

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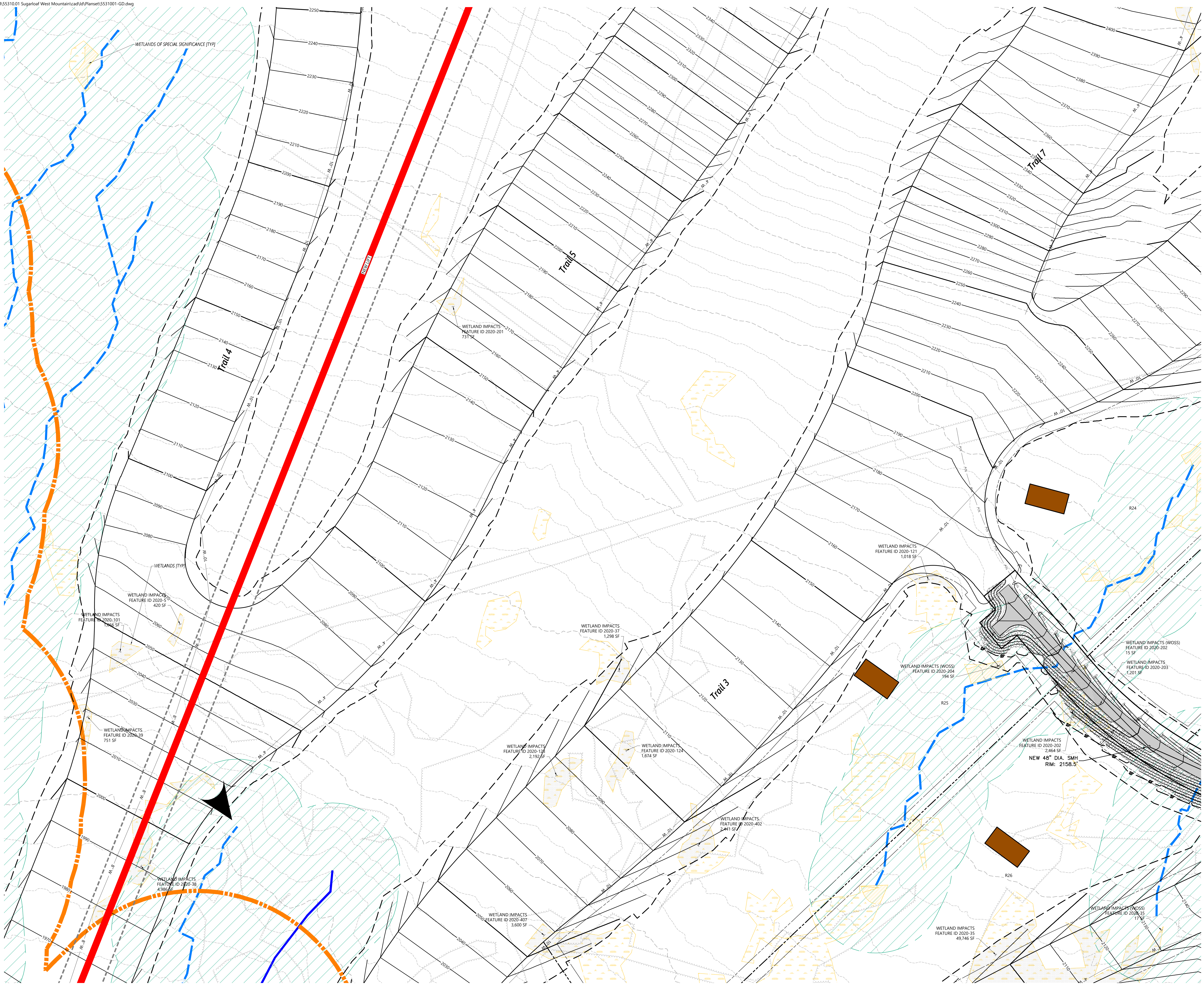

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Drawing Title: **Ski Trails Grading**

Drawing Number: **CG-1.07**

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WETLAND IMPACTS
FEATURE ID 2020-401
532 SF

PROPOSED
SNOWMAKING
VALVE HOUSE.
FINAL LOCATION TBD.

WETLAND IMPACTS
FEATURE ID 2020-200
812 SF

NEW WEST MOUNTAIN
LIFT TOP TERMINAL

Upper West Mountain Trail

NEW 48" DIA. SMH
RIM: 2147.6'

NEW 48" DIA. SMH
RIM: 2136.1'

NEW 48" DIA. SMH
RIM: 2127.0'

Bridge 3
(Ski Crew)

*EXISTING SINGLE FAMILY
HOME DEVELOPMENT*

R20 R21 R22 R23 R27

0 25 50 100 Feet

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Drawing Title
Ski Trails Grading

Drawing Number
CG-1.08

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10%

CULVERT #1910 (CPP)
00 FT. LENGTH, 10%

CULVERT #1913 (CPP)
24 IN. DIA., 200 FT. LENGTH, 5%

NEW 48" DIA. SMH
RIM: 1918.0'

NEW 48" DIA. SMH
RIM: 1897.6'

NEW 48" DIA. SMH
RIM: 1882.7'

NEW 48" DIA. SMH
RIM: 1854.2'

NEW 48" DIA. SMH
RIM: 1871.2'

NEW 48" DIA. SMH
RIM: 1856.0'

TIMBERS DUPLEXES

NEW 48" DIA. SMH
RIM: 1838.4'

NEW 48" DIA. SMH
RIM: 1816.9'

NEW 48" DIA. SMH
RIM: 1802.9'

NEW 48" DIA. SMH
RIM: 1781.5'

NEW 48" DIA. SMH
RIM: 1753.9'

NEW 48" DIA. SMH
RIM: 1736.0'

NEW 48" DIA. SMH
RIM: 1802.3'

Timbers Trail

Trail 2

Bucksaw Drive

WETLAND IMPACTS
FEATURE ID 2020-402
1,042 SF

WETLAND IMPACTS
FEATURE ID 2020-48
2,066 SF

WETLAND IMPACTS
FEATURE ID 2020-116
400 SF

CULVERT #1911 (CPP)
24 IN. DIA., 60 FT. LENGTH, 5%

UNKNOWN CULVERT

UNKNOWN CULVERT

UNKNOWN CULVERT

EXISTING
PARKING LOT E

OWNER OI
SUGARLOAF
CORPOI
BK. 3994

0 25 50 100 Feet

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West Mountain Expansion
5092 Access Road
Carrabassett Valley, ME 04947

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Drawing Title
Ski Trails Grading

Drawing Number
CG-1.09

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Ski Back Trail 3

Trail 3

Road E

WETLAND IMPACTS
FEATURE ID 2020-35
49,746 SF

WETLAND IMPACTS
FEATURE ID 2020-42
1,174 SF

WETLAND IMPACTS (WOSS)
FEATURE ID 2020-43
638 SF

WETLAND IMPACTS
FEATURE ID 2020-43
450 SF

WETLAND IMPACTS
FEATURE ID 2020-44
6,270 SF

WETLAND IMPACTS
FEATURE ID 2020-417
815 SF

WETLAND IMPACTS
FEATURE ID 2020-45
688 SF

WETLAND IMPACTS
FEATURE ID 2020-53
4,881 SF

NEW 48" DIA. SMH
RIM: 2032.2'

NEW 48" DIA. SMH
RIM: 2019.4'

NEW 48" DIA. SMH
RIM: 2026.1'

NEW 48" DIA. SMH
RIM: 2026.0'

NEW 48" DIA. SMH
RIM: 2027.7'

NEW 48" DIA. SMH
RIM: 1952.0'

NEW 48" DIA. SMH
RIM: 1921.0'

NEW 48" DIA. SMH
RIM: 1829.2'

NEW 48" DIA. SMH
RIM: 1861.0'

NEW 48" DIA. SMH
RIM: 1884.9'

NEW 48" DIA. SMH
RIM: 1785.1'

NEW 48" DIA. SMH
RIM: 1870.1'

6" NS

OF RECORD:
AF MOUNTAIN
ORATION
94 PG. 90

0 25 50 100 Feet

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West Mountain Expansion

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Drawing Number: CG-1.10

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WETLAND IMPACTS (W/OSS)
FEATURE ID 2020-12
2,516 SF

WETLAND IMPACTS
FEATURE ID 2020-12
8,851 SF

WETLANDS OF SPECIAL SIGNIFICANCE (TYP)

WETLAND IMPACTS
FEATURE ID 2020-13
25 SF

NEW 48" DIA. SMH
RIM: 2096.4'

NEW 48" DIA. SMH
RIM: 2115.

WETLAND IMPACTS
FEATURE ID 2020-302
112 SF

NEW 48" DIA. SMH
RIM: 2064.6'

WETLAND IMPACTS
FEATURE ID 2020-12
8,851 SF

Ski Back Trail 2

NEW 48" DIA. SMH
RIM: 2054.9'

WETLAND IMPACTS
FEATURE ID 2020-208
6,312 SF

WETLAND IMPACTS
FEATURE ID 2020-127
3,063 SF

NEW 48" DIA. SMH
RIM: 2044.6'

WETLANDS (TYP)

WETLAND IMPACTS
FEATURE ID 2020-209
1,901 SF

WETLAND IMPACTS
FEATURE ID 2020-404
7,030 SF

WETLAND IMPACTS
FEATURE ID 2020-404
7,030 SF

WETLAND IMPACTS
FEATURE ID 2020-209
1,901 SF

NEW 48" DIA. SMH
RIM: 2034.9'

WETLAND IMPACTS
FEATURE ID 2020-208
6,312 SF

NEW 48" DIA. SMH
RIM: 1988.5'

NEW 48" DIA. SMH
RIM: 2006.4'

WETLAND IMPACTS
FEATURE ID 2020-208
6,312 SF

NEW 48" DIA. SMH
RIM: 1982.3'

Bridge 2
(Ski Under)

NEW 48" DIA. SMH
RIM: 1966.6'

NEW 48" DIA. SMH
RIM: 1959.9'

NEW 48" DIA. SMH
RIM: 1950.0'

WETLAND IMPACTS
FEATURE ID 2020-130
459 SF

NEW 48" DIA. SMH
RIM: 1948.6'

NEW 48" DIA. SMH
RIM: 1926.2'

WETLANDS (TYP)

NEW 48" DIA. SMH
RIM: 1906.0'

WETLANDS OF SPECIAL SIGNIFICANCE (TYP)

EXISTING SINGLE FAMILY
HOME DEVELOPMENT

0 25 50 100 Feet

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Drawing Title
Ski Trails Grading

Drawing Number
CG-1.11

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EXISTING PARKING LOT F

Trail 2

Trail 3

WETLAND IMPACTS
FEATURE ID 2020-117
421 SF

WETLAND IMPACTS
FEATURE ID 2020-33
NYS SF

N 912278.17'
E 2913668.32'

WETLAND IMPACTS
FEATURE ID 2020-32
10,304 SF

WETLANDS OF SPECIAL SIGNIFICANCE (TYP)

0 25 50 100 Feet

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RIM: 1785.1'
NEW 48" DIA. SMH RIM: 1870.1'
NEW 48" DIA. SMH RIM: 1763.3'
NEW 48" DIA. SMH RIM: 1795.8'
NEW 48" DIA. SMH RIM: 1777.8'
NEW 48" DIA. SMH RIM: 1835.3'
NEW 48" DIA. SMH RIM: 1817.0'
NEW 48" DIA. SMH RIM: 1842.1'
NEW 48" DIA. SMH RIM: 1817.0'
NEW 48" DIA. SMH RIM: 1807.2'
NEW 48" DIA. SMH RIM: 1780.8'
NEW 48" DIA. SMH RIM: 1745.9'
NEW 48" DIA. SMH RIM: 1728.4'
NEW 48" DIA. SMH RIM: 1705.4'
NEW 48" DIA. SMH RIM: 1748.4'
NEW 48" DIA. SMH RIM: 1707.0'
NEW 48" DIA. SMH RIM: 1724.0'
NEW 48" DIA. SMH RIM: 1742.2'
NEW 48" DIA. SMH RIM: 1763.4'

Ski Back Trail 2
Trail 3
100ft Setback
West Mountain Road
West Mountain Road

CONDOMINIUMS
CONDOMINIUMS
SKIER SERVICES
C2
C3
C4
T7
T8

WETLAND IMPACTS FEATURE ID 2020-52 2,030 SF
WETLAND IMPACTS (WOSS) FEATURE ID 2020-51 2 SF
WETLAND IMPACTS FEATURE ID 2020-226 4,496 SF
WETLAND IMPACTS (WOSS) FEATURE ID 2020-51 2 SF
WETLAND IMPACTS FEATURE ID 2020-30 11,740 SF
WETLAND IMPACTS FEATURE ID 2020-412 264 SF
WETLAND IMPACTS (WOSS) FEATURE ID 2020-411 11 SF
WETLAND IMPACTS FEATURE ID 2020-411 1,794 SF
WETLAND IMPACTS FEATURE ID 2020-31 650 SF
WETLAND IMPACTS FEATURE ID 2020-227 1,051 SF

CULVERT #8 (CMP) 24 IN. DIA., 45 FT. LENGTH, 3%
CULVERT #9 (CMP) 18 IN. DIA., 40 FT. LENGTH, 5%
CULVERT #10 (CMP) 18 IN. DIA., 45 FT. LENGTH, 5%
CULVERT #11 (CMP) TH, 3%
REPLACE EXISTING CULVERT AT ROAD WITH NEW 36" HDPE. FIELD VERIFY INVERTS
CULVERT #12 (CPP) 24 IN. DIA., 40 FT. LENGTH, 2%
CULVERT #13 (CPP) 24 IN. DIA., 30 FT. LENGTH, 2%
REPLACE EXISTING CULVERT AT ROAD WITH NEW 36" HDPE. FIELD VERIFY INVERTS
CULVERT #14 (CPP) 24 IN. DIA., 45 FT. LENGTH, 2%

UNKNOWN CULVERT

0 25 50 100 Feet

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Drawing Title: Ski Trails Grading

Drawing Number: CG-1.13

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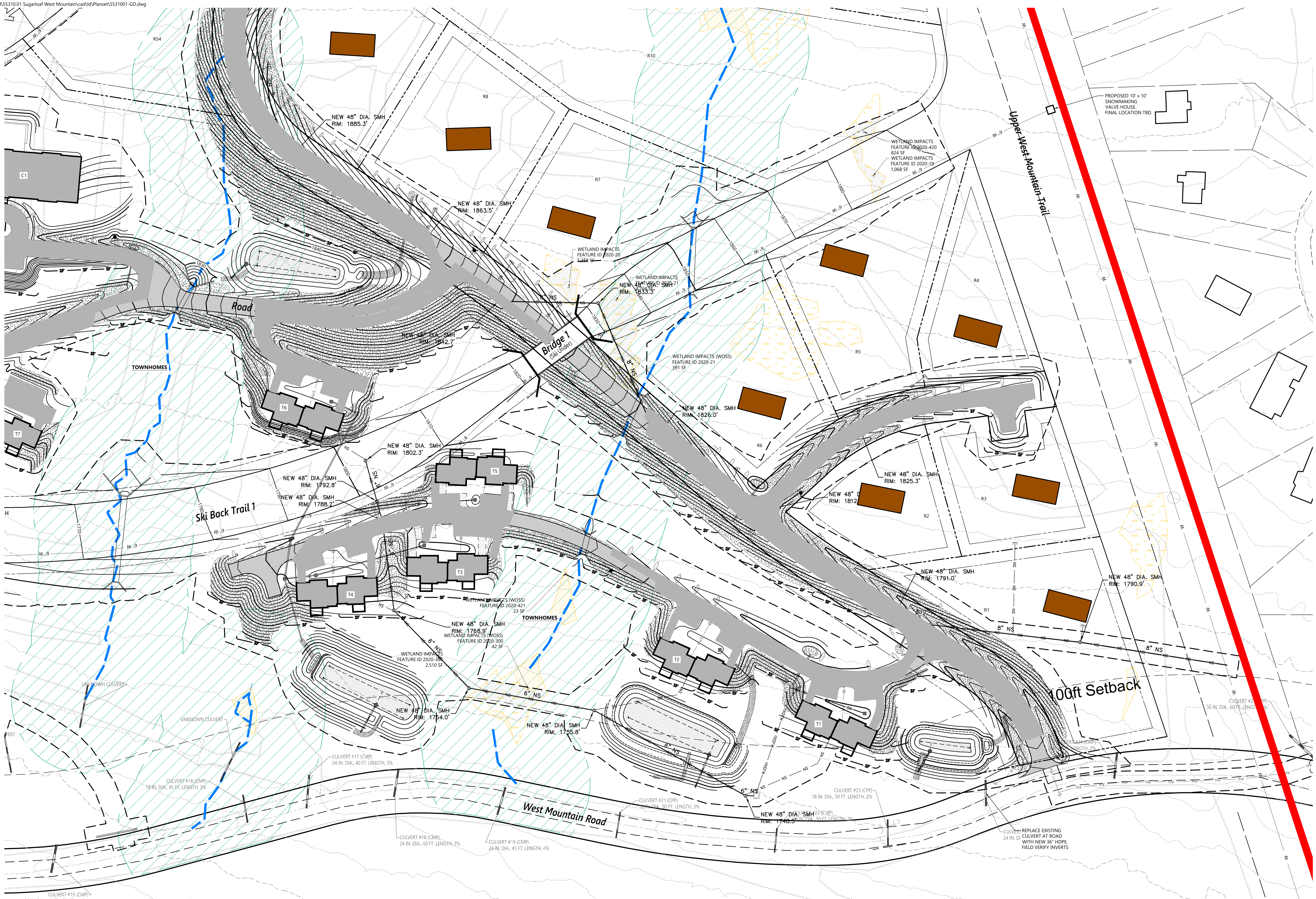

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Drawing Title: **Ski Trails Grading**

Drawing Number: **CG-1.14**

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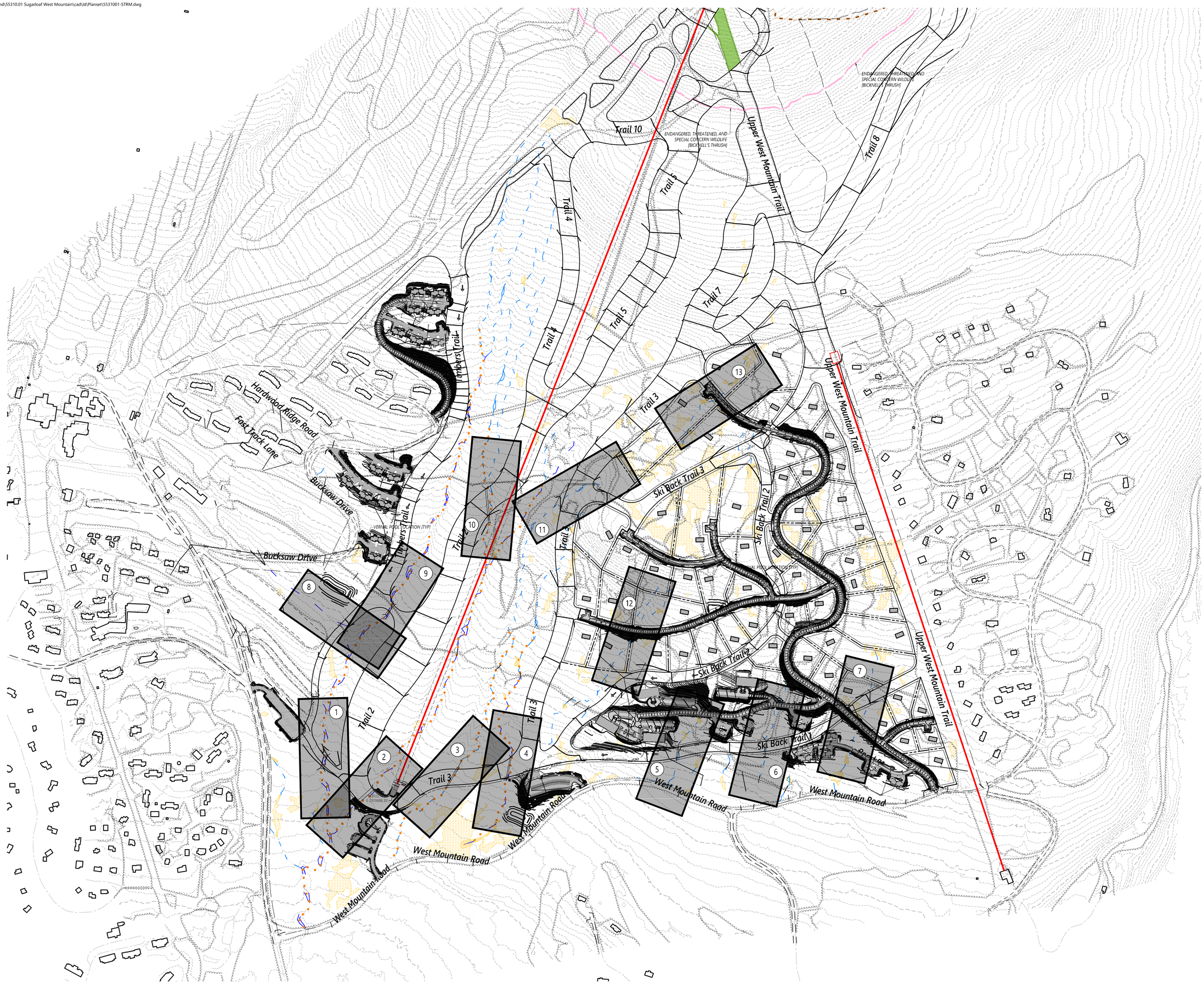

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0 125 250 500Feet

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Drawing Title: Overall Stream Crossing Plan

Drawing Number: CG-2.00

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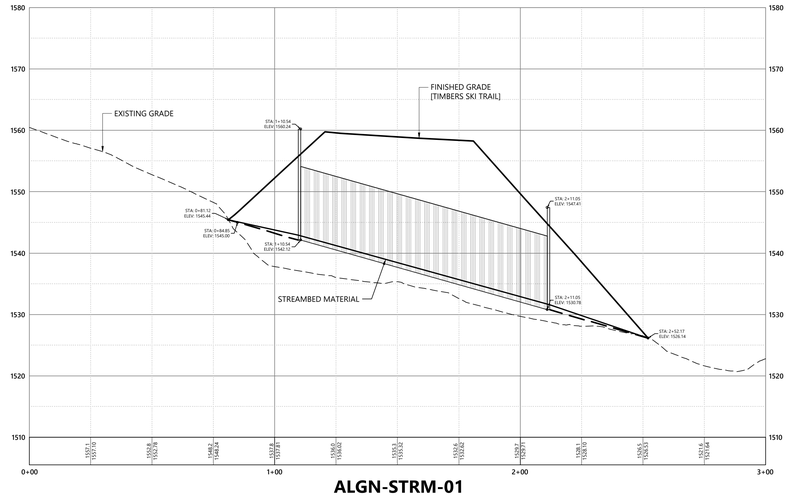

ALGN-STRM-01

STREAM CROSSING 1

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	100.51± Feet
PIPE DIMENSIONS	24' SPAN X 12' RISE
UPSTREAM INVERT	1542.12± Feet
DOWNSTREAM INVERT	1530.78± Feet
SLOPE	0.11 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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Vert. 0 5 10 20 Feet
Horiz. 0 12.5 25 50 Feet

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Drawing Title: Stream Crossing Plan and Profile

Drawing Number: CG-2.01

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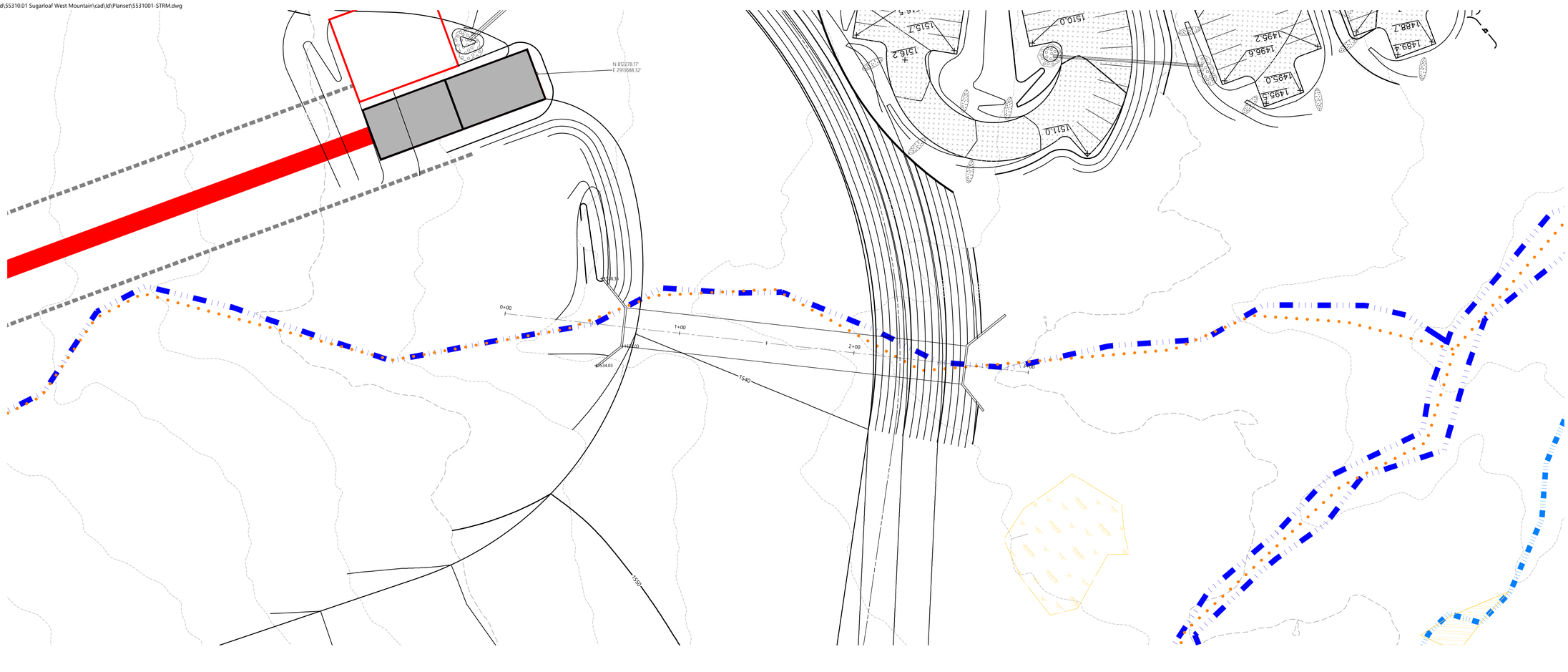
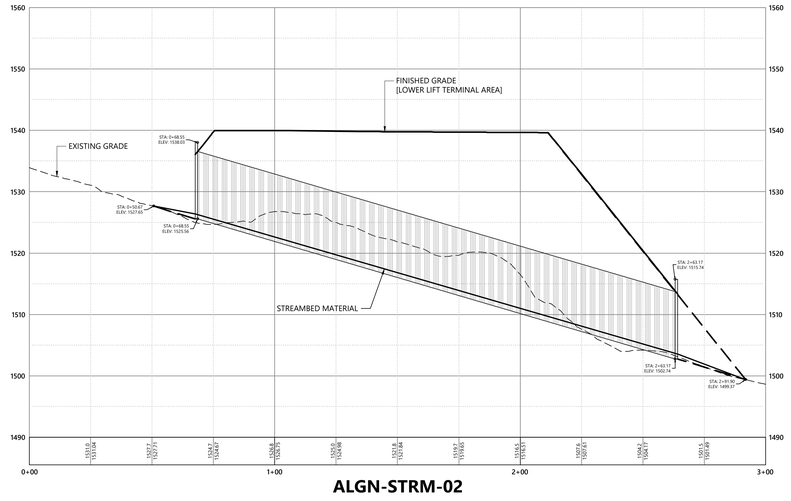


STREAM CROSSING 2

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	194.62± Feet
PIPE DIMENSIONS	22' SPAN X 11' RISE
UPSTREAM INVERT	1525.56± Feet
DOWNSTREAM INVERT	1502.74± Feet
SLOPE	0.12 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



ALGN-STRM-02

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Vert. 0 5 10 20 Feet
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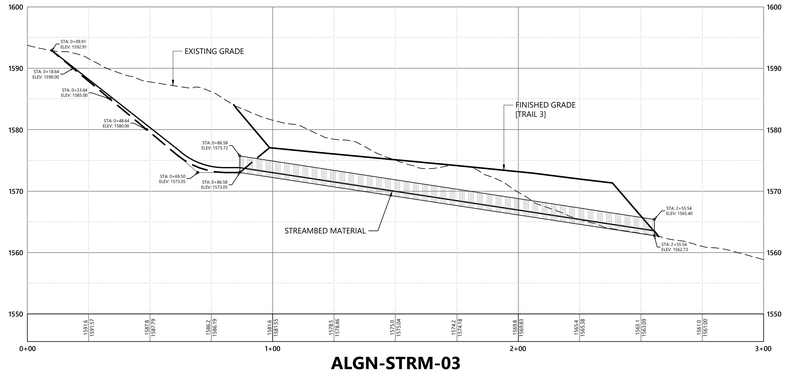

ALGN-STRM-03

STREAM CROSSING 3

BOX

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	168.96± Feet
PIPE DIMENSIONS	10.17' SPAN X 2.67' RISE
UPSTREAM INVERT	1573.05± Feet
DOWNSTREAM INVERT	1562.73± Feet
SLOPE	0.06 FT/FT
WINGWALLS	N/A
UPSTREAM ENDWALL DIMENSION	N/A
DOWNSTREAM ENDWALL DIMENSION	N/A

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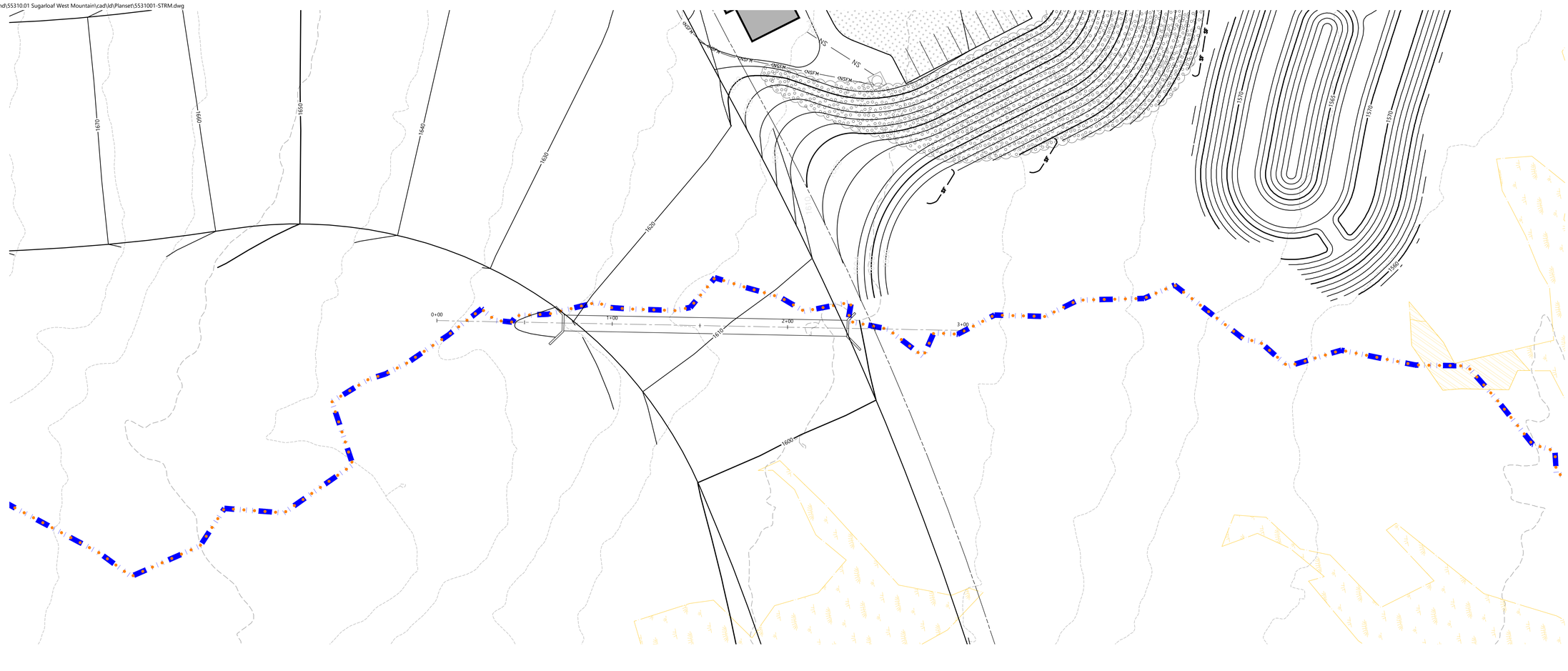

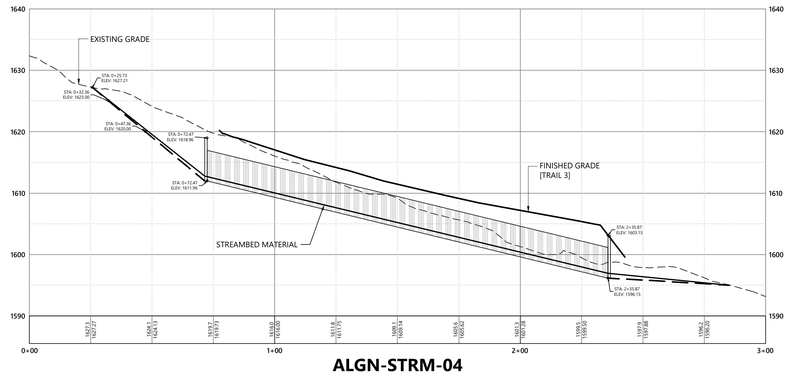

ALGN-STRM-04

STREAM CROSSING 4

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	163.40± Feet
PIPE DIMENSIONS	9' SPAN X 5' RISE
UPSTREAM INVERT	1611.96± Feet
DOWNSTREAM INVERT	1596.15± Feet
SLOPE	0.10 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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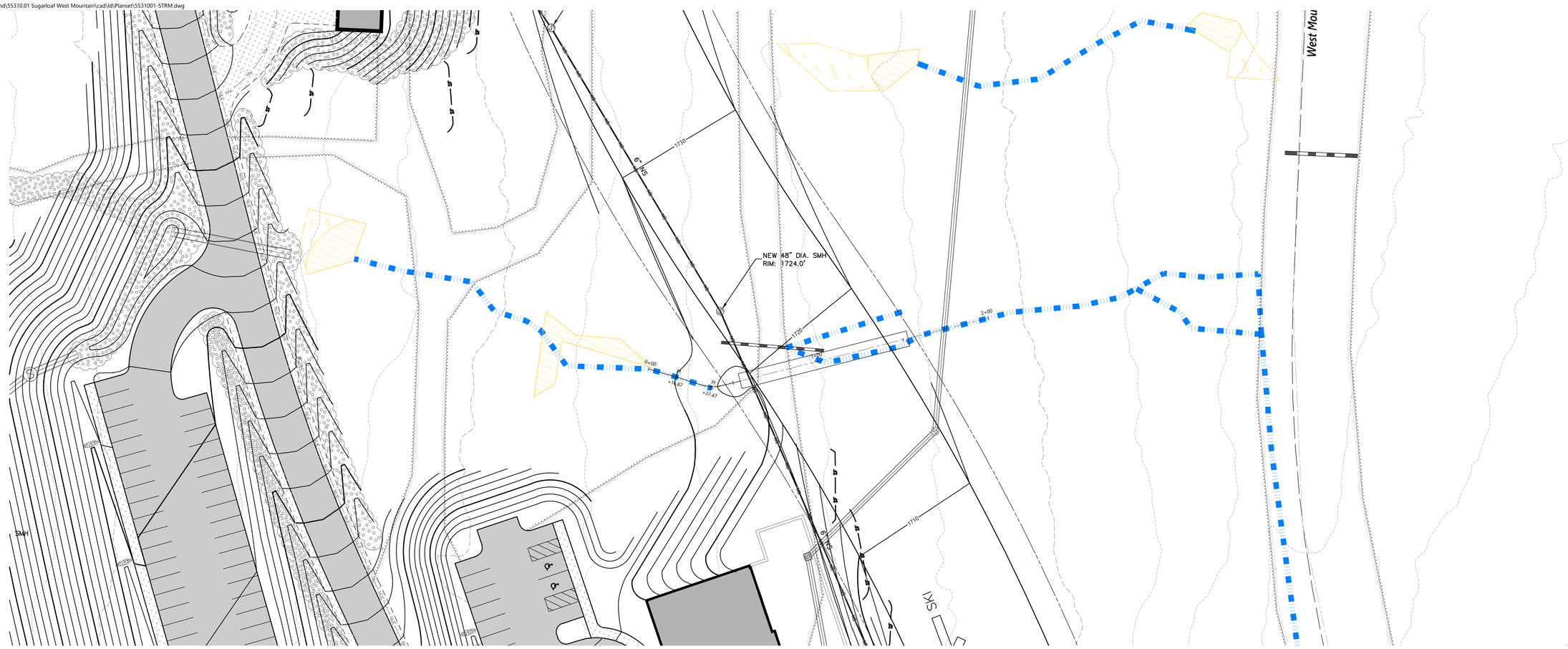

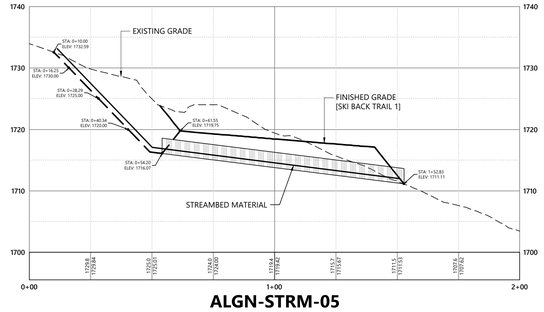

ALGN-STRM-05

STREAM CROSSING 5

BOX

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	98.63± Feet
PIPE DIMENSIONS	8.75' SPAN X 2.50' RISE
UPSTREAM INVERT	1716.07± Feet
DOWNSTREAM INVERT	1711.11± Feet
SLOPE	0.05 FT/FT
WINGWALLS	N/A
UPSTREAM ENDWALL DIMENSION	N/A
DOWNSTREAM ENDWALL DIMENSION	N/A

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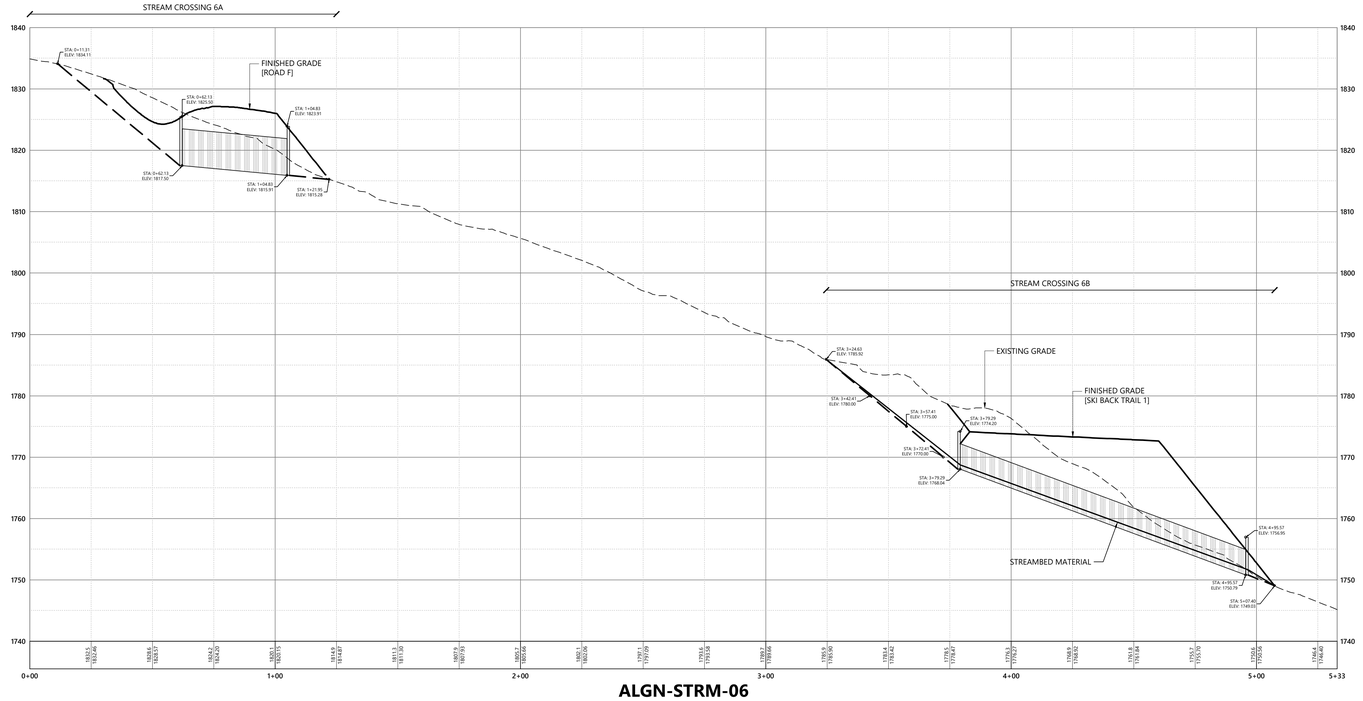

ALGN-STRM-06

STREAM CROSSING 6A

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	12
PIPE LENGTH	42.70± Feet
PIPE DIMENSIONS	6' SPAN X 3.2' RISE
UPSTREAM INVERT	1817.50± Feet
DOWNSTREAM INVERT	1815.91± Feet
SLOPE	0.04 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 6B

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	116.28± Feet
PIPE DIMENSIONS	8' SPAN X 4.2' RISE
UPSTREAM INVERT	1768.04± Feet
DOWNSTREAM INVERT	1750.79± Feet
SLOPE	0.15 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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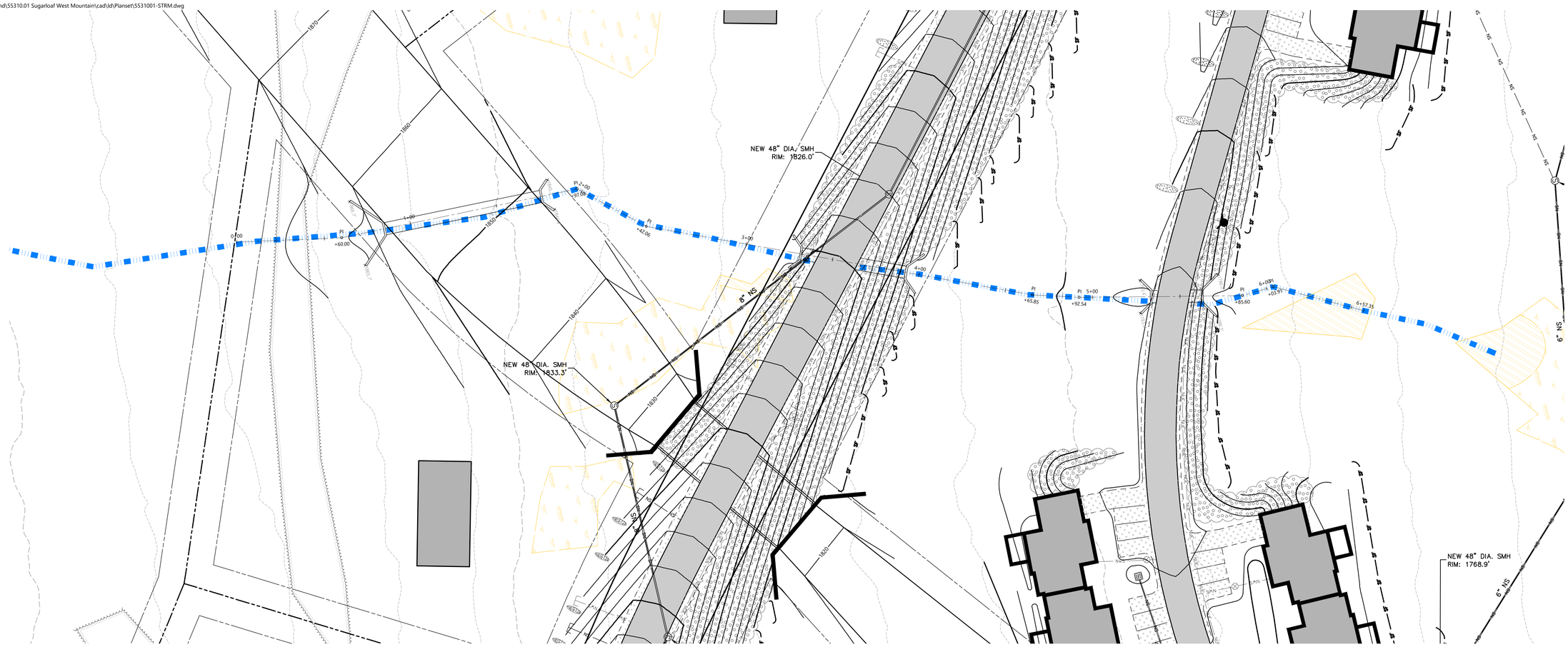


STREAM CROSSING 7A

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	90.40± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1850.79± Feet
DOWNSTREAM INVERT	1844.01± Feet
SLOPE	0.08 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 7B

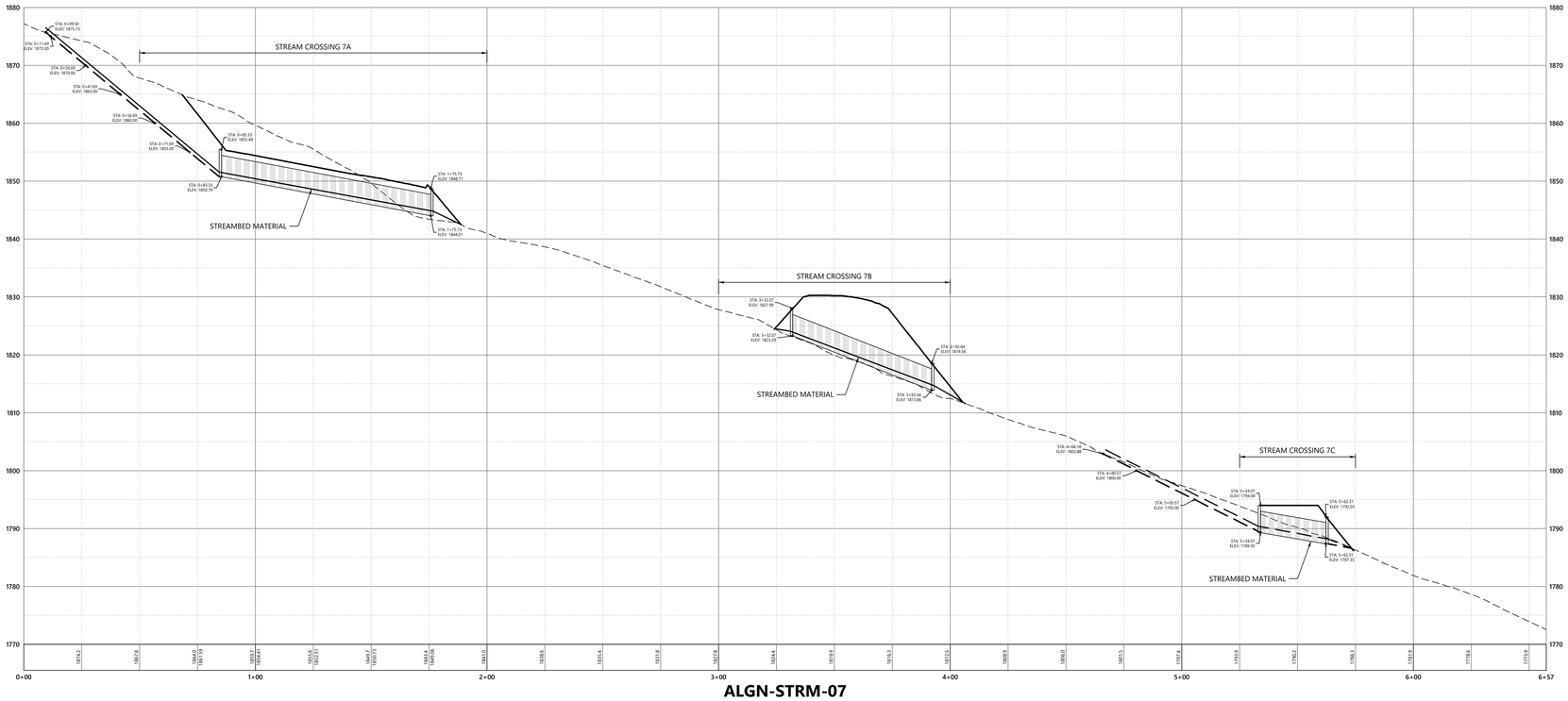
SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	59.97± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1823.29± Feet
DOWNSTREAM INVERT	1813.86± Feet
SLOPE	0.16 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

STREAM CROSSING 7C

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	28.24± Feet
PIPE DIMENSIONS	7' SPAN X 3.7' RISE
UPSTREAM INVERT	1789.30± Feet
DOWNSTREAM INVERT	1787.35± Feet
SLOPE	0.07 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



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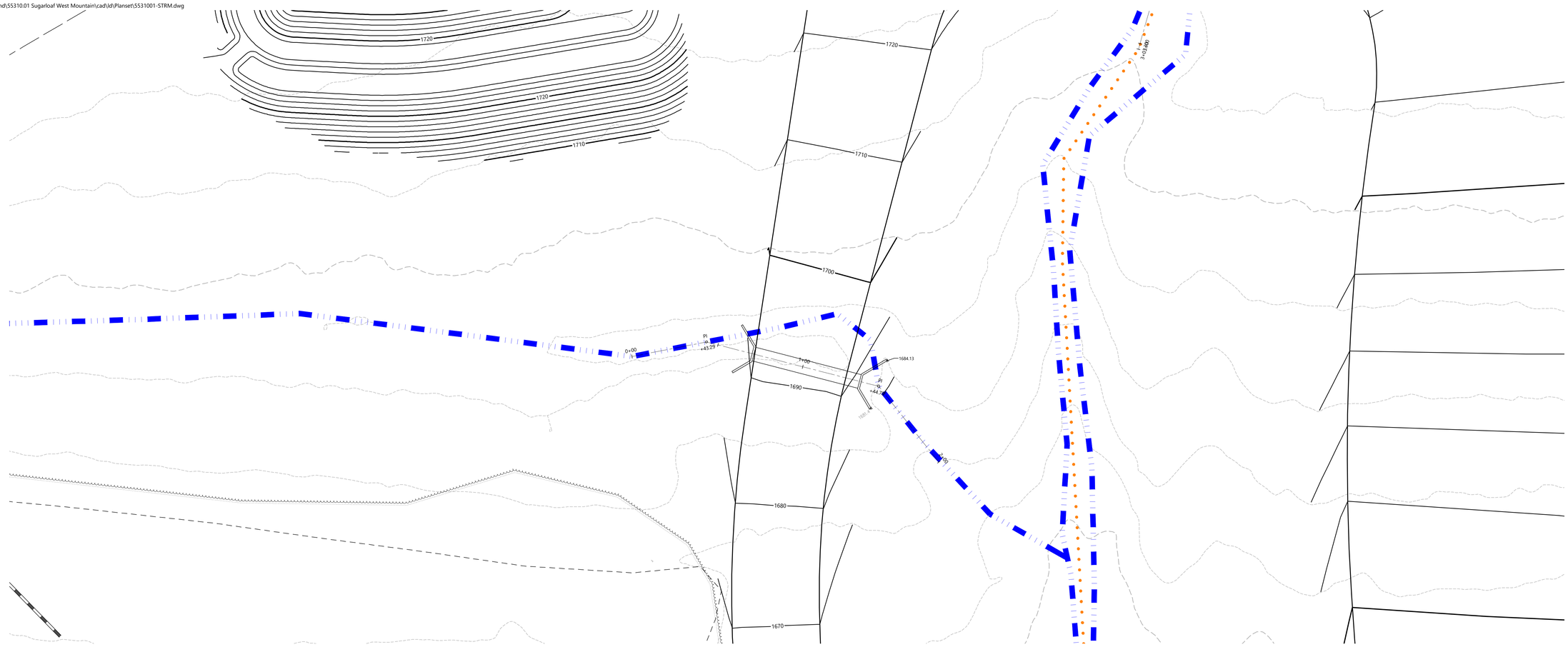

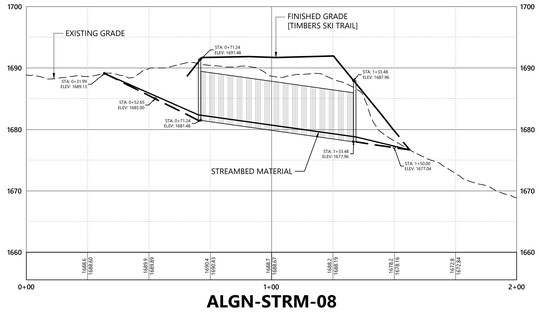

ALGN-STRM-08

STREAM CROSSING 8

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	62.24± Feet
PIPE DIMENSIONS	8' SPAN X 4.2' RISE
UPSTREAM INVERT	1681.48± Feet
DOWNSTREAM INVERT	1677.96± Feet
SLOPE	0.06 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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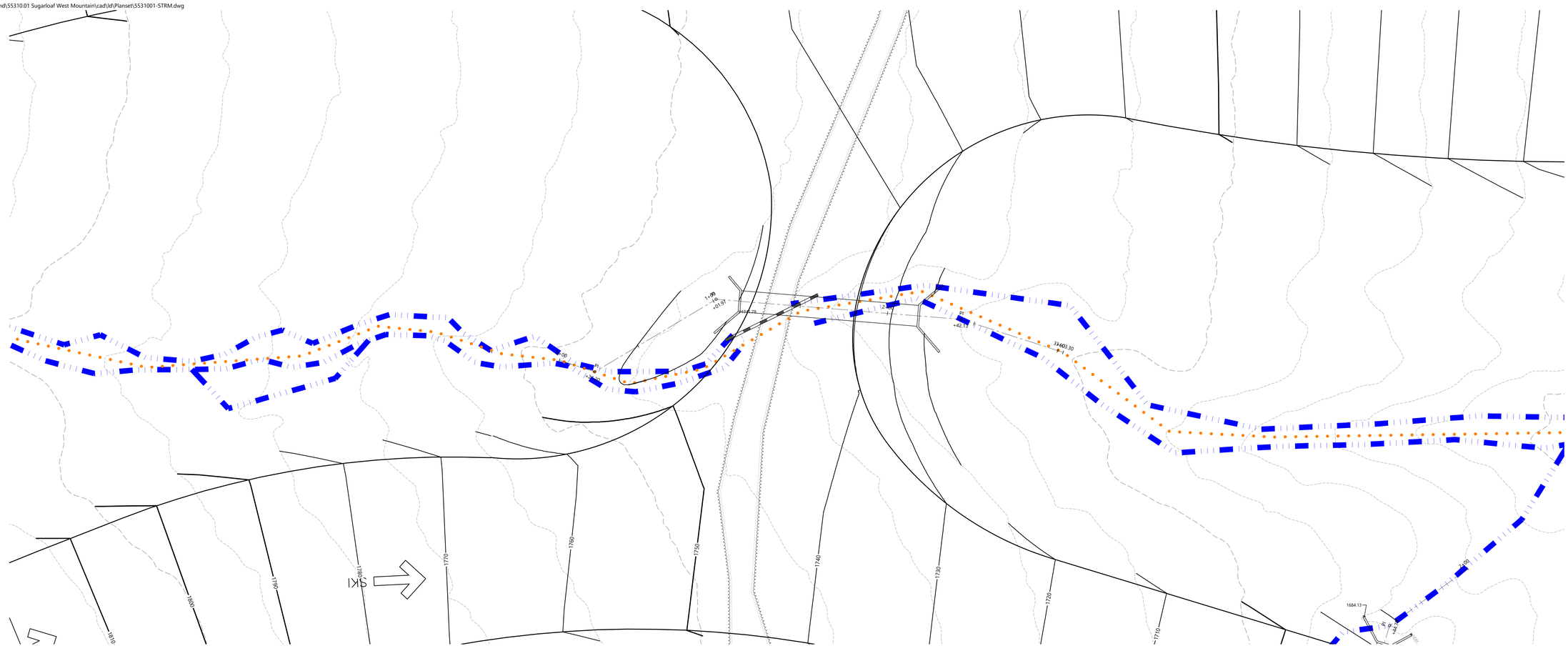

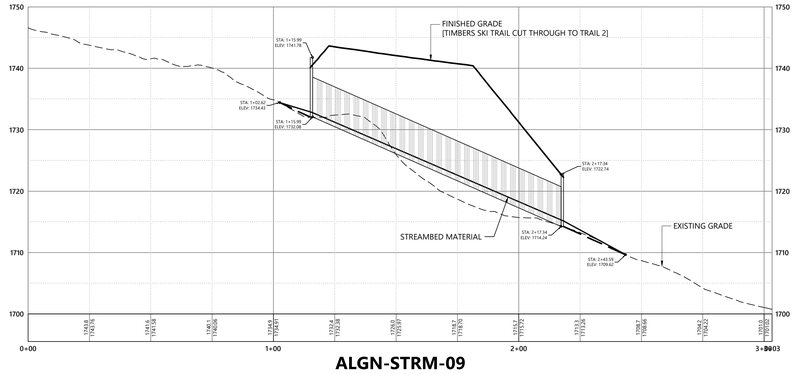

ALGN-STRM-09

STREAM CROSSING 9

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	101.35± Feet
PIPE DIMENSIONS	12' SPAN X 6.5' RISE
UPSTREAM INVERT	1732.08± Feet
DOWNSTREAM INVERT	1714.24± Feet
SLOPE	0.18 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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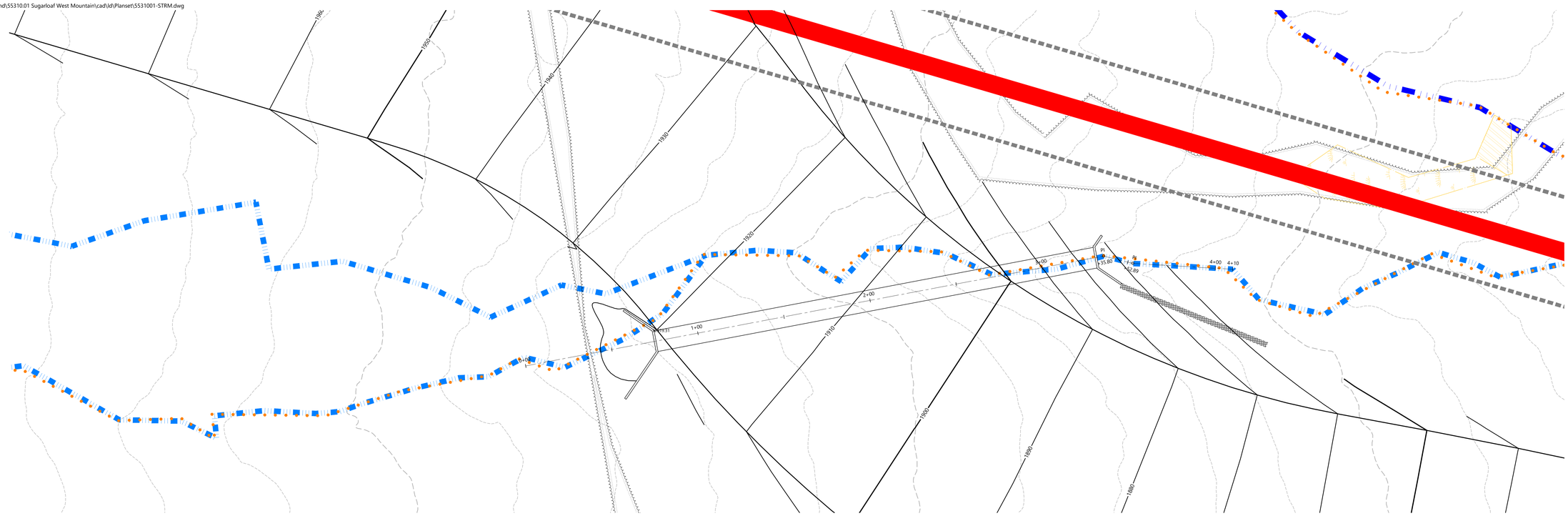

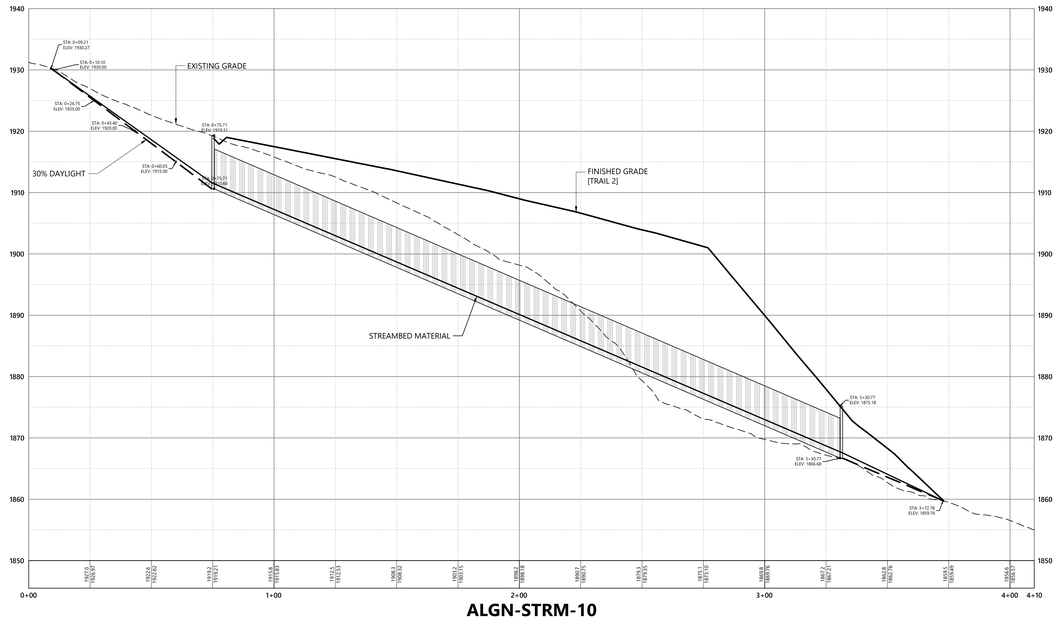

ALGN-STRM-10

STREAM CROSSING 10

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	255.06± Feet
PIPE DIMENSIONS	12' SPAN X 6.5' RISE
UPSTREAM INVERT	1910.60± Feet
DOWNSTREAM INVERT	1866.68± Feet
SLOPE	0.17 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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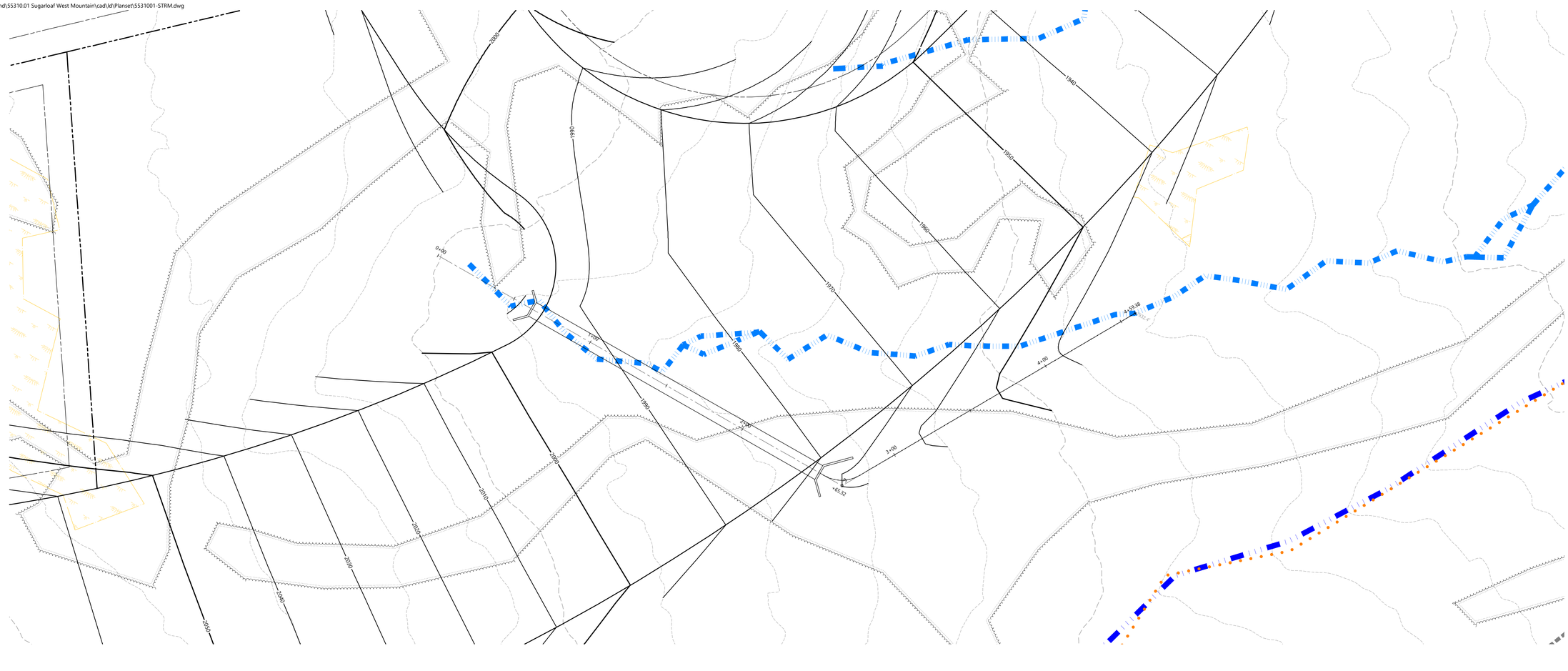
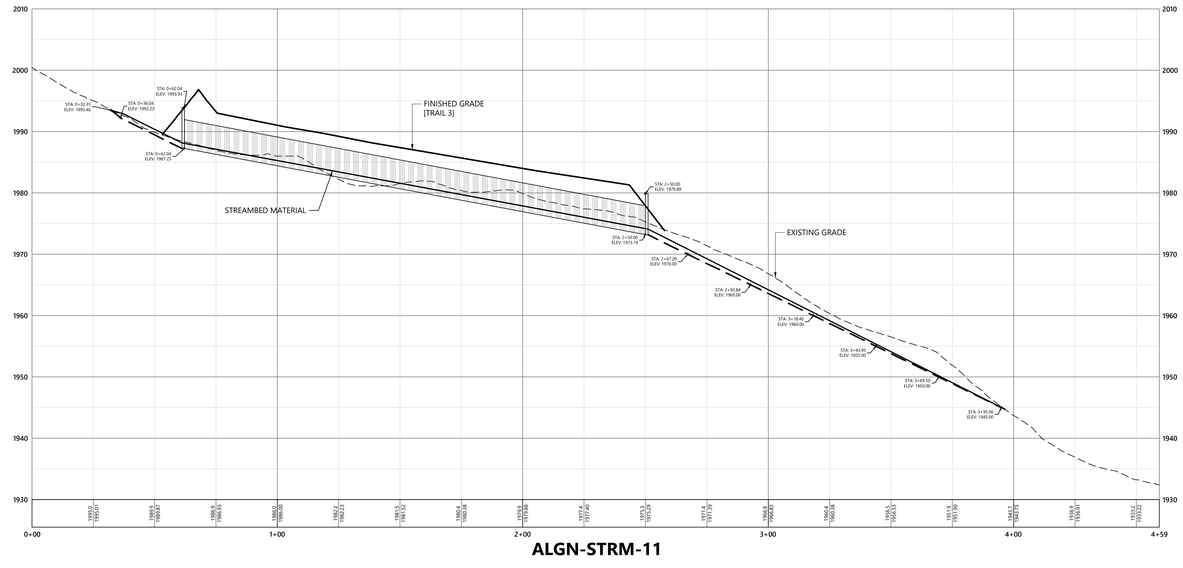


STREAM CROSSING 11

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	187.96± Feet
PIPE DIMENSIONS	9' SPAN X 4.7' RISE
UPSTREAM INVERT	1987.23± Feet
DOWNSTREAM INVERT	1973.19± Feet
SLOPE	0.07 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD



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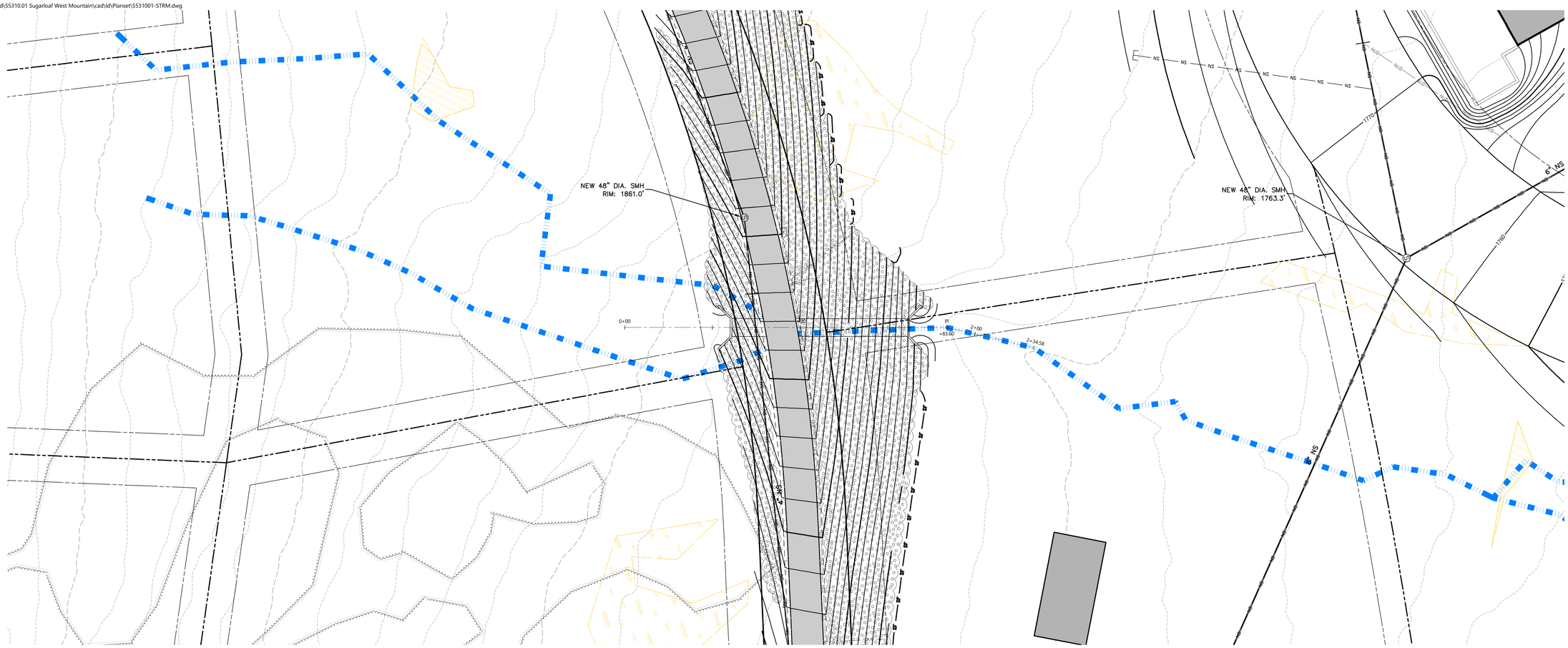

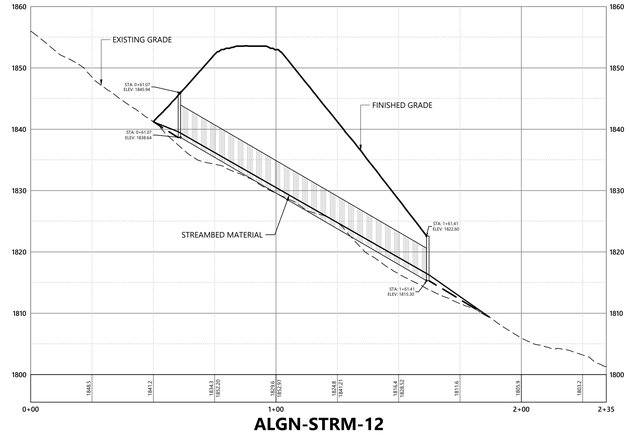

ALGN-STRM-12

STREAM CROSSING 12

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	100.34± Feet
PIPE DIMENSIONS	10' SPAN X 5.3' RISE
UPSTREAM INVERT	1838.64± Feet
DOWNSTREAM INVERT	1815.30± Feet
SLOPE	0.23 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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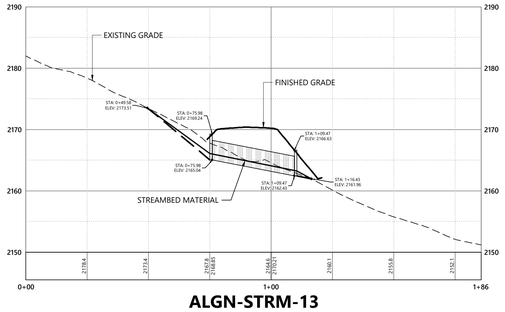

ALGN-STRM-13

STREAM CROSSING 13

SINGLE RADIUS ARCH

PIPE MATERIAL	TBD
PIPE GAGE	TBD
PIPE LENGTH	33.49± Feet
PIPE DIMENSIONS	6' SPAN X 3.2' RISE
UPSTREAM INVERT	2165.04± Feet
DOWNSTREAM INVERT	2162.43± Feet
SLOPE	0.08 FT/FT
WINGWALLS	TBD
UPSTREAM ENDWALL DIMENSION	TBD
DOWNSTREAM ENDWALL DIMENSION	TBD

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Construction Sequence

1. SURVEY AND STAKE LIMITS OF CLEARING AND GRUBBING.
2. SURVEY AND STAKE (50 FT OC) LIMITS OF CLEARING AND DISTURBANCE.
3. INSTALL TEMPORARY EROSION CONTROL MEASURES (SILT FENCING, SILTSOCKS, CONSTRUCTION EXITS, ETC.).
4. CLEAR AND GRUB WITHIN LIMIT OF ACCESS ROAD. LIMITS OF CLEARING INDICATE AREAS WHERE TREES WILL BE CUT AND STUMPS WILL REMAIN IN THE GROUND.
5. STRIP LOAM AND PAVEMENT OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK AND STOCKPILE EXCESS MATERIAL.
6. CONSTRUCT TEMPORARY SEDIMENTATION BERMS AS REQUIRED.
7. INSTALL DRAINAGE SYSTEM, AND OTHER UTILITIES IN ACCORDANCE WITH THE PLANS AND DETAILS.
8. PERFORM FINAL / FINE GRADING INCLUDING SLOPE STABILIZATION BLANKETS.
9. PERFORM ALL REMAINING SITE CONSTRUCTION. (I.E. CONCRETE AND GRAVEL AREAS).
10. LOAM AND SEED ALL DISTURBED AREAS.
11. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER FINAL SURFACING IS INSTALLED; AND LANDSCAPING AREAS ARE ESTABLISHED AND STABILIZED.
12. CLEAN ALL DRAINAGE BASINS, STRUCTURES, PIPES, AND SUMPS WITHIN THE PROJECT LIMITS OF ALL SILT AND DEBRIS.

General

1. CONTRACTOR SHALL READ, BE FAMILIAR WITH, AND SHALL FOLLOW THE MAINE EROSION AND SEDIMENT CONTROL BMPS MANUAL (LATEST EDITION) AND MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS (LATEST EDITION); AND SHALL BE ACCOUNTABLE TO THE THIRD PARTY INSPECTOR FOR THE PROJECT AND THE MAINE DEP IN ACCORDANCE WITH MAINE DEP REGULATIONS.
2. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. MINIMUM TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES ARE SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. THE CONTRACTOR SHALL ADHERE TO THE MINIMUM PROVISIONS SHOWN. ADDITIONALLY, TEMPORARY MEASURES SHALL BE SELECTED AND CONSTRUCTED BY THE CONTRACTOR IN CONSULTATION WITH THE ENGINEER TO ACCOMMODATE CHANGING FIELD CONDITIONS THAT DEVELOP DURING CONSTRUCTION.
5. PUMPED WATER FROM DEWATERING ACTIVITIES SHALL BE DISCHARGED INTO SETTLING BASINS, FILTER BAGS OR OTHER APPROVED METHODS PRIOR TO DISCHARGE INTO THE ON-SITE STORMWATER MANAGEMENT SYSTEM. ALL WATER FROM DEWATERING ACTIVITIES SHALL BE RECHARGED ON-SITE OR DIRECTED TO THE DETENTION BASIN FOR DISCHARGE.
6. NO MORE THAN 1 ACRE SHOULD BE UNSTABILIZED AT ONE TIME WITHOUT REGULAR INSPECTION OR LIMITED TO AN AREA THAT CAN BE MULCHED IN ONE DAY.

Seeding/Mulching

1. FERTILIZER, SUPERPHOSPHATE, AND LIME SHALL BE APPLIED AT RATES RECOMMENDED BY THE TESTING AGENCY AND APPROVED BY THE ENGINEER.
2. PERMANENT SEED SHALL BE SUPPLIED IN THE FOLLOWING PROPORTIONS AND APPLIED AT A RATE OF FIVE POUNDS PER 1,000 SF:
   SEED TYPE (% PROPORTION/% GERMINATION MIN./% PURITY MIN.)
   CREEPING FESCUE (50/85/95)
   KENTUCKY BLUEGRASS (40/85/90)
   MANHATTAN PERENNIAL RYE (10/90/95)
3. AREA OF STORMWATER POND BERMS AND SKI TRAILS SHALL BE PLANTED WITH A MEADOW SEED MIX AND NOT MOWED MORE THAN TWICE A YEAR. CONTRACTOR TO PROVIDE FINAL MEADOW SEED MIX TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
4. TEMPORARY SEED SHALL BE SUPPLIED IN THE FOLLOWING PROPORTIONS AND APPLIED AT A RATE OF 100 POUNDS PER ACRE:
   SEED TYPE (% WEIGHT MIN./% GERMINATION MIN.)
   WINTER RYE (80/85)
   RED FESCUE - CREEPING (4/80)
   PERENNIAL RYE GRASS (3/90)
   RED CLOVER (3/90)
5. MULCH SHALL BE APPLIED TO AREAS IMMEDIATELY AFTER THEY HAVE BEEN SEEDED. MULCH SHALL CONSIST OF HAY, STRAW, HYDRO-MULCH, EROSION CONTROL BLANKETS, EROSION CONTROL MIX OR APPROVED EQUAL.
6. HAY OR STRAW MULCH SHALL BE AIR-DRIED; AND FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS. MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 75 LB PER 1,000 SF. MULCH SHALL BE ANCHORED WITH NETTING WHEN APPLIED TO SLOPES LESS THAN THAN 15 PERCENT.
7. EROSION CONTROL BLANKETS SHALL BE PROVIDED ON ALL SLOPES STEEPER THAN OF 1-FOOT RISE TO 3-FEET HORIZONTAL. BLANKETS SHALL BE SC150 BN (NORTH AMERICAN GREEN); CURLEX BLANKETS (AMERICAN EXCELSIOR COMPANY); POLYJUTE STYLE 465 GT (SYNTHETIC INDUSTRIES); OR APPROVED EQUIVALENT. BLANKETS SHALL BE SECURED AS RECOMMENDED BY THE MANUFACTURER.
8. EROSION CONTROL MIX SHALL MEET THE FOLLOWING STANDARDS:
   A. ORGANIC MATTER CONTENT SHALL BE BETWEEN 80%-100%, DRY WEIGHT BASIS,
   B. PARTICLE SIZE BY WEIGHT: 100% PASSING THE 6" SCREEN
      70% TO 85% PASSING THE 0.75" SCREEN
   C. ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED
   D. SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM, AND
   E. pH SHALL BE BETWEEN 5.0 AND 8.0.

Temporary Erosion Control Measures

1. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM AMOUNT OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION. AREAS REMAINING UNSTABILIZED FOR A PERIOD OF MORE THAN 15 DAYS SHALL BE TEMPORARILY MULCHED. TOTAL EXPOSED AREAS SHALL BE LIMITED TO NO MORE THAN CAN BE MULCHED IN ONE DAY.
2. TEMPORARY MULCH SHALL BE APPLIED TO UNSTABILIZED AREAS WITHIN 100-FT OF STREAMS, WETLANDS, AND OTHER WATER RESOURCES WITHIN 7 DAYS OF EXPOSING SOIL AND PRIOR TO ANY STORM EVENT.
3. DUST SHALL BE CONTROLLED THROUGH THE USE OF WATER.
4. CONTRACTOR SHALL PROVIDE TEMPORARY SILTATION/DEWATERING BASINS, IF NECESSARY AND/OR AS DIRECTED BY THE ENGINEER, TO CONTROL SEDIMENTATION AND STORMWATER RUNOFF DURING THE CONSTRUCTION PERIOD. CONTRACTOR SHALL SUBMIT PROPOSED BASIN LOCATIONS, DESIGNS, ETC. TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
5. EARTH MATERIAL STOCKPILES SHALL BE LOCATED IN AREAS THAT HAVE A MINIMUM POTENTIAL FOR EROSION AND KEPT AS FAR AWAY AS POSSIBLE FROM EXISTING DRAINAGE COURSES, PROTECTED NATURAL RESOURCES, TREE DRIP LINES AND OUTSIDE OF THE 100-YEAR FLOOD PLAIN. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES. STORMWATER SHOULD BE DIRECTED AWAY FROM STOCKPILE LOCATIONS.
6. REPAIR, CLEAN, AND REPLACE ANY SEDIMENT CONTROLS DAMAGED DURING AND/OR AFTER RAINFALL EVENTS.
7. EROSION CONTROL BLANKETS SHALL BE PLACED IN THE FLOW LINE OF ALL VEGETATED SWALES NOT OTHERWISE PROTECTED BY STONE.
8. EROSION CONTROL BLANKETS OR NETTING OVER LOOSE MULCH SHALL BE APPLIED TO ALL VEGETATED SLOPES GREATER THAN 3:1.
9. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
   A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
   B. A MINIMUM OF 90% VEGETATED GROWTH HAS BEEN ESTABLISHED;
   C. A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED;
   D. EROSION CONTROL BLANKETS OR EROSION CONTROL MIX HAVE BEEN PROPERLY INSTALLED.

Permanent Erosion Control Measures

1. THE CONTRACTOR SHALL SUBMIT A WRITTEN MANUAL, PREPARED FOR THE OWNER, THAT OUTLINES A SCHEDULE FOR PROPER MAINTENANCE OF THE LAWNS. THIS SCHEDULE SHOULD INCLUDE TIMING AND METHODS FOR MOWING, WATERING, AERATION, FERTILIZATION, LIMING, AND OTHER LAWN MAINTENANCE OPERATIONS.
2. SEEDING SHALL BE DONE BETWEEN APRIL 1 TO JUNE 1, OR BETWEEN AUGUST 15 TO OCTOBER 15.
3. ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVING, OR OTHERWISE DEVELOPED, SHALL BE COVERED WITH 6 INCHES LOAM AND SEEDED.

Winter Construction

1. WINTER CONSTRUCTION PERIOD: OCTOBER 15 THRU APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT A MAXIMUM OF 1 ACRE OF THE SITE IS UNSTABILIZED AT ANY ONE TIME OR LIMITED TO AN AREA THAT CAN BE MULCHED IN ONE DAY.
3. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB PER 1,000 SF OR 3 TONS/ACRE. MULCH SHALL BE APPLIED AND ANCHORED SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGHOUT THE MULCH. MULCH SHALL NOT BE APPLIED OVER SNOW.
4. MULCH SHALL NOT BE APPLIED WHERE THE SNOW DEPTH EXCEEDS ONE INCH. SNOW SHALL BE REMOVED PRIOR TO APPLICATION.
5. EROSION CONTROL BLANKETS SHALL BE APPLIED TO ALL VEGETATED SLOPES GREATER THAN 3:1.
6. A DOUBLE ROW OF SEDIMENT BARRIERS SHALL BE INSTALLED WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE.
7. DURING PERIODS WHEN TEMPERATURES ARE ABOVE FREEZING, AREAS SHALL BE FINE GRADED AND PROTECTED WITH EITHER MULCH; OR TEMPORARILY SEEDED AND MULCHED UNTIL THE FINAL TREATMENT CAN BE APPLIED.
8. AFTER NOVEMBER 1 EXPOSED AREAS THAT HAVE BEEN LOAMED AND FINAL GRADED MAY BE DORMANT SEEDED AT A RATE OF 3 TIME THE PERMANENT SEED RATE AFTER THE FIRST KILLING FROST AND OVERWINTER MULCHED OR ANCHORED WITH EROSION CONTROL BLANKETS.
9. WINTER INSPECTIONS SHALL BE PERFORMED ONE A WEEK AND AFTER EACH RAINFALL, SNOWSTORM, OR THAW FOR VEGETATION GROWTH, EROSION, AND MAINTENANCE NEEDS.
   A. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE STABILIZED FOR OVERWINTER PROTECTION.

Site Inspection & Maintenance

1. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS AND BEFORE AND AFTER EACH STORM EVENT.
2. CONTRACTOR SHALL MAINTAIN WRITTEN INSPECTION AND MAINTENANCE LOGS FOR THE EROSION CONTROL MEASURES FOR THE DURATION OF THE CONSTRUCTION PERIOD. LOGS SHALL BE MADE AVAILABLE TO THE OWNER, ENGINEER, MUNICIPALITY, AND MAINE DEP UPON REQUEST.
3. TEMPORARY MULCHING: ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED TO AREAS WHERE LESS THAN 90% OF THE SOIL SURFACE IS COVERED WITH MULCH.
4. CATCH BASIN/SILT SACK SEDIMENT TRAPS: SEDIMENT SHALL BE REMOVED FROM TRAPS WHEN ACCUMULATION DEPTH IS GREATER THAN OR EQUAL TO 1/2 THE DESIGN DEPTH OF THE TRAP. TRAPS SHALL BE REPLACED IF THE ARE DAMAGE, TORN, ETC.
5. SILTSOCK BARRIERS, SILT FENCE BARRIERS, AND STONE CHECK DAMS: SILTSOCK BARRIERS, SILT FENCE, AND STONE CHECK DAMES SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. SEDIMENT TRAPPED BEHIND BARRIERS/CHECK DAM SHALL BE REMOVED WHEN SEDIMENT DEPTH REACHES 6 INCHES. BARRIERS SHALL BE REPLACES WITH A TEMPORARY CHECK DAM IF THERE ARE SIGNS OF UNDERCUTTING OR IMPOUNDING LARGE VOLUMES OF WATER BEHIND THEM.
6. EROSION CONTROL BLANKETS: IF WASHOUTS OR BREAKAGE OCCURS, SLOPES SHALL BE REPAIRED, AND BLANKETS SHALL BE RE-INSTALLED.
7. STABILIZED CONSTRUCTION EXITS: EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF EXIT BECOMES INEFFECTIVE IT SHALL BE RECONSTRUCTED AND/OR REPLACED.
8. TEMPORARY SEDIMENTATION/DEWATERING BASINS: SEDIMENT IN TEMPORARY BASINS SHALL BE REMOVED AS NECESSARY DEPENDING ON THEIR USE AND DESIGN.
9. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE SYSTEMS.
10. LONG-TERM MAINTENANCE OF THE PERMANENT EROSION CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE OWNER.

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN | Checked by PS

Issued for: Review

Date: September 23, 2021

Not For Construction

Drawing Title: Erosion and Sediment Control Narrative

Drawing Number: CA-1.00

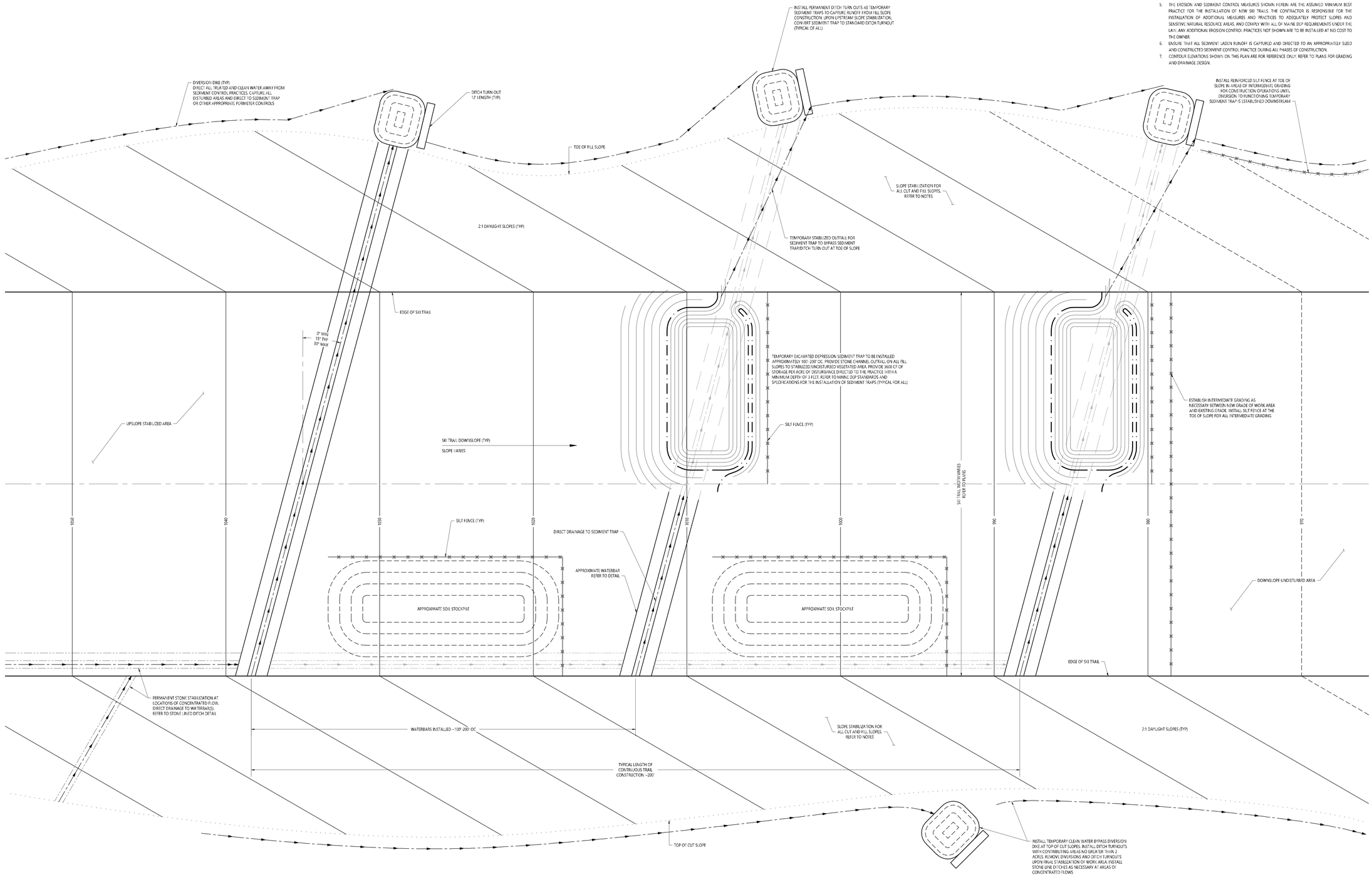
STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED
PROFESSIONAL ENGINEER

Sheet # of 58

Project Number: 55310.01

EROSION CONTROL GENERAL NOTES:

1. REFER TO THE SITE SPECIFIC EROSION CONTROL NARRATIVE FOR THE PROJECT; REFER TO DRAWING CA-1.00.
2. REFER TO THE *MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) - MANUAL FOR DESIGNERS AND ENGINEERS*, DATED OCTOBER 2016 FOR CONSTRUCTION INSTALLATION AND SPECIFICATIONS.
3. REFER TO THE *MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS*, LATEST EDITION, FOR CONSTRUCTION INSTALLATION AND SPECIFICATIONS.
4. FOR INDIVIDUAL HOUSELOT EROSION CONTROL MEASURES, REFER TO THE *"SIMPLE" EROSION AND SEDIMENT CONTROL PLAN* WITHIN *THE FIELD GUIDE FOR CONTRACTORS* DOCUMENT FOR MINIMUM STANDARD PRACTICES.
5. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN HEREIN ARE THE ASSUMED MINIMUM BEST PRACTICE FOR THE INSTALLATION OF NEW SKI TRAILS. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL MEASURES AND PRACTICES TO ADEQUATELY PROTECT SLOPES AND SENSITIVE NATURAL RESOURCE AREAS, AND COMPLY WITH ALL OF MAINE DEP REQUIREMENTS UNDER THE LAW. ANY ADDITIONAL EROSION CONTROL PRACTICES NOT SHOWN ARE TO BE INSTALLED AT NO COST TO THE OWNER.
6. ENSURE THAT ALL SEDIMENT LADEN RUNOFF IS CAPTURED AND DIRECTED TO AN APPROPRIATELY SIZED AND CONSTRUCTED SEDIMENT CONTROL PRACTICE DURING ALL PHASES OF CONSTRUCTION.
7. CONTOUR ELEVATIONS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY. REFER TO PLANS FOR GRADING AND DRAINAGE DESIGN.



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Issued for: Review | Date: September 23, 2021

Not For Construction

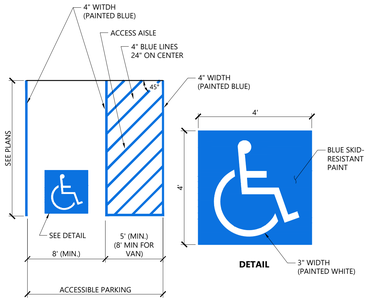
Drawing Title
Typical Ski Trail Work Area Erosion and Sediment Control Plan

Drawing Number
CA-1.01

Sheet # of 58

Project Number
55310.01

STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED PROFESSIONAL ENGINEER



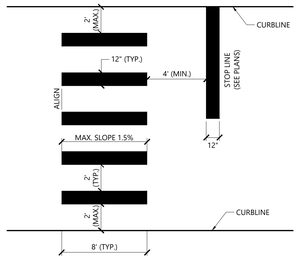
NOTES

1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
2. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.
3. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.
4. ACCESS AISLE MEASURED BETWEEN OUTSIDE EDGES OF PAVEMENT MARKINGS.

Accessible Parking Space

1/16

N.T.S. Source: VHB LD_552B



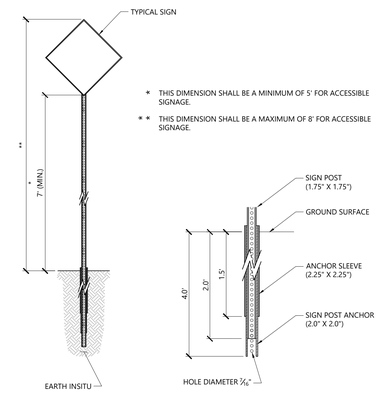
NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
3. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.
4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

Crosswalk

1/16

N.T.S. Source: VHB LD_553



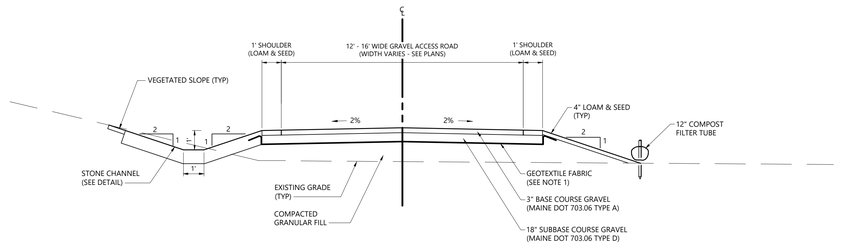
* THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.

** THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE.

Sign Post - Type 'B'

1/16

N.T.S. Source: VHB LD_702

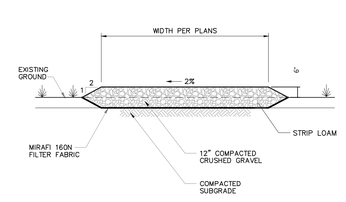


NOTES

1. GEOTEXTILE FABRIC SHALL BE MIRAFI 600X OR APPROVED EQUAL.
2. EXISTING TOPSOIL AND SOILS WITH ORGANICS AND ROOTS AS WELL AS BOULDERS SHALL BE REMOVED FROM BENEATH THE PROPOSED ROADWAYS TO EXPOSE THE UNDISTURBED NATIVE SOILS. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH GRANULAR BORROW OR ADDITIONAL SUBBASE GRAVEL.
3. SIDE SLOPES SHALL BE 2:1 MAX.
4. EROSION CONTROL CONSISTING OF A 12" COMPOST FILTER TUBE SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION.

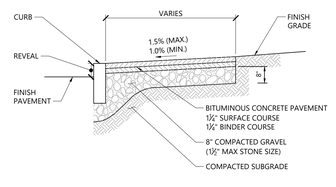
Access Road - Typical Section with Swale

N.T.S. Source: VHB



Gravel Access Road

N.T.S. Source: VHB

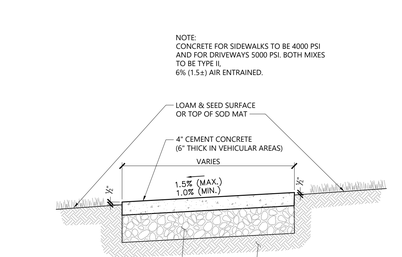


NOTE:
BOTH SURFACE AND BINDER MATERIAL SHALL BE DENSE MIX.

Bituminous Concrete Sidewalk

1/16

N.T.S. Source: VHB LD_422



Section

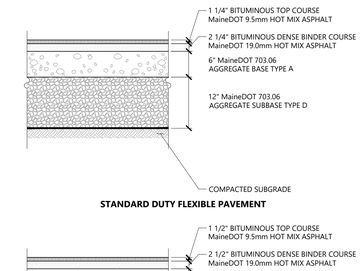
NOTES

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED JOINT FILLER.
2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO SIDEWALK DIRECTION.

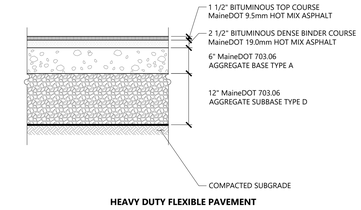
Concrete Sidewalk in Landscape Area

1/16

N.T.S. Source: VHB LD_426



STANDARD DUTY FLEXIBLE PAVEMENT



HEAVY DUTY FLEXIBLE PAVEMENT

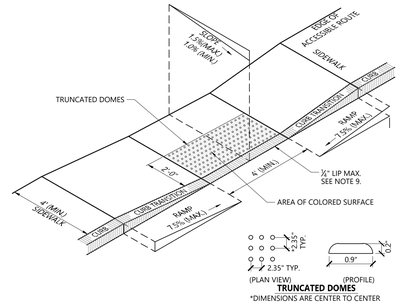
NOTES

- BASED ON S.W. COLE COLBY GREEN DESIGN RECOMMENDATIONS
- IN PARKING AREAS WITH BEDROCK SUBGRADES, PAVEMENT GRAVEL THICKNESS COULD BE REDUCED TO A MINIMUM OF 12 INCHES, CONSISTING OF FREE-DRAINING BASE GRAVELS, SHAPE OR SLOPE BEDROCK SUBGRADE TO DRAIN.

Bituminous Concrete Pavement Sections

4/19

N.T.S. Source: VHB LD_430



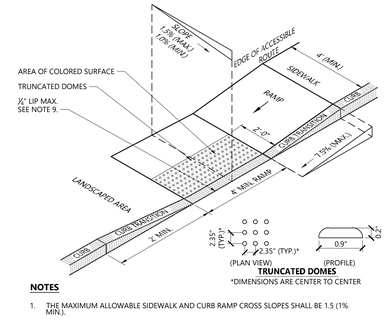
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'A-D'

1/16

N.T.S. Source: VHB LD_500



NOTES

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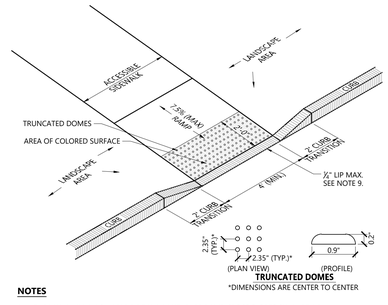
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) Type 'G-D'

1/16

N.T.S. Source: VHB LD_506



NOTES

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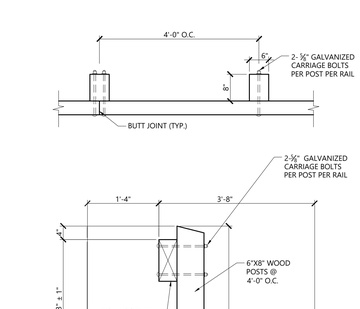
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAYS.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'M-D'

1/16

N.T.S. Source: VHB LD_512



Wood Guardrail

1/16

N.T.S. Source: VHB LD_450

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Issued for Date

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Drawing Title

Site Details

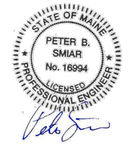
Drawing Number

C1.01

Sheet # of 58

Project Number

55310.01



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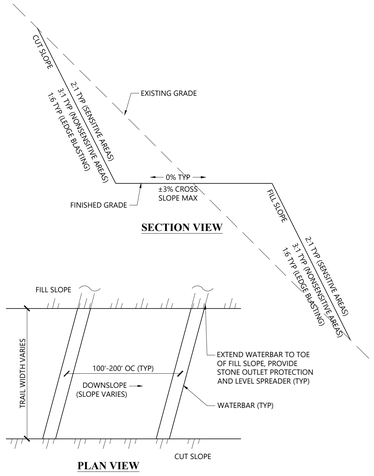
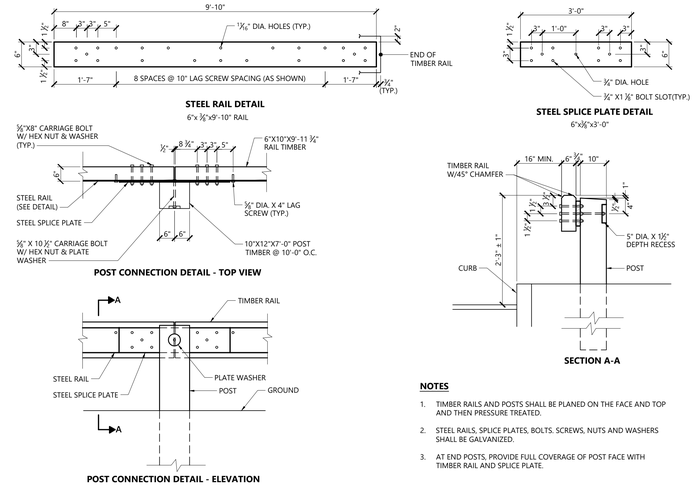


Typical Ski Trail Design

6/16

N.T.S. Source: VHB VT_LD



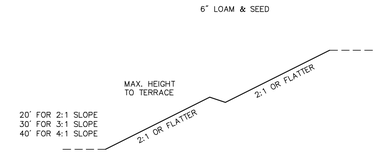
NOTES

1. TIMBER RAILS AND POSTS SHALL BE PLANED ON THE FACE AND TOP AND THEN PRESSURE TREATED.
2. STEEL RAILS, SPLICE PLATES, BOLTS, SCREWS, NUTS AND WASHERS SHALL BE GALVANIZED.
3. AT END POSTS, PROVIDE FULL COVERAGE OF POST FACE WITH TIMBER RAIL AND SPLICE PLATE.

Steel-Backed Wood Guardrail

1/16

N.T.S. Source: VHB LD_452



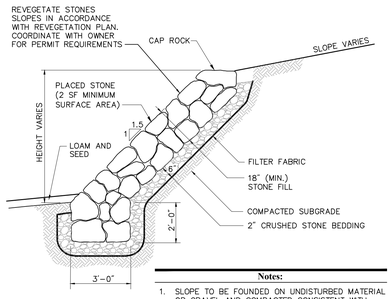
Notes:

1. SEE EROSION CONTROL BLANKET DETAIL FOR SLOPES STEEPER THAN 3 HORIZONTAL: 1 VERTICAL
2. LONGITUDINAL BENCH GRADE ALONG TERRACE TO BE 2% TO 3%, AND MAXIMUM FLOW LENGTH ALONG BENCH SHALL NOT EXCEED 800 FT.
3. VEGETATED SLOPES MAY BE USED IN PLACE OF STONE SLOPES WHERE FLATTER SLOPES WOULD NOT SIGNIFICANTLY ALTER LIMITS OF CLEARING, AND WHERE APPROVED BY ENGINEER.

Vegetated Slopes (2:1 or Flatter)

EV-10

N.T.S. Source: VHB



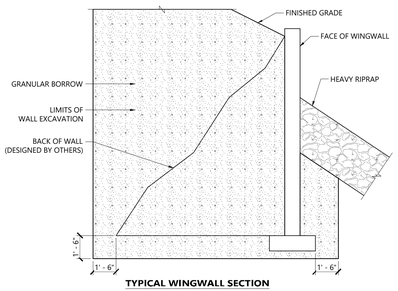
Notes:

1. SLOPE TO BE FOUNDED ON UNDISTURBED MATERIAL OR GRAVEL, AND COMPACTED CONSISTENT WITH GEOTECHNICAL ENGINEERS RECOMMENDATIONS.
2. REQUIRED FOR ALL SLOPES STEEPER THAN 2:1(H:V)
3. SLOPES MAY BE ADJUSTED WHERE APPROVED BY GEOTECHNICAL ENGINEER.

Placed Stone Slope

EV-11

N.T.S. Source: VHB LD_760



TYPICAL WINGWALL SECTION

NOTES

1. THE CONTRACTOR SHALL PROVIDE PRECAST CONCRETE WINGWALLS IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 534. THE WALLS SHALL BE DESIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. COST OF WINGWALLS INCLUDED IN ITEM 534.71.
2. THE PRECAST UNITS SHALL BE ONE OF THE FOLLOWING, OR APPROVED EQUAL:

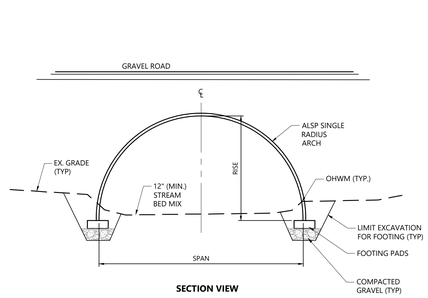
"T-WALL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF NEEL COMPANY.

"DOUBLEWAL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF DOUBLEWAL CORP., PLAIN, CONNECTICUT.

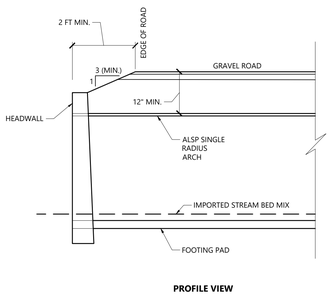
3. THE MAXIMUM FACTORED BEARING RESISTANCE FOR THE WINGWALLS IS 5 KSF FOR THE SERVICE CONDITION. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR FACTORED BEARING RESISTANCE FOR THE STRENGTH CONDITION BASED ON STEM LENGTH RANGES.
4. ELEVATION AT BOTTOM OF WALLS MAY BE LOWERED FOR CONSTRUCTABILITY AT NO ADDITIONAL COST TO THE DEPARTMENT.

Typical Wingwall

N.T.S. Source:



SECTION VIEW



PROFILE VIEW

NOTES

1. CULVERT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. CULVERT TO BE CORRUGATED METAL PIPE CAPABLE OF WITHSTANDING HS-20 LOADING.
3. CULVERT HEADWALLS SHALL INCLUDE WING-WALLS AS MAY BE REQUIRED AND/OR AS INDICATED ON SITE PLANS.
4. BOX CULVERT DIMENSIONS (WIDTH x HEIGHT) NOTED ON PLANS ARE FOR CLEAR OPENING AND DO NOT INCLUDE BURIED (SUBGRADE) PORTIONS OF CULVERTS.
5. THE CULVERT SHALL CONSIST OF PLATES, RIBS, AND APPURTENANT ITEMS AS SHOWN ON THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM B864 AND AASHTO M 219. PLATE THICKNESSES, RIB SPACINGS, END TREATMENT, AND TYPE OF INVERT AND FOUNDATION SHALL BE AS INDICATED ON THE PLANS.
6. BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 OR ASTM A449 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
7. THE CULVERT SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS PROVIDED BY THE MANUFACTURER AND PER THE MANUFACTURER'S RECOMMENDATIONS. BOLTS SHALL BE TIGHTENED USING AN APPLIED TORQUE BETWEEN 90 AND 135 FT-LBS DEPENDING ON THE LOCATION OF THE BOLTS IN THE STRUCTURE.
8. THE BOX CULVERT SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS AND THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 26 (DIVISION II).
9. THE BEDDING SHOULD BE CONSTRUCTED TO A UNIFORM LINE AND GRADE USING MATERIAL OUTLINED IN "BACKFILL REQUIREMENTS" SECTION ON THIS SHEET. THE FOUNDATION MUST BE CAPABLE OF PROVIDING A BEARING CAPACITY OF AT LEAST TWO TONS PER SQUARE FOOT.
10. FOR CULVERT DIMENSIONS, REFER TO PLAN SHEETS

Stream Crossing SC-1

DR-09

N.T.S. Source: VHB/CONTECH

STREAMBED MATERIAL FOR CHANNEL FORMATION AND OUTLET PROTECTION

THE BOULDER-COBBLE-GRAVEL-SAND MATERIAL SPECIFIED BELOW MUST BE APPROVED BY THE ENGINEER AT THE CONTRACTOR'S PROPOSED SOURCE PRIOR TO BEING PLACED IN THE STREAM CHANNEL.

Cumulative Percent of particles finer than indicated particle size	PARTICLE SIZE (inches)	PARTICLE TYPE
D10	< 0.04	sand
D16	1.0-2.0	gravel
D35	3.0-4.0	cobble
D50	8.0-10.0	cobble
D84	14.0-16.0	boulder

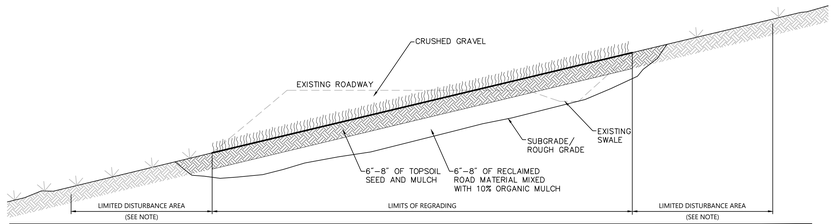
DESCRIPTION	SIZE	BUCKETS	PERCENT
ROCK/BOULDER	WELL GRADED 12-16"	0.5	7 - 12%
ROCK/COBBLE	WELL GRADED 8 - 12"	2	35 - 40%
BANK RUN GRAVEL	0.08 - 2.5"	2	35 - 40%
COURSE SAND	0.04 - 0.08" (1 - 2 MM)	0.75	12 - 17%

NOTES

1. ALL IMPORTED BEDDING MATERIAL SHALL CONSIST OF FIELD STONE OR NATURAL RIVER ROCK SIMILAR IN COLOR AND APPEARANCE TO IN-SITU MATERIALS.
2. CRUSHED STONE SHALL NOT BE PERMITTED.
3. BANK RUN GRAVEL MAY INCLUDE UP TO 5% CLAY, SILT, AND/OR SAND, AND UP TO 25% COBBLE AND SHALL HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
4. SAND SHALL BE WELL MIXED AND PREDOMINANTLY 1.0 TO 2.0 MILLIMETERS IN SIZE AND HAVE NATURAL COLOR (BROWN, TAN, YELLOW, OR WHITE).
5. THE GRADATION OF IMPORTED MATERIALS SHALL FALL WITHIN THE ENVELOPE AS INDICATED IN THE TABLE ABOVE.
6. COBBLE-GRAVEL VOID RATIO IS ESTIMATED AT 20%. THEREFORE, 20% BY VOLUME OF CL MATERIAL SHALL BE ADDED TO THE COBBLE-GRAVEL-SAND MATERIAL PRIOR TO PLACEMENT IN THE DESIGNATED AREAS. SEE CONSTRUCTION SPECIFICATIONS FOR DETAILS RELATIVE TO MIXING, PLACING, AND COMPACTING STREAMBED MATERIAL.

Streambed Material

N.T.S. Source: VHB



Notes:

RECLAMATION PROCEDURE:

1. REMOVE ROAD MATERIAL USING A BULLDOZER TO A DEPTH OF 12 INCHES BELOW APPROXIMATE FINAL GRADE. TEMPORARY STOCKPILE MATERIAL IN AN UPLAND AREA FOR USE IN ACHEIVING FINAL GRADE (SEE ATTACHED ROADWAY RECLAMATION – TYPICAL SECTION);
   a. INSTALL SILT FENCE TO SURROUND SOIL STOCKPILE(S)
   b. IF STOCKPILED MATERIAL WILL NOT BE USED WITHIN 14 DAYS, APPLY MULCH FOR TEMPORARY STABILIZATION
2. STOCKPILED MATERIAL SHOULD BE MIXED WITH APPROXIMATELY 10% COMPOSTED ORGANIC MATTER U.S. ARMY CORPS OF ENGINEERS (USACE) – NEW ENGLAND DISTRICT – REGULATORY DIVISION. 2010. NEW ENGLAND DISTRICT COMPENSATORY MITIGATION GUIDANCE., AND PLACED TO A DEPTH OF 8 TO 6 INCHES WITHIN THE EXCAVATED AREA;
   a. THIS MATERIAL SHOULD BE LIGHTLY COMPACTED TO MINIMIZE THE EFFECT OF LATER SETTLING (I.E., WITH A LIGHT WEIGHT TRACKED VEHICLE SUCH AS A BOBCAT).
3. CLEAN TOPSOIL (I.E., REASONABLY FREE OF NONORGANIC REFUSE SUCH AS PLASTICS, AS WELL AS CHEMICAL CONTAMINANTS SUCH AS HERBICIDES) AND WITH AN ORGANIC MATTER CONTENT OF BETWEEN 10 AND 20%, SHOULD BE PLACED TO A DEPTH OF 6 TO 8 INCHES ON THE SUB-GRADE MATERIAL TO ACHIEVE FINAL GRADE;
   a. THE TOPSOIL SHOULD BE LIGHTLY COMPACTED IN A SIMILAR MANNER TO THE SUB-GRADE MATERIAL; THE BOBCAT SHOULD MOVE IN A DIRECTION THAT IS PERPENDICULAR TO THE SLOPE TO CREATE MICROTOPOGRAPHY WHICH WILL INHIBIT DIRECTED RUNOFF AND POTENTIALLY EROSIVE RILLS.
4. THE GRADED AREA SHOULD BE SEEDED AS SOON AS POSSIBLE TO ENSURE SITE STABILIZATION.
5. THE SEED MIX SHOULD INCLUDE A MIX OF NATIVE SPECIES WHICH CONTAIN BOTH ANNUAL AND PERENNIAL SPECIES TO ENSURE QUICK AND LASTING COVERAGE (SEE TABLE 1 FOR REPRESENTATIVE SEED MIX).
   a. SEED MIX MAY BE APPLIED BY HYDRO-SEEDING, BY MECHANICAL SPREADING, OR BY HAND (FOR SMALLER AREAS).
   b. IF SEED IS APPLIED BY MECHANICAL OR HAND SPREADING METHODS, THE RESTORED AREA SHOULD BE MULCHED IMMEDIATELY USING STRAW MULCH TO MINIMIZE THE PRESENCE OF UNDESIRABLE SPECIES (I.E., INVASIVE SPECIES); MULCH SHOULD BE APPLIED AT A RATE OF 2 TONS (100–200 BALES) PER ACRE.

TABLE 1

PROPOSED SEED MIX FOR ROAD RECLAMATION

COMMON NAME	SCIENTIFIC NAME
RED FESCUE	FESTUCA RUBA
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM
SWITCH GRASS	PANICUM VIRGATUM
ANNUAL RYE	ELYMUS VIRGNICUS
BIG BLUESTEM	ANDROPOGON GERARDII
INDIAN GRASS	SORGHASTRUM NUTANS
DEER TONGUE	PANICUM CLANDESTINUM
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA
SOFT RUSH	JUNCUS EFFUSUS
PATH RUSH	JUNCUS TENUIS
ROUGH BENTGRASS	AGROSTIS SCABRA

- SPECIFIED SEED MIX IS THE NEW ENGLAND LOGGING ROAD MIX (PROPRIETARY BLEND) FROM NEW ENGLAND WETLAND PLANTS, INC. HTTP://WWW.NEWP.COM – OR APPROVED EQUAL
- SEED SHOULD BE APPLIED AT A MINIMUM RATE OF 20 LBS/ACRE (1 LB / 2,200 SF)

Roadway Reclamation Detail

ST-06

N.T.S. Source: VHB

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for Review

Date September 23, 2021

Not For Construction

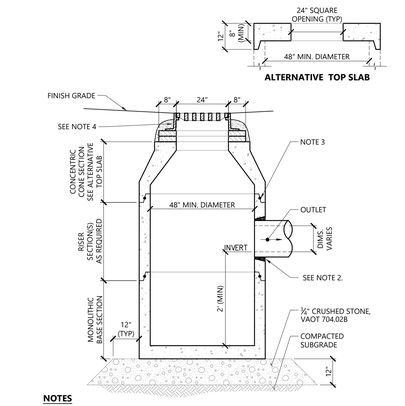
Drawing Title
Site Details

Drawing Number
C1.02

Sheet # of 58

Project Number
55310.01

STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED
PROFESSIONAL ENGINEER

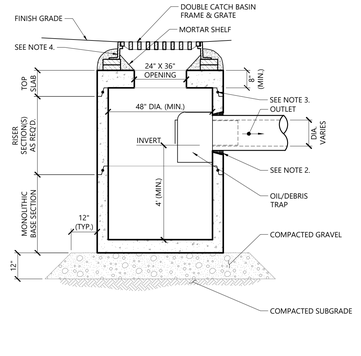


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE FLEXIBLE WATERTIGHT BOOTED CONNECTION AT ALL PIPE PENETRATIONS
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH PRECAST CONCRETE RISER RINGS, MAX 12"

Catch Basin (CB) 1/16

N.T.S. Source: VHB LD_100

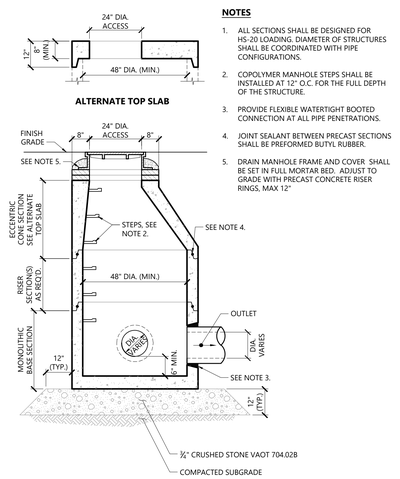


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS TYPICALLY, 5 BRICK COURSES MAXIMUM)

Double Grate Catch Basin (DCB) with Oil/Debris Trap 1/16

N.T.S. Source: VHB LD_103

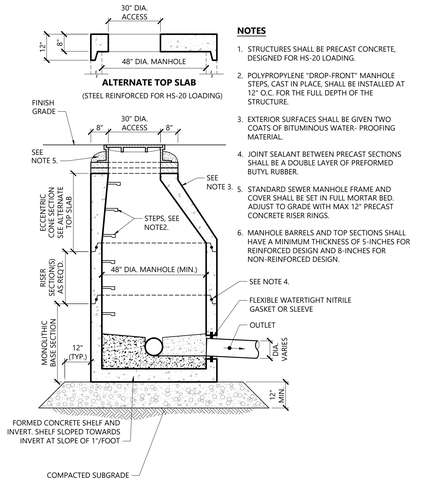


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE FLEXIBLE WATERTIGHT BOOTED CONNECTION AT ALL PIPE PENETRATIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH PRECAST CONCRETE RISER RINGS, MAX 12"

Drain Manhole (DMH) 1/16

N.T.S. Source: VHB LD_115

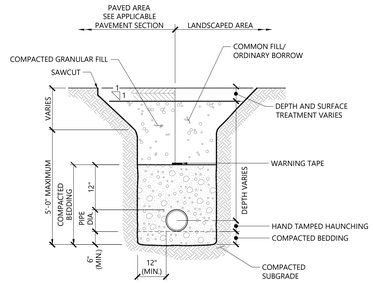


NOTES

1. STRUCTURES SHALL BE PRECAST CONCRETE, DESIGNED FOR HS-20 LOADING.
2. POLYPROPYLENE "DROP-FRONT" MANHOLE STEPS, CAST IN PLACE, SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER- PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE A DOUBLE LAYER OF PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH MAX 12" PRECAST CONCRETE RISER RINGS.
6. MANHOLE BARRELS AND TOP SECTIONS SHALL HAVE A MINIMUM THICKNESS OF 5-INCHES FOR REINFORCED DESIGN AND 8-INCHES FOR NON-REINFORCED DESIGN.

Sanitary Sewer Manhole (SMH) 1/16

N.T.S. Source: VHB LD_200-VT

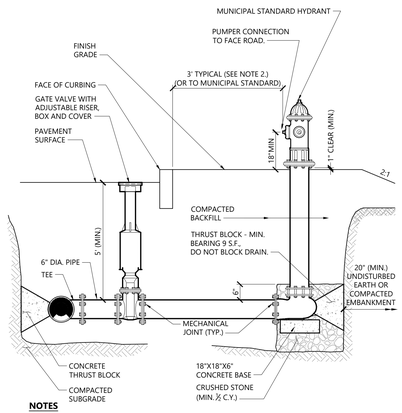


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

Utility Trench 1/16

N.T.S. Source: VHB LD_300



NOTES

1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT.
3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

Hydrant Construction 12/18

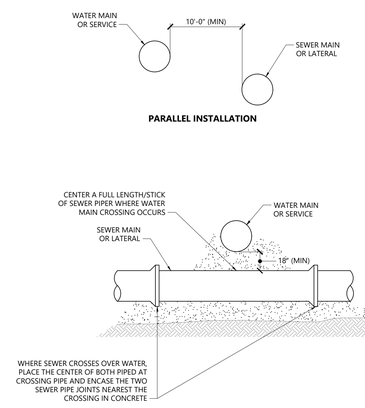
N.T.S. Source: VHB LD_250

NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. LINE SHALL BE INSULATED WITH 2" EXTRUDED POLYSTYRENE INSULATION BOARD WHERE COVER IS LESS THAN 6'. VERIFY FINAL INSULATION THICKNESS WITH ENGINEER PRIOR TO PLACEMENT.

Sewerline Trench 1/16

N.T.S. Source: VHB LD_



Water / Sewer Separation 11/15

N.T.S. Source: VHB LD_

TABLE OF DIMENSIONS

BENDS	B	C	D	E	F
6" 11 ¼°	8"	15"	12"	24"	12"
6" 22 ½°	"	19"	"	"	13"
8" 11 ¼°	"	20"	"	"	12"
8" 22 ½°	"	22"	"	"	17"
12" 11 ¼°	"	30"	"	"	15"
12" 22 ½°	"	35"	"	"	25"

BENDS	B	C	D	E	F
6" 45°	8"	30"	12"	24"	14"
6" 90°	"	30"	"	"	27"
8" 45°	"	30"	"	"	24"
8" 90°	"	38"	"	"	36"
12" 45°	"	40"	"	"	40"
12" 90°	"	60"	"	"	52"

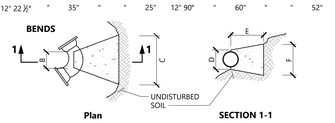
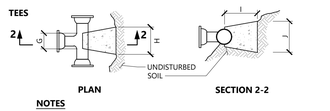


TABLE OF DIMENSIONS

TEES	G	H	I	J
6"X6"X6"	12"	24"	24"	18"
8"X8"X6"	"	"	"	"
8"X8"X8"	"	"	24"	"

TEES	G	H	I	J
12"X12"X6"	12"	24"	24"	18"
12"X12"X8"	"	"	"	24"
12"X12"X12"	"	36"	"	36"

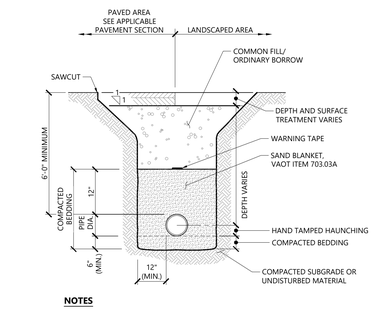


NOTES

1. PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES, AND VERTICAL BENDS (SAME SIZE AS REQUIRED FOR TEES). PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES.
2. CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.
3. CONCRETE SHALL BE 3,000 PSI-TYPE I.

Concrete Thrust Block 1/16

N.T.S. Source: VHB LD_260



NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC WARNING TAPE OVER ALL PIPES.
3. LINE SHALL BE INSULATED WITH 2" EXTRUDED POLYSTYRENE INSULATION BOARD WHERE COVER IS LESS THAN 6'. VERIFY FINAL INSULATION THICKNESS WITH ENGINEER PRIOR TO PLACEMENT.

Waterline Trench 1/16

N.T.S. Source: VHB LD_

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Apprvd.

Designed by RWN Checked by PS

Issued for Date

Review September 23, 2021

Not For Construction

Drawing Title

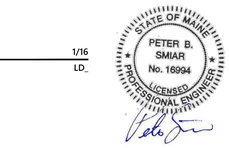
Utility Details

Drawing Number

C1.03

Sheet # of 58

Project Number 55310.01



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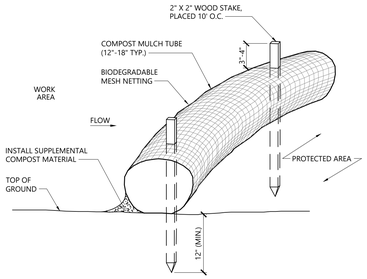


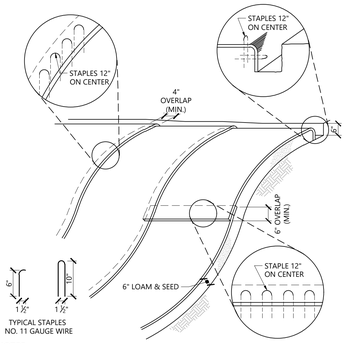
NOTES

1. COMPOST MULCH TUBE SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.
6. SEE SPECIFICATIONS FOR SOCK SIZE, AND COMPOST FILL REQUIREMENTS.

Compost Mulch Tube - Erosion Control Barrier

1/16

N.T.S. Source: VHB LD_658



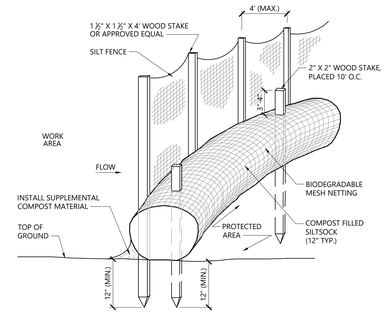
NOTES

1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE UPPER BLANKET END OVER LOWER END WITH 6 INCH (MIN.) OVERLAP AND STAPLE BOTH TOGETHER.
5. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
6. EROSION CONTROL BLANKETS TO BE USED IN AREAS WHERE SLOPES ARE EQUAL TO OR GREATER THAN 3:1. ALTERNATIVES MAY INCLUDE MULCH NETTING OVER LOOSE MULCH, OR EROSION CONTROL MIX AS SPECIFIED IN THE MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs).

Erosion Control Blanket Slope Installation

1/16

N.T.S. Source: VHB LD_680



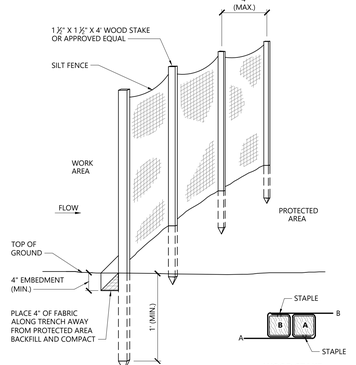
NOTES

1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. SILTSOCK SHALL BE INSPECTED WEEKLY AT A MINIMUM AND BEFORE AND WITHIN 24 HOURS AFTER ALL STORM EVENTS (RAINFALL). IF REPAIR IS REQUIRED, REPAIR WORK SHALL BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPs OR SIGNIFICANT REPAIR OF BMPs ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
4. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.
6. SILTSOCK / SILT FENCE BARRIER SHALL BE USED WHERE DISTURBANCE OCCURS WITHIN 50 FT OF A PROTECTED NATURAL RESOURCE.
7. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE INSTALLED ALONG EXISTING GRADES WITH ENDS TURNED UPSLOPE.

Siltsock / Silt Fence Barrier

1/16

N.T.S. Source: VHB LD_658-A



WOOD STAKE JOINT DETAIL

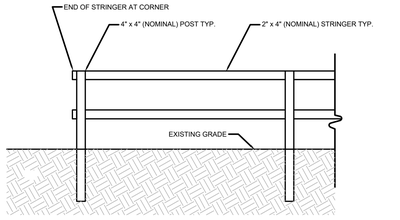
NOTES

1. SILT FENCE MAY BE REQUIRED IN ADDITION TO EROSION CONTROL TUBES WHERE SLOPES ARE GREATER THAN 2:1.
2. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE INSTALLED ALONG EXISTING GRADES WITH ENDS TURNED UPSLOPE.

Silt Fence Barrier

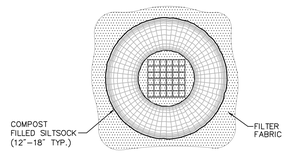
1/16

N.T.S. Source: VHB LD_650

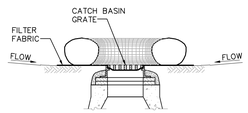


Tree Protection Fence

N.T.S. Source: Wolf Landscape Architecture



Plan View



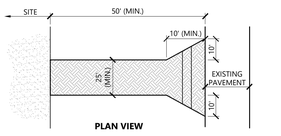
Section View

Notes:

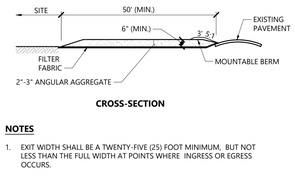
1. ENCLOSE STRUCTURE WITH SILTSOCK IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION. MAINTAIN UNTIL PAVING BINDER COURSE IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. IF GRATE IS AGAINST EXISTING CURB THEN SILTSOCK IS TO BE PLACED AROUND THREE SIDES OF GRATE ONLY.
3. GRATE TO BE PLACED OVER FILTER FABRIC.
4. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
5. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.

Catch Basin Sediment Trap - Siltsock

N.T.S. Source: VHB



PLAN VIEW



CROSS-SECTION

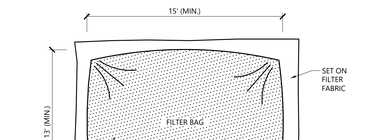
NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENTS SHALL BE REMOVED BY VACUUM SWEEPING
3. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. INSPECTION AND MAINTENANCE SHALL BE PERFORMED WEEKLY AND BEFORE AND AFTER STORM EVENTS.
4. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

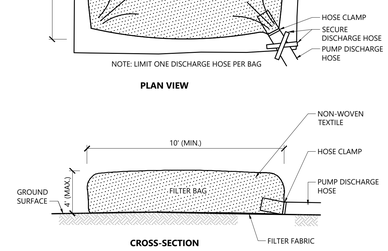
Stabilized Construction Entrance/Exit

7/19

N.T.S. Source: VHB LD_682



PLAN VIEW



CROSS-SECTION

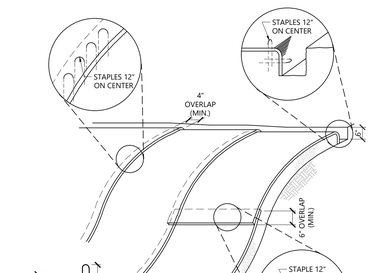
NOTES

1. BAG TO BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. DEWATERING FILTER BAGS SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES. ENSURE DOWN GRADIENT SLOPE IS WELL VEGETATED.

Dewatering Filter Bag

1/16

N.T.S. Source: VHB LD_691



NOTES

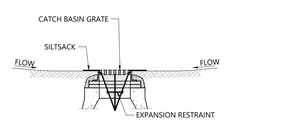
1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE UPPER BLANKET END OVER LOWER END WITH 6 INCH (MIN.) OVERLAP AND STAPLE BOTH TOGETHER.
5. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
6. EROSION CONTROL BLANKETS SHALL BE USED IN ALL AREAS WHERE SLOPES EXCEED 3:1.

Erosion Control Blanket Slope Installation

1/16

N.T.S. Source: VHB LD_680

PLAN VIEW



SECTION VIEW

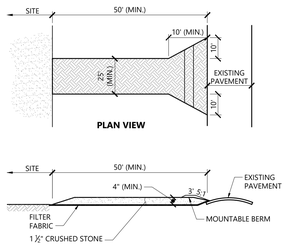
NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap

1/16

N.T.S. Source: VHB LD_674



PLAN VIEW

CROSS-SECTION

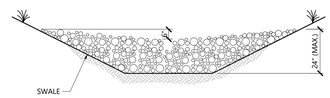
NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

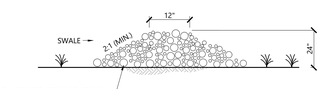
Stabilized Construction Exit

1/16

N.T.S. Source: VHB LD_682



ELEVATION



CROSS-SECTION

NOTES

1. TOP OF DOWNGRADIENT CHECKDAM AND BOTTOM OF UPGRADIENT CHECKDAM TO BE SET AT THE SAME ELEVATION.
2. STONE CHECKDAMS MAY BE REMOVED WHEN 90% OF THE VEGETATIVE COVER IS ESTABLISHED.

Temporary Stone Checkdam

N.T.S. Source: VHB

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Apprvd.

Designed by RWN | Checked by PS

Issued for: Review | Date: September 23, 2021

Not For Construction

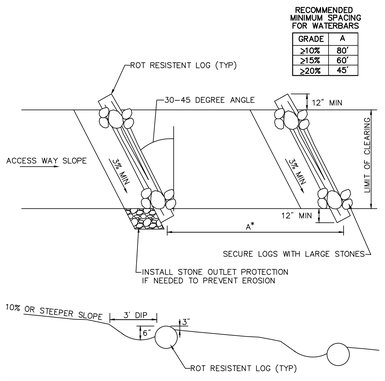
Drawing Title: **Erosion Prevention and Sediment Control Details**

Drawing Number: **C1.04**

Sheet # of 58

Project Number: 55310.01

STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED PROFESSIONAL ENGINEER

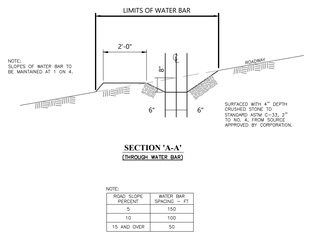


Notes:

1. WATERBARS SHOULD BE INSTALLED IN SECTIONS WITH SLOPES GREATER THAN OR EQUAL TO 10%.
2. WATERBARS SHALL BE CONSTRUCTED WITH 10" DIAMETER MINIMUM PEELED LOGS, HELD IN PLACE WITH LARGE STONES. APPROPRIATE SPECIES INCLUDE SPRUCE, HEMLOCK, BEECH, AND OAK.
3. CONTRACTOR TO OBSERVE THE CLEARINGS DURING A RAINSTORM TO DETERMINE IF ADDITIONAL WATERBARS OR ADJUSTMENTS TO WATERBARS ARE NEEDED.
4. WATERBAR DESIGN AND SPACING PROVIDED FOR GUIDANCE TO CONTROL EROSION ALONG CROSS-COUNTRY CLEARINGS. THE CONTRACTOR SHALL DETERMINE IF OTHER APPROPRIATE MEASURES ARE REQUIRED TO CONTROL RUNOFF AND EROSION IN CLEARING AREAS.
5. FOR WIDER LIMITS OF CLEARING MULTIPLE LOG LENGTHS MAY BE REQUIRED. ANCHOR ALL LOG ENDS WITH LARGE STONES AS SHOWN.

Waterbars - For Cross-Country Utility Clearings ER-03

N.T.S. Source: VHB



SECTION 'A-A'
(THROUGH WATER BAR)

NOTE:

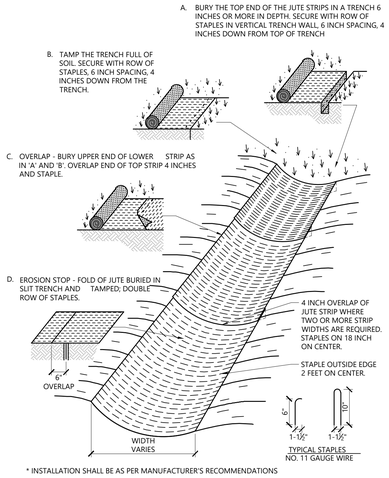
ROAD SLOPE PERCENT	WATER BAR SPACING — FT
5	150
10	100
15 AND OVER	50

Notes:

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. STRIP EXISTING SOD FROM BASE OF DIVERSION RIDGE PRIOR TO PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
5. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL CONDITIONS ARE NOT ADEQUATE.
6. INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.
7. WATERBAR SLOPE SHALL NOT EXCEED 2% AS SHOWN.
8. FEDERAL, STATE, AND/OR LOCAL REQUIREMENTS MAY OVERRIDE THESE SPECIFICATIONS AND/OR THE USE OF THIS MEASURE.

Typical Water Bar Detail ER-04

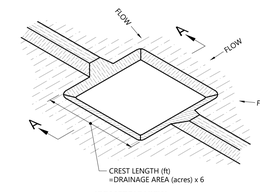
N.T.S. Source: VHB LD_



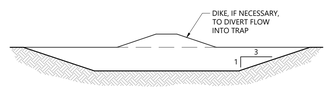
* INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS

Erosion Control Blanket Swale Installation 1/16

N.T.S. Source: VHB LD_681



ISOMETRIC VIEW



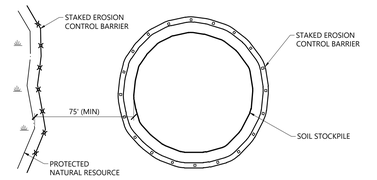
SECTION A-A

NOTES

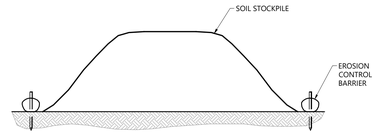
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE .
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. TEMPORARY SEDIMENT TRAPS SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES. ENSURE DOWN GRADIENT SLOPE IS WELL VEGETATED.

Temporary Sediment Trap

N.T.S. Source: VHB



PLAN VIEW



SECTION A-A

NOTES

1. STOCKPILES SHALL BE PLACED A MINIMUM OF 75 FEET AWAY FROM PROTECTED NATURAL RESOURCES.
2. STOCKPILES REMAINING UNSTABILIZED FOR A PERIOD OF MORE THAN 15 DAYS SHALL BE TEMPORARILY MULCHED.
3. SOIL STOCKPILES SHALL BE INSPECTED WEEKLY AT A MINIMUM AND BEFORE AND WITHIN 24 HOURS AFTER ALL STORM EVENTS (RAINFALL). IF REPAIR IS REQUIRED, REPAIR WORK SHALL BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

Soil Stockpile Sediment Control

N.T.S. Source: VHB

MULCH MATERIAL AND APPLICATION

MULCH MATERIAL	QUALITY STANDARDS	PER 1,000 SQ-FT	PER ACRE	DEPTH OF APPLICATION
WOOD CHIPS OR SHAVINGS	AIR DRIED, FREE OF OBJECTIONABLE MATERIAL	500 – 900 LBS	10 – 20 TONS	2d0'7"
WOOD FIBER CELLULOSE (PARTIALLY DIGESTED WOOD FIBERS)	MADE FROM NATURAL WOOD USUALLY WITH GREEN DYE AND DISPERSING AGENT	50 LBS	2,000 LBS	N/A
GRAVEL, CRUSHED STONE OR SLAG	WASHED; SIZE 2B OR 3A – 1 1/2"	9 CY	405 CY	3"
HAY OR STRAW	AIR-DRIED; FREE OF UNDESIRABLE SEEDS AND COURSE MATERIALS	90 – 100 LBS, 2–3 BALES	2 TONS (100–120 BALES)	COVER ABOUT 90% SURFACE
COMPOST	UP TO 3" PIECES, MODERATELY TO HIGHLY STABLE	3 – 9 CY	3 – 9 CY	1–3"
Erosion Control Mix	WELL-GRADED MIXTURE OF PARTICLE SIZES. ORGANIC CONTENT BETWEEN 80–100% DRY WEIGHT. PARTICLE SIZE SHALL PASS 6" SCREEN (100%)	*Slopes 3(Hz.):1(Vert.) = 2 inch depth plus additional 1/2 inch depth per 20 ft. of slope up to 100 ft. **Slopes between 3(Hz.):1(Vert.) and 2(Hz.):1(Vert.) = 4 inch depth plus additional 1/2 inch per 20 ft. of slope up to 100 ft. ***Slopes steeper than 2(Hz.):1(Vert.) applicability to specific site and mulch depth to be reviewed and approved prior to use by OPSC or EPSC Specialist		

Notes:

1. APPLY TACKIFIER AS NEEDED TO MINIMIZE POTENTIAL FOR MULCH TO BLOW AWAY.
2. MULCH MUST NOT CONTAIN INVASIVE PLANT SPECIES. (SEEDS OR SEEDLINGS)
3. TACKIFIER MAY BE WATER, NETTING, OR SIMILAR.

Mulch Table EV-08

N.T.S. Source: VHB LD_

DIVERSION WITH EXCAVATION

DIVERSION WITH FILL

NOTES

1. RUNOFF SHALL BE DIVERTED FROM STORMWATER ROADSIDE BUFFERS THAT ARE CONSTRUCTED ON FILL OR RESHAPED SLOPES UNTIL A DENSE SOD IS ESTABLISHED. OR THOSE AREAS MUST BE PROTECTED BY A 3" LAYER OF EROSION CONTROL MIX OR OTHER WOODWASTE MATERIAL APPROVED BY MAINEDEP BEFORE STORMWATER IS DIRECTED TO IT.
2. ALL DIVERSION DIKES AND BERMS SHOULD BE COMPACTED AND STABILIZED WITH MATERIAL THAT IS APPROPRIATE FOR THE SLOPE AND EXPECTED RUNOFF, SUCH AS EROSION CONTROL BLANKETS, GRAVEL, OR RIPRAP.

Runoff Diversion

N.T.S. Source: Maine DEP Erosion and Sediment Control BMP Manual

vhb.com

vhb

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Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for Review

Date September 23, 2021

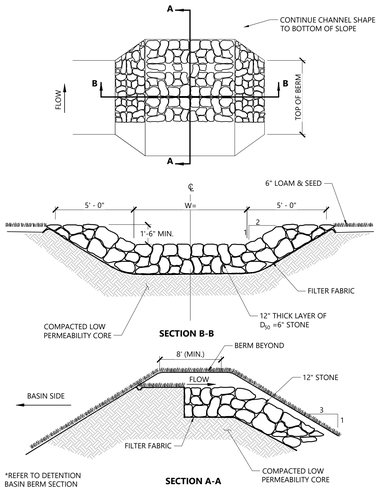
Not For Construction

Drawing Title
Erosion Prevention and Sediment Control Details

Drawing Number
C1.05

Sheet # of 58

Project Number
55310.01



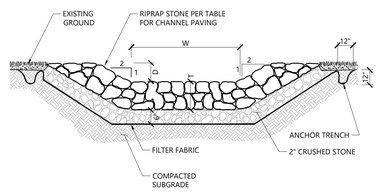
Overflow Stone Spillway

1/16

N.T.S. Source: VHB LD_161

TABLE

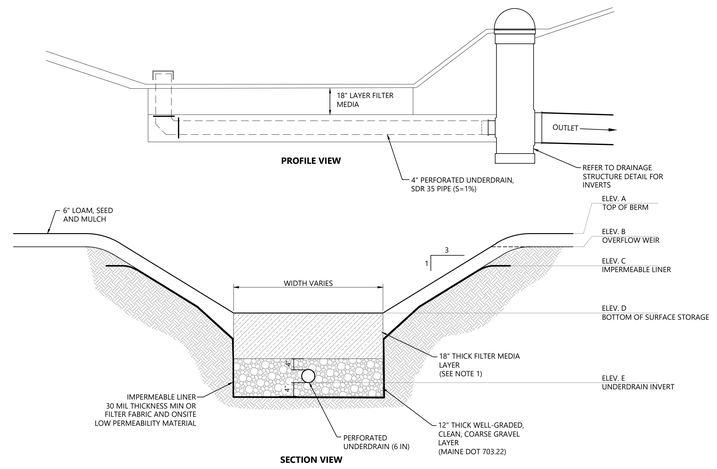
CHANNEL DESIGNATION	W	T	D	STONE DIA. (D_{50})



Riprap Channel

1/16

N.T.S. Source: VHB LD_170



ELEVATION TABLE

VSF #	A	B	C	D	E

NOTES

1. VEGETATED SOIL FILTER REQUIREMENTS PER MAINE DEP CHAPTER 500, LATEST EDITION. MINIMUM REQUIREMENTS PER THE DEVELOPMENT:
   - DRAIN TIME = 24-48 HOURS, ASSUMES AN RATE OF 3 INCHES/HOUR.
2. FILTER MEDIA SHALL CONSIST (BY VOLUME) OF:
   - 50% SAND (ASTM C-33 CONCRETE SAND),
   - 20% SANDY LOAM TO FINE SANDY LOAM CONFORMING TO THE FOLLOWING GRADATION:

WEIGHT	SIEVE (ASTM D422)	PERCENT PASSING BY
	NO. 4	75-95
	NO. 10	60-90
	NO. 40	35-85
	NO. 200	20-70
	200 (CLAY SIZE)	< 2.0

   - 30% MATURE COMPOSTED WOODY FIBERS AND FINE SHREDDED BARK MULCH, SUPERHUMUS OR EQUIVALENT.
   - RESULTING MIXTURE SHALL HAVE 8% TO 12% PASSING THE NO. 200 SIEVE AND A CLAY CONTENT OF LESS THAN 2%.
   - FILTER MEDIA SHALL BE FIELD TESTED TO INSURE DRAINAGE WITHIN 24 TO 48 HOURS AND HAVE SUFFICIENT FINES TO ENSURE FILTRATION OF FINE PARTICLES. GRADATION SHALL BE ADJUSTED, IF REQUIRED, TO MEET THE REQUIRED DRAW DOWN TIME. ADJUSTED GRADATIONS AND DRAINAGE TIME SHALL BE SUBMITTED TO DESIGN ENGINEER FOR REVIEW AND APPROVAL.
3. IMPERMEABLE LINER SHALL CONSIST OF HIGH-STRENGTH 30 MIL POLYETHYLENE MEMBRANE WITH BONDED SEAMS AND TEXTURED SURFACE OR FILTER FABRIC WITH APPROVED ON-SITE LOW PERMEABILITY MATERIAL.
4. BOTTOM OF BASIN SHALL BE SEEDED WITH A CONSERVATION TYPE SEED MIX AND MULCHED.
5. PERFORATED UNDERDRAIN PIPE SHALL BE LAID AS SHOWN IN PLAN VIEW, NO GREATER THAN 15' ON CENTER, TO DRAIN THE ENTIRE FILTER AREA.

Vegetated Soil Filter (VSF) Detail

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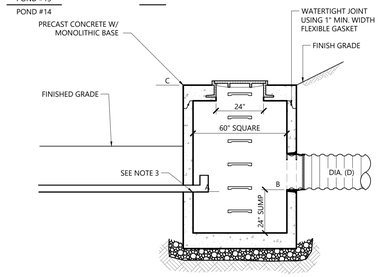
N.T.S. Source: VHB

DIMENSIONS TABLE

DESIGNATION	A	B	C	D	ORIFICE "A" DIAMETER
POND #1	303'	303'	305.5'	36"	4"
POND #11					
POND #13					
POND #14					



NOTES:

1. ALUMINUM "DROP-FRONT" MANHOLE STEPS, CAST IN PLACE, SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER
3. MANHOLE OPENING SHALL BE SET IN STRUCTURE COVER AS ALIGNED WITH LADDER ACCESS.

Wet Pond Outlet Control Structures

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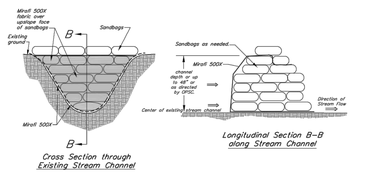
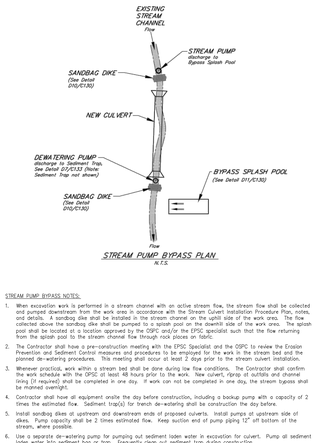
N.T.S. Source: VHB LD_171



Stream Channel Sandbag Dike Detail

EV-02

N.T.S. Source: VHB LD_



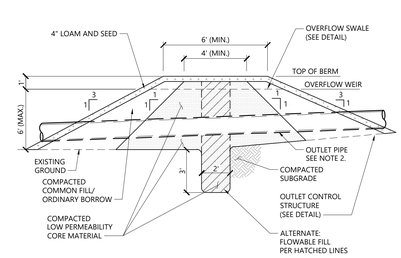
STREAM PUMP BYPASS NOTES:

1. When excavation work is performed in a stream channel with an active stream flow, the stream flow shall be collected and pumped downstream from the work area in accordance with the Stream Culvert Installation Procedure Plan, notes, and details. A sandbag dike shall be installed in the stream channel on the uphill side of the work area. The flow collected above the sandbag dike shall be pumped to a splash pool on the downhill side of the work area. The splash pool shall be located at a location approved by the OSPC and/or the EPSC specialist such that the flow returning from the splash pool to the stream channel flow through rock places on fabric.
2. The Contractor shall have a pre-construction meeting with the EPSC Specialist and the OSPC to review the Erosion Prevention and Sediment Control measures and procedures to be employed for the work in the stream bed and the planned de-watering procedures. This meeting shall occur at least 2 days prior to the stream culvert installation.
3. Whenever practical, work within a stream bed shall be done during low flow conditions. The Contractor shall confirm the work schedule with the OPSC at least 48 hours prior to the work. New culvert, riprap at outfalls and channel lining (if required) shall be completed in one day. If work can not be completed in one day, the stream bypass shall be manned overnight.
4. Contractor shall have all equipment onsite the day before construction, including a backup pump with a capacity of 2 times the estimated flow. Sediment trap(s) for trench de-watering shall be construction the day before.
5. Install sandbag dikes at upstream and downstream ends of proposed culverts. Install pumps at upstream side of dikes. Pump capacity shall be 2 times estimated flow. Keep suction end of pump piping 12" off bottom of the stream, where possible.
6. Use a separate de-watering pump for pumping out sediment laden water in excavation for culvert. Pump all sediment laden water into sediment bag or trap. Frequently clean out sediment trap during construction.

Stream Culvert Installation Procedure

EV-07

N.T.S. Source: VHB LD_



NOTES

1. LOW PERMEABILITY CORE MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT.
2. WHERE PIPES PENETRATE THE LOW PERMEABILITY CORE, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY CORE MATERIAL.
3. THE BERM SECTION IS SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Detention Basin Berm Section

1/16

N.T.S. Source: VHB LD_160

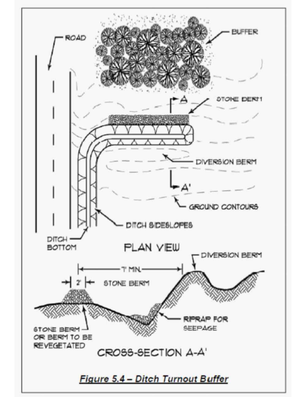
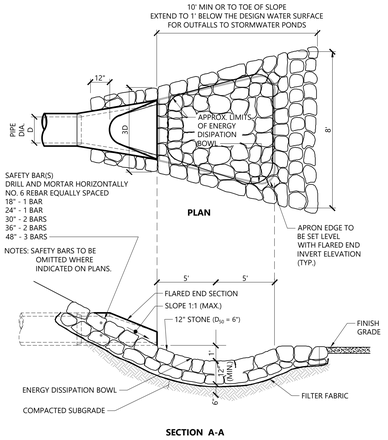


Figure 5.4 – Ditch Turnout Buffer

- *Stone Berm Specifications:* The stone berm to which the ditch turn-out delivers the runoff must be at least 20 feet in length and must be constructed along the contour. It must be at least one- foot high and two feet across the top with 2:1 side slopes.
- *Stone Size:* The stone must be coarse enough that it will not clog with sediment. Stone for stone bermed level lip spreaders must consist of sound durable rock that will not disintegrate by exposure to water or weather. Fieldstone, rough quarried stone, blasted ledge rock or tailings may be used. The rock must be well graded with a median size of approximately 3 inches and a maximum size of 6 inches. See Table 5.4 above.

Ditch Turnout Buffer

N.T.S. Source: MDEP



Flared End Section (FES) with Stone Protection

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N.T.S. Source: VHB LD_134

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No.	Revision	Date	Appvd.

Designed by RWN Checked by PS

Issued for Date

Review September 23, 2021

Not For Construction

Drawing Title

Stormwater Details

Drawing Number

C1.06

Sheet # of 58

Project Number 55310.01

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