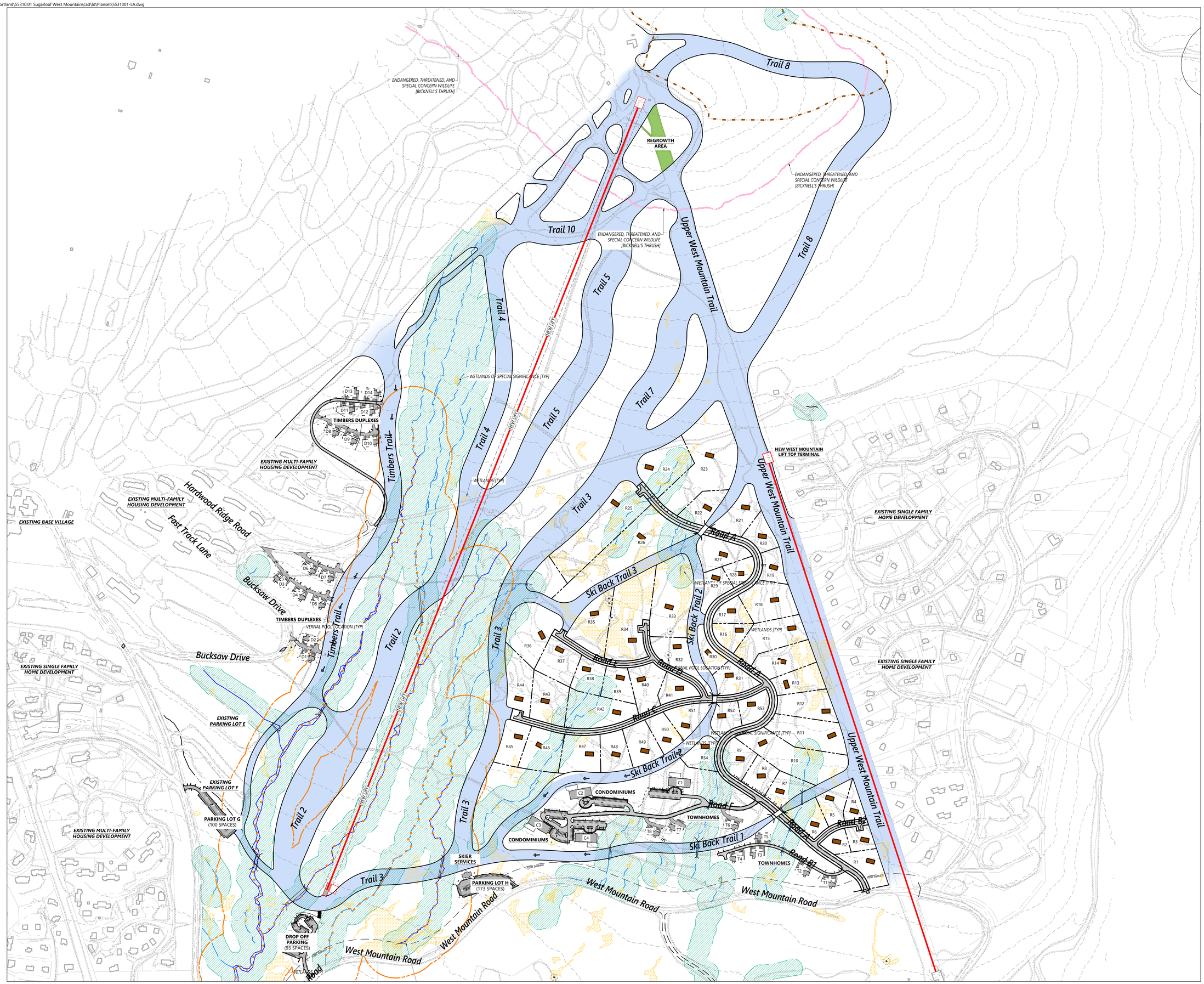

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SUGARLOAF

LEGEND

- Existing Lift
- Proposed Lift
- Proposed Ski Trail
- Perennial Stream
- Intermittent Stream
- Potential Habitat For Northern Salamander / Roaring Brook Mayfly
- 250ft Buffer - Northern Salamander / Roaring Brook Mayfly
- 100ft Design Buffer to Streams
- Wetlands of Special Significance (VHB)
- Wetlands (VHB)
- Potential Bicknell Thrush Habitat
- Potential Subalpine Fir Forest
- Regrowth Area

0 125 250 500 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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No.	Revision	Date	Appvd.

Designed by MKW
Checked by MPH
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Date February 4, 2022

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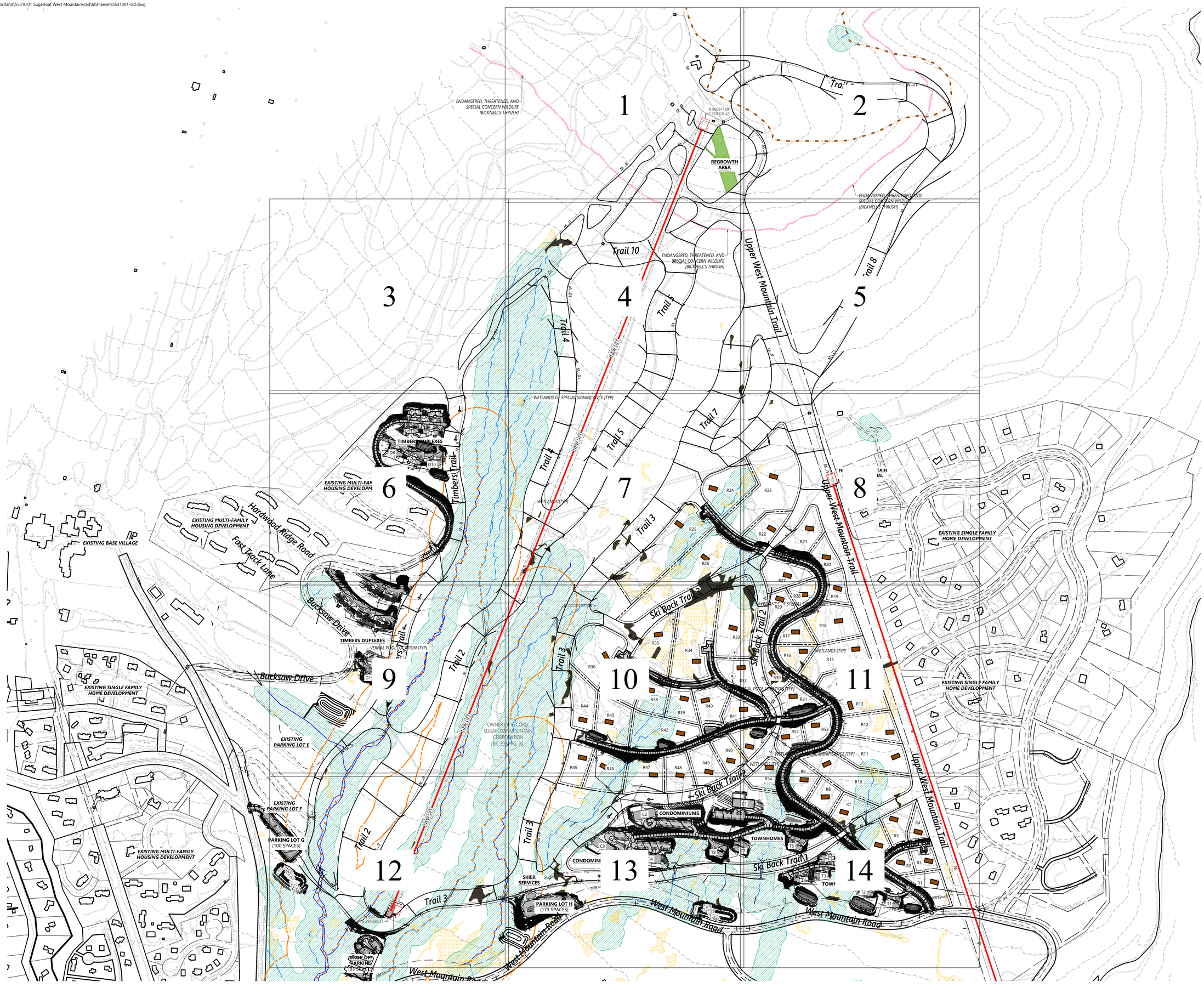
Drawing Title
Master Plan

Drawing Number
LA-1.00

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

Sheet of 58

Project Number
55310.01



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0 125 250 500 Feet

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Date February 4, 2022

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Drawing Title
Overall Ski Trails Grading

Drawing Number
CG-1.00

Sheet of 58

Project Number 55310.01

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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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Project Number 55310.01

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Legend

◐	SOIL TEST PIT LOCATION

0 125 250 500Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Review

Date
February 4, 2022

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.00

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58

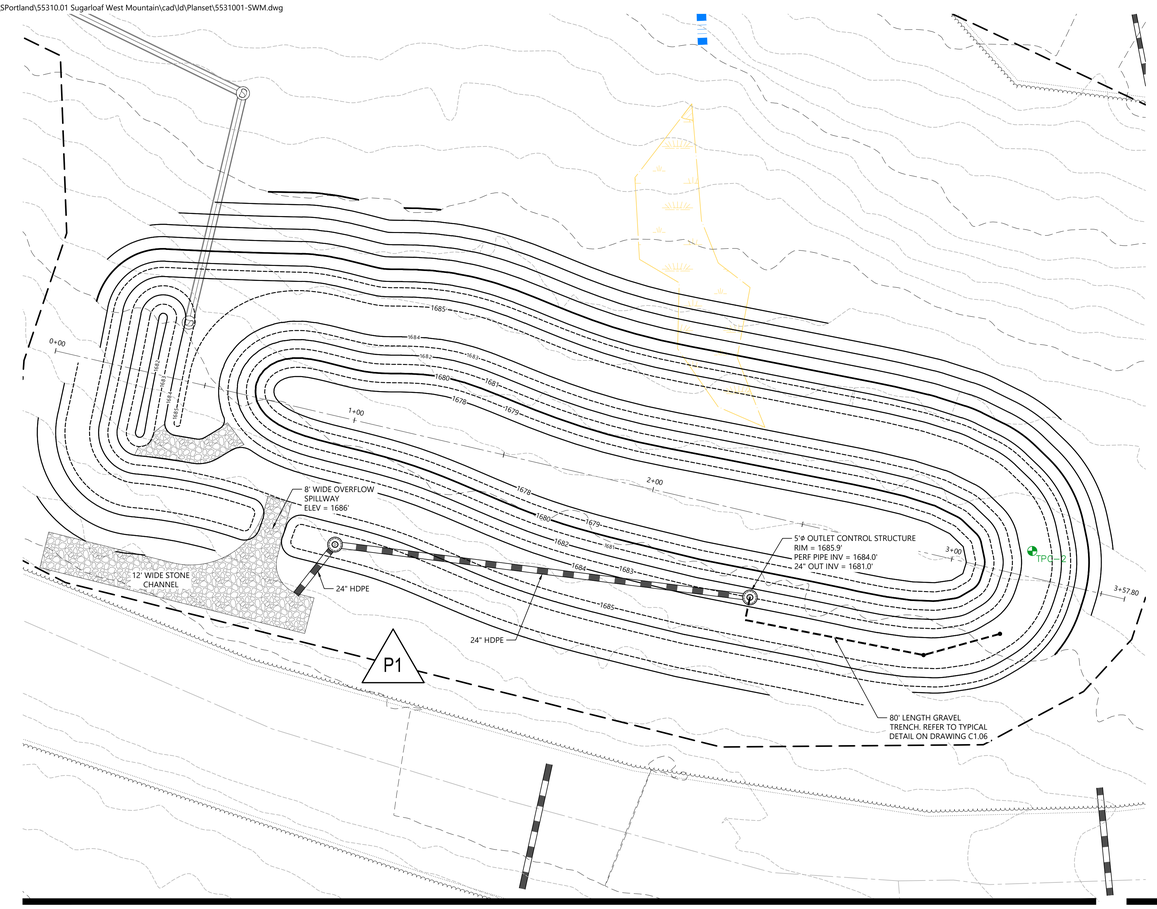
Project Number
55310.01

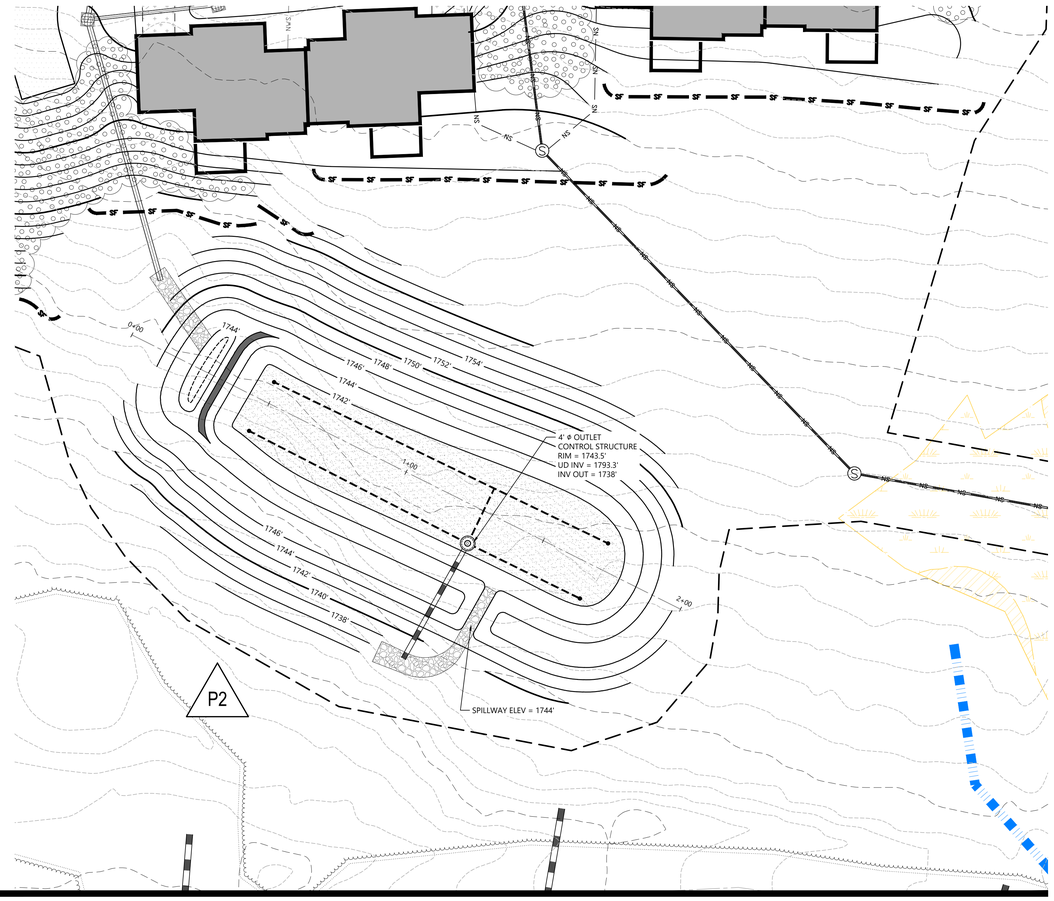
PETER B. SMIAR
No. 16994

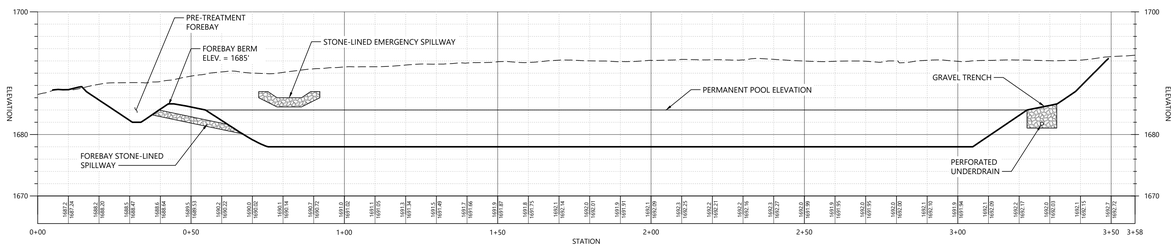
Pete S

General Notes

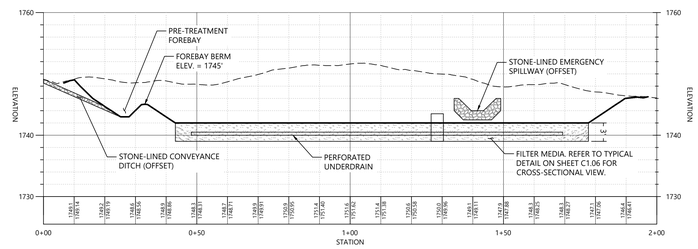
1) THE TEST PIT EXPLORATIONS WERE CONDUCTED BY ERIC WHITNEY (CERTIFIED SOIL SCIENTIST, MAIN-LAND DEVELOPMENT CONSULTANTS, INC) ON APRIL 26, 2021. SOIL TEST PIT DATA CAN BE FOUND IN SECTION 11 OF THE PROJECT SITE LAW APPLICATION.







WET POND - P1



VEGETATED UNDERDRAINED SOIL FILTER - P2

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

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Date February 4, 2022

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.01

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

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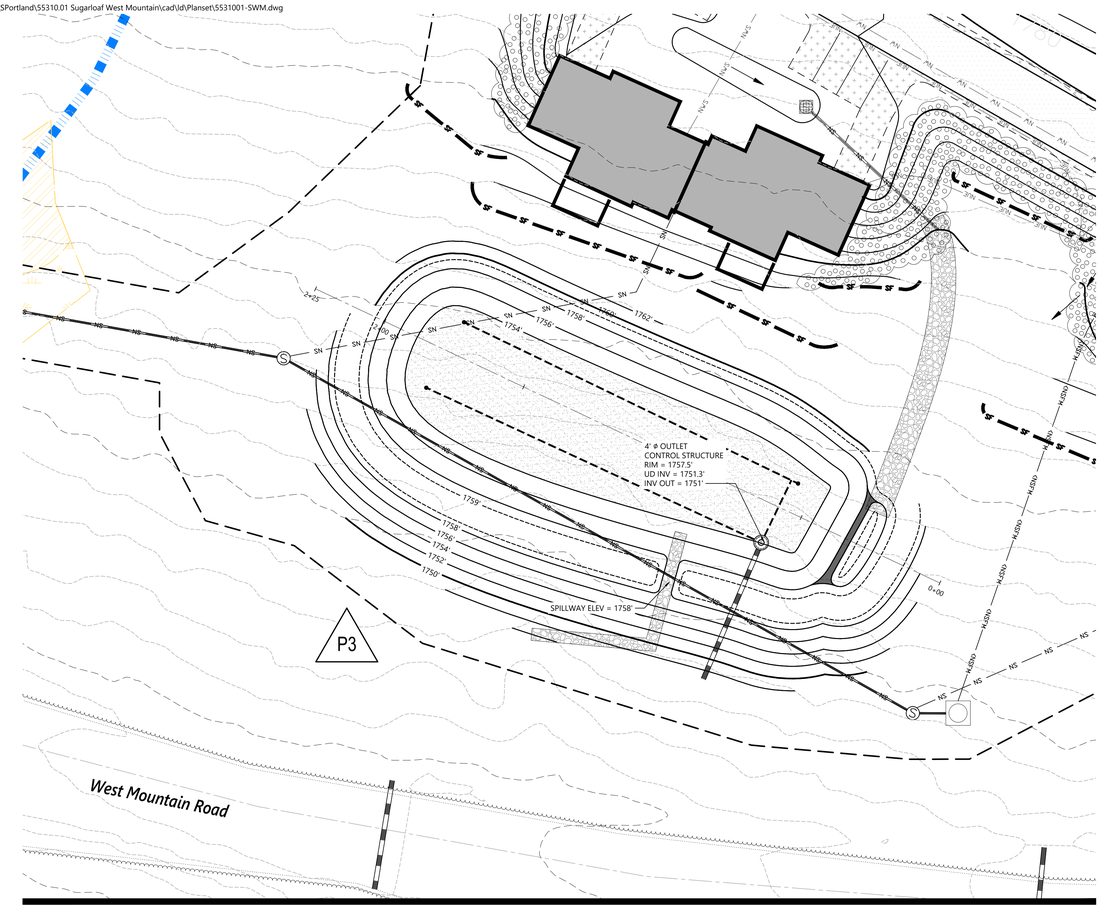
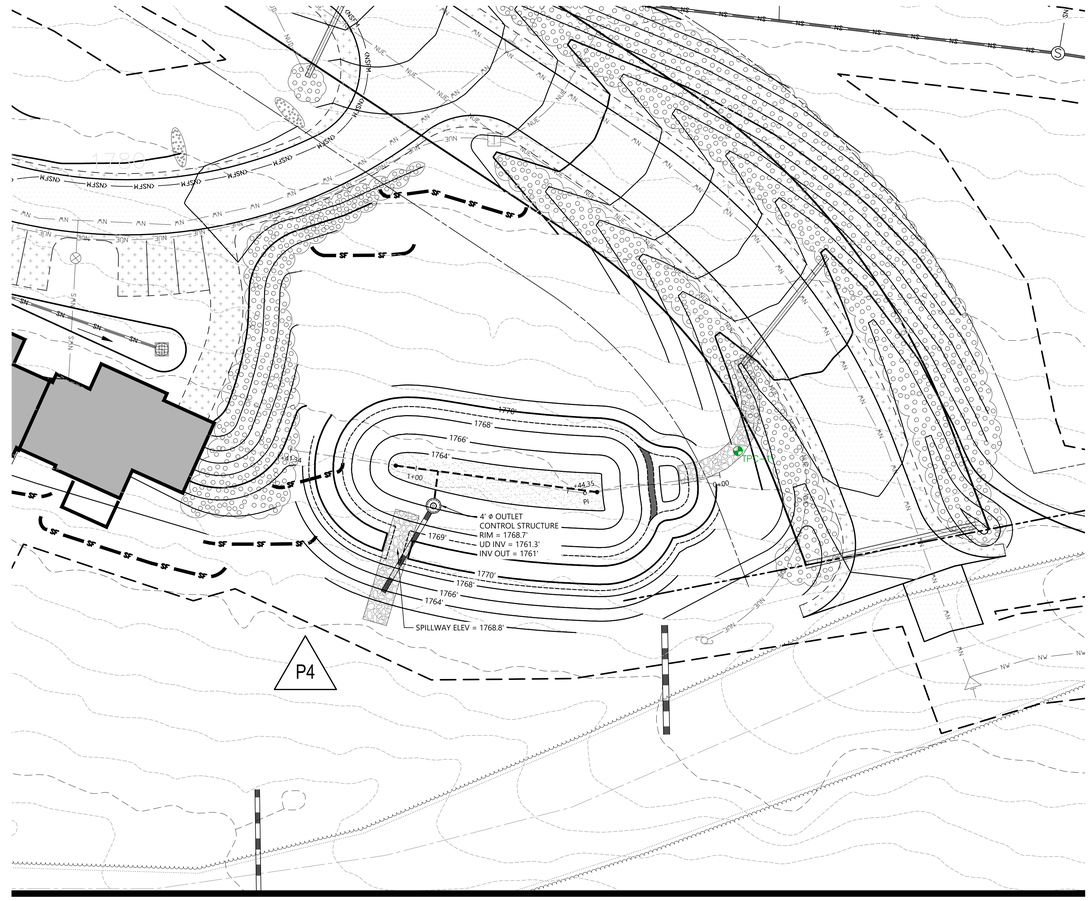
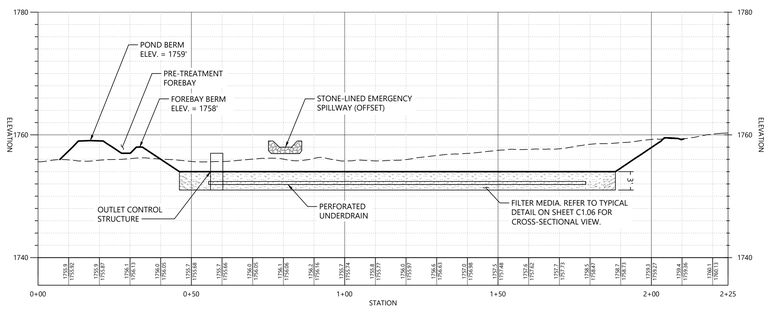
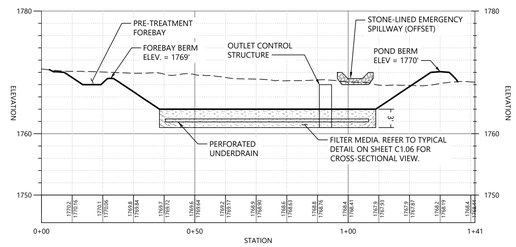






VEGETATED UNDERDRAINED SOIL FILTER - P3



VEGETATED UNDERDRAINED SOIL FILTER - P4

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.02

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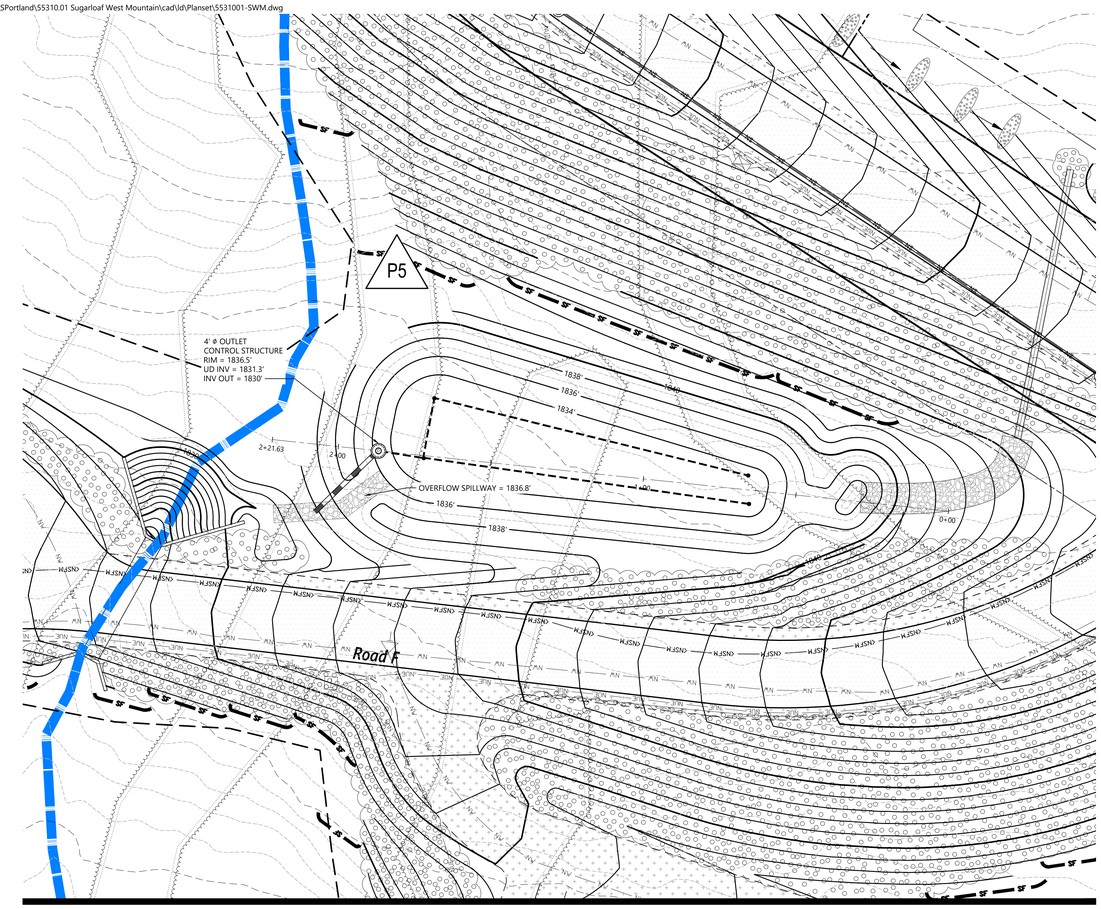
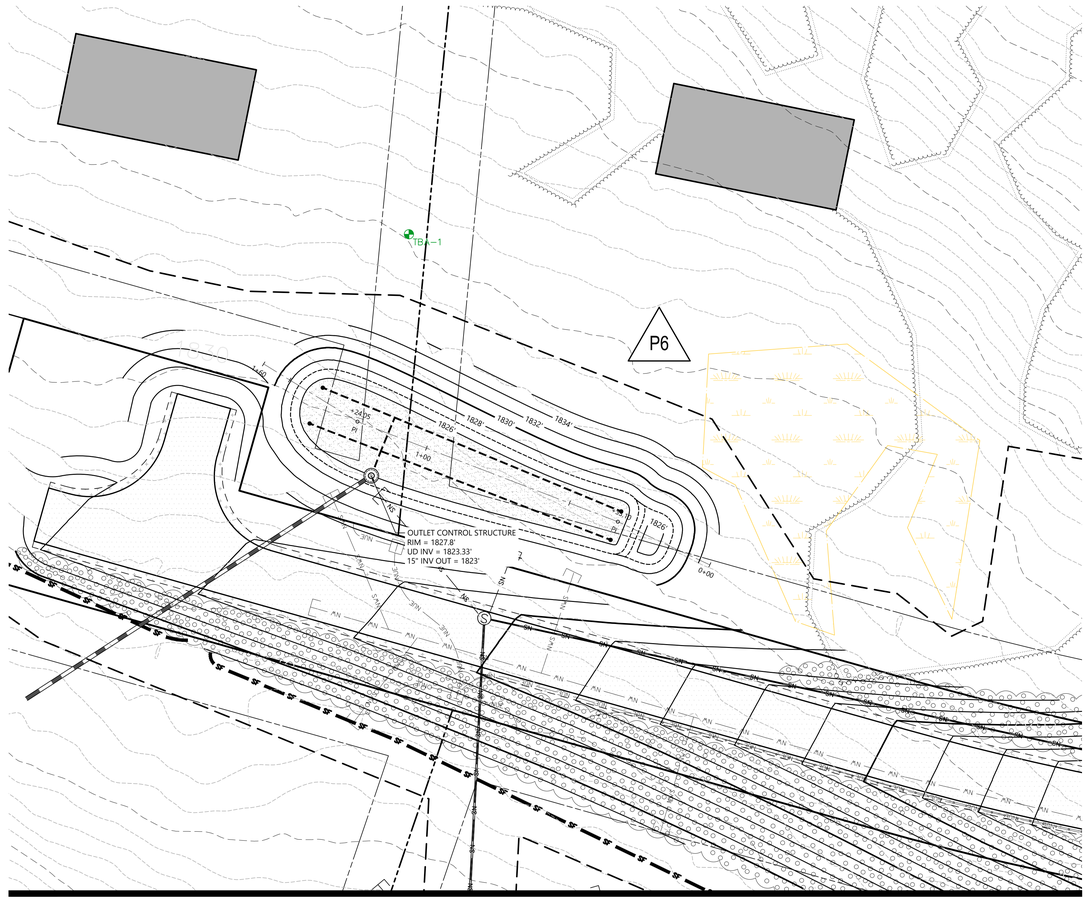
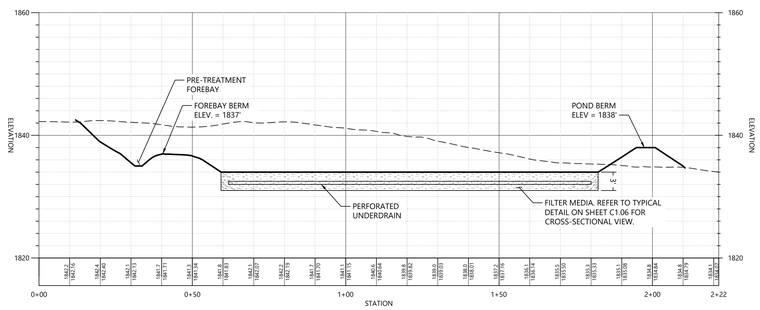
Project Number 55310.01

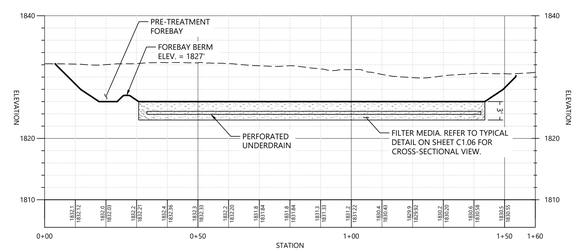
STATE OF MAINE PETER B. SMIAR No. 16994 LICENSED PROFESSIONAL ENGINEER







VEGETATED UNDERDRAINED SOIL FILTER - P5



VEGETATED UNDERDRAINED SOIL FILTER - P6

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.03

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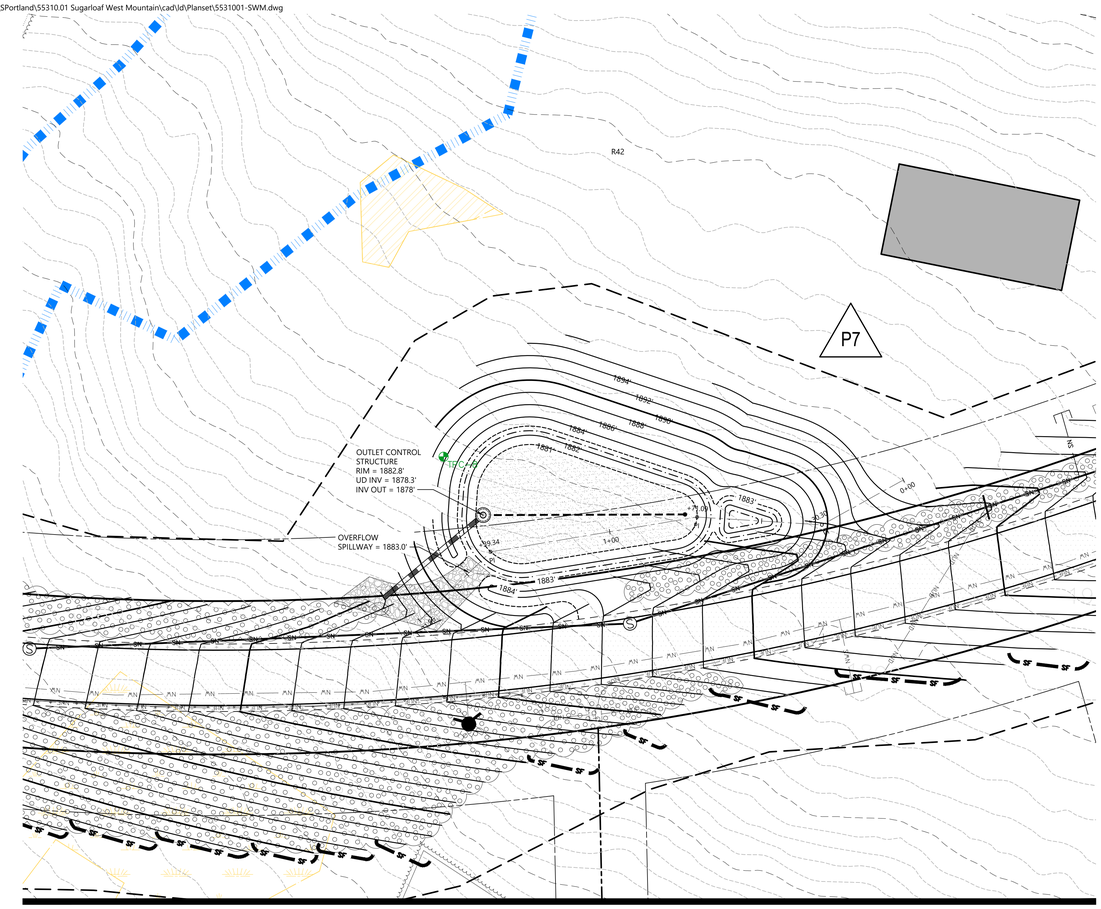

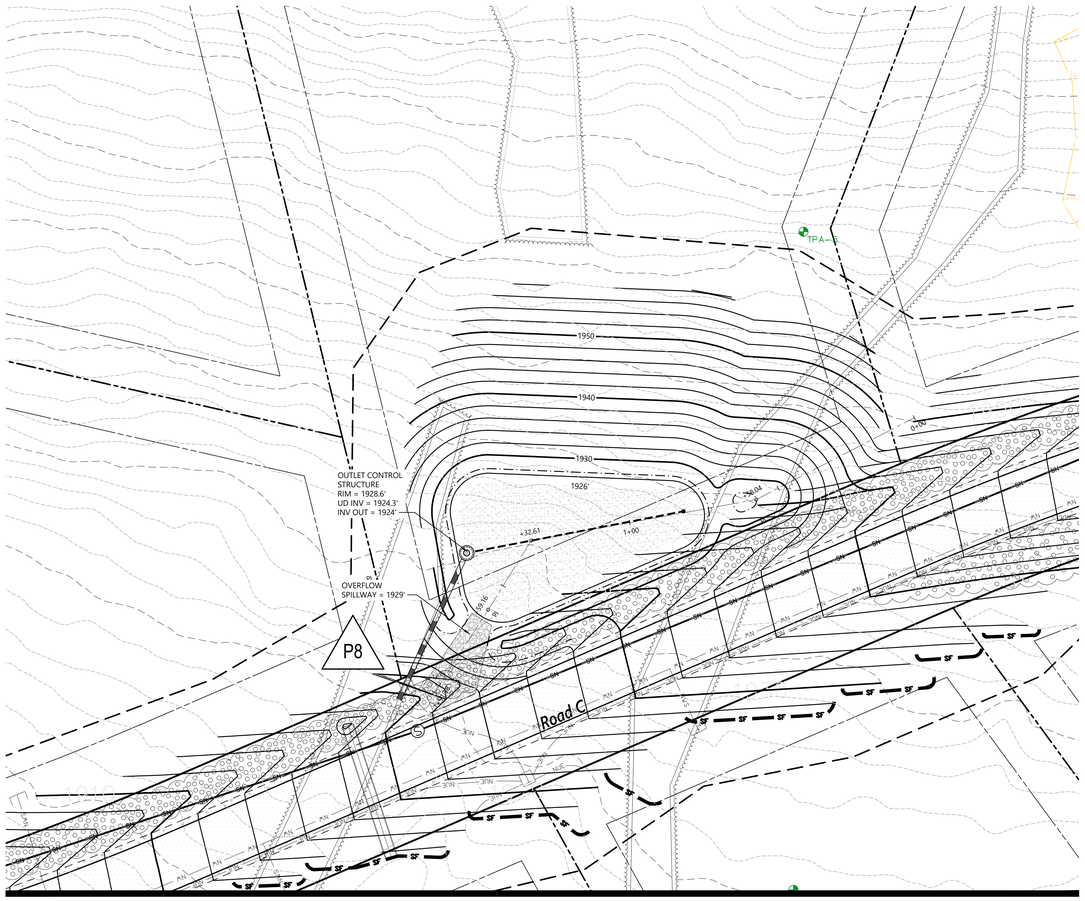

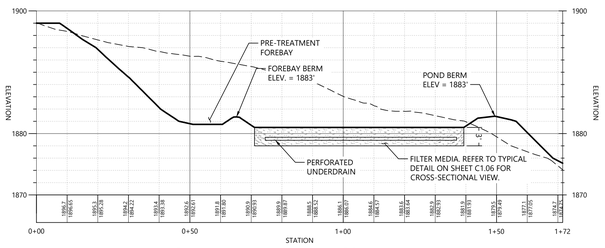

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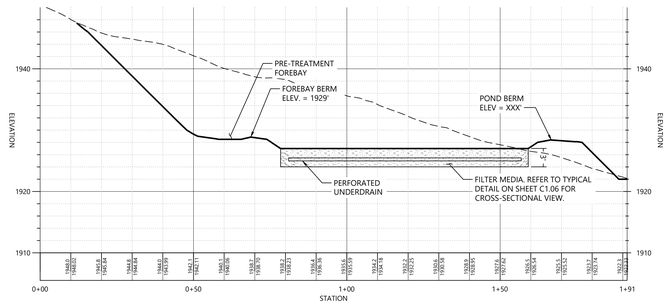

VEGETATED UNDERDRAINED SOIL FILTER - P8

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.04

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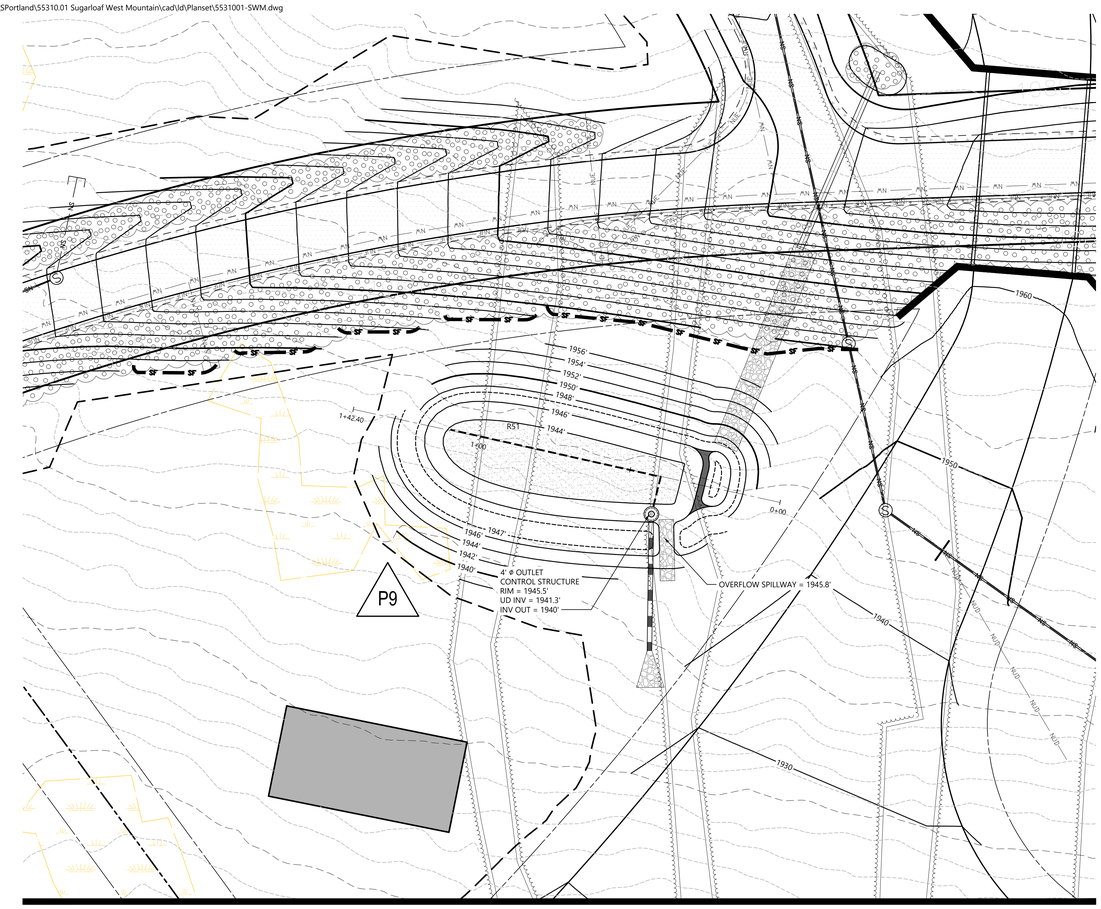
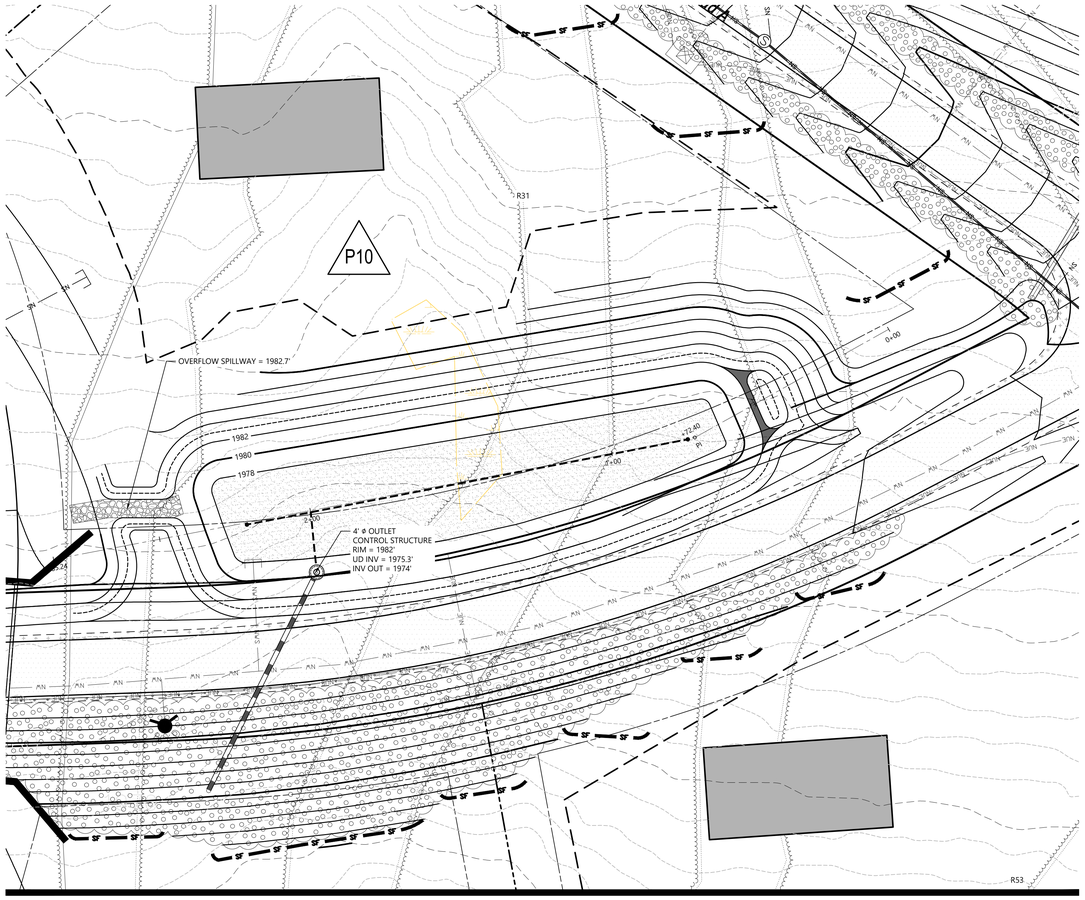
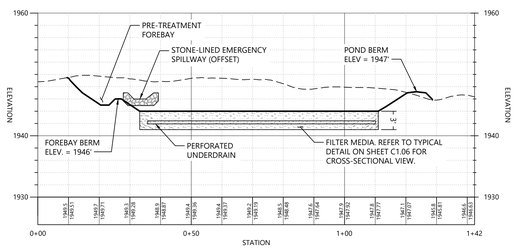
Project Number 55310.01







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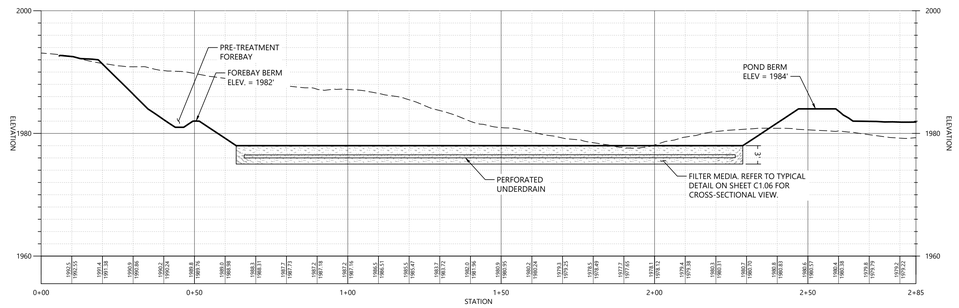

VEGETATED UNDERDRAINED SOIL FILTER - P10

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Stormwater Facility Plan and Profile

Drawing Number
CG-3.05

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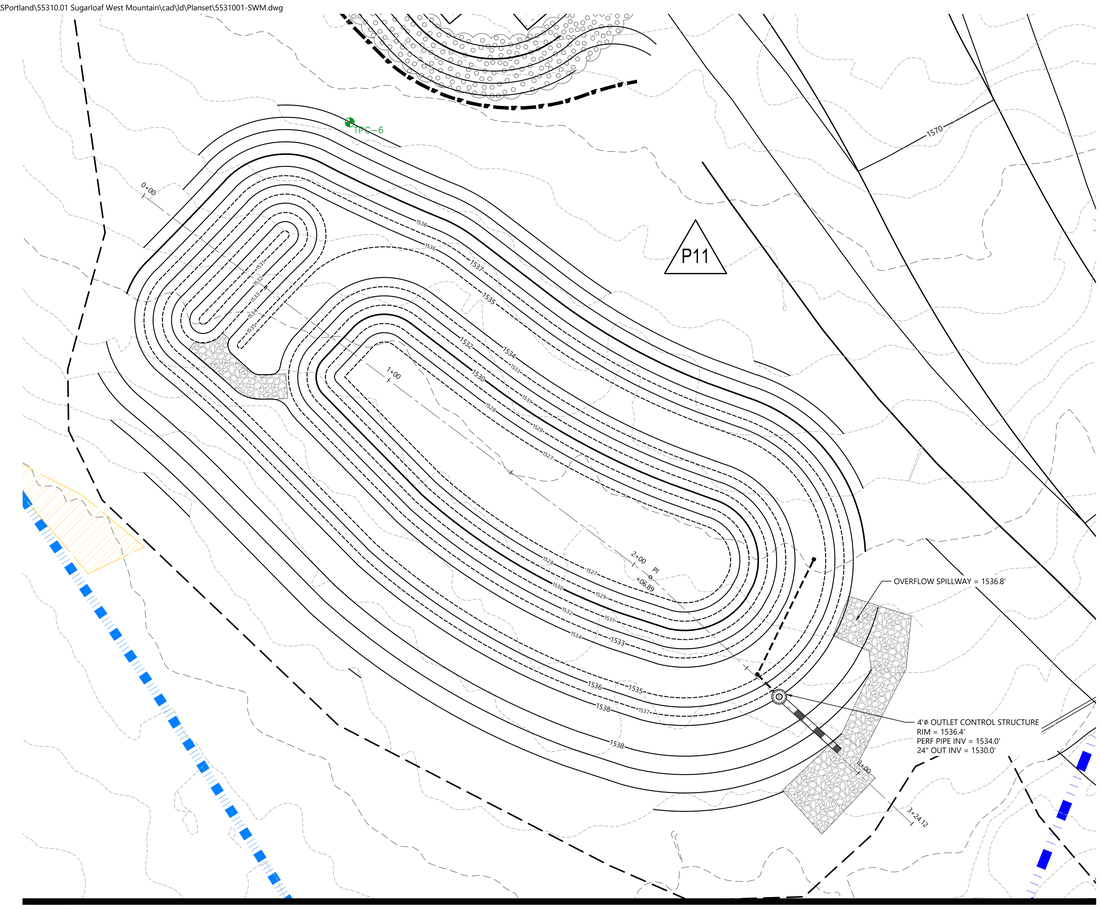

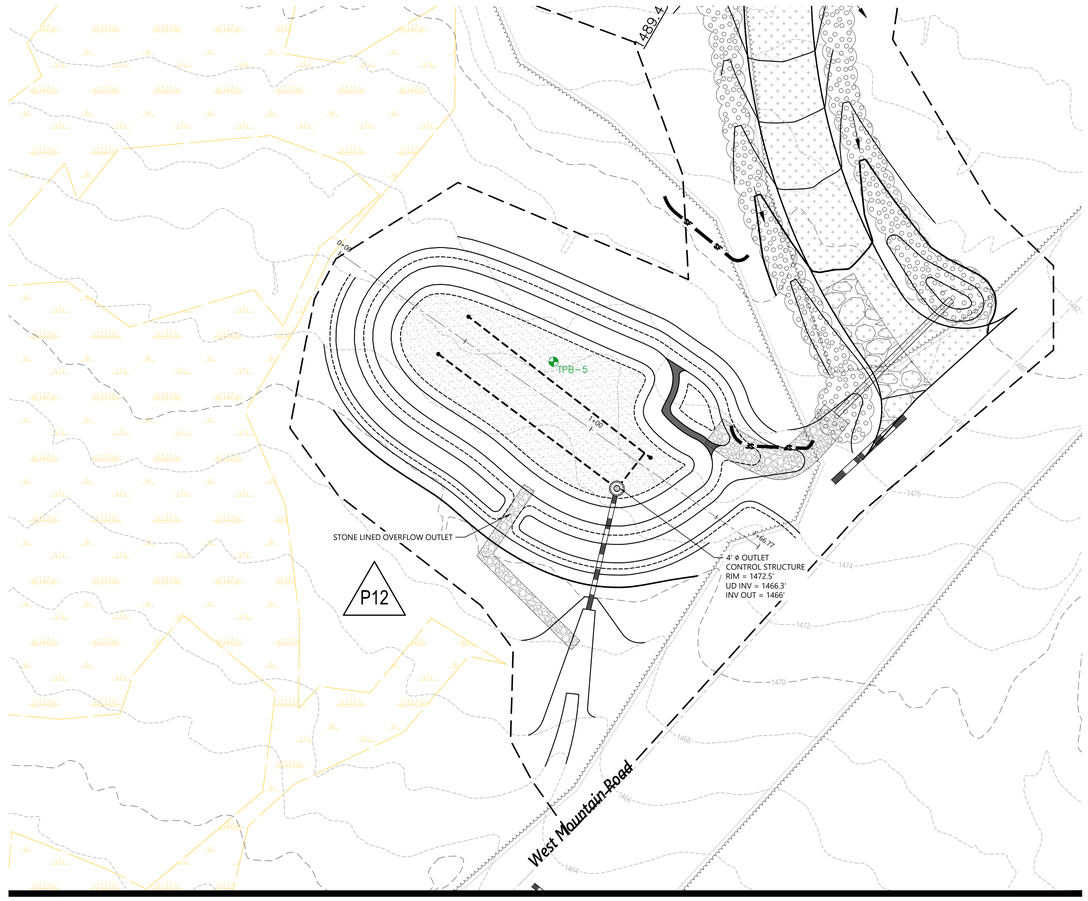

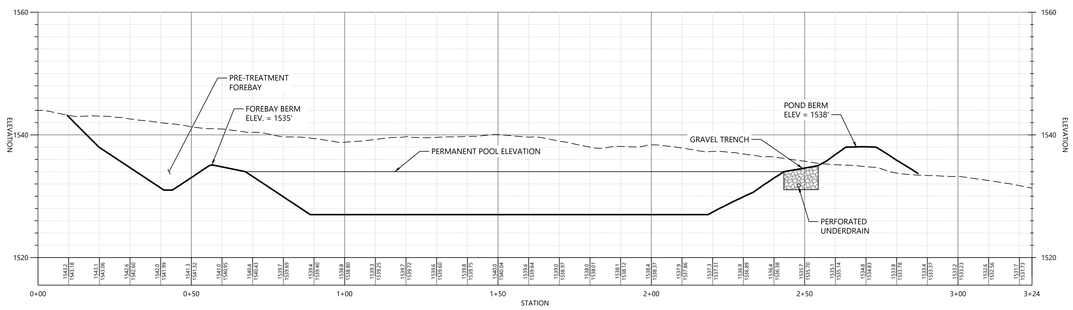

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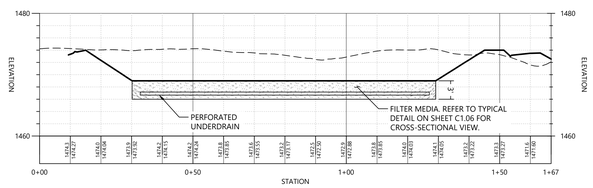

VEGETATED UNDERDRAINED SOIL FILTER - P12

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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Stormwater Facility Plan and Profile

Drawing Number

STATE OF MAINE
PETER B. SMIAR
No. 16994
LICENSED
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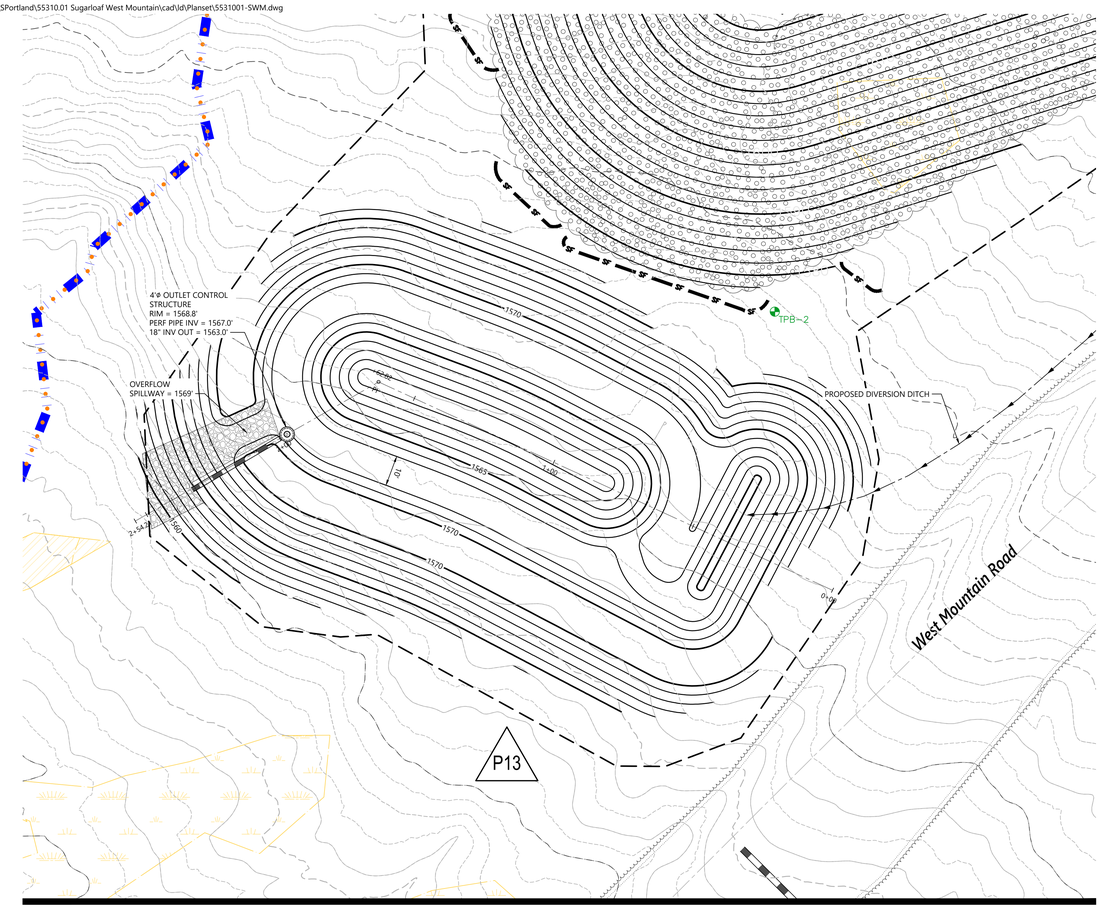

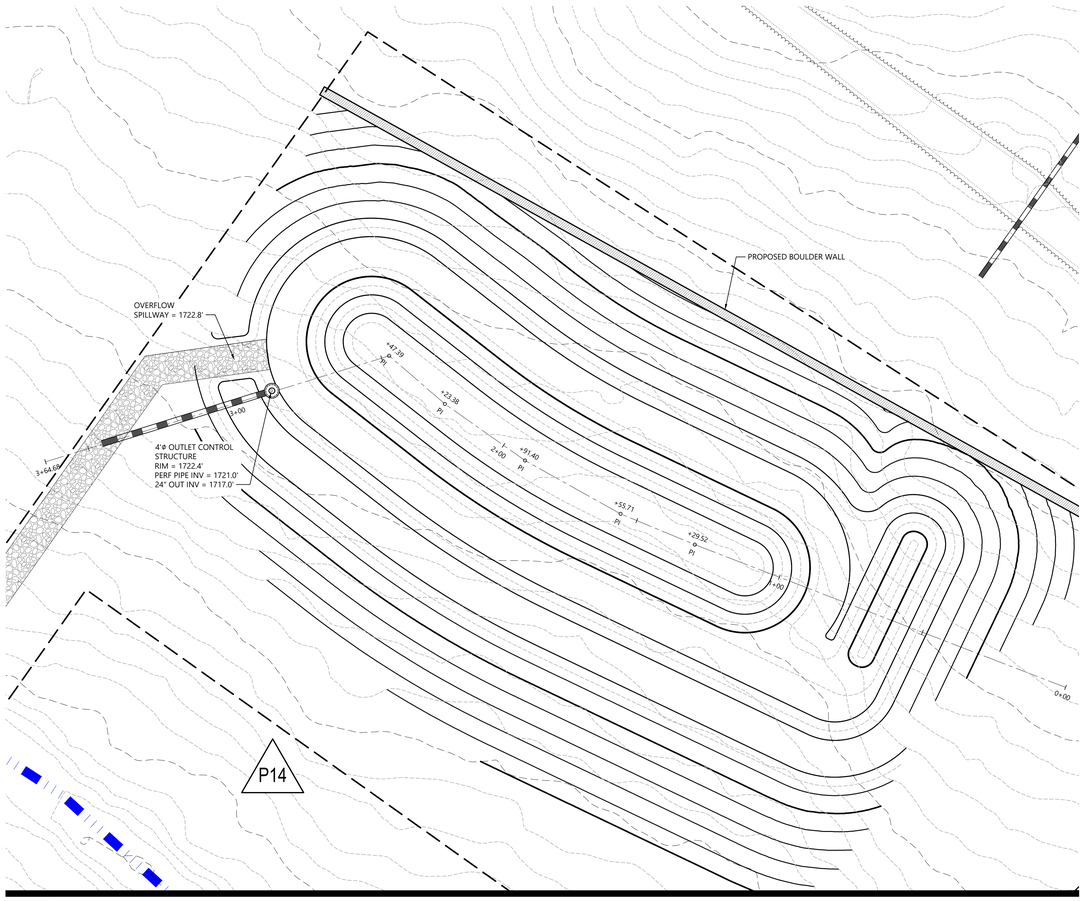

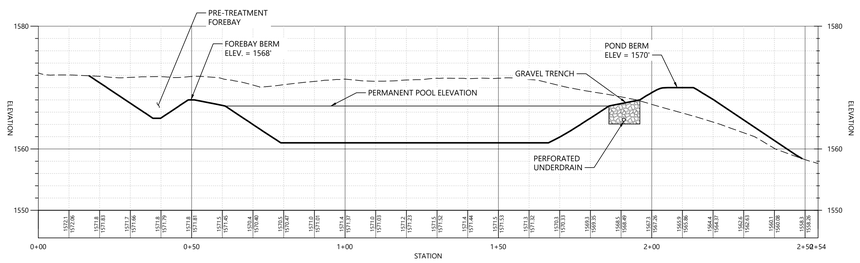

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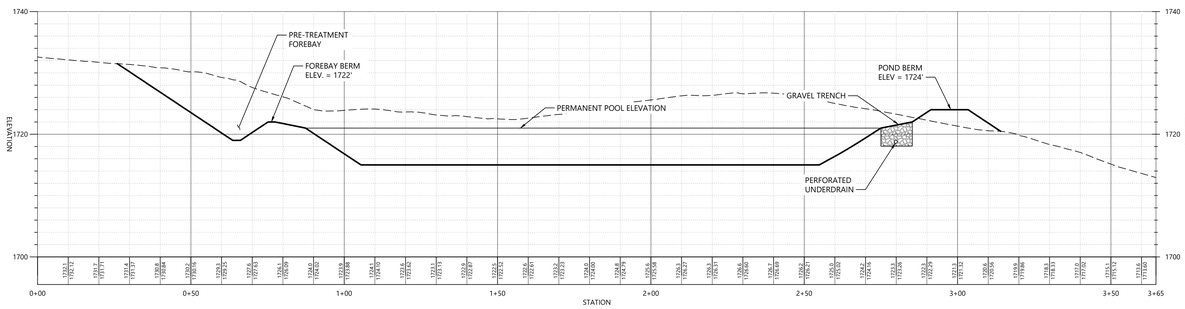

WET POND - P14

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.07

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No. 16994
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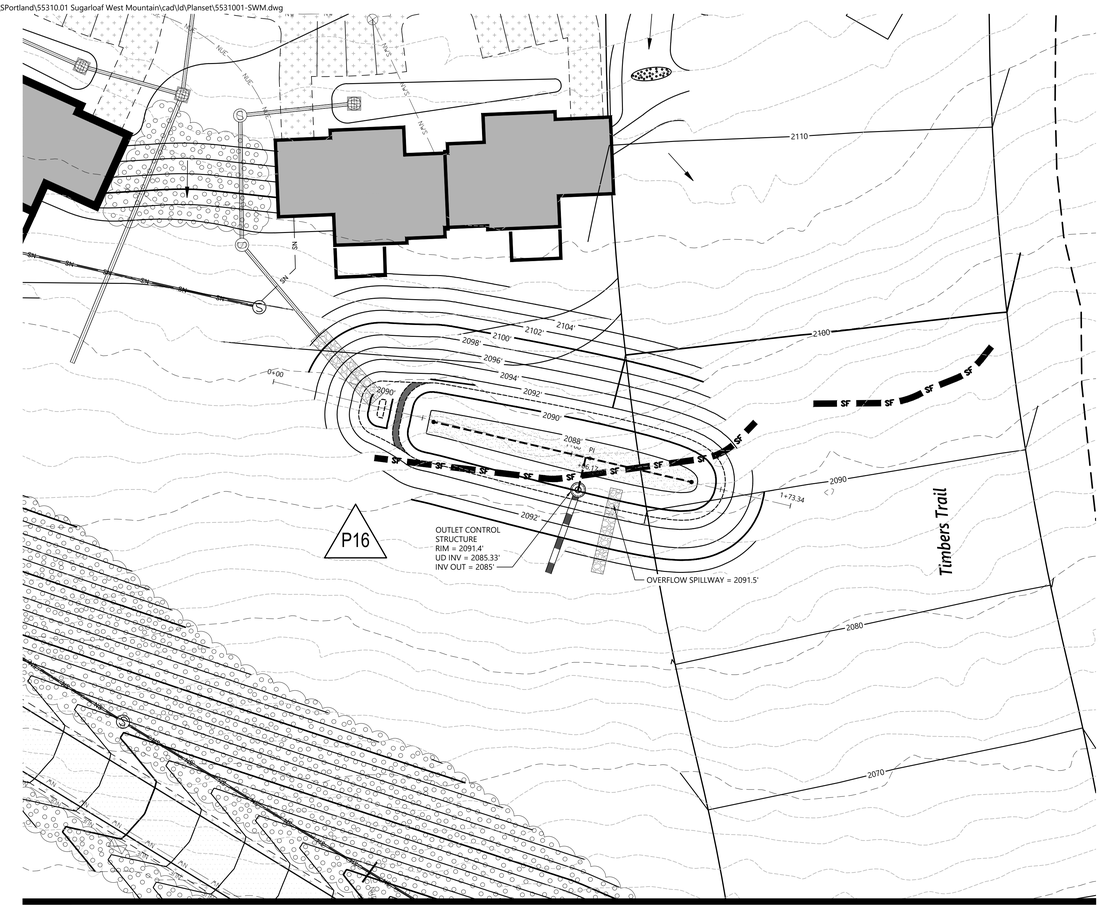
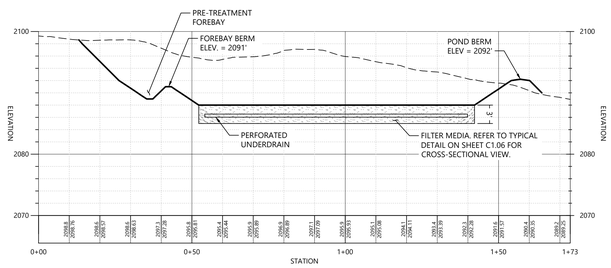
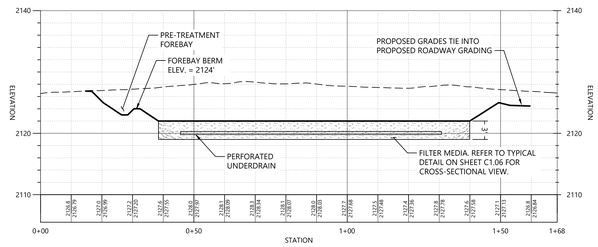




VEGETATED UNDERDRAINED SOIL FILTER - P16



VEGETATED UNDERDRAINED SOIL FILTER - P17

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Legend

SOIL TEST PIT LOCATION

Vert. 0 5 10 20 Feet
Horiz. 0 10 20 40 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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Date February 4, 2022

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Drawing Title
Stormwater Facility Plan and Profile

Drawing Number
CG-3.08

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

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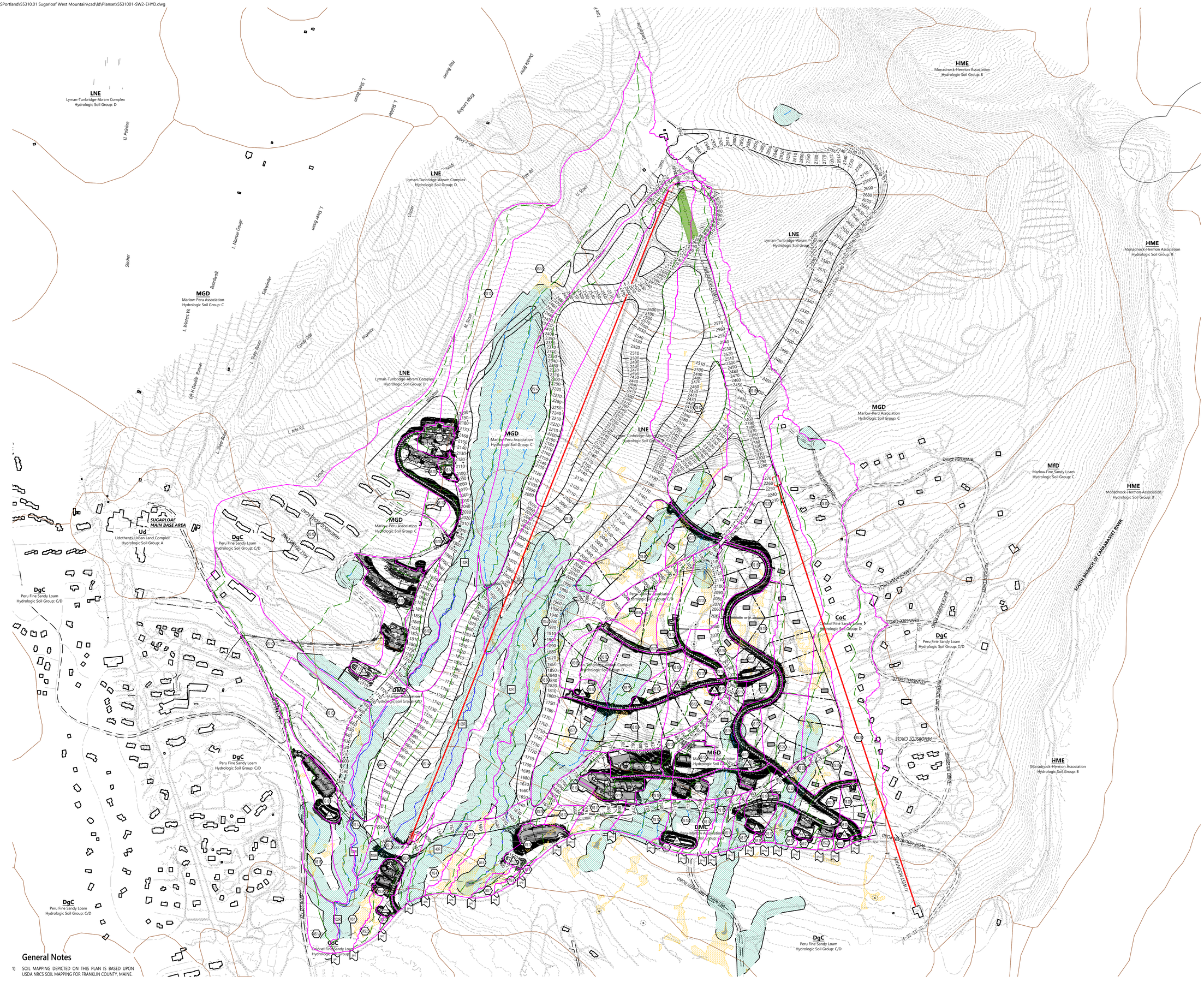

General Notes

1) SOIL MAPPING DEPICTED ON THIS PLAN IS BASED UPON USDA NRCS SOIL MAPPING FOR FRANKLIN COUNTY, MAINE.

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Legend

- PROPOSED SUBCATCHMENT
- PROPOSED WATERSHED
- TIME OF CONCENTRATION FLOWPATH
- 50 FT CONTOUR
- 10 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

0 100 200 400 Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by ZJD
Checked by PS
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Date February 4, 2022

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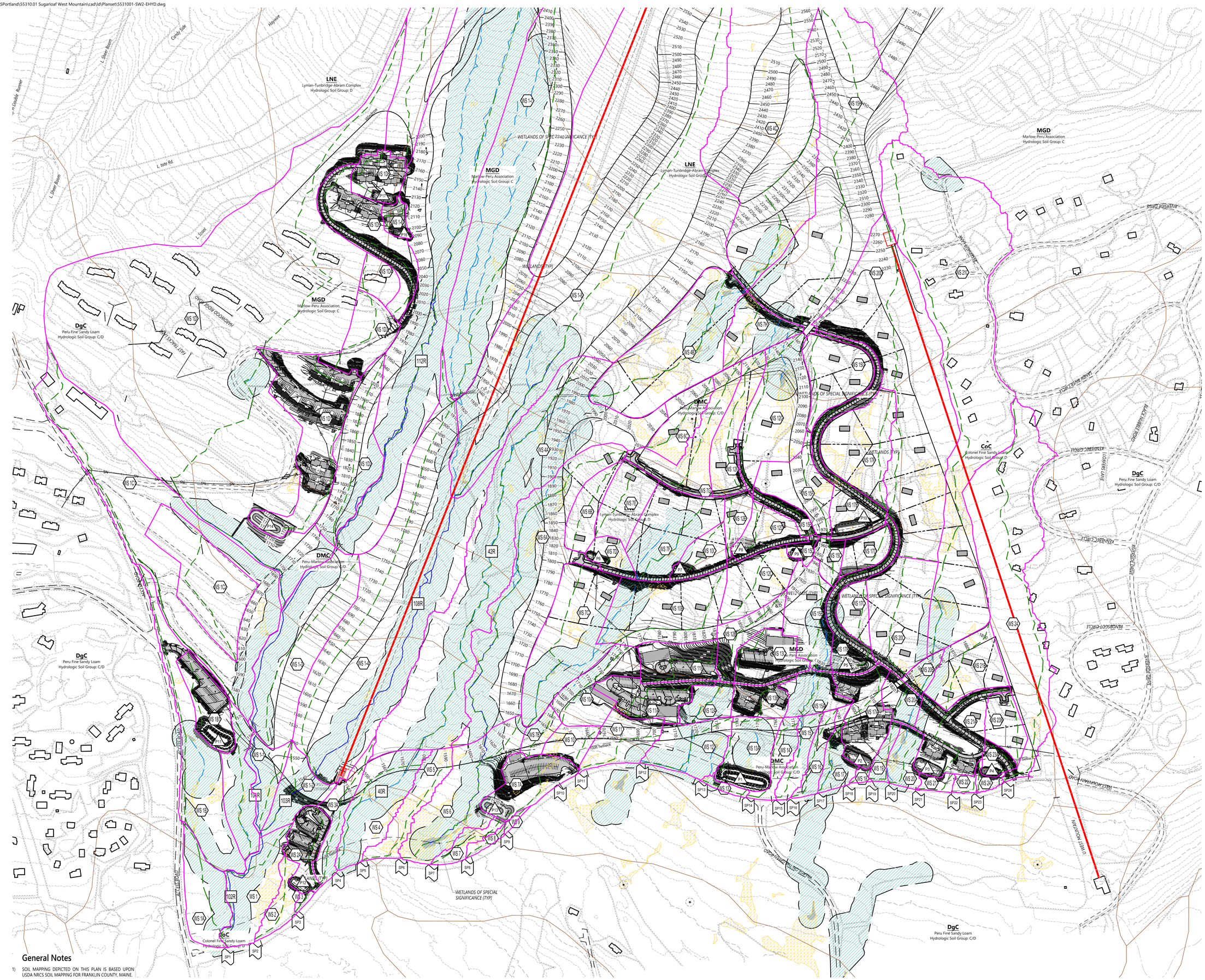
Drawing Title
Overall Proposed Conditions Hydrology Plan

Drawing Number
SW-1

Sheet # of 58

Project Number 55310.01

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



General Notes

1) SOIL MAPPING DEPICTED ON THIS PLAN IS BASED UPON USDA NRCS SOIL MAPPING FOR FRANKLIN COUNTY, MAINE.

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Legend

- PROPOSED SUBCATCHMENT
- PROPOSED WATERSHED
- TIME OF CONCENTRATION FLOWPATH
- 50 FT CONTOUR
- 10 FT CONTOUR
- PERENNIAL STREAM
- INTERMITTENT STREAM
- NRCS SOIL LAYER BOUNDARY
- WETLAND

0 100 200 400 Feet

Sugarloaf Mtn Corp West Mountain Expansion

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No.	Revision	Date	Appvd.

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Drawing Title
Proposed Conditions Hydrology Plan

Drawing Number
SW-1.1

Sheet # of 58

Project Number 55310.01

STATE OF MAINE
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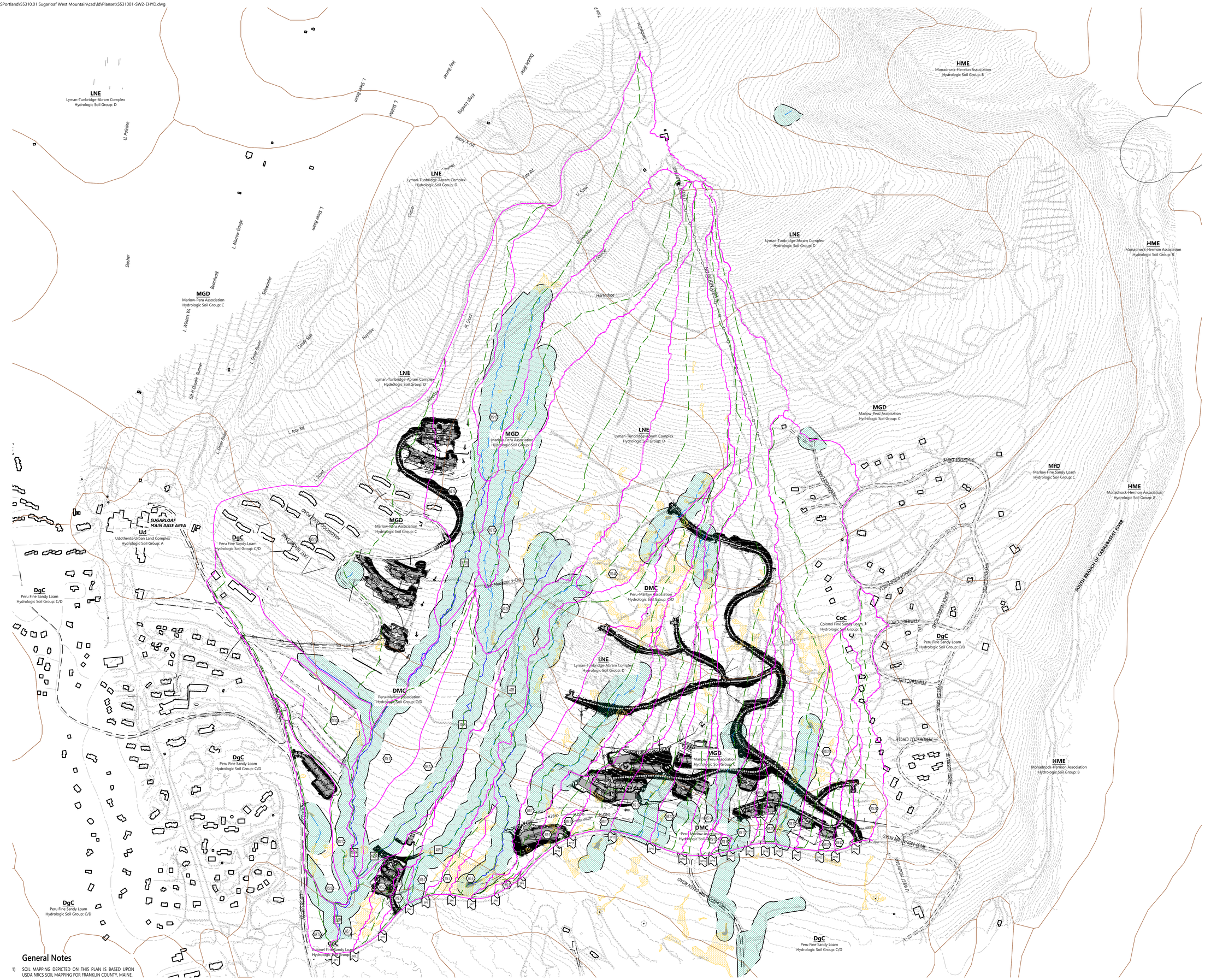

Legend

1	EXISTING SUBCATCHMENT
	EXISTING WATERSHED
	TIME OF CONCENTRATION FLOWPATH
	50 FT CONTOUR
	10 FT CONTOUR
	PERENNIAL STREAM
	INTERMITTENT STREAM
	NRCS SOIL LAYER BOUNDARY
	WETLAND

General Notes

1) SOIL MAPPING DEPICTED ON THIS PLAN IS BASED UPON USDA NRCS SOIL MAPPING FOR FRANKLIN COUNTY, MAINE.

Saved Wednesday, February 2, 2022 5:09:31 PM ZDIVELY Plotted Friday, February 4, 2022 3:26:07 PM Zelda Dively

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0 150 300 600Feet

Sugarloaf Mtn Corp West Mountain Expansion

5092 Access Road
Carrabassett Valley, ME 04947

No.	Revision	Date	Appvd.

Designed by ZJD
Checked by PS
Issued for Review
Date February 4, 2022

Not For Construction

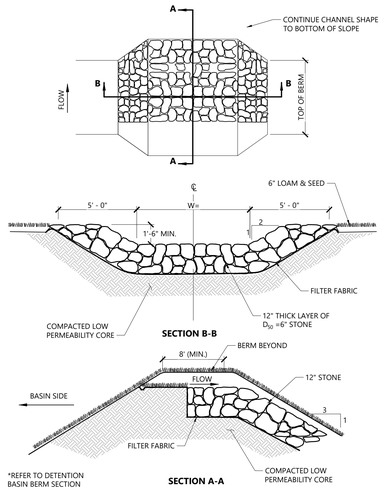
Drawing Title
Existing Conditions Hydrology Plan

Drawing Number
SW-2

PETER B. SMIAR
No. 16994

Sheet # of 58

Project Number
55310.01



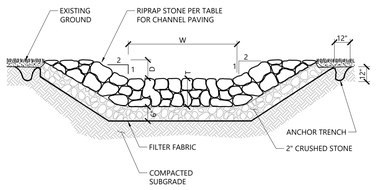
Overflow Stone Spillway

1/16

N.T.S. Source: VHB LD_161

TABLE

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



Riprap Channel

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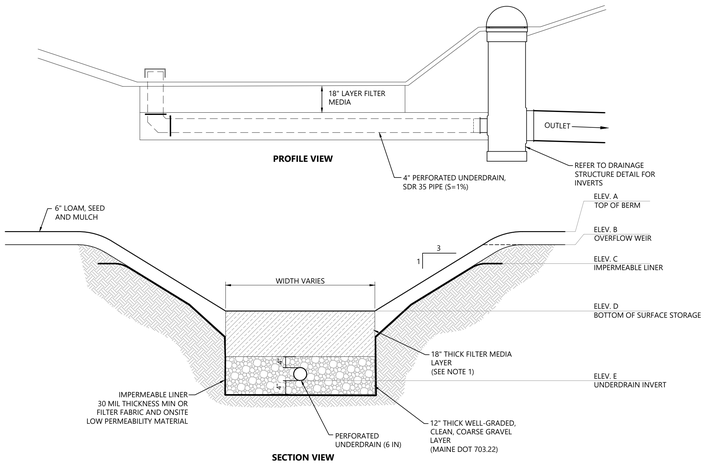
N.T.S. Source: VHB LD_170



ELEVATION TABLE

VSF #	A	B	C	D	E
P2	1746	1744	1744	1742	1739.33
P3	1760	1758	1758	1754	1751.33
P4	1770	1768.8	1768.8	1764	1761.33
P5	1839	1836.8	1836.8	1834	1831.33
P6	1828	1827.8	1827.8	1826	1823.33
P7	1887	1883	1883	1881	1878.33
P8	1930	1929	1929	1926	1924.33
P9	1950	1945.8	1945.8	1944	1941.33
P10	1984	1982.7	1982.7	1978	1975.33
P12	1474	1473	1473	1469	1466.33
P16	2092	2091.5	2091.5	2088	2085.33
P17	2125	2124	2124	2122	2119.33

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:

SIEVE (ASTM D422)	PERCENT PASSING BY WEIGHT
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

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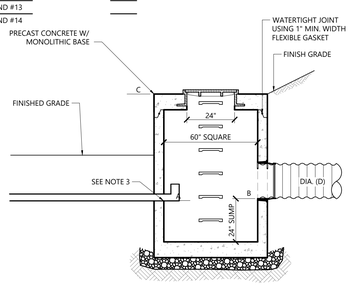
DIMENSIONS TABLE

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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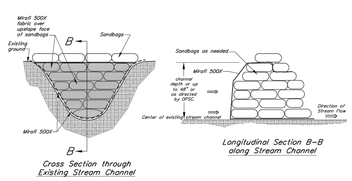
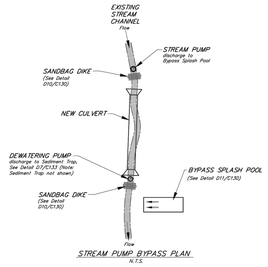
N.T.S. Source: VHB LD_171



Stream Channel Sandbag Dike Detail

EV-02

N.T.S. Source: VHB LD_



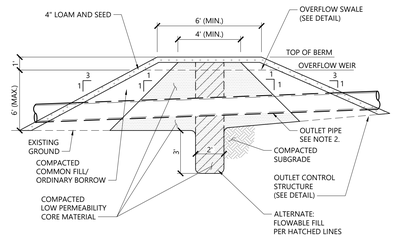
STREAM PUMP BYPASS NOTES:

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_



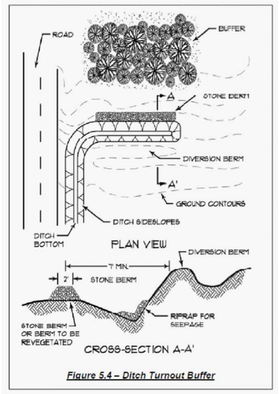
NOTES

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

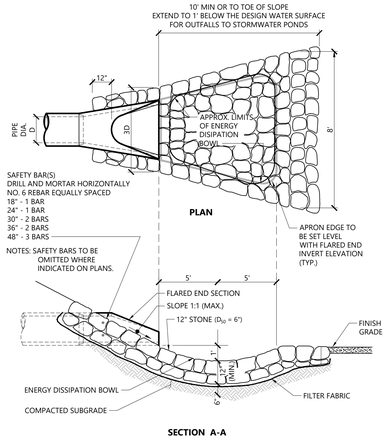
N.T.S. Source: VHB LD_160



- *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

1/16

N.T.S. Source: VHB LD_134

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: February 4, 2022

Not For Construction

Drawing Title: Stormwater Details

Drawing Number: C1.06

Sheet # of 58

Project Number: 55310.01

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