TOWN OF SUNAPEE
PLANNING BOARD AGENDA
FOR THURSDAY APRIL 11, 2019
7:00PM at the TOWN MEETING ROOM
23 EDGEMONT ROAD

1. Call to Order/Roll Call

2. Disqualifications/Appointment

Parcel ID:0211-0016-0000	Bond Hearing & Lot Merger
Parcel ID:0211-0017-0000	1000 Route 11 High Pines Properties, LLC
Parcel ID:0235-0083-0000	Tree Cutting & Vegetation Clearing Edgemont Road Andrew & Angela Neilson
7:45PM-Public Hearing	Site Plan Regulation Amendments

Revisions to Agenda

3. Consultations-Bill Wightman, 25 Main Street
4. Other Business
5. Review of Minutes
6. Signing of Mylar's

NOTE: In the event the meeting is cancelled, the Agenda will be continued to the next scheduled Planning Board meeting.
This is the tentative agenda for publicly noticed hearings and there may be consultations and other business items added prior to the hearing. Please see the town website or bulletin boards at the Town Office and Abbott Library for the final Board agenda.

NOTICE OF MERGER OF LOTS
PURSUANT TO NEW HAMPSHIRE RSA 674:39-A
TOWN OF SUNAPEE, NEW HAMPSHIRE

OWNER OF LOTS: High Pine Properties, LLC

41 Interchange Drive

West Lebanon, New Hampshire 03784

Description of Lots:

Lot 1:

Town of Sunapee Tax Parcel ID: 0211-0016-0000
Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: 1856 Page #: 0297

Location/Street Address: 1000 Route 11

Lot 2

Town of Sunapee Parcel ID: 0211-0017-0000

Deed to owner recorded at Sullivan County Registry of Deeds:
Book #: 2034 Page #: 0037

Location/Street Address: 990 Route 11

1. After reviewing the Owner's application to merge the Lots described above, the Lots will not violate any existing municipal land use ordinance regulation.

2. The Owner of the Lots described above agrees that, for the purposes of municipal regulation and taxation, the Lots shall be deemed to be merged into one lot. Neither one of the Lots may be separately transferred in the future without subdivision approval and compliance with all applicable municipal ordinances and regulations.

3. The original of this Notice shall be recorded at the Sullivan County Registry of Deeds, and a copy shall be sent to the Town of Sunapee Board of Selectmen.

Executed as of the day and year noted above.

TOWN OF SUNAPEE PLANNING BOARD

Signature:_____

Printed Name:_____
(Chairman)

The foregoing instrument was acknowledged before me, this _____ day of

_____, 20____ by_____, the

Chairman of the Town of Sunapee Planning Board on behalf of such Board.

_____
Justice of the Peace/Notary Public
My Commission Expires:_____

STATE OF NEW HAMPSHIRE

COUNTY OF SULLIVAN

Signature: _____
(Landowner)

Printed Name: Nicholas Aiken manager of
(Landowner) High Pine Properties LLC

Signature: _____
(Landowner)

Printed Name: Nicholas Aiken manager of
(Landowner) High Pine Properties LLC

STATE OF NH
COUNTY OF Sullivan

The foregoing instrument was acknowledged before me, this 14th day of March, 2019 by Nicholas Aiken.

(Landowner)

BRITTANY D BLOMQUIST NOTARY PUBLIC STATE OF NEW HAMPSHIRE MY COMMISSION EXPIRES OCT. 3 2023

Justice of the Peace/Notary Public
My Commission Expires: 10/03/23

STATE OF
COUNTY OF

The foregoing instrument was acknowledged before me, this _____ day of

_____, 20____ by _____.

(Landowner)

_____
Justice of the Peace/Notary Public
My Commission Expires: _____

FEE SCHEDULE

RETURN POSTAGE TO BE ADDED TO EACH DOCUMENT BEING RECORDED, UNLESS SELF-ADDRESSED STAMPED ENVELOPE IS INCLUDED

RECORDING FEES:

$10.00	**-**	**For the first page of document**
$4.00	**-**	**For each additional page thereafter; plus**
$2.00	**-**	**Surcharge fee per document; plus postage**

RETURN POSTAGE OR SELF-ADDRESSED STAMPED ENVELOPE

FOR RECORDING PURPOSES:

Make check out for proper amount to Sullivan County Registry of Deeds

FOR PLANNING COMMISSION NOTICE OF MERGER:

Make check out to Town of Sunapee for $50.00

Return all completed forms and checks to:

The Planning and Zoning Office
23 Edgemont Road
Sunapee, NH 03782

Note: **You do not need to be present or represented at the Planning Board Meeting for this notice of merger.**

07/18/08

PATHWAYS CONSULTING, LLC
Planning • Civil & Environmental Engineering •
Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221

LETTER OF TRANSMITTAL

Date: March 8, 2019	Job No.: 12842
Attention: Michael Marquise, Town Planner	
RE: Space Place Storage, Sunapee, New Hampshire	

TO: Town of Sunapee
23 Edgemont Road
Sunapee, New Hampshire 0782

TO BE DELIVERED: [X] Attached [ ] Under separate cover via _____ the following items:

[ ] Shop Drawings [ ] Print(s) [X] Plan(s) [ ] Disk(s) [ ] Specifications

[ ] Copy of letter [ ] Change Order(s) [ ] _____

COPIES	DATE	NO.	DESCRIPTION
1	03/18/2019	12842	Memorandum, Staff Review
1	03/05/2019	12842	SWPPP, Draft
1	03/18/2019	12842	Abutters List and Fees
1	03/06/2019	12842	NHDES Wetland Permit
1	03/18/2019	12842	Voluntary Merger Application and Checks
1	03/18/2019	12842	11" x 17" Plans

THESE ARE TRANSMITTED as checked below:

[ ] For approval [ ] Approved as submitted [ ] Resubmit _____ copies for approval

[X] For your use [ ] Approved as noted [ ] Submit _____ copies for distribution

[ ] As requested [ ] Returned for corrections [ ] Return _____ corrected prints

[ ] For review and comment [ ] _____

[ ] FOR BIDS DUE _____ [ ] PRINTS RETURNED AFTER LOAN TO US

REMARKS: _____

COPY TO: _____

SIGNED: Patrick A. Buccellato

Patrick A. Buccellato
Project Manager

If enclosures are not as noted, kindly notify us as soon as possible.

PATHWAYS CONSULTING, LLC
Planning • Civil & Environmental Engineering • Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221

MEMORANDUM

TO: MICHAEL MARQUISE, TOWN PLANNER

FROM: PAT BUCCELLATO, PROJECT MANAGER

RE: SPACE PLACE SELF STORAGE EXPANSION POST-CONSTRUCTION WATERSHED MODELING (Project No. 12842)

DATE: MARCH 18, 2019

LID BMP techniques have been implemented onsite to the maximum extent possible to provide treatment for a portion of the Space Place Self Storage Expansion project site. The LID BMP techniques proposed are one (1) Bio retention Area and two (2) Infiltration Basins (Dry Wells). Each of these three devices will receive run-off from portion of the Expansion Phase I and II Buildings and portions of the associated paved drives. This is considered the stormwater treatment and detention for these areas.

We evaluated the Post-Construction peak flow rates for the proposed stormwater BMPs utilizing the HydroCAD computer program for the 10-year storm event data, which we obtained from the Extreme Precipitation Estimates by the Northeast Regional Climate Center, as well as soils data from the Natural Resources Conservation Service (NRCS). Please note the entire project area of concern is taking place within what NRCS has mapped as "A" soils. Each of these three BMP systems have been modeled accordingly within HydroCAD with a minimal infiltration at a rate of 2.5 in/hr after a safety factor of 0.5 was applied. Per the models, 100% of the 10-year run-off coming to each of these devices is infiltrated into the ground. The results therefore indicate that the stormwater BMPs modeled will operate adequately under the 10-year design storm event.

The model established links or points of interest are the three BMP Locations (DW1, DW2, and BR1) as shown on the attached Watershed Modeling Exhibit. No comparison was made between the Pre-Construction and Post-Construction peak flow rates and volumes for the proposed areas draining to the BMP devices since the net flow off site per modeling for the 10-year storm was 0 cfs.

Drainage Area 4S and 5S were not included in the model. Drainage Area 4S has been directed to a catch basin with a treatment device to remove debris and sediment. From the catch basin the stormwater flows to a stone discharge apron and level spreader. The stormwater will slowly discharge from the level spreader and flow though natural vegetation prior to discharging to the wetland. At the request of the State of New Hampshire Department of Environmental Services Wetland Bureau and the Department of Fish and Game, the stormwater from Drainage Area 5S was designed to flow to the isolated wetland located east of the Phase II building. The stormwater from Drainage Area 5S will recharge the wetland and be naturally treated in the wetland. From the isolated wetland the stormwater will flow through a 24" open bottom culvert to the main wetland located south of the project. Drainage Area 6S (the southerly portion of the Phase II building) flows to a drip edge for treatment and infiltration. Drainage Area 7S

containing the roof area for the Phase III building flows to a drip edge for treatment and infiltration.

The following supporting documents are attached:

- Extreme Precipitation Table
- NRCS Soils Data
- Post- Construction HydroCAD Report for 10-Year Storm Event
- Post-Construction Watershed Modeling Exhibit

The supporting documents for this report will be available at the April 11th Planning Board meeting or are available in the Planning office.

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	72.080 degrees West
Latitude	43.418 degrees North
Elevation	0 feet
Date/Time	Wed, 06 Feb 2019 10:29:33 -0500

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.66	0.82	1.02	**1yr**	0.71	0.94	1.18	1.46	1.80	2.22	2.52	**1yr**	1.97	2.42	2.80	3.45	3.98	**1yr**
2yr	0.31	0.48	0.59	0.78	0.98	1.23	**2yr**	0.85	1.11	1.41	1.74	2.13	2.60	2.95	**2yr**	2.31	2.84	3.30	3.94	4.51	**2yr**
5yr	0.37	0.57	0.72	0.96	1.23	1.55	**5yr**	1.06	1.40	1.78	2.19	2.66	3.22	3.68	**5yr**	2.85	3.54	4.11	4.83	5.48	**5yr**
10yr	0.42	0.65	0.83	1.12	1.46	1.85	**10yr**	1.26	1.68	2.13	2.61	3.15	3.78	4.36	**10yr**	3.34	4.20	4.85	5.64	6.36	**10yr**
25yr	0.50	0.79	1.00	1.39	1.84	2.34	**25yr**	1.59	2.12	2.69	3.29	3.95	4.67	5.46	**25yr**	4.14	5.25	6.05	6.94	7.74	**25yr**
50yr	0.57	0.91	1.17	1.63	2.19	2.80	**50yr**	1.89	2.54	3.22	3.92	4.67	5.49	6.47	**50yr**	4.86	6.22	7.15	8.11	8.98	**50yr**
100yr	0.64	1.04	1.35	1.91	2.60	3.34	**100yr**	2.24	3.04	3.85	4.67	5.53	6.46	7.67	**100yr**	5.72	7.38	8.46	9.49	10.42	**100yr**
200yr	0.75	1.21	1.57	2.25	3.10	3.99	**200yr**	2.67	3.64	4.60	5.55	6.55	7.60	9.10	**200yr**	6.72	8.75	10.01	11.11	12.10	**200yr**
500yr	0.90	1.48	1.92	2.79	3.90	5.04	**500yr**	3.37	4.62	5.81	6.99	8.19	9.43	11.42	**500yr**	8.34	10.98	12.52	13.69	14.76	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.20	0.30	0.37	0.50	0.61	0.78	**1yr**	0.53	0.76	0.94	1.25	1.65	1.91	2.29	**1yr**	1.69	2.21	2.56	3.02	3.35	**1yr**
2yr	0.30	0.46	0.57	0.77	0.95	1.11	**2yr**	0.82	1.09	1.28	1.66	2.13	2.52	2.87	**2yr**	2.23	2.76	3.21	3.84	4.40	**2yr**
5yr	0.34	0.52	0.65	0.89	1.14	1.32	**5yr**	0.98	1.30	1.51	1.95	2.44	3.01	3.43	**5yr**	2.66	3.29	3.82	4.52	5.11	**5yr**
10yr	0.37	0.58	0.71	1.00	1.29	1.48	**10yr**	1.11	1.44	1.70	2.19	2.70	3.40	3.92	**10yr**	3.01	3.77	4.34	5.08	5.72	**10yr**
25yr	0.42	0.63	0.79	1.13	1.48	1.67	**25yr**	1.28	1.63	1.99	2.54	3.09	4.00	4.66	**25yr**	3.54	4.49	5.12	5.94	6.61	**25yr**
50yr	0.44	0.66	0.83	1.19	1.60	1.81	**50yr**	1.38	1.77	2.24	2.83	3.40	4.52	5.33	**50yr**	4.00	5.12	5.79	6.64	7.37	**50yr**
100yr	0.45	0.68	0.85	1.23	1.69	1.96	**100yr**	1.46	1.92	2.53	3.20	3.77	5.11	6.07	**100yr**	4.52	5.83	6.55	7.43	8.21	**100yr**
200yr	0.46	0.69	0.87	1.26	1.76	2.11	**200yr**	1.52	2.06	2.84	3.58	4.16	5.78	6.89	**200yr**	5.12	6.63	7.38	8.30	9.13	**200yr**
500yr	0.47	0.70	0.90	1.31	1.86	2.27	**500yr**	1.61	2.22	3.32	4.16	4.75	6.79	8.19	**500yr**	6.01	7.88	8.63	9.57	10.48	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.55	0.75	0.92	1.08	**1yr**	0.79	1.06	1.21	1.58	1.93	2.44	2.73	**1yr**	2.16	2.63	3.07	3.73	4.29	**1yr**
2yr	0.34	0.53	0.66	0.89	1.10	1.23	**2yr**	0.95	1.20	1.38	1.79	2.26	2.72	3.05	**2yr**	2.41	2.93	3.42	4.06	4.64	**2yr**
5yr	0.40	0.62	0.77	1.05	1.34	1.56	**5yr**	1.16	1.53	1.78	2.25	2.86	3.44	3.97	**5yr**	3.05	3.81	4.42	5.17	5.87	**5yr**
10yr	0.48	0.74	0.91	1.28	1.65	1.92	**10yr**	1.42	1.88	2.19	2.71	3.41	4.17	4.87	**10yr**	3.69	4.68	5.41	6.24	7.03	**10yr**
25yr	0.62	0.94	1.16	1.66	2.19	2.56	**25yr**	1.89	2.50	2.88	3.48	4.35	5.36	6.37	**25yr**	4.75	6.13	7.06	7.99	8.93	**25yr**
50yr	0.74	1.13	1.40	2.02	2.72	3.17	**50yr**	2.34	3.10	3.54	4.21	5.23	6.50	7.83	**50yr**	5.75	7.53	8.66	9.68	10.73	**50yr**
100yr	0.91	1.37	1.71	2.48	3.40	3.96	**100yr**	2.93	3.87	4.37	5.22	6.30	7.88	9.62	**100yr**	6.98	9.25	10.62	11.75	12.88	**100yr**
200yr	1.10	1.65	2.10	3.04	4.23	4.95	**200yr**	3.65	4.84	5.39	6.34	7.91	9.57	11.84	**200yr**	8.47	11.39	13.03	14.27	15.50	**200yr**
500yr	1.44	2.14	2.75	3.99	5.68	6.66	**500yr**	4.90	6.51	7.12	8.22	10.20	12.37	15.62	**500yr**	10.95	15.02	17.13	18.50	19.82	**500yr**

Powered by ACIS
Northeast Regional Climate Center

The following supporting documents are attached:

- Extreme Precipitation Table
- NRCS Soils Data
- Post- Construction HydroCAD Report for 10-Year Storm Event
- Post-Construction Watershed Modeling Exhibit

Map Scale: 1:2,150 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sullivan County, New Hampshire
Survey Area Data: Version 23, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 11, 2014—Apr 13, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CoB	Colton sandy loam, 3 to 8 percent slopes	A	4.2	22.3%
LuA	Lyme-Moosilauke loams, 0 to 3 percent slopes	A/D	4.7	24.9%
MbE	Marlow fine sandy loam, 25 to 50 percent slopes, very stony	C	3.9	20.9%
MfC	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony	B	1.6	8.4%
MfD	Monadnock fine sandy loam, 15 to 25 percent slopes, very stony	B	2.7	14.2%
Ot	Ossipee mucky peat	C/D	1.8	9.3%
Totals for Area of Interest			**18.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

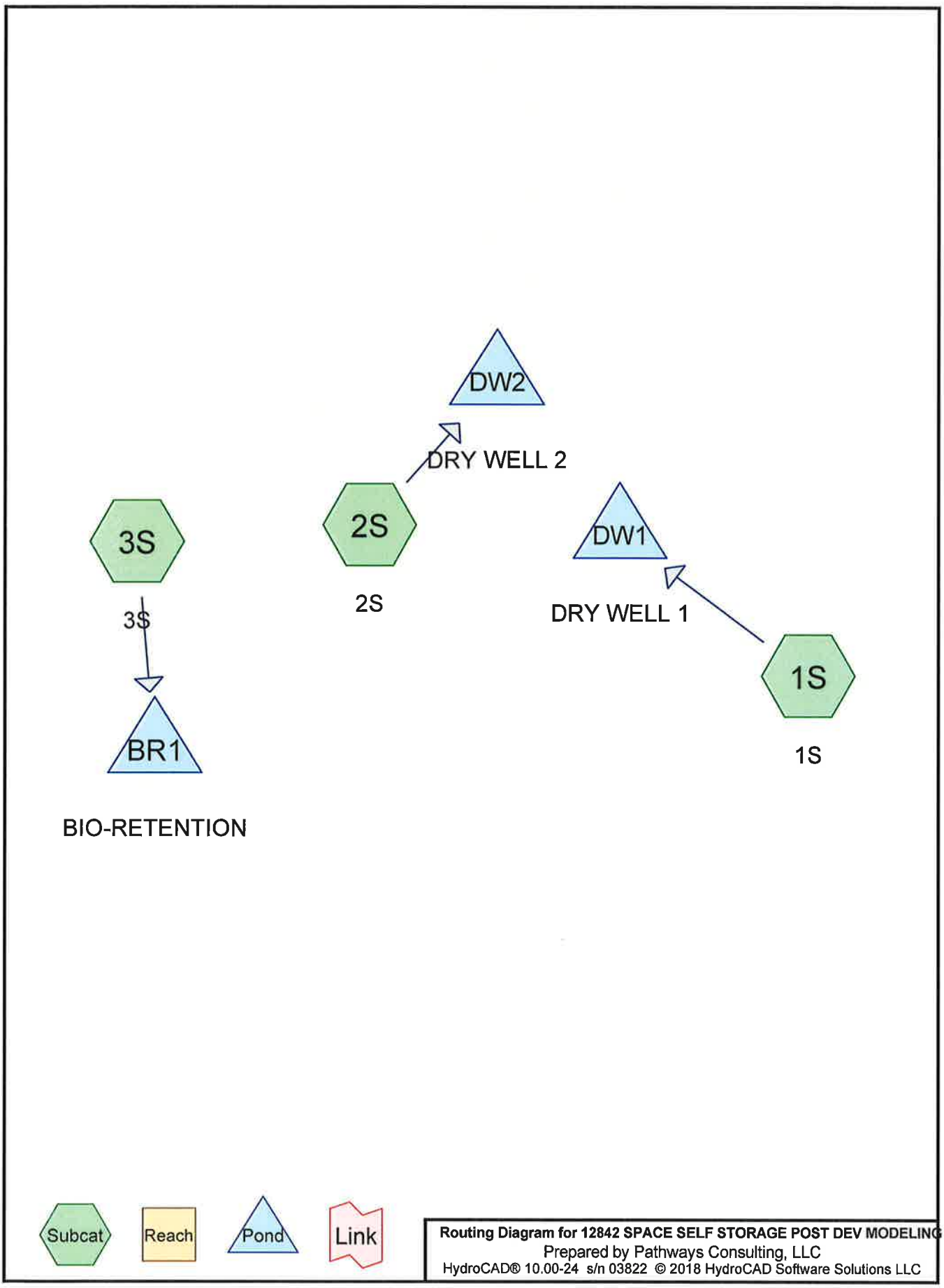
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Routing Diagram for 12842 SPACE SELF STORAGE POST DEV MODELING
Prepared by Pathways Consulting, LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
2,327	39	>75% Grass cover, Good, HSG A (3S)
16,270	98	Paved parking, HSG A (1S, 2S, 3S)
12,618	98	Roofs, HSG A (1S, 2S, 3S)
31,215	**94**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
31,215	HSG A	1S, 2S, 3S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
31,215		**TOTAL AREA**

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: 1S Runoff Area=6,096 sf 100.00% Impervious Runoff Depth=3.55"
Flow Length=88' Tc=1.2 min CN=98 Runoff=0.61 cfs 1,801 cf

Subcatchment2S: 2S Runoff Area=12,526 sf 100.00% Impervious Runoff Depth=3.55"
Flow Length=100' Tc=1.3 min CN=98 Runoff=1.25 cfs 3,701 cf

Subcatchment3S: 3S Runoff Area=12,593 sf 81.52% Impervious Runoff Depth=2.44"
Flow Length=100' Tc=1.9 min CN=87 Runoff=0.95 cfs 2,556 cf

Pond BR1: BIO-RETENTION Peak Elev=1,259.33' Storage=1,273 cf Inflow=0.95 cfs 2,556 cf
Outflow=0.07 cfs 2,556 cf

Pond DW1: DRY WELL 1 Peak Elev=1,256.83' Storage=760 cf Inflow=0.61 cfs 1,801 cf
Outflow=0.03 cfs 1,801 cf

Pond DW2: DRY WELL 2 Peak Elev=1,258.61' Storage=2,136 cf Inflow=1.25 cfs 3,701 cf
Outflow=0.03 cfs 3,701 cf

Total Runoff Area = 31,215 sf Runoff Volume = 8,058 cf Average Runoff Depth = 3.10"
7.45% Pervious = 2,327 sf 92.55% Impervious = 28,888 sf

Summary for Subcatchment 1S: 1S

Runoff = 0.61 cfs @ 12.02 hrs, Volume= 1,801 cf, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10yrEXTR Rainfall=3.78"

Area (sf)	CN	Description
3,093	98	Paved parking, HSG A
3,003	98	Roofs, HSG A
6,096	98	Weighted Average
6,096		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	32	0.1000	1.88		**Sheet Flow, AB - ROOF** Smooth surfaces n= 0.011 P2= 2.60"
0.9	56	0.0150	0.98		**Sheet Flow, BC - DRIVE** Smooth surfaces n= 0.011 P2= 2.60"
1.2	88	Total			

Summary for Subcatchment 2S: 2S

Runoff = 1.25 cfs @ 12.02 hrs, Volume= 3,701 cf, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10yrEXTR Rainfall=3.78"

Area (sf)	CN	Description
7,146	98	Paved parking, HSG A
5,380	98	Roofs, HSG A
12,526	98	Weighted Average
12,526		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	32	0.1000	1.88		**Sheet Flow, AB - ROOF** Smooth surfaces n= 0.011 P2= 2.60"
1.0	68	0.0200	1.15		**Sheet Flow, BC - DRIVE** Smooth surfaces n= 0.011 P2= 2.60"
1.3	100	Total			

Summary for Subcatchment 3S: 3S

Runoff = 0.95 cfs @ 12.03 hrs, Volume= 2,556 cf, Depth= 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10yrEXTR Rainfall=3.78"

Area (sf)	CN	Description
2,327	39	>75% Grass cover, Good, HSG A
6,031	98	Paved parking, HSG A
4,235	98	Roofs, HSG A
12,593	87	Weighted Average
2,327		18.48% Pervious Area
10,266		81.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	78	0.0100	0.89		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 2.60"
0.4	22	0.0150	0.82		**Sheet Flow, BC** Smooth surfaces n= 0.011 P2= 2.60"
1.9	100	Total			

Summary for Pond BR1: BIO-RETENTION

Inflow Area = 12,593 sf, 81.52% Impervious, Inflow Depth = 2.44" for 10yrEXTR event
Inflow = 0.95 cfs @ 12.03 hrs, Volume= 2,556 cf
Outflow = 0.07 cfs @ 13.01 hrs, Volume= 2,556 cf, Atten= 93%, Lag= 58.9 min
Discarded = 0.07 cfs @ 13.01 hrs, Volume= 2,556 cf

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 1,259.33' @ 13.01 hrs Surf.Area= 1,226 sf Storage= 1,273 cf

Plug-Flow detention time= 243.5 min calculated for 2,555 cf (100% of inflow)
Center-of-Mass det. time= 243.5 min (1,051.7 - 808.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,256.00'	2,310 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 2,429 cf Overall - 119 cf Embedded = 2,310 cf
#2	1,256.00'	48 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) Inside #1 119 cf Overall x 40.0% Voids
		2,357 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,256.00	119	0	0
1,257.00	119	119	119
1,258.00	298	209	328
1,259.80	1,550	1,663	1,991
1,260.00	2,831	438	2,429

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,256.00	119	0	0
1,257.00	119	119	119

Device	Routing	Invert	Outlet Devices
#1	Discarded	1,256.00'	**5.000 in/hr Exfiltration X 0.50 over Surface area**

Discarded OutFlow Max=0.07 cfs @ 13.01 hrs HW=1,259.33' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Summary for Pond DW1: DRY WELL 1

Inflow Area = 6,096 sf,100.00% Impervious, Inflow Depth = 3.55" for 10yrEXTR event
Inflow = 0.61 cfs @ 12.02 hrs, Volume= 1,801 cf
Outflow = 0.03 cfs @ 10.59 hrs, Volume= 1,801 cf, Atten= 95%, Lag= 0.0 min
Discarded = 0.03 cfs @ 10.59 hrs, Volume= 1,801 cf

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 1,256.83' @ 13.68 hrs Surf.Area= 525 sf Storage= 760 cf

Plug-Flow detention time= 200.3 min calculated for 1,801 cf (100% of inflow)
Center-of-Mass det. time= 200.3 min (948.9 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,253.33'	1,337 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 3,502 cf Overall - 160 cf Embedded = 3,341 cf x 40.0% Voids
#2	1,254.00'	118 cf	**5.00'D x 6.00'H Vertical Cone/Cylinder** Inside #1 160 cf Overall - 5.0" Wall Thickness = 118 cf
		1,454 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,253.33	525	0	0
1,257.00	525	1,927	1,927
1,260.00	525	1,575	3,502

Device	Routing	Invert	Outlet Devices
#1	Discarded	1,253.33'	**5.000 in/hr Exfiltration X 0.50 over Surface area**

Discarded OutFlow Max=0.03 cfs @ 10.59 hrs HW=1,253.40' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.03 cfs)

Summary for Pond DW2: DRY WELL 2

Inflow Area = 12,526 sf,100.00% Impervious, Inflow Depth = 3.55" for 10yrEXTR event
Inflow = 1.25 cfs @ 12.02 hrs, Volume= 3,701 cf
Outflow = 0.03 cfs @ 8.65 hrs, Volume= 3,701 cf, Atten= 98%, Lag= 0.0 min
Discarded = 0.03 cfs @ 8.65 hrs, Volume= 3,701 cf

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 1,258.61' @ 15.86 hrs Surf.Area= 525 sf Storage= 2,136 cf

Plug-Flow detention time= 610.4 min calculated for 3,700 cf (100% of inflow)
Center-of-Mass det. time= 610.5 min (1,359.2 - 748.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,248.83'	2,134 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 5,602 cf Overall - 267 cf Embedded = 5,334 cf x 40.0% Voids
#2	1,249.50'	196 cf	**5.00'D x 10.00'H Vertical Cone/Cylinder** Inside #1 267 cf Overall - 5.0" Wall Thickness = 196 cf
		2,330 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,248.83	525	0	0
1,257.00	525	4,289	4,289
1,259.50	525	1,313	5,602

Device	Routing	Invert	Outlet Devices
#1	Discarded	1,248.83'	**5.000 in/hr Exfiltration X 0.50 over Surface area**

Discarded OutFlow Max=0.03 cfs @ 8.65 hrs HW=1,248.94' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Stormwater Pollution Prevention Plan (SWPPP)

SPACE PLACE SELF STORAGE EXPANSION
1000 Route 11, Sunapee, New Hampshire

Prepared For:

High Pine Properties, LLC
1000 Route 11
Sunapee, New Hampshire 03782
Phone: (????????????
Fax: ????????

Site Owner Contact (High Pines Properties, LLC):	Site Operator, SWPPP Coordinator & 24-Hour Contact (General Contractor):
High Pine Properties. 1000 Route 11 Sunapee, New Hampshire 03782 Office: (603) 523-3536 E-mail: TJennings@cardigan.org	?????????????????? ???????????????

SWPPP Preparation Date: March 5, 2019 (DRAFT)
????????????? (FINAL)

Pathways Project No. 12842

Estimated Project Start Date: ????????????
Estimated Project Completion Date: ???????????????

NPDES #: ????????????? (General Contractor)

DRAFT

SWPPP Preparer:

PATHWAYS CONSULTING, LLC
Planning • Civil & Environmental Engineering • Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221

SWPPP On-Site Availability

A current copy of this SWPPP must be kept at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

If an on-site location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of the construction site.

SWPPP Revision Schedule

This SWPPP should be revised and updated within seven (7) calendar days following the occurrence of any changes in site conditions, new or revised government regulations, additional on-site stormwater pollution controls, and/or other circumstances listed below, pursuant to the 2017 Construction General Permit (CGP) Part 7.4.1:

- Whenever new operators become active in construction activities on the site, or changes are made to the construction plans, stormwater control measures, pollution prevention measures, or other activities at the site that are no longer accurately reflected in this SWPPP. This includes changes made in response to corrective actions triggered under 2017 CGP Part 5. This SWPPP does not need to be modified if the estimated dates in 2017 CGP Part 7.2.3.f change during the course of construction;
- To reflect areas on the site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
- If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with the 2017 CGP;
- Where EPA determines it is necessary to install and/or implement additional controls at the site in order to meet the requirements of this permit, the following must be included in this SWPPP:
  - A copy of any correspondence describing such measures and requirements; and
  - A description of the controls that will be used to meet such requirements;
- To reflect any revisions to applicable Federal, State, Tribal, or local requirements that affect the stormwater control measures implemented at the site; and
- If applicable, when a change in chemical treatment systems or chemically-enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

All revisions to the SWPPP must be documented on the SWPPP Revision Documentation Form included in SWPPP Appendix G, which should include the information shown below for each draft or revision of the SWPPP. The records must include the name of the individual authorizing each change and a brief summary of all changes. The SWPPP revisions shall be approved by a duly authorized facility representative in accordance with 2017 CGP 2017 Appendix I, Part I.11 (an individual authorized to make management decisions governing the regulated facility such as a corporate officer, principal executive officer, ranking elected official, construction manager, site supervisor, etc.). The signature of this representative attests that the SWPPP revision information is true and accurate. Previous authors and facility representatives are not responsible for the revisions. All site operators shall be notified immediately upon determining that a modification to this SWPPP is required.

SWPPP Revision Documentation Form
(Use Appendix G for Additional SWPPP Revisions)

Amendment Number	Date of Amendment	Description of Amendment	Amendment Prepared By [Name(s) & Title]	Authorized Representative Signature (per 2017 CGP Appendix I, Part I.11)
Draft Issued	March 5, 2019	Draft Issued	Pathways Consulting, LLC: Daniel P. Moss, P.E., CPESC	See SWPP Section 8
Final Issued				
1				
2				

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Appendix C – Site Plans
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Appendix E – Post-Authorization Additions to the SWPPP (NOI)
Appendix F – Inspection Reports and Corrective Action Logs
Appendix G – SWPPP Revision Documentation Log
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Appendix I – Grading and Stabilization Activities Log
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Appendix K – Delegation of Authority Form
Appendix L – Copies of Additional Permits and Environmental Documentation

1.0 CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Contact Information

PROJECT OWNER:	*PHONE/FAX/MOBILE:*	*ADDRESS:*
High Pine Properties, LLC	Phone: ????? Fax: ?????? E-mail: ??????????	1000 Route 11 Sunapee, New Hampshire 03782
SITE OPERATOR, SWPPP COORDINATOR, & 24-HOUR CONTACT (GENERAL SUBCONTRACTOR):	***PHONE/FAX/MOBILE:***	***ADDRESS:***
??????????????	Office: ??? Mobile: >???????? E-mail: ??????????	??????????
SWPPP PREPARER(S):	***PHONE/FAX/MOBILE:***	***ADDRESS:***
Daniel P. Moss, P.E., CPESC Pathways Consulting, LLC	Phone: (603) 448-2200 Mobile: (802) 365-9804 Fax: (603) 448-1221 E-mail: Dan.Moss@pathwaysconsult.com	Pathways Consulting, LLC 240 Mechanic Street, Suite 100 Lebanon, New Hampshire 03766
SWPPP MONITOR(S):	***PHONE/FAX/MOBILE:***	***ADDRESS:***
??????		

1.2 Stormwater Team and Responsibilities

This section is intended to assist the site operator(s) with identifying the specific staff members that comprise the project stormwater team and outlining individual responsibilities with regard to maintaining compliance with the 2017 Construction General Permit (CGP). These responsibilities may be delegated differently as deemed necessary to adhere to separate contractual relationships between the owner and construction team, as long as the 2017 CGP requirements are met and any changes in responsibilities from those contained herein are clearly documented in this SWPPP.

Project Owner Contact:

High Pine Properties, LLC
1000 Route 11
Enfield, New Hampshire 03782

The owner shall be responsible for the following duties:

- General compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities (2017 CGP). A copy is provided in SWPPP Appendix D;
- Communications with all site operators regarding compliance with 2017 CGP;
- Overseeing contractor operations and 2017 CGP compliance independent of any owner-contractor contractual obligations;
- Providing available representatives for authorizing decisions necessary for maintaining compliance with 2017 CGP, implementing and/or supervising corrective actions;
- Communications with the SWPPP preparer when modifications are necessary, unless delegated to other parties;
- Communicating with stormwater team as necessary during construction; and
- Communications with outside parties as necessary for maintaining compliance and providing required notifications.

Site Operator, SWPPP Coordinator and 24-Hour Contact (General Contractor):

?????????????
?????????????

The General Contractor shall be responsible for the following duties:

- Provide representatives available for contact on a 24-hour on-call basis throughout construction, in accordance with 2017 CGP requirements;
- Compliance with the NPDES General Permit for Discharges from Construction Activities (2017 CGP). A copy is provided in SWPPP Appendix D;
- Completion of a NOI to the EPA for coverage under the 2017 CGP. A copy is provided in SWPPP Appendix E;

- Implementing the SWPPP and committing resources to implement the BMPs;
- Communications and delegation of responsibilities between owner, SWPPP preparer and monitor, and others on the stormwater team during construction;
- Installing stormwater, erosion, and sediment and pollution prevention controls at the project site;
- Training of all staff and subcontractors as necessary to make them aware of the BMPs, control measures and good-housekeeping procedures that must be implemented on the project site;
- Implementing and documenting the completion of maintenance activities for erosion and sediment and pollution prevention controls within the required timeframes pursuant to 2017 CGP Part 2.1.4;
- Implementing and documenting the completion of corrective actions within the required timeframes pursuant to 2017 CGP Part 5;
- Supervising and implementing good housekeeping programs, such as site clean-up and disposal of trash and debris, hazardous material management and disposal, vehicle and equipment maintenance;
- Conducting routine inspections of the site to ensure all BMPs are being implemented and maintained;
- Maintaining the BMPs;
- Meeting time deadlines for initiating and completing site stabilization measures;
- Meeting time deadlines (i.e., 2017 CGP Part 2.1.4 and 5) for completing maintenance and corrective action measures, and obtaining signatures for corrective action logs, as necessary;
- Notifying the owner and SWPPP preparer when modifications to the SWPPP are necessary;
- Communicating changes in the SWPPP to people working on the site.
- Subcontractor compliance with the SWPPP. If a subcontractor certifies corporate compliance with the SWPPP, a copy shall be included in SWPPP Appendix H; and
- Maintaining an up-to-date on-site SWPPP document in accordance with the 2017 CGP, including inspection reports, information in appendices, training logs, updating the erosion control plan to identify erosion, sediment and stormwater controls, and other BMPs used on the site.

SWPPP Preparer:

Daniel P. Moss, P.E., CPESC
Pathways Consulting, LLC
240 Mechanic Street, Suite 100
Lebanon, New Hampshire 03766

The SWPPP preparer and monitor shall be responsible for the following duties:

- Producing a SWPPP document in accordance with the 2017 CGP requirements;
- Assisting with the completion of a NOI to the EPA for obtaining coverage under the 2017 CGP for construction activities. A copy is provided in SWPPP Appendix E;

- Providing updates to the SWPPP document upon request;

SWPPP Monitor:

???????

- Monitoring the site conditions, erosion and stormwater controls, and BMPs in accordance with the 2017 CGP requirements, permit conditions and project documents;
- Review site compliance with the 2017 CGP. A copy is provided in SWPPP Appendix D;
- Recommendations relating to SWPPP and BMPs, including maintenance activities related to erosion and sediment controls, and identifying potential corrective actions when observed on the project site;
- Documenting changes to the SWPPP and notifying the site operators when changes to the SWPPP are required per the 2017 CGP;
- Conducting periodic inspections according to 2017 CGP. Inspections to include entire site to ensure all BMPs are being implemented and maintained, and follow-up reporting;
- Producing Monitoring Reports in accordance with 2017 CGP requirements;
- Noting when initial disturbances occur for each area and identify time remaining for initiation and completion of stabilization during inspection visits; and
- Identifying and tracking time deadlines (i.e., 2017 CGP 2.1.4 and 5) on Inspection Reports and Corrective Action Logs during completion of maintenance and corrective action measures.

2.0 SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 Project/Site Information

Project/Site Name: Space Place Self Storage Expansion
Project Street/Location: 1000 NH Route 11
Town: Sunapee State: New Hampshire Zip Code: 03782
County or Similar Subdivision: Sullivan

Latitude/Longitude (Approximate Project Midpoint):
Latitude: 43.417393° N (degrees, decimal) Longitude: 72.081491° W (degrees, decimal)

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: 1:24,000) ☐ EPA Web site ☐ GPS
☒ Other: NHGRANIT Web Site - GranitView

Horizontal Reference Datum:
☐ NAD 27 ☒ WGS 84 ☐ NAD 83 ☐ Unknown

Type of Construction Site (check all that apply): ☐ Single-Family Residential
☐ Multi-Family Residential ☒ Commercial ☐ Industrial
☐ Institutional ☐ Highway or Road ☐ Utility ☐ Other

Additional Information:

Is the project located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☒ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable). If not in Indian country, provide the name of the Indian tribe associated with the property, or indicate "not applicable": Not applicable

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ Yes ☒ No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space? ☐ Yes ☒ No

Was the pre-development land use used for agriculture (see Appendix A for definition of "agricultural land")? ☐ Yes ☒ No

Is this project related to a public emergency (e.g., natural disaster, extreme flooding conditions)? ☐ Yes ☒ No

If yes, provide information substantiating its occurrence (e.g., state disaster declaration), and describe construction necessary to reestablish effective public services: Not applicable

Is this project applying for coverage as a "federal operator" as defined in 2017 CGP Appendix A? ☐ Yes ☒ No

NPDES project or permit tracking number(s):
Site Operator (General Contractor): ??????????????

2.2 Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☒ No

Are there any surface waters that are located within 50 feet of your construction disturbances? ☒ Yes ☐ No

Table 1 - Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4. [Note: provide multiple rows where the site has more than one point of discharge that flows to different surface waters. Include additional rows as needed.]	
1.	**Unnamed Wetlands**
2.	
3.	
4.	

Table 2 - Impaired Waters/TMDLs

Answer the following for each surface water listed in Table 1 above. [Include additional rows as necessary.]					
	If answered yes, then answer the following:				
	Is this surface water listed as "impaired"?	If the receiving water is impaired (on CWA 303(d) list, list the pollutant(s) are causing the impairment	Has a TMDL been completed?	TMDL Name & ID	Pollutant(s) for which there is a TMDL
1.	☐ YES ☒ NO		☐ YES ☒ NO	**NA**	**NA**
2.	☐ YES ☐ NO		☐ YES ☐ NO		
Describe the method(s) used to determine whether or not the project/site discharges to an impaired water: **Project was located on a USGS map and NHDES One-Stop GIS system to determine the receiving waters. Impairments determined from NHDES 303(d) "List of ORW and Impaired Waters for CGP NOIs".**					

Table 3 – Tier 2, 2.5, or 3 Waters

Answer the following for each surface water listed in Table 1 above. [Include additional rows as necessary.]				
	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water? (see 2017 CGP Appendix F)	If answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?	Is this surface water impaired for sediment or nutrient related parameters? [Includes: total suspended solids (TSS), turbidity, phosphorus, nitrogen.]	**Is this surface water an Outstanding Resource Water (ORW)?**
1.	☒ YES ☐ NO *	**2***	☐ YES ☒ NO	☐ YES ☒ NO
2.	☐ YES ☐ NO *		☐ YES ☐ NO	☐ YES ☐ NO
***NHDES does not have an official list of Tier 2/2.5 waters, but does have a list of Tier 3 waters (i.e., outstanding resource waters or ORW's). NHDES assumes all surface waters to be Tier 2 for turbidity. However, NHDES considers standard inspection (CGP Part 4.2) and stabilization (CGP Part 2.2.14.a.ii) requirements acceptable if surface water is <u>not</u> impaired for sediment or nutrient related parameters (e.g., total suspended solids, turbidity, phosphorus, and nitrogen) or considered an ORW.**				

Summary of Additional Requirements Based on Receiving Waters:

Are <u>ANY</u> of the above listed surface waters impaired for sediment or nutrient related parameters (total suspended solids, turbidity, phosphorus, or nitrogen)?
☐ Yes ☒ No

Are <u>ANY</u> of the above listed surface waters considered Outstanding Resource Waters (ORW)?
☐ Yes ☒ No

☒ Check if no to both questions and project shall comply with:

- Inspection requirements in 2017 CGP Part 4.2 (once every 7 days OR once every 14 days and within 24 hours following storm event of 0.25 inches or greater); and
- Stabilization requirements in 2017 CGP Part 2.2.14.a.i or 2.2.14.a.ii [no later than 14 calendar days (for less than 5 acres disturbed at one time), or 7 days (for greater than 5 acres at one time) after stabilization has been initiated]~~}~~.

☐ Check if yes to either question, receiving waters are considered "sensitive" and project shall comply with:

- Inspection requirements in 2017 CGP Part 4.3 (once every 7 days AND within 24 hours following storm event of 0.25 inches or greater, or the occurrence of of runoff from snowmelt sufficient to cause a discharge); and
- Stabilization requirements in 2017 CGP Part 2.2.14.a.iii.(c) [no later than 7 calendar days after stabilization has been initiated].

2.3 Nature of Construction Activity

General Project Description:
The project is located at 1000 NH Route 11, Sunapee, NH.

The site is located at 1000 Route 11 in Sunapee, New Hampshie and is identified on the Town assessor's Map 211 as Lots 0016 and 0017. Lots 0016 and 0017 will be voluntarily merged. Lot 0016 is currently occupied by Space Place Self Storage with ten storage buildings containing 32,480 square feet (SF). High Pines Properties (Owner) proposes to expand the facility and construct three additional buildings in three phases. The Phase I building will contain 12,540 SF, the Phase II building will contain 8,840 SF, and the Phase III building will contain 4,800 SF. The buildings will require the construction of access drives and stormwater facilities. In addition, the area of the proposed expansion is wooded and no new landscaping is proposed. An 80' wide natural buffer will be maintained adjacent to Route 11 along with natural buffers on the south and west sides of the site.

The proposed buildings and portions of the access drives have been designed and graded to flow to a bio-retention area and a closed drainage system. The bio-retention area will treat and infiltrate stormwater from the access drives and portion of the buildings on the east. Another portion of the stormwater for the site will be collected in a catch basin with a pre-treatment device to remove sediment debris prior to discharging to a stone discharge apron and level spreader. Roof drainage from the Phase II buildings will be collected in drip edges for infiltration. A portion of the Phase I building and portions of the associated access drives will be diverted to two (2) Drywell Infiltration Basins. The stormwater design will provide treatment and controlled release for the site drainage.

The proposed project will also impact approximately 582 SF of jurisdictional wetland. The project has been designed to minimize wetland impacts and protect the remaining and adjacent wetlands.

The following work at the site is proposed:

Estimated Overall Project Start Date: ??????????
Estimated Overall Project Completion Date: ???????????

Normal Days and Hours of Operation: ??????????????.

General Type of Construction:

☐ Residential ☒ Commercial ☐ Industrial ☐ Road Construction
☐ Linear Utility ☐ Institutional
☐ Other (please specify):

Describe the following, where applicable:

- Provide a description of the nature of the construction activities, including the age or dates of past renovations for structures that are undergoing demolition:

  Construct three (3) new storage buildings (12,540 square-foot, 8,840 square-foot, and 4,800 square-foot) as an expansion to the Space Place Self Storage facility and associated access drives, retaining walls, and stormwater collection/treatment system as described above.

  The existing site encompasses a wooded area. There are no existing structures or buildings.

- The size of the property (in acres or length in miles if a linear construction site):

  The area of the lot the existing Space Place Self Storage facility is located on is 8.8 acres. The project expansion area is located on an adjacent lot consisting of 8.3 acres. The two lots are being merged to create one total lot consisting of 17.1 acres.

- The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site):

  The project site includes approximately 2.00 acres of total land disturbance, including temporary and permanent impacts, as part of the project.

- A description of any on-site and off-site construction support activity areas covered by this permit (see 2017 CGP Part 1.2.1c):

  Installation of temporary staging and material stockpile areas, site stabilization, and other incidental work during construction will take place within the limits of work.

- The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas:

The project site includes approximately 1.75 acres of total land disturbance, including temporary and permanent impacts, as part of the project.

- A description and projected schedule in each portion of the site for the following:
  - ??????????????????????????
  - >>>>>>>>>>>>>>>>>>
  - ????????????????

- Temporary or permanent cessation of construction activities in each portion of the site:
  As work ends in each portion of site as indicated above.

- Temporary or final stabilization of exposed areas for each portion of the site:
  As work ends in each portion of site as indicated above.

- Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities
  As appropriate when work ends as indicated above.

- If the project's construction activities are in response to a public emergency (see 2017 CGP Part 1.4), a description of the cause of the public emergency (e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services), information substantiating its occurrence (e.g., state disaster declaration or similar state or local declaration), and a description of the construction necessary to reestablish affected public services.

  Not Applicable

2.4 Construction Site Statistics

The following are estimates of the construction site:

Total Parcel Area	17.1+/- acres
Construction Site Area to be disturbed	2.00 acres
Maximum Site Area to be disturbed at one time	2.00/1.0 acres*
Percentage of construction site impervious before construction	5%
Runoff coefficient before construction	33
Percentage of construction site impervious area after construction	65%
Runoff coefficient after construction	77

*Per the NHDES Alteration of Terrain requirements, 5.0 acre limit during construction season, reduced to 1.0 acre between November 30 to May 1.

2.5 Soils, Slopes, Vegetation, Wetlands, and Drainage

Soils: The Natural Resource Conservation Service (NRCS) classifies four Hydrologic Soils Groups based on the soil's runoff potential. The four Hydrologic Soils Groups are A, B, C, and D. The A soil groups generally have the smallest runoff potential and D soil groups the greatest.

Details of this classification system can be found in "Urban Hydrology for Small Watersheds" published by the Engineering Division of the Natural Resource Conservation Service, United States Department of Agriculture, Technical Release-55. We have summarized the general characteristics of each soil group in the following paragraphs.

Group A soils are sand, loamy-sand, or sandy-loam types of soils. They have low runoff potential and high infiltration rates even when thoroughly wetted. These soils consist chiefly of deep, well to excessively drained sands or gravels, and have a high rate of water transmission.

Group B soils are silt loam or loam. They have a moderate infiltration rate when thoroughly wetted and consist chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.

Group C soils are sandy clay loam. They have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine structure.

Group D soils have a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink/swell potential, soils that have a high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

According to the NRCS soils map, the general soils within the project site are mapped as three (3) soil classifications, which are hydrologic soil groups A, A/D, and B. See SWPPP Appendix B for a NRCS soil survey map and additional information on these soils:

Table 4 - Soil Classification on the Project Site

Map Unit Legend	Soil Name	Hydrologic Soil Group
CoB	Colton sandy loam, 3 to 8 percent slopes	A
LuA	Lyme-Moosilauke loams, 0 to 3 percent slopes	A/D
MfC	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony	B

Slopes: The site slopes generally from west to east and north to south toward the wooded/wetland areas at an average slope of 15%. The site consists of woods.

Vegetation: The project site consists primarily of woods.

The proposed clearing limits and limits of disturbance, where applicable, have been depicted on the project plans and the contractor shall adhere to these limits for any removal of vegetation, unless otherwise approved by the Owner and the

proper State/Town permits and approvals are obtained by the contractor. No invasive species areas have been identified on the site. However, there is still potential that invasive species may be present within areas of the proposed disturbances and the contractor should avoid impacts to invasive species areas wherever possible. If construction activities require interaction with areas where invasive species are present, the utmost care must be taken to prevent the further spread of the plants. The contractor must submit an Invasive Species Management Plan to the Town and or State for review and approval before conducting any work in areas containing Type I or Type II invasive species, and these activities shall be managed in accordance with this plan at all times. For specific regulations and guidance on containment and disposal measures for addressing the presence of invasive plants within the work areas, please refer to the contract documents and applicable New Hampshire Department of Environmental Services (NHDES) or other requirements.

Wetlands: The project wetlands were delineated by Bruce Gilday, Certified Wetland/Soil Scientist (CWS/CVSS). There are jurisdictional wetland areas located east, west, and south of the project site. Minor jurisdictional areas within the project area will be impacted as part of the construction as shown on the SWPPP Plans. A double row of compost socks has been specified on the SWPPP Plans to help protect the wetlands from sediment. A NHDES (Minimum Impact) Wetlands and Non-Site Specific Permit (2018-03809) has been secured for this project for minor wetland impacts proposed for the project and is attached in SWPPP Appendix L. In addition, the project is covered under the an Army Corp's New Hampshire Programmatic General Permit (attached SWPPP Appendix L). The Town of Sunapee Planning Board approval was necessary for this project. The Planning Board approval letter with conditions of approval is attached in Appendix L. During construction, extreme care must be taken to protect wetlands outside the construction limits and adhere to all contract provisions and applicable permit conditions. If work is found to be needed within the delineated wetland areas beyond the areas indicated on the SWPPP Plans, additional NHDES Wetland Permitting clearance will need to be coordinated by the Contractor. **Note, per the NHDES Wetlands Permit, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

Drainage: See SWPPP Appendix A for site location map of the project area. The proposed buildings and portions of the access drives have been designed and graded to flow to a bio-retention area and a closed drainage system. The bio-retention area will treat and infiltrate stormwater from the access drives and portion of the buildings on the east. Another portion of the stormwater for the site will be collected in a catch basin with a pre-treatment device to remove sediment debris prior to discharging to a stone discharge apron and level spreader. Roof drainage from the Phase II buildings will be collected in drip edges for infiltration. A portion of the Phase I building and portions of the associated access drives will be diverted to two (2) Drywell Infiltration Basins. The stormwater design will provide treatment and controlled release for the site drainage.

The site slopes generally from west to east and north to south toward the wooded/wetland areas at an average slope of 15%. The site consists of woods. The existing surface is primarily wooded. The soils are mapped as hydrologic

types A, A/D, and B with very little potential for erosion or sediment transport off-site.

Consequently, the majority of stormwater discharge from the proposed storage facility expansion area is treated in some manor prior to discharge in accordance with Town requirements.

2.6 Site Features and Sensitive Areas to be Protected

The jurisdictional wetlands near the project site warrant the utmost protection during all project work, which is the focus of this SWPPP.

Areas to be protected include the existing jurisdictional wetland areas that are not subject to the proposed construction and associated permitting. Wetlands that have not been permitted to be impacted are to remain undisturbed unless additional permitting for disturbance is obtained from the contractor and should be protected to the maximum extent possible. The perimeter of the project area also contains some existing vegetation and mature stands of trees. The Contractor should preserve as much of these wooded buffers as possible, and strictly adhere to the approved limits of clearing and disturbance.

The total project depicted on the project plans includes approximately 2.00 acres of disturbance, including new impervious areas, permanent disturbances, and temporary construction impacts. No NHDES Alteration of Terrain (AoT) Permit is required. A NHDES (Minimum Impact) Wetlands and Non-Site Specific Permit (2018-03809) has been secured for this project for minor wetland impacts proposed for the project and is attached in SWPPP Appendix L. No work outside the limits of construction will be allowed. If additional work outside these limits is needed, the contractor will need to request to NHDES a modification to the permit/clearance.

The drainage system and associated outlets within the project site shall be protected to the maximum extent possible using stormwater, erosion and sediment control features as specified on the erosion control plans to prevent impacts to downstream water bodies and areas.

Limits of work and limits of clearing shall be carefully delineated to minimize disturbance due to the proposed construction, and erosion controls shall be located as necessary to provide protection and contain sediment. The area of disturbance has also been shown on the project plans and the Contractor should preserve areas beyond the disturbance limits to the extent possible throughout the duration of construction.

The proposed Space Place Self Storage Expansion project is located on a previously undisturbed area consisting primarily of woods/wetlands. NEED NH DHR Historic COORDINATION still

The New Hampshire Natural Heritage (NHB) database check for records of rare species and exemplary natural communities near the project area was performed. The species considered included those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. This NHB check (NHB19-0611) determined that there were no recorded occurrences for sensitive

species near this project area. See attached document (NHB19-0611) in SWPPP Appendix L.

An IPac US Fish and Wildlife Service Review (Consultation Code: 05E1NE00-2019-SLI-0934) was also performed to obtain a list of threatened and endangered species that may occur in the proposed project location, and/or may be affected by the proposed project. The IPac Report (Consultation Code: 05E1NE00-2019-SLI-0934) is attached in SWPPP Appendix L. This review listed the Northern Long-eared Bat (*Myotis septentrionalis)* as threatened, endangered, or candidate species for the project site, but there were no critical habitats listed within the project area under the US Fish and Wildlife jurisdiction. Multiple trees are proposed to be cut down as part of the construction. A field inspection was performed by ??????????. The report from this field inspection was delivered to the U.S. Fish and Wildlife New England Office for their consultion (see attached report in SWPPP Appendix L. NEEW F&W CoordinationSTILL

Any work within areas containing invasive species, whether delineated on the plans or not, shall be addressed in accordance with the and applicable New Hampshire Department of Environmental Services (NHDES) or other requirements, contract document requirements, and permit conditions, and may require an Invasive Species Control and Management Plan before such work may proceed.

2.7 Sequencing and Phasing of Construction Activity

Phasing of the overall construction activities, as well as sequencing of the stormwater and erosion control installation to correspond with each area of disturbance will minimize the duration of exposed soil and the amount of soil that is exposed to the elements at any given time.

In order to comply with the 2017 CGP requirements, the contractor must also sequence the land disturbances to minimize open areas of the site where construction activities are underway, provide for installation of stormwater, erosion controls within these open areas, and provide temporary and/or permanent stabilization measures as quickly as possible within each work phase.

The following general sequencing information has been based on a preliminary work schedule provided by the contractor to assist the site operators with developing a detailed phasing plan for the work activities. ***This phasing/sequencing should be modified with specific calendar dates and timing of various construction activities as the work proceeds, including noting when installation of sediment and erosion controls and stabilization occurs.***

The general construction phase segments are outlined in SWPPP Section 2.3.

The general site construction sequence is outlined as follows:

1. Flag or fence clearing limits.
2. Stake or flag all clearing, construction limits, wetland areas, and invasive species areas with survey tape, in accordance with contract documents.
3. Perimeter Controls: Install all necessary perimeter controls (compost sock, and construction fence) at the limits of disturbance, clearing limits,

and/or construction limits for all work areas prior to any land clearing and/or disturbances.

4. Stormwater Inlet Protection: Install storm drain inlet protection for all catch basins and drainage structures within and adjacent to the work areas. Inlet protection should include any stormwater and erosion controls (e.g., stone check dams, silt fence, mulch netting) as necessary to prevent erosion and contain sediment from exiting the proposed site.
5. Construction Entrances: Grade and install construction entrance(s) at on-site and/or off-site staging areas, and for temporary access roads, as required, prior to any clearing, land disturbances or usage One (1) Stabilized Construction entrance is proposed for the existing entrance into the current Space Place Self Storage as shown on the SWPPP Plans (attached in SWPPP Appendix C). The need for additional stabilized construction entrances will be determined in the field during work.
6. Install all necessary traffic controls and lane closures within work areas for each work phase according to the approved phasing plan.
7. Install any temporary access barriers, gates and/or construction fence in areas where vehicular and pedestrian access should be prevented. Barriers around work areas should not impede normal access for off-site areas or abutting buildings.
8. Staging Areas: Set up construction staging areas for equipment, material, and soil storage within the work areas. These are anticipated on a short-term basis only and will be located within the Limits of Disturbance. *The contractor has not determined the specific locations for field trailers, staging equipment, and materials at this time, but staging areas will be identified in the field during construction, and the SWPPP will be updated as needed.* Install perimeter controls (compost sock and construction fence) as necessary around staging areas. Install crushed stone on the surface of staging areas as necessary to provide a stable working platform, minimize erosion, and contain sediment. All materials with the potential to contaminate stormwater shall be covered and contained, as necessary.
9. Stockpile Areas: Prior to any earthwork, set up stockpile areas for all earthen materials (including topsoil, sand, fill, debris from tree clearing, and grubbing), excluding clean gravel, crushed stone or stone fill materials free of fine sediments, prior to establishing stockpiles. This shall include installing any necessary perimeter controls, such as silt fence, compost socks, and/or stone check dams to contain materials. If stockpiles are to remain for an extended period of time (generally longer than one month) on the project site, stockpile materials shall be covered with tarps or covered with temporary seed and mulch to stabilize and preserve materials. *The contractor is intending to use on-site staging areas for any storage and stockpiling of materials. Stockpiles and associated material containment may be required at each specific work location, as determined in the field.*
10. If the existing drainage flow path in ditches and/or culverts along roadways or at drainage crossings are interrupted due to staging, stockpile areas, or temporary widening, water diversion measures, such as diversion swales, temporary pipes at driveway approaches or across the roadway, and/or dewatering measures, and associated erosion controls (such as check dams) may be necessary to allow drainage flow to bypass these areas.

11. Prior to tree clearing, grubbing, or stockpile activities, install erosion control measures (compost socks) along the clearing and/or disturbance limits adjacent to wetlands or surface waters, and around drainage inlet/outlets.
12. Tree Clearing: Cut trees designated for removal on the SWPPP Plans (attached in SWPPP Appendix C) and remove vegetation within work areas, avoiding wetlands not permitted to be disturbed, invasive species areas, and other "restricted" areas to remain undisturbed. Dispose of debris properly, either at off-site areas, or within established stockpile areas. *The contractor shall adhere to specific environmental commitments and permit conditions contained in the contract documents and in SWPPP Appendix L during any clearing activities, including the restrictions pertaining to the timing of tree removal, the presence of invasive species, endangered species, and/or historic properties within or adjacent to the site. Any conditions set by the U.S. Fish and Wildlife shall also be adhered to.*
13. Construct additional erosion or surface water controls (e.g., sediment basins, diversion ditches, check dams, stone lined ditches, mulch netting, etc), simultaneously with land clearing, grubbing, and grading within the work areas.
14. Grubbing and Topsoil Stripping: Remove vegetation and topsoil within work areas and dispose of properly, either at off-site areas, or within established stockpile areas.
15. Removal of vegetation, topsoil, or other excavation within areas that contain invasive species shall be undertaken in a separate and contained operation, in accordance with the Invasive Species Management Plan, to prevent the spread of related soil and debris.
16. General Site Work and Utility Installation:
    a. Complete grading, slope embankment cutting and filling, drainage and channel work, roadway construction, subbase preparation, paving, stabilization, and incidental work within each phase.
    b. Construct additional stormwater conveyance, erosion and sediment controls (sediment basins, diversion ditches, check dams, hay bales, stone lined ditches, or silt fence), simultaneously with activities within each work phase to accommodate drainage, minimize and contain sediment on-site, prevent erosion, and provide stormwater treatment until permanent stormwater features are in place and fully stabilized.
    c. Excavated materials shall be stockpiled for re-use or disposal in a stabilized location with adequate perimeter controls as discussed above.
    d. Slopes shall be surface roughened prior to any temporary or final slope stabilization.
    e. SWPPP Monitor shall note date of initial disturbance and time remaining for stabilization/completion for each area during inspection visits.
17. Drainage and Dewatering Work:
    a. Culverts shall be stabilized, including inlet and outlet aprons, inlet protection and ditches, and keep them free of sediment, prior to allowing water to run through them.

b. Excavated materials shall be stockpiled for re-use or disposal in a stabilized location with adequate perimeter controls as discussed above.

c. Any water diversion or dewatering necessary to create a dry condition within the disturbed work areas shall include sediment treatment measures at the outlet end as necessary to contain sediment and prevent downstream erosion. This may include the use of a filter bag installed on the end of the discharge hose, a stone and fabric check dam installed at the discharge point, or other measures as deemed necessary. The discharge location shall be adjusted in the field to ensure that discharge will flow away from, and will not flow back toward the immediate work areas.

d. Discharge from dewatering and/or diversion treatment measures shall be located in the uplands or within the permitted wetland limits with a minimum of 20 feet of undisturbed vegetated buffer between the discharge point and any surface waters or protected wetlands, and shall be lined with compost socks only. Promote discharge flows to flow through undisturbed vegetated wetlands before joining adjacent waterways.

e. Water contaminated with concrete, grout or mud slurry shall be pumped to a sediment basin/sand filter located in an acceptable location, sufficiently away from surface waters, wetlands, or other restricted areas.

f. During any grouting or concrete operations, contractor shall ensure that no excess grout, concrete, or washwater is allowed to pass downstream of the work area. All contaminated water shall be pumped to a sediment basin/sand filter for treatment.

g. Contractor shall have extra pumps and hose available to accommodate excessive water conditions that may occur during or after storm events.

h. The contractor shall continuously monitor dewatering measures and sediment basins throughout the duration of these activities to ensure that the methods used are adequately handling and treating the flows, and that no untreated water escapes from the work areas.

i. Dewatering activities shall also continue until such time as the disturbed areas (channel bottom and side slopes, inlet, and outlet) are fully stabilized, and all potential sources of sediment have been eliminated. Once this condition is achieved, flow may be re-established through the work area.

j. The contractor shall continuously monitor the stormwater flows from culverts, drainage structures, dewatering measures, and sediment basins throughout the duration of these activities to ensure that the methods used are adequately handling and treating the flows, and that no untreated water escapes from the work areas.

18. <u>Temporary Stabilization:</u>

a. Initiate stabilization immediately, or by the end of the next work day, in any area of exposed soil where construction activities have permanently ceased, or will be temporarily inactive for 14 or more days. Complete stabilization in accordance with stabilization deadlines in SWPPP Section 4.15, unless other regulatory permits or approvals contain more stringent requirements.

b. Temporary stabilization shall include the application of seed and mulch for vegetated areas, seed, mulch netting, surface roughening, tackifiers, stone fill, and/or erosion control blankets for temporary protection of slopes 3:1 or greater, or subbase materials for roads. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

c. SWPPP Monitor shall note date of initial disturbance and time remaining for stabilization/completion for each area during inspection visits.

19. Permanent Stabilization:

a. Initiate stabilization immediately, or by the end of the next work day, in any area of exposed soil where construction activities have permanently ceased, or will be temporarily inactive for 14 or more days. Complete stabilization in accordance with stabilization deadlines in SWPPP Section 4.15, unless other regulatory permits or approvals contain more stringent requirements.

b. Final stabilization shall include the application of topsoil, seed and mulch for vegetated areas, topsoil, seed, mulch netting, surface roughening, tackifiers, stone fill, and/or erosion control blankets for slopes 3:1 or greater, or subbase materials for roads. Other final stabilization may also include final treatments such as wood chips, sodding, paving, gravel surfaces, landscaping, stone fill, or riprap. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

c. SWPPP Monitor shall note date of initial disturbance and time remaining for stabilization/completion for each area during inspection visits.

d. Upon completion of each phase of the project, all disturbed areas must be stabilized according to the conditions of the SWPPP (see general erosion control notes) and permit conditions.

20. Regular Maintenance and Monitoring Activities:

a. SWPPP monitor shall utilize Accuweather website (www.accuweather.com) or other approved service to predict rainstorm events. Contractor shall be prepared to install all erosion and sediment controls prior to rain events. Contractor and SWPPP Monitor shall use official weather stations available through Weather Underground website (www.wunderground.com) and/or a rain gauge located onsite for documenting rainfall amounts received per storm events.

b. Contractor shall have all necessary erosion control equipment and materials, including mulch and mulching equipment, on-site for the duration of work in order to stabilize disturbed slopes, inlets, outlets, and any other areas of potential concern.

c. Maintain dust control in current work area at all times.

d. Once existing pavement has been removed, all unpaved roadway areas intended for overnight travel shall be treated with water or another approved dust control product (e.g., Calcium Chloride) prior to the end of the work day.

e. Continuously inspect and maintain all stormwater, erosion, and sediment control measures throughout construction, until disturbed areas have been stabilized.

f. Remove trapped sediment from erosion and sediment control measures as appropriate for each type of BMP utilized, and as directed.

g. If for any reason winter conditions apply, monitoring of the SWPPP and erosion controls shall continue prior to, during, and after weather conditions that could cause erosion and or sedimentation issues. The contractor shall also anticipate the need to return to the site to address any deficiencies, as directed, on a very short time frame.

21. Temporary erosion and sediment control measures may be removed once final stabilization has been achieved for all disturbed work areas.

2.8 Allowable Non-Stormwater Discharges

The following is a list of the non-stormwater discharges allowed under 2017 CGP Part 1.2.2. The actual locations of any of these allowable non-stormwater discharges must be identified on the site plans kept with the on-site SWPPP document.

Table 5 - Allowable Non-Stormwater Discharge

Type of Allowable Non-Stormwater Discharge	Likely to be Present at the Site?
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushing	☐ YES ☒ NO
Landscape irrigation	☐ YES ☒ NO
Waters used to wash vehicles and equipment (provided that no discharge of soaps, solvents, or detergents are used)	☒ YES ☐ NO
Water used to control dust	☒ YES ☐ NO
Potable water including uncontaminated water line flushing	☒ YES ☐ NO
External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in 2017 CGP Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs))	☒ YES ☐ NO
Pavement wash waters (provided that spills or leaks of toxic or hazardous materials have not occurred, detergents are not used, and discharge is not directed to any surface water, storm drain inlet, or stormwater conveyance, unless sediment basin, sediment trap, or other control used)	☒ YES ☐ NO
Uncontaminated air conditioning or compressor condensate	☒ YES ☐ NO

Type of Allowable Non-Stormwater Discharge	Likely to be Present at the Site?
Uncontaminated, non-turbid discharges of ground water or spring water (e.g., roadway underdrains, weep holes, etc.)	☒ YES ☐ NO
Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water	☒ YES ☐ NO
Construction dewatering water discharged in accordance with 2017 CGP Part 2.4 **(See also SWPPP Section 4.14)**	☒ YES ☐ NO

2.9 Site Maps

Site plans for the project are included in SWPPP Appendix C. These plans include maps of the undeveloped site and its current features, the proposed developed site, and locations for proposed structural BMPs. These plans should be kept updated on a regular basis with the following information, to the extent this is not already depicted on the plans, including dates installed:

- Boundaries of the property
- Limits of construction and/or disturbances;
- Locations of stabilized construction entrances (designated points where vehicles will exit onto paved roads);
- Locations of stormwater discharges and/or allowable non-stormwater discharges, including where these will be discharged to storm drain inlets and surface waters;
- Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
- Areas of soil disturbance;
- Approximate slopes before and after major grading activities (note any steep slopes (as defined in 2017 CGP Appendix A));
- Areas that will not be disturbed;
- Natural features to be preserved;
- Locations of all surface waters and wetlands, and indication of water bodies that are impaired, designated as Tier 2/2.5/3 waters, and/or outstanding resource waters within and one mile downstream of the site's discharge point(s);
- Limits of natural buffer areas where preserved and/or impacted;
- Areas of federally-listed critical habitat for endangered or threatened species within the site and/or at discharge locations;
- Locations of potential pollutant-generating activities, including any demolition activities;
- Locations of major structural and non-structural BMPs identified in the SWPPP;
- Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);
- Locations and timing of stabilization measures;
- Locations of storm drain inlets, stormwater collection, treatment, and conveyance measures;
- Areas where final stabilization has been accomplished;

- Locations of structures and other impervious surfaces upon completion of construction;
- Staging and stockpile locations; and
- Locations where polymers, flocculants, or other chemical treatments will be used and stored, if applicable.
- Locations of on-site and off-site construction support activity areas covered by 2017 CGP Part 1.2.1c.

3.0 DOCUMENTATION OF COMPLIANCE WITH FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Are endangered or threatened species and critical habitats on or near the project area?

☒ Yes ☐ No

If answered yes above, list species and status:

Listed as Near the Project Area: Northern Long Eared Bat

Listed as Within the Project Area: None - No critical habitat has been designated for this species

Supporting Documentation:

Describe how this determination was made:

The New Hampshire Natural Heritage (NHB) database check for records of rare species and exemplary natural communities near the project area was performed. The species considered included those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. This NHB check (NHB19-0611) determined that there were no recorded occurrences for sensitive species near this project area. See attached document (NHB19-0611) in SWPPP Appendix L.

An IPac US Fish and Wildlife Service Review (Consultation Code: 05E1NE00-2019-SLI-0934) was also performed to obtain a list of threatened and endangered species that may occur in the proposed project location, and/or may be affected by the proposed project. The IPac Report (Consultation Code: 05E1NE00-2019-SLI-0934) is attached in SWPPP Appendix L. This review listed the Northern Long-eared Bat (Myotis septentrionalis) as threatened, endangered, or candidate species for the project site, but there were no critical habitats listed within the project area under the US Fish and Wildlife jurisdiction. Multiple trees are proposed to be cut down as part of the construction. A field inspection was performed by ??????????. U.S. Fish and Wildlife New England Office coordination still needed.

Eligibility Criterion: Under which criterion listed in 2017 CGP Appendix D is the site eligible for coverage under this permit?

☐ A ☐ B ☐ C ☒ D ☐ E ☐ F

The Supporting Documentation above shall include the specific basis for selecting one of these eligibility criterion in accordance with 2017 CGP Appendix D (attached in SWPPP Appendix D). For reference purposes, the following is a summary of the eligibility criterion:

Criterion A - No Endangered Species Act (ESA)-listed species and/or designated critical habitat present in action area.

Criterion B - Eligibility requirements met by another operator under the 2017 CGP.

The eligibility under this criterion shall be in accordance with the conditions of the NPDES coverage authorized under the following NOI:

NOI Tracking Number (if applicable): ***Not Applicable***

Criterion C - Discharges not likely to adversely affect ESA-listed species and/or designated critical habitat.

Criterion D - Coordination with USFWS and/or NMFS has successfully concluded.

Criterion E - ESA Section 7 consultation has successfully concluded.

Criterion F - Issuance of section 10 permit.

3.2 Historic Preservation

Historic property documentation shall be in accordance with 2017 CGP Appendix E and is attached in SWPPP Appendix L.

Are there any historic sites on or near the construction site?
☐ Yes ☐ No ☐ Don't Know

Describe how this determination was made:

NEED NH DHR Historic Coordination still.

Also, the proposed project will not affect any district, site, building, structure, or object that is included in the National Register of Historic Places (see above). The development area does not possess the criteria outlined in Code of Federal Regulations 36 CFR 60 and is; therefore, not eligible for inclusion in the National Register.

Additional Historical Determination:

Step 1:
Will any of the following stormwater controls be installed at the site that require subsurface earth disturbance?
☒ YES ☐ NO

Check all that apply below:
☐ Dike ☐ Berm ☒ Catch Basin ☒ Pond ☒ Culvert

☒ Stormwater Conveyance (e.g., ditch, channel, trench, perimeter drain, swale)
☒ Other type of ground-disturbing stormwater control: Dry Well Infiltration basin

Step 2:
If answered no above, no further documentation is required.

If answered yes above, have prior professional cultural surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? ☐ YES ☒ NO

Step 3:
If answered yes in Step 2, no further documentation is required.

If answered no in Step 2, has it been determined that the installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties?
☐ YES ☒ NO ☐ NOT APPLICABLE

Step 4:
If answered yes in Step 3, provide documentation of the basis for the determination (i.e., references to documents, studies or other sources relied upon).

If answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative respond within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? ☐ YES ☐ NO ☐ NOT APPLICABLE
STILL NEED TO COORDINATE WITH NH DHR on HISTORIC

If no, no further documentation is required.
If yes, describe the nature of their response:

☐ Written indication that no historic properties will be affected by the installation of stormwater controls.
☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.
☐ No agreement has been reached regarding measures to mitigate effects to historic

[*Include copies of letters, emails, or other communications between applicable SHPO, THPO, or other tribal representative.*]

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Are any of the following controls planned to be installed? ☒ YES ☐ NO
Check all that apply below:

The proposed stormwater facilities incorporate Dry Wells. Consequently, registration and notification for storm water infiltration to groundwater is necessary per NH State Standards.

☐ Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

☐ Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow

☒ Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

If yes, include copies of letters, emails, or other communications with state agencies or the EPA Regional Office in Appendix L.

3.4 Applicable Federal, Tribal, State, or Local Programs

Are there any other applicable Federal, Tribal, State, or local soil and erosion control and stormwater management requirements that apply to the construction site? ☒ Yes ☐ No

Supporting Documentation:

The project is subject to all permit conditions that are part of the approved New Hampshire Department of Environmental Services (NHDES) Wetlands and Non-Specific Permit No. 2018-03809 that has been obtained for the project. The project is also subject to the Town of Sunapee Planning Board Conditions of Approval. ANY US F&W CONDITIONS? Copies of these items are included in Appendix L.

4.0 EROSION AND SEDIMENT CONTROL BMPs

Erosion and sediment controls are the structural and non-structural practices used during the construction process to keep sediment in place (erosion control) and to capture any sediment that is moved by stormwater before it leaves the site (sediment control). The SWPPP relies on erosion controls as the primary means of preventing stormwater pollution. Sediment controls provide a necessary second line of defense to properly designed and installed erosion controls.

This SWPPP document shall be updated during each phase of the construction activities with the following form designed to identify and briefly describe each type of erosion and sediment control BMP that will be utilized:

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

4.1 Natural Buffers or Equivalent Sediment Controls

Natural buffers and/or equivalent erosion and sediment control measures are required to be provided and maintained when there are surface waters of the U.S. within 50 feet of earth disturbing activities on the site, in accordance with 2017 CGP Part 2.2.1.

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of the project's earth disturbances?
☒ YES ☐ NO

[If no, no further documentation is required.]
Check the compliance alternative that has been chosen:

☒ ALTERNATIVE 1: A 50-foot undisturbed natural buffer will be provided and maintained.

Required Information:

- show the 50-foot natural buffer limit on the site map;
- show on site map how all discharges from construction disturbances through the natural buffer area will be treated by erosion and sediment controls and any velocity dissipation devices used to prevent erosion within the natural buffer area.

☒ ALTERNATIVE 2: An undisturbed natural buffer that is less than 50 feet will be provided and maintained, and supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

Required Information:

- show the natural buffer limit on the site map;
- show on site map how all discharges from the construction disturbances through the natural buffer area will be treated by the erosion and sediment controls and any velocity dissipation devices used to prevent erosion within the natural buffer area;
- Identify width of natural buffer to be maintained;
- Provide one of the following:
  - estimated sediment removal from Tables in 2017 CGP Appendix G and buffer vegetation and soil type.

  OR
  - site-specific calculations for estimated sediment removal of a 50-foot buffer.
- Describe additional erosion and sediment controls used in combination with natural buffer area;
- Specify model used to estimate sediment load reductions; and
- Provide calculations to show that natural buffer area in combination with additional erosion and sediment controls meet or exceed sediment removal efficiency of 50-foot buffer determined above.

☒ ALTERNATIVE 3: It is infeasible to provide and maintain an undisturbed natural buffer of any size. Therefore, erosion and sediment controls will be installed to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

Required Information:

- Describe rationale in support of this conclusion;
- Provide one of the following:
  - estimated sediment removal from Tables in CGP 2017 Appendix G and buffer vegetation and soil type.

  OR
  - site-specific calculations for estimated sediment removal or a 50-foot buffer.
- Describe additional erosion and sediment controls used in combination with natural buffer area;
- Specify model used to estimate sediment load reductions; and
- Provide calculations to show that natural buffer area in combination with additional erosion and sediment controls meet or exceed sediment removal efficiency of 50-foot buffer determined above.

☐ The site qualifies for one of the exceptions in 2017 CGP Appendix G, Part G.2.2, as follows.

Buffer Exceptions:

Which of the following exceptions to the buffer requirements applies to the site?

☐ There is no discharge of stormwater to the surface water through the area between the site disturbance and the surface water that is located 50 feet from the site.
[No further documentation is required.]

☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.
[No further documentation is required, unless some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances. In this case, compliance with one of the alternatives 1-3 is required.]

☐ For a "linear project", site constraints (e.g., limited ROW) make it infeasible to meet any of the compliance alternatives in the 2017 CGP Part 2.2.1.a.

Required Information:

- Describe rationale in support of infeasibility conclusion; and
- Identify width of natural buffer to be maintained and/or additional erosion and sediment controls to be used to treat discharges to surface waters.

☐ The project qualifies as "small residential lot" construction (defined in 2017 CGP Appendix G Part G.2.2).

Required Information:

For Alternative 1 (see 2017 CGP Appendix G, Part G.3.2):

- Identify width of natural buffer to be maintained;
- Include information from 2017 CGP Appendix G; and
- Describe rationale for complying with requirements.

For Alternative 2 (see 2017 CGP Appendix G, Part G.3.2):

- Identify risk level, soil type and average slope per Tables in CGP Appendix G;
- Include requirements based on 2017 CGP Appendix G Table G-7; and
- Describe rationale for complying with requirements.

The following disturbances within 50 feet of a water of the U.S. are exempt from the requirements of the 2017 CGP Part 2.2.1 and 2017 CGP Appendix G:

☐ Construction approved under a CWA Section 404 permit
Required Information: [Describe disturbances within buffer area.]

☐ Construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).
Required Information: [Describe disturbances within buffer area.]

Additional Supporting Documentation: Since some of the project disturbances are located within 50 feet of surface waters (i.e., wetlands), the project needs to comply with this section of the 2017 CGP that requires providing natural buffers or equivalent sediment controls where discharges from disturbed areas will reach the surface water. The project will utilize compliance Alternatives Nos. 1-3. The follow information is provided to document how this compliance is achieved in each location:

1) A 50-foot undisturbed natural buffer will be provided and maintained for construction along the southern side of the project.

2) An undisturbed natural buffer that is less than 50 feet will be provided and maintained, and supplemented by erosion and sediment controls (double rows of compost sock) that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer for construction along the southern, western, and eastern sides of the project.

3) Compliance Alternative #3 - maintaining an undisturbed natural buffer of any size is infeasible and erosion and sediment controls equivalent to a 50-foot buffer will be implemented, to the extent possible, as indicated on the enclosed plans: A double row of compost sock will be utilized to protect the delineated wetland area located on the interior of the project between Phase I and III Buildings.

4.2 Direct Stormwater Discharges to Vegetated Areas

In accordance with the 2017 CGP Part 2.2.2, stormwater should be directed to vegetated areas to maximize stormwater infiltration and filtering, and to reduce pollutant discharges, unless infeasible.

4.3 Perimeter Controls and Sediment Barriers

Minimum Requirements that must be met, per 2017 CGP Part 2.2.3:

- Sediment controls must be installed along all perimeter areas of the site that will receive stormwater from areas disturbed during construction;
- Sediment must be removed before it accumulates to one-half the above-ground height of any perimeter control;
- Perimeter controls shall be in place prior to any earth disturbances;
- SWPPP must contain specific descriptions of the perimeter controls used on the site, including design or manufacturer's specifications, locations depicted on the site maps, dates of installation; and
- For areas at "linear construction sites" (as defined in 2017 CGP Appendix A) where other site constraints exist where perimeter controls are infeasible (e.g., due to a limited or restricted right-of-way), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site. Documentation must be provided in the SWPPP for this case.

Additional BMP Guidance:

Maintain natural areas and supplement them with sediment barriers around the perimeter of the site to help prevent soil erosion and stop sediment from leaving the site. Install controls on the downslope perimeter of the project and also on the upslope where necessary to limit runoff over highly erodible soil slopes. Sediment barriers can be used to protect stream buffers, riparian areas, wetlands, or other waterways. They are effective only in small areas and should not be used in areas of concentrated flow. Construction fence and delineated limits around wetlands should remain for the duration of the project. Specific types of perimeter controls may include silt fence, fiber rolls, filter berms, diversion dikes, or other.

Silt fences shall be used for a maximum drainage area of 0.5-acre per 100 linear feet of silt fence, and for maximum slope lengths as follows:

Slope Steepness	Maximum Slope Length
2:1	50 feet
3:1	75 feet
4:1	125 feet
5:1	175 feet
Flatter than 5:1	200 feet

Silt Fence: A silt fence is a temporary sediment barrier consisting of a geotextile attached to supporting posts and trenched into the ground. Silt fencing is intended to retain sediment that has been dislodged by stormwater. It is designed only for runoff from small areas and is not intended to handle flows from large slopes or in

areas of concentrated flow. Installation is required before the ground freezes; otherwise stakes will be difficult to drive. Inspect frequently and remove any collected sediment before predicted thaws or rainy periods in order to provide as much capacity as possible. Silt fence may be used in place of, or in conjunction with, compost socks, coir or straw-logs, or wattles. *Silt fence shall not be utilized across any swale or drainage channel. Use compost socks, fiber rolls, coir logs, or stone check dams in channels to control flowing water.* **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site. Silt fencing will therefore not be allowed to be used on-site.**

Fiber Rolls/Compost Socks: Fiber rolls and compost socks serve the same purpose and consist of an open mesh tubular sleeve filled with a fibrous material which traps sediment. Fiber rolls are generally staked to the ground. Installation is required before the ground freezes; otherwise stakes will be difficult to drive. Inspect frequently and remove any collected sediment before predicted thaws or rainy periods in order to provide as much capacity as possible. The coir or straw-logs or wattles shall be installed as per the manufacturers' instructions, with a minimum of three stakes per log. Compost socks shall be installed per the SWPPP Plans. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

Installation:

DO:

- Use fiber rolls/compost socks as perimeter controls, particularly at the lower or downslope edge of a disturbed area.
- Leave space for maintenance between toe of slope and silt fence or roll.
- Trench in the silt fence on the uphill side (6 inches deep by 6 inches wide).
- Install stakes on the downhill side of the fence or roll.
- Curve the end of the silt fence or fiber roll up-gradient to help it contain runoff.

DON'T:

- Install silt fence in ditches, channels, or areas of concentrated flow.
- Install it running up and down a slope or hill.
- Use silt fencing or fiber rolls/compost socks alone in areas that drain more than a quarter-acre per 100 feet of fence.

Maintenance:

- Remove sediment when it reaches one-third of the height of silt fence or one-half the height of the fiber roll/compost sock.
- Replace the silt fence or fiber roll/compost sock where it is worn, torn, or otherwise damaged.

- Retrench or replace any silt fence or fiber roll/compost sock that is not properly anchored to the ground.

Site Specific BMPs:

Double rows of compost socks will be installed around the perimeter of the site on the downgradient side of all site disturbances where sheet flow has the potential to discharge into areas outside the construction limits or off-site areas. A double row of compost socks shall be used for protection of the delineated wetland area located adjacent to/nearby the limits of disturbance and around the delineated wetland nt to be disturbed between the proposed Phase I and III Buildings as shown on SWPPP Plans. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

4.4 Sediment Track-Out

Minimum Requirements that must be met, per 2017 CGP Part 2.2.4:

- Vehicle use must be restricted to properly designated exit points;
- Appropriate stabilization techniques (e.g., aggregate stone underlayed with geotextile, non-woven filter fabric, or turf mat) at all exit points onto paved roads to remove sediment prior to vehicle exit;
- Use additional controls (e.g., wheel washing, rumble strips, rattle plates) as necessary to remove sediment prior to vehicle exit;
- Where sediment has been tracked-out from the site onto paved roads, sidewalks, or other paved areas outside of the site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day.
- Acceptable techniques for removing sediment include sweeping, shoveling, and vacuuming, but hosing or sweeping sediment into any stormwater conveyance, storm drain or surface water is prohibited; and
- SWPPP must contain specific descriptions of the sediment track-out controls used on the site, including design or manufacturer's specifications, locations depicted on the site maps, dates of installation;

Vehicles entering and leaving the site have the potential to track significant amounts of sediment onto streets. A rock construction exit will reduce the amount of mud transported onto paved roads by vehicles. The construction exit does this by removing mud from vehicle tires before the vehicle enters a public road. If mud is especially difficult to remove, or space does not allow sufficient tire revolutions (four or five are needed) before exiting the site, it may be necessary to install a wheel wash. Direct wash water to a suitable sediment area, do not discharge wash water to a stream or storm drain. Sweeping the street regularly completes this BMP. These temporary areas shall be inspected on a daily basis and maintained as necessary. Replenishment or replacement of aggregate shall be required if it becomes clogged with sediment.

Installation Guidance:

- Ensure that the exit is at least 50 feet long (generally, the length of two dump trucks) and graded so runoff does not enter the adjacent street.
- Place a geotextile fabric under a layer of aggregate at least 6 inches to 12 inches thick. The stones or aggregate should be 3 inches to 6 inches in diameter.
- Train employees and subcontractors to use the designated construction exits.
- Empower employees to provide directions to subcontractors and others that are not on the site every day.

Site Specific BMPs:

Stabilized construction entrances shall be utilized at any designated staging areas at a minimum, and at all other locations where frequent construction traffic will be entering or exiting paved areas into a specific work area. This includes any off-site areas used for staging through any separate arrangements the contractor may make with other property owners. One construction entrance is proposed for off of the existing Space Place Self Storage entrance as shown on the SWPPP Plans. The need for additional stabilized entrances will be determined in the field during construction.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

4.5 Stockpiled Sediment or Soil

Minimum Requirements that must be met, per 2017 CGP Part 2.2.5:

- For purposes of these requirements, stockpiles include earthen soil materials, gravels, crushed stone, topsoil, clearing debris, trimmings, vegetation, or any other excess materials containing sediment stored in one location on the project site for multiple days;
- Stockpiles shall be located outside of any natural buffers established or maintained as necessary to meet other 2017 CGP requirements (e.g., buffers);
- Stockpiles shall be located as far away as possible from any surface waters, wetlands, sensitive areas to be preserved or protected, stormwater conveyances or storm drain inlets;
- Stockpiles must be protected from contact with stormwater flowing in the vicinity of stockpiles using temporary perimeter sediment barriers (such as berms, dikes, silt fence, fiber rolls, sandbags, gravel bags, or straw bales) along all downgradient perimeter areas;
- Inactive stockpiles that that will be unused for 14 or more calendar days shall be covered with tarps or appropriate temporary stabilization measures per 2017 CGP Part 2.2.14 (e.g., seed, mulch, mulch netting, erosion blankets, blown straw, or hydroseeding) to avoid contact with precipitation and minimize sediment discharge. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site;**
- Sediment accumulated on surfaces around stockpiles shall not be swept or washed into any surface waters, wetlands, sensitive areas to be preserved or protected, stormwater conveyances, or storm drain inlets;
- Secure and/or protect stockpiled materials from wind and excessive dust; and
- SWPPP must contain specific descriptions of the perimeter and sediment controls used for stockpiles on the site, including depicting locations on the site maps, dates of installation.

Site Specific BMPs:

Any stockpile that remains on-site for more than one day shall be contained with erosion control compost socks. Stockpiles that will remain on the site for an extended period of time or that are located next to sensitive areas such as wetlands may require additional protection, such as covering with tarps, mulch, and/or seeding, as deemed necessary in the field.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

4.6 Minimize Dust

Minimum Requirements that must be met, per 2017 CGP Part 2.2.6:

- Minimize the generation of dust through regular water or other dust suppression applications in order to avoid discharging pollutants into surface waters or onto adjacent properties;
- Minimize the potential for dust by immediately and continuously addressing dust-producing conditions and BMPs that include providing temporary and permanent stabilization of open and exposed site disturbances, removing accumulated sediment and debris from paved roadways, stabilizing exposed soil stockpiles, limiting vehicular travel to surfaces stabilized with gravels, crushed stone or pavement, and applying gravels, stone or pavement to staging areas;
- Where practical, cover any dust-producing materials with tarps to protect from wind; and
- SWPPP must contain specific descriptions of the appropriate dust controls and BMPs used for minimizing dust on the site, including depicting locations on the site maps, dates of installation.

Additional BMP Guidance:

This BMP describes products or measures used for reducing or preventing wind erosion by protecting the soil surface, roughening the surface, and reducing the surface wind velocity. Several dust control treatments are described below. Other methods are also available.

Vegetative Cover: For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control.

Mulch (including gravel mulch): When properly applied, mulch offers a fast and effective means of controlling dust.

Spray-On Adhesive: Asphalt emulsions, latex emulsions, or resin in water can be sprayed onto mineral soil to control dust.

Calcium Chloride Treatment: Exposed soils may be treated with calcium chloride where necessary to temporarily stabilize areas, as long as this methodology will not impact downstream water bodies, wetlands, or landscaping of other sensitive areas.

Sprinkling: The site may be sprinkled with water until the surface is wet. Sprinkling is especially effective for dust control on haul roads and other traffic routes.

Stone: Stone or gravel used to stabilize construction roads and disturbed soils can also be effective for dust control and reduce soil losses from those areas by up to 80%.

Surface Roughening: Tilling or discing the surface of disturbed soils to produce a rough surface or ridges which when perpendicular to prevailing winds can reduce soil losses due to wind by 80%.

Barriers: A board fence, wind fence, sediment fence, or similar barrier can control air currents and blowing soil. All of these fences are normally constructed of wood. Perennial grass and stands of existing trees may also

serve as wind barriers. Barriers prevent erosion by obstructing the wind near the ground and preventing the soil from blowing off site.

The above measures for dust control should be used when open, dry areas of soil are anticipated on the site. Clearing and grading activities create the opportunity for large amounts of dust to become airborne. Therefore, one or several dust control measures should be considered prior to clearing and grading.

Use Preventive Strategies Wherever Possible:

- Minimize amount of bare ground exposed at one time; and
- Minimize amount of ground disturbance occurring when wind erosion is highest.

Implement Dust Control Measures as Needed:

- Provide stabilized roadway to minimize amount of dust generated by construction vehicles and highway traffic (gravel, pave, or moisten the bare areas of the highway or detour route);
- Apply protective materials to exposed areas (e.g., stone, mulch, adhesive/emulsions);
- Install barriers to prevent dust from blowing off-site;
- Establish vegetation at the earliest possible opportunity (using establishment water if necessary to ensure viability);
- Keep haul roads, detours, and other bare areas moist by sprinkling them with water; and
- Perform street sweeping, as needed.

Dust control requires constant attention and is not a one-time effort. All dust control methods require daily maintenance and attention.

Site Specific BMPs:

The Contractor shall provide surface treatment of exposed soil areas at the end of each work day, as necessary to control dust. This may include additional measures and BMPs for containing sediment and debris during any portions of the work that have the potential to create dust or other air-borne debris (i.e., rock cutting and scaling, pavement saw cutting and removal, clearing, etc.).

The use of calcium chloride should be considered prohibited for this project, unless specifically approved by the NHDES.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	

Responsible Staff:	

4.7 Minimize Disturbance and Protect Slopes

Minimum Requirements that must be met, per 2017 CGP Part 2.2.7:

- Disturbances on steep slopes (generally considered slopes greater than 15%) must be minimized, to the extent feasible;
- Minimization of disturbances on steeps does not preclude the development on steeps slopes. Rather, minimization is intended to include implementation of standard erosion and sediment control practices, such as phasing and using stabilization measures that are specifically designed, effective and appropriate for use on steep slopes;
- Although the 2017 CGP specifically highlights "steep slopes," all other 2017 CGP requirements pertaining to erosion and sediment control, stabilization and other requirements still apply to other slope disturbances outside of this definition, especially considering the higher risk of erosion, sediment transport and difficulties slopes present for stabilization; and
- SWPPP must contain specific descriptions of the erosion, sediment control and stabilization controls used on the site slopes, including design or manufacturer's specifications, locations depicted on the site maps, dates of installation.

Additional BMP Guidance:

All slopes must be protected with appropriate erosion controls. Steeper slopes, slopes with highly erodible soils, or long slopes require a more complex combination of controls. Erosion control blankets (biodegradable allowed only), bonded fiber matrices, turf reinforcement mats or riprap treatment are effective options. Silt fence (iff allowed per Wetland permitting) and fiber rolls may also be used to help control erosion on moderate slopes and should be installed on level contours spaced at 10-foot to 20-foot intervals. Diversion channels and berms can be used to keep stormwater off slopes.

Immediately following final slope grading or loam treatment and prior to any temporary or permanent stabilization treatment, disturbed slopes shall be temporarily scarified using mechanical techniques that will create grooves perpendicular to slope direction.

Erosion Control Products: Erosion control products include mats, geotextiles, erosion control blankets, benching, tacifiers, and products that provide temporary stabilization and help to establish vegetation on disturbed soils. Such products help control erosion and help establish vegetation and are often used on slopes, channels, or stream banks.

Cut Slopes: Cut slopes equal to or steeper than a 3 (horizontal) to 1 (vertical) slope shall be required to have mulch with tack. Cut slopes equal to or steeper than a 2 (horizontal) to 1 (vertical) slope shall be required to have matting/ netting and pinning. All cut slopes shall be constructed in 500' to 1,000' sections and stabilized within the required timeframe for completion and/or temporary suspension of activity. Additional erosion control devices, i.e., crushed stone check dams, silt fence (if allowed by Wetland permitting , etc., may be necessary

at the toe of slope before stabilization. The determination for the need for additional devices will be made based on field conditions observed daily.

Embankment Slopes: Embankment slopes equal to or steeper than a 3 (horizontal) to 1 (vertical) slope shall be required to have mulch with tack. Embankment slopes equal to or steeper than a 2 (horizontal) to 1 (vertical) slope shall be required to have matting/netting and pinning. All slopes shall be constructed in 500' to 1,000' sections and stabilized within the required timeframe for completion and/or temporary suspension of activity. Additional erosion control devices (i.e., crushed stone check dams, silt fence, etc.) may be necessary at the toe of slope before stabilization. The determination for the need for additional devices will be made based on field conditions observed daily.

Loaming and Seeding Slopes:

- Loaming and seeding of slopes shall be an ongoing construction phase to be performed as soon as possible after disturbance.
- Loam and other topsoil materials, i.e. humus, have a greater erosion potential than gravel, but use of loam and other topsoil materials are necessary to produce an adequate seed bed for establishing vegetative cover. Maintain all surfaces subject to loaming and seeding until vegetative cover is established.
- Loam shall not be placed unless it is to be seeded directly thereafter.
- Mulch netting or erosion control matting shall be placed on all slopes 3:1 or greater.

Site Specific BMPs:

Disturbed slopes generally steeper than 3:1 slope shall be stabilized on a temporary and/or permanent basis with stone fill, mulch netting, tackifiers and/or erosion control blankets, as deemed necessary in the field. **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.**

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

4.8 Preserve Topsoil and Natural Features, Minimize Disturbed Areas

Minimum Requirements that must be met, per 2017 CGP Part 2.2.8:

- Disturbance and removal of native topsoil must be minimized on the project site, to the extent feasible;
- Minimization of native topsoil does not preclude the development of sites where this is not feasible. Rather, minimization is intended to include standard practices, such as stockpiling native topsoil from disturbances for reuse on another area of the site, and protecting areas not critical for disturbance, where possible;
- Although the 2017 CGP specifically highlights "preserving topsoil," minimization of disturbances to other areas has also been covered in this section due to the connection with early site disturbances and the 2017 CGP requirements pertaining to erosion and sediment control and stabilization; and
- SWPPP must contain specific descriptions of the practices utilized for meeting this requirement, a description of why this may not be feasible, locations of practices depicted on the site maps, and dates of implementation.

Additional BMP Guidance:

Protect Natural Features and Preserve Topsoil: Removing topsoil exposes underlying layers that are often more prone to erosion and have less infiltration capacity. Keeping topsoil in place preserves the natural structure of the soils and aids the infiltration of stormwater. Utilizing native topsoil on the same site also encourages the reestablishment of native vegetation and minimizes the risk of invasive plant species from colonizing the site.

During grubbing and stripping the following methods should be utilized as appropriate:

- Excavated topsoil and/or humus shall be stockpiled on-site in the designated areas for later use. Silt fences if allowed by wetland permitting or compost socks shall be placed around the perimeter of the stockpile and the stockpiles should be covered with mulch and/or tarps as needed to protect the materials for future use and limit erosion;
- Stripping shall be done in a manner that will not concentrate runoff, and if precipitation is expected, earthen berms will be left around the stripped area. A silt fence shall be located in an arc at the low point of the berm;
- Stripping shall not proceed downhill toward drainage courses. Materials shall be pushed uphill resulting in disturbed materials being stored away from the low areas of the site;
- Great effort shall be undertaken to retain all possible topsoil and/or humus; and
- Of great concern is the stripping of slopes leading to wetlands and drainage structures which discharge into sensitive environments. At the time of stripping, care shall be taken to ensure an earthen berm exists between the sensitive area and the area being stripped. Diverted water should be collected and allowed to pass in a controlled manner.

Minimize Disturbed Area: The natural features of the site were considered in delineating and controlling the area that will be disturbed by grading or construction activities. The disturbed areas have been limited to only those necessary for the construction of this project. Natural vegetation can greatly reduce the potential for soil erosion and stormwater pollution problems. Protecting and preserving topsoil preserves the natural structure of the soils and aids the infiltration of stormwater. The clearing and construction limits as delineated on the plans provided in SWPPP Appendix C must be clearly marked by fencing or flagging prior to any site disturbance.

Considerations for tree clearing activities:

- Any vehicles utilized in the wood clearing process should not travel through running water;
- As the clearing process continues, the movement of vehicles should be limited as much as possible to the area of the proposed disturbance;
- Any wheel ruts shall be filled in and graded so that stormwater runoff is not concentrated;
- Consideration shall be given to the chipping of brush and branches to generate mulch for use in stabilization of disturbed areas;
- No organic materials, including stumps, branches, trees, or vegetation shall be buried with fill materials or used for slope stabilization; and
- All clearing activities must be in accordance with the NHDES Wetland permit conditions and stipulations/conditions placed on the project by the U.S. Fish & Wildlife.

Site Specific BMPs:

Due to the disturbance area required for the project (2.00 acres), the project will be subject to specific open area limitations (i.e., 5 acres open at one time or 1 acre from Nov 30 to May 1) contained in the NHDES Alteration of Terrain Env-Wq 1500 requirements, or the NH Stormwater Manual Volume 3, "Erosion and Sediment Controls During Construction." The Contractor must be prepared to provide adequate resources (equipment and manpower) to respond to storm events and maintain all stormwater, erosion and sediment control measures and related issues in multiple site areas simultaneously. This issue will be reviewed by the SWPPP monitor on a consistent basis in order to track open site areas and gage contractor performance on keeping up with required measures.

The maximum open area is limited to one (1) acre during construction that takes place between November 30 and May 1, unless a winter construction plan is provided by the contractor addressing erosion and sediment controls during this period. Winter construction provisions are addressed within Section 4.15 of this SWPPP document, in the event any work would be beginning in or extended into the winter period.

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Responsible Staff:	

4.9 Minimize Soil Compaction

Minimum Requirements, per 2017 CGP Part 2.2.9, that must be met for areas where final vegetation stabilization will occur or where infiltrative stormwater practices will be installed:

- Vehicle and equipment use in these locations will be restricted to avoid soil compaction, to the extent feasible;
- Prior to seeding or planting, areas of exposed soil that have been compacted, soil conditioning techniques, such as tilling, aeration, scarifying, or other, must be implemented to condition the soils to support vegetation, as necessary and feasible; and
- SWPPP must contain specific descriptions of the practices utilized for meeting this requirement, a description of why this may not be feasible, locations of practices depicted on the site maps, and dates of implementation.

Site Specific BMPs:

This BMP will be utilized within areas where compaction of soils may have an impact on final stabilization of vegetated slopes, or other sensitive areas that may be restored with vegetation and in the areas the Bioretention Area and Dry Wells are proposed for.

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4.10 Protect Storm Drain Inlets

Minimum Requirements that must be met, per 2017 CGP Part 2.2.10:

- Any storm drain inlets that carry stormwater flow from the project site to surface waters must be protected with inlet protection measures that remove sediment prior to discharge into the inlet;
- These requirements do not apply to any storm drain inlets that the site operator does not have the authority to access;

- Inlet protection may include fabric filters, sandbags, concrete blocks, gravel barriers, or other prefabricated devices;
- Inlet protection measures may be removed in the event of flood conditions or to prevent erosion, as long as they are replaced immediately following the event;
- Inlet protection measures must be maintained, cleaned, removed, and replaced as soon as sediment accumulates, the filter becomes clogged, and/or performance is compromised;
- Where sediment accumulation is found adjacent to the inlet protection measure, sediment must be removed by the end of the same work day, or by the end of the next work day, if not feasible; and
- SWPPP must contain specific descriptions of the inlet protection measures used on the site, including design or manufacturer's specifications, locations depicted on the site maps, dates of installation.

Additional BMP Guidance:

Protect all inlets that could receive stormwater from the project until final stabilization of the site has been achieved. Install inlet protection before soil-disturbing or demolition activities begin. Maintenance throughout the construction process is important. Upon completion of the project, storm drain inlet protection is one of the temporary BMPs that should be removed. Storm drain inlet protection should be used not only for storm drains within the active construction project, but also for storm drains outside the project area that might receive stormwater discharges from the project.

The NHDOT allows the use of five specific types of inlet protection. The specific technique to be used at each location depends on the intended function, location, size and type of drainage area and material availability. The contractor must also consider roadside safety in placement of a specific type of inlet protection. These measures should not be used in place of sediment trapping devices or drainage diversion. The five types of inlet protection measures are as follows:

1. Excavated - for use where significant flow is expected and excavation is possible to allow storage of a 2-year storm volume without overtopping; not suitable for paved areas.
2. Stone and Block- for use where some flow is expected or where excavation is difficult; not suitable for paved areas.
3. Stone and Wire Mesh - for use prior to final stabilization; not suitable for paved areas unless stone placed flush with grate.
4. Sediment Filter Bags - for use in paved areas prior to final stabilization.
5. Sedi-Guard Inlet Protection Device, for use in all areas prior to final stabilization.

Storm Drain Inlet Protection: Storm drain inlet protection prevents sediment from entering a storm drain by surrounding or covering the inlet with a filtering material. All catch basins or drop inlets in disturbed areas shall have crushed stone placed around the grate to provide inlet protection. For catch basins that are in a travel lane, alternative inlet control includes the use of Sediment filter bags ("Silt Bags") or Sedi-Guard inlet protection devices. The inlet protection shall be maintained and/or replaced based upon daily observances to ensure proper

treatment of the stormwater. Inlet protection shall be maintained until final stabilization around the drop inlet.

Install inlet protection as soon as storm drain inlets are installed and before land disturbance activities begin in areas with existing storm drain systems. Protect all inlets that could receive stormwater from the construction activities. Inspect inlets frequently and after each rainfall. Remove accumulated sediment from around the device and check and remove any sediment that might have entered the inlet. Replace or repair the inlet protection if it becomes damaged. Sweep streets, sidewalks, and other paved areas regularly.

Site Specific BMPs:

For this project, inlet protection will be necessary at the lone catch-basin between proposed Phase II and III buildings and at the two Dry Well Infiltration Basins as shown no the SWPPP Plans A device that does not impede traffic or will cause a pedestrian hazard (such as a Dandy Bag) may be required for certain locations. Any device usd cannot be considered an impediment to wildlife as well.

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4.11 Stormwater Conveyance Controls

Minimum Requirements that must be met, per 2017 CGP Part 2.2.11:

- Stormwater conveyance controls must be designed to avoid un-stabilized areas on the site and to reduce erosion, unless infeasible;
- Minimize erosion of channels, embankments, outlets, streambanks, slopes, and downstream waters during stormwater discharge by utilizing erosion controls and velocity dissipation devices, such as check dams, sediment traps, riprap, grouted riprap, diversion ditches, and berms, along any stormwater conveyance channels and inlet/outlets to provide a non-erosive flow velocity; and
- SWPPP must contain specific descriptions of the erosion and velocity controls used on the site, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.

Additional BMP Guidance:

The plan accounts for potential stormwater flows coming onto the project area from upstream locations. The existing flow patterns will be maintained or, if required, the flows will be diverted around or slowed through the construction site

to prevent erosion. Any off-site runoff that is diverted into or through disturbed areas shall be considered contaminated stormwater and shall be treated as if generated on-site with appropriate stormwater, sediment, and erosion controls. Care shall be taken not to combine off-site clean water with construction site water. Clean water shall be defined as stormwater free of sediment or other contaminates from construction operations and only generated from off-site areas or completely stabilized on-site areas. The volume and velocity of on-site stormwater runoff will be controlled to minimize soil erosion. Appropriate siltation/erosion/turbidity controls shall be in place prior to construction, shall be maintained during construction, and shall remain in place until the area is stabilized. Silt fence must be removed when the area is stabilized. Silt fence is not appropriate for use in ditches, swales, or drainage channels. Use fiber rolls, compost socks, coir logs, or stone check dams in flowing water.

Diversion Ditches or Berms: An earthen perimeter control usually consists of a berm or a combination berm and channel constructed along the perimeter of and within the disturbed part of a site. An earthen perimeter control is a ridge of compacted soil, often accompanied by a ditch or swale with a vegetated lining, at the top or base of a sloping disturbed area.

When on the upslope side of a site, earthen perimeter controls help to prevent surface runoff from entering a disturbed construction site. An earthen structure located upslope can improve working conditions on a construction site. It can prevent an increase in the total amount of sheet flow runoff traveling across the disturbed area and thereby lessen erosion on the site.

Diversion ditches or berms may also be located on the downslope side of a site. They divert sediment-laden runoff created on-site to sediment-trapping devices, preventing soil loss from the disturbed area.

Note: Any diversion ditch or berm constructed cannot be built if they will cause an impediment of any sort to wildlife.

Check Dams: Check dams are relatively small, temporary stone structures constructed across a swale or channel. They are used to slow the velocity of concentrated water flows, a practice that helps reduce erosion. As stormwater runoff flows through the structure, the check dam catches sediment from the channel itself or from the contributing drainage area. A check dam should not be more than three feet high, and the center of the dam should be at least six inches lower than its edges. This design creates a weir effect that helps to channel flows away from the banks and prevent further erosion. Dams can be made more stable by implanting the material into the sides and bottom of the channel. Check dams are also recommended for diversion swales and ditches to reduce velocity of stormwater runoff.

The locations shall be determined based upon existing or projected field conditions for a particular section. If the check dams are required, the devices shall be placed such that the crest of the downstream check dam is at the elevation of the toe of the upstream check dam or at maximum 50-foot horizontal distance between check dams, whichever yields the shorter spacing. These check dams will treat initial stormwater runoff and reduce velocities on the steeper drainage

ditch slopes. These check dams shall need to be maintained periodically based upon daily observations.

Riprap Slopes and Pipe Inlet/Outlet Protection: Riprap slope and inlet/outlet protection is created by installing an arranged layer or pile of crushed rock or stone placed over the soil surface on slopes and/or at the inlet and outlet of a storm drain outfall, temporary dike, or berm. The use of geotextile filter or separation fabric beneath the stone layer is recommended for retention of fine soil particles, to maintain separation between stone and soil layers, and to aid in minimizing erosion of materials beneath the stone layer, unless designed otherwise. Riprap used as slope protection protects against erosion and dissipates the energy of surface water flow over the slope, and can also be effective to limit erosion and divert water seeping through an exposed slope.

Outlet protection reduces the speed of concentrated stormwater flows, thereby reducing erosion or scouring at stormwater outlets. In addition, outlet protection lowers the potential for downstream erosion. Outlet protection should be installed at the outlets of all pipes, culverts, catch basins, sediment basins, ponds, interceptor dikes, and swales or channel sections where the velocity of flow may cause erosion in the receiving channel. Outlet protection should be installed in conjunction with headwalls and/or prefabricated end treatments for pipes, as required by the drainage design. Outlet protection should be installed early during construction activities, but may be added at any time, as necessary. Inspect after heavy storms and high flows for scouring under the outlet and dislodged stones, and repair damage promptly.

Site Specific BMPs:

For this project, stone check dams may be necessary along newly graded grass ditches/swales as deemed necessary in the field. Stone check dams and/or erosion control socks may specifically be needed to control flow velocity and contain sediment along the newly graded grass swales and around drainage structures.

This project also has the potential for some dewatering or water diversion measures (such as cofferdams, sand bag dams, bypass pipes, or bypass pumping). Contractor shall provide measures and procedures to prevent mixing of clean water with sources of sediment, or other contaminates (grout, concrete, etc.) during proposed drainage improvements. Only "clean" water, free of sediment or contaminates, shall be allowed to flow downstream from drainage structures where work is taking place. All contaminated water flow will be collected and treated using a sediment basin/sand filter, or other approved treatment method at the outlet end of the discharge. Also, discharge points shall be stabilized with stone and/or check dams to prevent scouring and to decrease the velocity of the water downstream. Filter bags are also an acceptable measure for discharge of pumped water where significant treatment is not necessary.

This plan provides several methodologies and details for controlling and diverting stormwater or groundwater during required work on drainage components or other subsurface. The SWPPP preparer and/or monitor shall review the intended methodology to be used at any drainage crossings or other

areas prior to Contractor beginning and related work, and the SWPPP will be updated as necessary to account for these specific measures.

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4.12 Sediment Basins

Minimum Requirements that must be met, per 2017 CGP Part 2.2.12:

- Sediment basins must provide a minimum storage equivalent to the calculated volume of runoff from a 2-year, 24-hour storm, or 3,600 cubic feet per acre of area routed to each sediment basin;
- Discharges from a sediment basin must utilize outlet structures that draw water from the surface of the basin to minimize the discharge of pollutants, unless infeasible;
- To prevent erosion, the surface area of the sediment basin must be stabilized with erosion control blankets or other appropriate measures, and the inlet and outlet stabilized using erosion controls and velocity dissipation devices;
- Sediment basins must be located outside of surface waters and any natural buffers established under the 2017 CGP requirements, and must avoid collecting water from wetlands;
- Sediment basins must be regularly maintained in effective operating condition with accumulated sediment removed to maintain at least 50% of the design capacity at all times; and
- SWPPP must contain specific descriptions of the sediment basins used on the site and erosion and velocity controls at each location, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.

Additional BMP Guidance:

Retain Sediment On-Site: Sediment traps or sediment basins are required to retain sediment from large areas. These practices detain sediment-laden runoff for a period of time, allowing sediment to settle before the runoff is discharged. Proper design and maintenance are essential to ensure that these practices are effective. Excess materials and sediments excavated from the periodic maintenance of these controls shall be disposed in protected areas. Disposal sites shall receive appropriate erosion control devices.

Install temporary sediment basins as necessary during construction to capture sediment from stormwater runoff before it leaves the construction site. These structures allow a pool to form in the depression, where sediment can settle out prior to discharge. Sediment basins are also commonly utilized for treatment of flow from dewatering activities.

Routine inspection and maintenance of sediment basins is essential to their continued effectiveness. Inspect basins after each storm event to ensure proper drainage from the collection pool and determine the need for structural repairs. Replace material eroded from earthen embankments immediately. Remove sediment from the basin when the storage capacity has reached approximately 50%. Remove trash and debris from around dewatering devices promptly after rainfall events. All associated erosion and velocity controls must be maintained regularly, and repaired or replaced as soon as any erosion is noted.

Sediment basins must be constructed with the following requirements:

- Located on the upland, not in wetlands or jurisdictional areas;
- Located away from areas where water flow may impact vehicular or pedestrian travel, or flow onto adjacent properties outside the project area;
- Lined with stone fill, geotextile material, or other scouring protection;
- Contained with adequate perimeter controls, such as hay bales, silt fence, stone check dams or other acceptable sediment trapping measures; and
- Set back as far as possible from wetlands and surface waters, and in all cases, with a minimum of 20 feet of undisturbed vegetated buffer from discharge point to downstream water bodies or wetlands.

Site Specific BMPs:

A temporary sediment basin or trap is not anticipated for this project at this time but may be added in the field on an as-needed basis. The above requirements shall be utilized for dewatering flow control and sediment containment wherever deemed necessary in the field to prevent contaminated runoff and sediment from leaving the site.

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4.13 Treatment Chemicals

The use of treatment chemicals (such as polymers, flocculants, coagulants) are allowed under the 2017 CGP Part 2.2.13 as long as the minimum 2017 CGP requirements are complied with. However, it is understood at this time that the

NHDES has more stringent requirements than the 2017 CGP governing chemical treatments, and does not currently allow the use of most chemical treatments, so these are not recommended for use on this project site. If any chemical treatments are required due to extenuating circumstances on the project site, the NHDES and the regional EPA office should be consulted and provide approval prior to any usage, and all requirements in 2017 CGP Part 2.2.13 must be complied with. In addition, the contractor shall provide any necessary chemical treatment information to the SWPPP preparer and NHDOT prior to use, and the SWPPP shall be updated accordingly.

Site Specific BMPs:

Chemical treatments are not anticipated to be necessary for this project.

4.14 Dewatering Practices

Minimum Requirements that must be met, per 2017 CGP Part 2.4:

- **Only uncontaminated excavation dewatering discharges are authorized as allowable non-stormwater discharges under the 2017 CGP Part 9.1.1.b. See below for requirements to make this determination;**
- **Prior to discharge into surface waters, uncontaminated excavation dewatering discharges must be treated for removal of suspended solids and turbidity, per 2017 CGP Part 9.1.1.c. See below for requirements to meet this condition;**
- Discharging accumulated groundwater or stormwater removed from excavations, trenches, foundations, vaults, or other similar points of accumulation are prohibited unless waters are first managed by appropriate controls to minimize discharge of pollutants. These include sediment basins, sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (e.g., bag or sand filter), or other measures designed to remove sediment;
- Uncontaminated, non-turbid dewatering flows can be discharged without being routed to a control;
- Discharge shall not include visible floating solids or foam;
- If dewatering flow is found to contain oil, grease, or other products, an oil-water separator or suitable filtration device specifically designed to remove the contaminate must be used;
- Vegetated upland areas should be used to infiltrate dewatering flows prior to discharge, to the extent feasible. Surface waters shall not be considered part of the treatment area;
- Velocity dissipation devices, such as check dams, sediment traps, riprap, grouted riprap, diversion ditches, and berms, must be used at all points where dewatering flows are discharged;
- Backwash water must be hauled away for disposal or returned to the beginning of the treatment process;
- The filter media used in dewatering devices must be cleaned and/or replaced when the pressure differential equals or exceeds the manufacturer's specifications;

- Treatment chemicals used to treat dewatering flows must comply with 2017 CGP Part 2.2.13; and
- SWPPP must contain specific descriptions of the dewatering and associated erosion and velocity controls at each location, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.

Dewatering Determination (per 2017 CGP Part 9.1.1.b):

NH DES recommends using the NHDES One Stop Web Geographic Information System (WGIS), to identify "Remediation Sites" data, and determine whether there are any contamination sources near the site. Distances less than the 1,000 feet used in this condition may be appropriate if additional information justifying a shorter distance is available. When in doubt testing is recommended since there is the possibility of significant fines for discharging without an appropriate NPDES permit.

Are there any known sources of groundwater contamination located within 1,000 feet of the potential groundwater dewatering location on the project site?
☐ Yes ☒ No

If Yes, an EPA Remediation General Permit may be required prior to any excavation dewatering, unless one of more of the following conditions is met and appropriately documented through correspondence with EPA and/or NHDES:

- the contamination site is no longer active;
- the dewatering site is sampled and tested for potential groundwater contaminates, and found to be uncontaminated;
- documentation is provided indicating that the contamination site is sufficiently down-gradient

If No, groundwater is uncontaminated at excavation dewatering location and no further documentation is required.

Supporting Documentation:
[If possible contamination sites are found within 1,000 feet, provide the source of review, a description of the site, distance from the dewatering location, source of possible contamination, testing results, required permit, and/or necessary documentation.]

The NHDES One Stop Web Geographic Information System (WGIS) was utilized to identify "Remediation Sites" to determine whether there are any contamination sources near the site (see figure attached in SWPPP Appendix L). No Remediation Site cases upstream of the site were found.

A. *COOPER STREET PARTNERS SUBDIVISION (Site Number 200906060) – 646 feet northeast of Site. One (1) Sites Identified defined as UIC = Underground Injection Control: discharges of benign wastewaters not requiring a groundwater discharge permit or request to cease a discharge (i.e. floor drain closure requests). NHDES Risk of 2 = In wellhead protection area or within 1000' of well.*

Dewatering Treatment To Surface Waters (per 2017 CGP Part 9.1.1.c):

All uncontaminated excavation dewatering discharges must be treated to remove suspended solids and turbidity prior to discharge into surface waters. If the site operator intends to conduct excavation dewatering on the project site, the following requirements must be met:

- The discharges must be sampled at least once per week during weeks when discharges occur;
- Samples must be analyzed for total suspended solids (TSS) or turbidity;
- Limits for TSS:
  - Monthly average of 50 milligrams per liter (mg/L);
  - Daily maximum limit of 100 mg/L;
- Limits for turbidity:
  - Monthly average of 33 mg/L;
  - Daily maximum limit of 67 mg/L;
- Analysis must be performed in accordance with Tables IB and II in 40 CFR 136.3;
- Per NHDES, if the applicant is unable to measure TSS and can only measure turbidity (NTUs), the following equivalent limits may be used:
  - Monthly average for turbidity of 33 NTU;
  - Daily Maximum limit of 66 NTU;
- Records of sampling and analysis must be maintained with on-site SWPPP, and in SWPPP file for at least three years after project.

Additional BMP Guidance:

All dewatering activities should be discharged on-site to the designated constructed sediment basins, or other approved measures. The use of filter bags is recommended during dewatering operations to reduce silt transportation to the sediment basin areas. The following are some additional considerations for dewatering practices:

- Only "clean" water, free of sediment or contaminates, shall be allowed to flow downstream;
- All contaminated water flow will be collected and treated using an approved treatment method at the outlet end of the discharge;
- Regardless of whether water quality treatment is required, the discharge points for pumped or diverted water shall be stabilized with stone and/or check dams to prevent scouring and to decrease the velocity of the water downstream;
- Locate sediment basins or other treatment devices on the upland, away from wetlands or jurisdictional areas;
- Locate away from areas where water flow could impact vehicular or pedestrian travel, or flow onto adjacent properties outside the ROW or project area;
- Line treatment area with stone fill, geotextile material, or other scouring protection;

- Contain area with adequate perimeter controls, such as hay bales, silt fence, stone check dams, or other acceptable sediment trapping measures; and
- Set back as far as possible from wetlands and surface waters, and in all cases, with a minimum of 20 feet of undisturbed vegetated buffer from discharge point to downstream water bodies or wetlands.

Site Specific BMPs:

All dewatering flows shall be discharged to an approved sediment basin/sand filter, or other water quality treatment device prior to discharging offsite, in accordance with the conditions outlined in this SWPPP and 2017 CGP, and NHDES. Dewatering flows, even for "clean" water shall not be discharged directly from diversion of other collection measures into the existing wetlands and/or surface waters unless specifically approved by the Town, its authorized representative, and NHDES.

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4.15 Site Stabilization

Minimum Requirements that must be met, per 2017 CGP Part 2.2.14:

- Stabilization is required for all exposed portions of the site with the exception of areas intended to be left unvegetated or unstabilized following construction (e.g., dirt access roads, utility pole pads, storage areas for vehicles, equipment, or materials);
- The "Grading and Stabilization Activities Log" contained in SWPPP Appendix I and the table form included at the end of this section should be utilized to document the type and location of stabilization, and compliance with the stabilization requirements; and
- SWPPP must contain specific descriptions of the various types of stabilization measures utilized throughout the project site, including the specific type (i.e., vegetative and/or non-vegetative) by location, any applicable design or manufacturer's specifications, locations depicted on the site maps, and dates of initiation and completion.

Deadlines for Initiating and Completing Stabilization Activities:

- **Deadline for Initiating Stabilization:** Stabilization measures must be initiated immediately (as soon as practicable, but not later than the end of

the next work day) whenever disturbances have permanently or temporarily ceased on any portion of the site:

- Disturbances have permanently ceased when clearing and excavation within any area has been completed, excluding areas that will include permanent structures not yet installed; and
- Disturbances have temporarily ceased when clearing, grading, and excavation within any area will not resume for a period of 14 or more calendar days.

- **Initiation of Stabilization:** The 2017 CGP considers the following types of activities to constitute the initiation of stabilization:
  - Preparing the soil for vegetative and/or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
  - Applying mulch or other non-vegetative product to the exposed area;
  - Seeding and/or planting the exposed area;
  - Starting any of the activities described in the above three (3) items on a portion of the area that will be stabilized; and
  - Finalizing arrangements (e.g., scheduling of a seeding contractor) to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization.

- **Deadline for Completing Stabilization*:** Stabilization measures must be completed as soon as practicable:
  - but no later than ***14 calendar*** days after initiation of stabilization measures when the ***total land disturbance occurring at any one time is five (5.0) acres or less***;
  - but no later than ***seven (7) calendar*** days after initiation of stabilization measures when the ***total land disturbance occurring at any one time is greater than five (5.0) acres***;
  - but no later than ***seven (7) calendar*** days after initiation of stabilization measures for sites discharging to "sensitive" receiving waters, as determined in SWPPP Section 2.2, regardless of the size of the land disturbance.
  - no later than three (3) calendar days after the last activities in an area.
  - **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, "Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1."**

- ***Exceptions:** Limited exceptions are allowed in regard to meeting the completion deadline, including unplanned or unanticipated delays in construction beyond the contractor's control (e.g., problems related to labor, funding, weather, or other conditions rendering the site unsuitable

for work), provided that these reasons are documented in the SWPPP. The following are reasonable exceptions to meeting the stabilization deadlines, provided that documentation is provided in the SWPPP:

- **Arid, semi-arid, and drought-stricken areas** (as defined in 2017 CGP Appendix A). If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:
  - Immediately initiate and, within 14 calendar days of a temporary or permanent cessation of work in any portion of the site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;
  - As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and
  - If construction is occurring during the seasonally dry period, indicate in this SWPPP the beginning and ending dates of the seasonally dry period and the site conditions. Also include the schedule that will be followed for initiating and completing vegetative stabilization.

- **Operators that are affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization:**
  - Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;
  - Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on the site; and
  - Document in the SWPPP the circumstances that prevents from meeting the deadlines in 2017 CGP Part 2.2.14a and the schedule that will be followed for initiating and completing stabilization.

- **Discharges to a sediment- or nutrient-impaired water or to a water that is identified by the state (NH), tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes:**
  - Complete stabilization as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

- **Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres, per conditions in 2017 CGP Part 2.2.14 (footnote).
- **Completion of Stabilization:** The 2017 CGP considers the following types of activities to constitute the completion of stabilization:
  - For vegetative stabilization, all activities necessary to seed or plant the area, including soil conditioning, application of seed or sod,

planting of seedlings or other vegetation, application of fertilizer, and watering, as applicable; and
    - For non-vegetative stabilization, the installation of non-vegetative measures.

Final Stabilization Criteria: An area is considered adequately stable if one of the following has occurred:

- For vegetative stabilization, including seeded or planted areas:
    - Established uniform, perennial vegetation evenly distributed without large bare areas that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas;
    - Installation of non-vegetative erosion controls (e.g., mulch or rolled erosion control products) that provide cover to the area while vegetation is being established.
- For non-vegetative stabilization:
    - Provide effective non-vegetative cover such as riprap, gravel, gabions, and geotextiles.
    - Other measures not explicitly discussed in the 2017 CGP that typically meet the final stabilization requirements include base course gravels in areas to be paved, structures, concrete, and crushed stone of a minimum depth of 3".

Additional BMP Guidance:

Where construction activities have temporarily or permanently ceased, exposed soils must be stabilized to minimize erosion. Temporary measures are necessary when an area of a site is disturbed but where activities in that area are not completed or until permanent BMPs are established. All disturbed areas within each work area must be temporarily stabilized in accordance with the 2017 CGP requirements, or as required in the contract documents or permit conditions, if more stringent.

Grading of Roadway:

1. The completion of the grading shall follow the excavation and fill sequence.
2. The site shall be subgraded to sheet water away from the sensitive areas. The road shall then be brought to the proper crown and/or grade just prior to paving. If intense rainfall is expected, runoff water should be carried to a relatively flat area surrounded by a haybale, dike, or stone check dam.
3. If intense precipitation is anticipated, consideration shall be given to the utilization of haybales, dikes, and silt fences. The materials required shall be stored on-site at all times.
4. If additional water is needed during compaction, it shall be applied in a uniform manner that prevents runoff from the area being concentrated.

Maintenance of Disturbed Surfaces:

1. The fill and excavation sequences shall result in localized depressions (sediment traps) to trap products of erosion.

2. Runoff shall be diverted from disturbed side slopes in both cut and fill areas.
3. Disturbed slopes shall be scarified to minimize runoff velocities as soon as final grading has been completed. Scarifying shall be done according to proper mechanical techniques that will create grooves perpendicular to slope direction and prior to temporary or permanent stabilization treatment.
4. Mulching for temporary stabilization is to be used.
5. Haybale, dikes, stone check dams, or silt fences shall be installed to trap sediment and control erosion and shall be inspected and maintained following all storm events.

Completion of Work:

1. During the placement of roads and pavement, the entrances to the stormwater drainage systems shall be closed, and/or protected with adequate inlet protection measures prior to the threat of rain. When entrances are closed, consideration must be given to the direction of runoff. All inlet protection must be in place and inspected prior to rain events to ensure adequate protection and capacity to handle the stormwater runoff. Measures shall be undertaken to minimize erosion and to provide for the collection of sediment.
2. Drainage shall be directed so as not to concentrate runoff during the construction of drainage swales and ditches. Effort shall be made to divert runoff from drainage structures until vegetation is well established or riprap is in place.
3. Where runoff might occur, or in areas that could be subject to erosion, proper mulching and erosion control measures shall be utilized. Shoulders and slopes shall be uniformly graded as soon as possible.
4. Grading shall be accomplished so as not to concentrate runoff, and where the concentration of runoff cannot be avoided, proper erosion control measures shall be undertaken.
5. Erosion control measures include proper mulching, staked haybales, and silt fences.

Stabilization of Surfaces:

1. As indicated, stabilization of surfaces shall be an ongoing process; however, it is highlighted in this section to emphasize its importance.
2. Stabilization of surfaces requires the placement of properly sized stone fill, and/or the establishment of vegetated surfaces.
3. A maximum effort shall be made to establish vegetative cover during the proper growing season and establishment should be enhanced by proper adjustment for pH, fertility, and moisture content.
4. Surfaces that are disturbed by erosion processes, vandalism, or by construction shall be stabilized as soon as possible.
5. Hydro-mulching of grass surfaces is recommended, especially if seeding of the surfaces is required outside the normal growing season.
6. Hay mulch is an effective method of temporarily stabilizing surfaces, but only if it is properly secured by crimping, branches, weighted snow fences, or weighted chicken wire. Care should be taken to remove these components as soon as the grass begins to grow.

7. Inlet protection measures should remain in place until all disturbed surfaces are stabilized adequately or for as long as the potential for sediment transport exists.

Form for documenting compliant stabilization:

BMP Description:	
☐ ***Vegetative***	☐ ***Non-vegetative***
☐ ***Permanent***	☐ ***Temporary***
Description of Stabilization Practice:	
Installation Date:	
Completion Date:	
Maintenance and Inspection:	
Responsible Staff:	

Form for documenting non-compliant (e.g., delays) stabilization:

BMP Description:	
☐ ***Vegetative***	☐ ***Non-vegetative***
☐ ***Permanent***	☐ ***Temporary***
Justification for Not Meeting Time Deadline and Intended Schedule:	
Description of Stabilization Practice:	
Installation Date:	
Completion Date:	
Maintenance and Inspection:	
Responsible Staff:	

Site Specific BMPs:

Temporary and permanent stabilization measures will be necessary throughout the duration of this project for all areas disturbed as part of construction. While it will be the site operator's responsibility to ensure that stabilization measures are implemented in accordance with the 2017 CGP and other related permit conditions, the SWPPP monitor will also be reviewing these measures during each monitoring visit, including recommending specific measures, timeframes, etc.

4.16 Special Winter Considerations

Disturbed areas will further require monitoring, maintenance, and repair during winter periods. The major focus of winter erosion and sediment control is the period of intense runoff associated with mid-winter thaws and rainstorms, and the spring melt. The following should be considered relative to the winter maintenance season:

- Frozen ground makes the installation and maintenance of erosion control measures very difficult and time consuming. Installation should take place well before the ground freezes.
- Intense runoff in mid-winter thaws and rainstorms, and the spring melt period, can result in more severe erosion and sedimentation problems than runoff from summer storms. The soil is often completely saturated, and is also often underlain by a frost layer. Both of these factors result in a greater percentage of the rain or meltwater running over the ground

surface. Winter and spring rainstorms are often heavier and more intense than summer showers. For these reasons, erosion and sedimentation can be especially severe in mid-winter thaws and spring melt.

- The contractor shall continue to monitor all erosion controls during the winter maintenance season and shall devote the necessary manpower to maintaining the erosion and sediment control measures.
- Mulching: Mulch alone should not be considered an adequate erosion and sediment control technique for areas that are disturbed in the winter or spring. Mulch is easily washed away by intense runoff flowing over saturated or frozen soil. It is essential that mulch be laid down in such a way that it will not blow or wash away. Stump grindings may also be used during winter conditions for covering disturbed areas as they can be placed on top of snow and are less apt to wash away, but shall not be used to control flowing water.
- Mulch Berms: Berms created from mulch and/or stump grindings may be used during winter conditions for temporary stormwater and erosion control, but not directly in ditches or channels with flowing water, and are more resistant to washing away.
- Silt fence: Installation is required before the ground freezes; otherwise stakes will be difficult to drive. Inspect frequently and remove any collected sediment before predicted thaws or rainy periods in order to provide as much capacity as possible. Silt fence may be used in place of, or in conjunction with, coir or straw-logs or wattles.
- Compost Socks and Coir or straw-logs or wattles: Installation is required before the ground freezes; otherwise stakes will be difficult to drive. Inspect frequently and remove any collected sediment before predicted thaws or rainy periods in order to provide as much capacity as possible. The coir or straw-logs or wattles shall be installed as per the manufacturer's instructions, with a minimum of three stakes per log.
- Vegetated areas with less than 70% growth by October 15 shall be stabilized with seeding, mulch netting, and erosion control blankets.
- Ditches and swales with less than 70% growth by October 15 shall be stabilized with stone or erosion control blankets.
- Incomplete road or parking surfaces shall be protected with a minimum of three (3) inches of crushed gravel.
- Follow-Up: Installation of permanent vegetative controls will be required as early as is practical at the beginning of the growing season.

Site Specific BMPs:

Construction is anticipated to potentially begin in May 2019 and is scheduled for completion by May 2020, so winter construction may occur. Full permanent stabilization of all areas is required by the end of the construction period, and/or prior to any winter shutdown period. In the event that construction into the winter of 2019/2020, or full stabilization is not achieved prior to the onset of winter conditions, winter construction provisions have been provided in this SWPPP (summarized above) and on the attached SWPPP plans that specify additional temporary requirements for site areas under these conditions or prior to the winter suspension of work.

Regardless of whether some limited work and disturbances continue up to and during the winter period, all disturbed areas shall continue to be addressed in accordance with other stabilization requirements and time deadlines contained in the SWPPP and other permit conditions.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

5.0 POLLUTION PREVENTION REQUIREMENTS

Construction projects generate large amounts of building-related waste, which can end up polluting stormwater runoff if not properly managed. The standards and procedures described in this section include pollution prevention, spill prevention and response, and/or good housekeeping practices that are designed to prevent contamination of stormwater from a wide range of materials and wastes that have the potential to be exposed to stormwater during site and building construction work at the site. The pollution prevention requirements adhere to the 2017 CGP Part 2.3 where indicated.

5.1 Potential Sources of Pollutants

Potential sources of pollution (including sediment) from construction materials and activities at the site that may reasonably be expected to impact the quality of stormwater discharges are identified in the Table below. ***In order to comply with the pollution prevention requirements of the 2017 CGP, site operators are expected to identify all pollution-generating activities and keep an updated inventory of pollutants, associated constituents and specific locations on the site where these pollutants may be exposed to stormwater during construction, using the general format contained in the following table.***

Table 6 - Potential Sources of Other Contaminants

Likely to be Present at Site	Potential Source of Pollution	Physical Properties of Pollutant	Stormwater Pollutants or Constituents (Circle or list specific types)	Location on Site (or reference site map)
☒ *YES* ☐ *NO*	Roadway and parking construction, clearing, grading, excavation, installation of stormwater components, landscaping, site maintenance, and cleanup	Sediment	Sediment, debris, trash, and other deleterious materials	
☐ *YES* ☒ *NO*	Known hazardous/toxic substances (i.e. PCBs, asbestos, etc.)	Various colored solids	PCB's, asbestos, etc.	

Likely to be Present at Site	Potential Source of Pollution	Physical Properties of Pollutant	Stormwater Pollutants or Constituents (Circle or list specific types)	Location on Site (or reference site map)
☒ *YES* ☐ *NO*	Pesticide (insecticides, fungicides, herbicides, rodenticides) usage for noxious weed control	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	
☒ *YES* ☐ *NO*	Fertilizer usage during seeding, landscaping, and site restoration	Liquid or solid grains	Nitrogen, phosphorous	
☒ *YES* ☐ *NO*	Cleaning solvent usage during painting and cleanup for site work and building construction activities	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	
☐ *YES* ☒ *NO*	Contaminated substrates	Varies, solids, liquids	Various contaminants	
☒ *YES* ☐ *NO*	Asphalt constituents during paving operations or roofing	Black solid	Oil, petroleum distillates	
☒ *YES* ☐ *NO*	Concrete during site work and building construction, including concrete truck washout	White solid/grey liquid	Limestone, sand, phichromium	
☒ *YES* ☐ *NO*	Glue, adhesives, caulks, and sealants during utility pipe work, and building construction	White or yellow liquid	Polymers, epoxies	
☒ *YES* ☐ *NO*	Paints during building construction	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	
☒ *YES* ☐ *NO*	Fluorescent light ballasts during building construction and/or demolition	Various colored solid, glass	Mercury (hazardous waste)	
☒ *YES* ☐ *NO*	Curing compounds during site concrete work and building construction	Creamy white liquid	Naphtha	
☒ *YES* ☐ *NO*	Wastewater from construction vehicle and equipment washing	Water	Soil, oil and grease, solids	
☒ *YES* ☐ *NO*	Wood preservatives during timber building construction	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	
☒ *YES* ☐ *NO*	Hydraulic oil/fluids from construction vehicle and equipment operation	Brown oily petroleum hydrocarbon	Mineral oil	
☒ *YES* ☐ *NO*	Gasoline from construction vehicle and equipment operation	Colorless, pale brown, or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	
☒ *YES* ☐ *NO*	Diesel fuel from construction vehicle and equipment operation	Clear, blue-green to yellow liquid	Petroleum distillate, oil and grease, naphthalene, xylenes	
☒ *YES* ☐ *NO*	Kerosene for heating during winter operations	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	

Likely to be Present at Site	Potential Source of Pollution	Physical Properties of Pollutant	Stormwater Pollutants or Constituents (Circle or list specific types)	Location on Site (or reference site map)
☒ *YES* ☐ *NO*	Antifreeze/coolant from construction vehicle and equipment operation and building construction	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	
☒ *YES* ☐ *NO*	Sanitary toilets during general site operations	Various colored liquid	Bacteria, parasites, viruses	

5.2 Spill Prevention and Response

Information provided in this section does not represent a formal Spill Prevention Control and Countermeasures (SPCC) plan, if required under applicable Federal laws. These procedures shall not preclude the site operator(s) from responsibility to follow any required procedures in the event of a leak, spill or release of hazardous substances or oil in the amount equal to or in excess of reportable quantities under other federal laws and regulations.

The following practices, at a minimum, shall be observed to help prevent and respond to the discharge of pollutants to stormwater from spills.

- Chemical storage areas will be located _____. This location is _____ (distance) to storm drains, drainage tributaries, or surface waterbodies.
- When transferring liquids, use drip trays, funnels, or other means to avoid spills.
- Use spring-loaded drum covers, valves, or other positive shut-off devices.
- Keep all containers closed when not adding or removing material.
- Store all containers on an impervious surface (concrete) that is protected from weather.
- Instruct employees in spill response procedures.
- Post a list of emergency numbers by the phone.
- Maintain spill control and containment equipment in a designated area.
- Procedures for immediate clean-up of spills and proper disposal:

Initial Response:

- Stop the spill at its source.
- Prevent spilled material from entering storm drains, waterways, drainage ditches, etc.
- Contain spilled material using a barrier (absorbent pads or socks), temporary dike, or trench.

Report the Spill:

Steps for reporting a spill:

- If there is a hazardous material/waste spill emergency, call the local Fire Department first! **[Local Fire Department: 911];**
- Per 2017 CGP Part 2.3.6, where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or

40 CFR 302 occurs during a 24-hour period, the Site Operator must notify the **National Response Center (NRC) at (800) 424-8802**;

- Then call NHDES if the spill occurs during business hours. If spill occurs after business hours, call the NH State Police, who will contact NHDES on behalf of the Site Operator;
  - To report a hazardous/solid waste issue or a hazardous material/waste spill during NHDES business hours:

    NHDES Spill Response and Complaint Investigation Section
    Monday - Friday 8 a.m. to 4 p.m.
    Phone: (603) 271-3899

  - To report hazardous material/waste emergencies on evenings and weekends:

    New Hampshire State Police
    Call (603) 846-3333

- Within seven (7) calendar days, provide a description, circumstances, and date of the release to other State, local, or tribal emergency response, public health, or drinking water supply agencies.

Clean-up and Follow-up:

- The spill must be cleaned-up to the extent that it no longer presents a threat to human health or the environment.
- Make a hazardous waste determination for all spill clean-up materials.
- Ensure that contaminated soil/water/debris is collected and managed appropriately, and in accordance with requirements of the 2017 CGP.
- Per 2017 CGP Part 2.3.6, a **spill report** must be submitted to NHDES within seven (7) calendar days of the incident, detailing how the spill was cleaned-up and how waste was managed. Send the completed report to:

New Hampshire Department of Environmental Services
Spill Response and Complaint Investigation Section
29 Hazen Drive, Post Office Box 95
Concord, New Hampshire 03301-0095
Phone (603) 271-3899
Fax (603) 271-2456

Other Local Authorities:

Town of Canaan, NH:

- Sunapee Police Department: 911, or Contact – Chief of Police David P. Cahill- Office: (603)-763-5555
- Sunapee Fire Department: 911, or Contact: Fire Chief Daniel Ruggles– Office: (603) 763-5770 Dispatch: (603) 763-5555

Site Operator Response Team: The site operators must designate the appropriate personnel responsible for implementing the plan in the event of a spill.

Identify Personnel:

Name:	_____	Name:	_____
Company:	_____	Company:	_____
Address:	_____	Address:	_____
	_____		_____
Phone:	_____	Phone:	_____
Mobile:	_____	Mobile	_____

Identify Other Personnel (as needed):

Name:	_____	Name:	_____
Company:	_____	Company:	_____
Address:	_____	Address:	_____
	_____		_____
Phone:	_____	Phone:	_____
Mobile:	_____	Mobile	_____

Other Spill Response Items: The SWPPP will be modified within seven (7) calendar days of knowledge of a spill to include information regarding the nature, date, and cause of the release. The plan will be modified with measures to prevent reoccurrence and to improve response.

5.3 Fueling and Maintenance of Equipment and Vehicles

Minimum Requirements that must be met, per 2017 CGP Part 2.3.1:

- SWPPP must contain descriptions of equipment and vehicle fueling and maintenance practices to eliminate the discharge of spilled or leaked chemicals using acceptable methods such as:
  - Locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S;
  - Providing secondary containment (spill berms, decks, spill containment, pallets, and cover where appropriate;
  - Have spill kits readily available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.
- If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;
- Ensure adequate supplies/kits are available at all times to handle spills, leaks, and disposal of used liquids and that each contractor operator is trained in use of such supplies;
- Use drip pans and absorbents under or around leaky vehicles;
- Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and
- Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge
- SWPPP must contain specific descriptions of the practices, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.
- **Note: Per NHDES Wetlands and Non-Site Specific Permit (2018-03809) attached in Appendix L, "The permittee's contractor shall**

maintain appropriate oil/diesel fuel spill kits on site that are readily accessible at all times during construction, and shall train each operator in the use of the kits."

5.4 Washing of Equipment and Vehicles

Minimum Requirements that must be met, per 2017 CGP Part 2.3.2:

- SWPPP must contain descriptions of effective equipment and vehicle washing practices to minimize the discharge of pollutants from activities such as equipment and vehicle washing, wheel wash water, and other types of wash waters;
- Examples of effective means include locating activities away from waters of the U.S. and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls;
- SWPPP must describe how discharge of soaps, detergents or solvents will be prevented from exposure to stormwater using practices such as covers;
- For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas;
- SWPPP must contain specific descriptions of the practices, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.

Additional BMP Guidance:

The following practices shall be observed to help prevent the discharge of pollutants to stormwater from equipment/vehicle washing.

- Employees and subcontractors will be trained in proper washing procedures.
- Washing areas shall be clearly marked and workers shall be informed that all washing must occur in this area.
- Wash water shall be contained, treated, and infiltrated whenever possible.
- The wash facility will use high-pressure water spray without any detergents because water will remove most dirt adequately.
- No other activities, such as vehicle maintenance, shall occur in the wash area.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Waste

The handling, storing and disposing of all wastes generated at the project site shall be consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

Minimum Requirements that must be met, per 2017 CGP Part 2.3.3:

- SWPPP must provide information on practices that will be used to prevent a potential pollutant discharge during storage, handling and disposal for any building or construction products listed in SWPPP Section 5.1, or other products located on the site;
- Examples of materials include building products, pesticides, herbicides, insecticides, fertilizers, landscape materials, fuels, hydraulic fluids, other petroleum products, chemicals, hazardous and toxic materials and wastes, construction, domestic, and sanitary wastes;
- SWPPP must address practices that will be used to minimize the discharge of the materials outlined in SWPPP Section 5.1 into surface waters and stormwater conveyances; and
- SWPPP must contain specific descriptions of the practices, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.
- Follow the minimum requirements for each type of product, per 2017 CGP Part 2.3.3, generally summarized as follows:
    - Provide appropriate cover (e.g., tarps, sheeting, roof) to minimize exposure to precipitation;
    - Comply with all application and disposal requirements on the label for the respective product;
    - Store petroleum and chemical products in water-tight containers, with cover, secondary containment, and spill kits, and clean up spills using dry clean-up methods (hosing down spill areas is prohibited);
    - Separate hazardous or toxic wastes, store in sealed labeled containers, provide secondary containment, clean up spills with dry clean-up methods, follow manufacturer's and federal, state, tribal, and local recommendations for disposal;
    - Provide sufficient containers for waste, with cover and/or lids, keep lids closed except when actively used, and keep areas clean;
    - Adequately secure portable toilets, and locate away from surface waters, stormwater inlets, or conveyances.

Additional BMP Guidance:

Material Staging and Storage Areas: Paints, solvents, pesticides, fuels, and oils, other hazardous materials or any building materials that have the potential to contaminate stormwater shall be stored indoors or under cover whenever possible or in areas with secondary containment. Secondary containment prevents a spill from spreading across the site and includes dikes, berms, curbing, or other containment methods. The contractor shall designate staging areas for activities

such as fueling vehicles, mixing paints, plaster, mortar, and so on. Designated staging areas will help to monitor the use of materials and to clean up any spills. Training employees and subcontractors shall be a part of this pollution prevention principle. Designated Staging areas shall be identified on the SWPPP Plans and shall include appropriate perimeter and erosion controls prior to using.

Site Specific BMPs:

The general contractor is intending to use the areas within the project limits to stage equipment and materials for this project. Stormwater, sediment and erosion controls will be addressed as necessary to comply with this SWPPP and 2017 CGP coverage for the staging areas. The areas shall be protected by the necessary BMPs as determined by the Owner's Representative, the SWPPP preparer and/or SWPPP monitor. Any offsite areas used for temporary storage of materials (e.g., topsoil) that may be reused on-site, with approval by the Owner, shall remain the responsibility of the contractor(s) in regard to 2017 CGP and SWPPP requirements.

Material Disposal: Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for stormwater runoff to mobilize construction site wastes and contaminate surface or ground water.

All waste materials will be collected and stored in a securely lidded metal dumpster. All trash and construction debris from the site will be deposited in the dumpster with the lid kept closed. The dumpster will be emptied as often as needed and the trash will be hauled to licensed landfill. No construction materials will be buried on-site.

All personnel will be instructed regarding the correct procedure for waste disposal. All sanitary waste will be collected from portable units provided by a sanitary waste management contractor. Good housekeeping and spill control practices will be followed during construction to minimize stormwater contamination from petroleum products, fertilizers, paints, and concrete.

Site Specific BMPs:

Same as above. The contractor intends to utilize the on-site areas noted above for stockpiling. Excess material is anticipated on the project. If off-site disposal areas become necessary they must be approved by the Owner, or its authorized representative. Off-site areas shall remain the responsibility of the contractor in regard to 2017 CGP and SWPPP requirements.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

5.6 Washing of Applicators and Containers for Paint, Concrete, or Other Materials

Minimum Requirements that must be met, per 2017 CGP Part 2.3.4:

- SWPPP must provide information on practices that will eliminate the discharge of water from washout and cleanup of equipment and excess products associated with the use of stucco, paint, concrete, form release oils, curing compounds, or other construction materials on the site;
- All washwater and excess products must be directed into leak-proof containers or pits designed and adequately sized to prevent overflow during precipitation;
- Wastes must not be discharged into surface waters or stormwater conveyances at any time;
- Wastes, including hardened concrete, must be properly disposed of in accordance with any applicable regulations;
- Washout locations must be located as far away as possible from surface waters and stormwater conveyances;
- Washout locations must be designated in the SWPPP and on site maps and these activities should only be conducted at designated locations; and
- SWPPP must contain specific descriptions of the practices, including design or manufacturer's specifications, locations depicted on the site maps, and dates of installation.

Additional BMP Guidance:

Whenever possible, the contractor(s) shall use the washout facilities at their own plants or dispatch facilities. If it is necessary to provide for concrete washout areas on-site, specific washout areas will be designated and facilities will be designed to handle anticipated washout water. Washout areas will be designated for paint, mortar, concrete, grout, and stucco operations.

Washout areas can be a source of pollutants from leaks or spills, they should be located at least 50 yards away from storm drains and watercourses whenever possible. Prefabricated washout containers are recommended over self-constructed washouts. However, if a self-constructed washout is used, it shall consist of digging a pit and lining it with 10-mil plastic sheeting or by creating an aboveground structure from straw bales or sandbags with a plastic liner. Self-constructed washouts shall be inspected daily for leaks or tears in the plastic. All washouts shall be inspected and maintained regularly to ensure they have adequate capacity and are being utilized appropriately. Training employees and subcontractors shall be a part of this pollution prevention principle.

Materials in the washouts shall be disposed of properly. The preferred method is to allow the water to evaporate and to recycle the hardened concrete. Full service companies may provide dewatering services and should dispose of wastewater

properly. Concrete wash water can be highly polluted. It should not be discharge to any surface water, storm sewer system, or allowed to infiltrate into the ground. It should not be discharged to a sanitary sewer system without first receiving written permission from the system operator.

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

BMP Description:	
☐ ***Permanent***	☐ ***Temporary***
Installation Schedule:	
Maintenance and Inspection:	
Responsible Staff:	

5.7 Application of Fertilizers

Minimum Requirements that must be met, per 2017 CGP Part 2.3.5:

- Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with 2017 CGP Part 7.2.6.b.ix;
- Apply at the appropriate time of year for the site, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
- Avoid applying before heavy rains that could cause excess nutrients to be discharged;
- Never apply to frozen ground;
- Never apply to stormwater conveyance channels; and
- Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

6.0 INSPECTION, MAINTENANCE, AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Minimum Requirements that must be met, per 2017 CGP Parts 4, 5, and 7 pertaining to site inspections, maintenance of erosion and sediment controls, and corrective actions:

- SWPPP must contain specific descriptions of procedures and practices utilized for meeting these requirements, a description of why this may not be feasible, locations of practices depicted on the site maps, maintenance procedures, and dates of implementation.

Inspection Personnel: Minimum Requirements that must be met, per 2017 CGP Part 4.1:

- All personnel conducting inspections must be considered a "qualified person, " defined as a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit;
- In the absence of another mechanism in the project contract where a third-party SWPPP monitor has been retained for the project, the site operator(s) is responsible for ensuring that the personnel conducting inspections met these qualifications; and
- SWPPP must identify the specific personnel responsible for conducting inspections and reporting.

Inspector			
Title			
Company			
Qualifications			

Inspector			
Title			
Company			
Qualifications			

Inspection Frequency: Minimum Requirements that must be met, per 2017 CGP Part 4.2, 4.3, and 4.4:

- Site inspections must be conducted according to the required inspection frequency as specified below. The occurrence of a qualifying storm event (0.25 inches or greater) must be determined from a rain gauge on the site, or by obtaining storm event information from a weather station representative of the site location. The location of the rain gauge or the address of the weather station should be specified below and included for all inspection reports:
    - Location of Rain Gauge: _____
    - Address of Weather Station: _____
- The project, or a portion of the project disturbances, may qualify for a reduced inspection frequency as long as the criteria in 2017 CGP Part 4.4 is met; and
- Inspection frequency that is more stringent than the minimum required frequency of the 2017 CGP is allowed, as deemed appropriate and acceptable to the project owner (e.g., NHDOT specifications require frequency similar to the increased frequency in 2017 CGP Part 4.3) regardless of project and/or location.

The following frequency has been determined in conjunction with discharge information related to receiving waters for the site in SWPPP Section 2.2:

☒ Standard Inspection Frequency per 2017 CGP Part 4.2:
- Inspections must be conducted once every 7 days; OR
- Once every 14 days and within 24 hours following a storm event that measures 0.25 inches or greater.

☐ Increased Inspection Frequency per 2017 CGP Part 4.3:
- Inspections must be conducted once every 7 days; AND
- Within 24 hours following a storm event that measures 0.25 inch or greater.

Reduced Inspection Frequency: A reduced inspection frequency may be utilized if the following apply to the site conditions, or a specific portion of the site, per 2017 CGP Part 4.4:

- Stabilized Areas (per 2017 CGP Part 4.4.1):
  - The frequency of inspections may be reduced to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of the site where stabilization has been completed per SWPPP Section 4.15 and 2017 CGP Part 2.2.14a;
  - If construction activities resume within areas of reduced inspection frequency, the previous inspection frequency must be resumed immediately; and
  - The SWPPP must document the specific site areas where a reduced inspection frequency applies and the beginning and end dates for this period.
  - Exception: For "linear construction sites" (as defined in CGP Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, frequency of inspections may be reduced to twice per month for the first month, no more than 14 calendar days apart, in any area of the site where the stabilization steps in 2017 CGP 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, further inspections may be suspended. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in 2017 CGP Part 4.4.1a. Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

- For Arid, semi-arid, or drought-stricken areas (per 2017 CGP Part 4.4.2):
  - If it is the seasonally dry period or a period in which drought is occurring, the frequency of inspections may be reduced to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater;
  - The SWPPP must document that a reduced schedule is being used and the beginning and ending dates of the seasonally dry period.

- For Frozen Conditions (per 2017 CGP Part 4.4.3):

- If construction activities are suspended due to frozen conditions, inspections may be temporarily suspended until thawing conditions (as defined in 2017 CGP Appendix A) begin to occur if:
  - Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, regular inspection frequency must immediately resume as described above;
  - Land disturbances have been suspended; and
  - All disturbed areas of the site have been stabilized in accordance with SWPPP Section 4.15 and 2017 CGP Part 2.2.14a.
- If construction activities are still being conducted during frozen conditions, inspection frequency may be reduced to once per month if:
  - Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, regular inspection frequency must immediately resume as described above, as applicable; and
  - Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.
- The beginning and ending dates of this period must be documented in your SWPPP.

Required Inspection Scope:

Each official inspection conducted in accordance with the required inspection frequency must include a visual review of all areas and measures covered under the 2017 CGP permit, including the following, per 2017 CGP Parts 4.5 and 4.6:

- All site areas that have been cleared, graded, excavated, and/or disturbed where stabilization has not been completed in accordance with SWPPP Section 4.15 and the 2017 CGP Part 2.2.14a;
- All stormwater, erosion and sediment, and pollution prevention controls;
- Material, waste, borrow, or equipment storage and maintenance areas;
- All areas where stormwater typically flows within the site;
- All points of discharge from the site;
- All locations where stabilization measures have been implemented;
- Areas considered unsafe at the time of inspection are not required to be inspected;
- Check whether all erosion and sediment and pollution prevention controls are installed, operational, and are working to minimize discharges;
- Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants;
- Identify areas where new or modified stormwater controls may be necessary to meet requirements of 2017 CGP Parts 2 and 3;

- Check for signs of visible erosion and sedimentation that have occurred and are attributable to site discharges at all points of discharge, and near surface waters, if applicable;
- Identify any incidents of non-compliance observed;
- If a discharge is occurring during the inspection:
  - Identify where discharges are occurring;
  - Observe and document visual quality and characteristics of the discharge (i.e., color, odor, floating, settled, or suspended solids, foam, oil sheen, or other obvious indicators of stormwater pollutants);
- Document whether stormwater controls are operating effectively, and describe any controls that are not operating as intended, or need maintenance per 2017 CGP Part 2.1.4; and
- Based on inspection observations, initiate corrective actions, as necessary per 2017 CGP Part 5.

Inspection Report:

Minimum Requirements that must be met, per 2017 CGP Part 4.7:

- An inspection report must be completed within 24 hours of completing the inspection; SWPPP reports must include the following:
  - Inspection date;
  - Name and title of personnel conducting inspection;
  - A summary of the inspection observations and findings, as outlined above;
  - Include actual precipitation amounts, if applicable to a qualifying storm event, as measured from a rain gauge located on the project site, or from the weather station data that triggered the inspection;
  - Include date of initial disturbance, initiation of stabilization activities and time remaining for stabilization/completion of each work area shall be noted during each inspection visit on reports; and
  - Include any required maintenance or corrective actions needed as a result of observations.
  - If the Inspector determines that an area of the site is unsafe to inspect, the report must describe the reason it was found to be unsafe, and the location to which this condition applies must by specified.
- Each inspection report must be signed in accordance with 2017 CGP Appendix I, Part I.11.
- Copies of all reports must be kept at the site and available at the time of inspection, or upon request by the EPA.

A copy of the general report form to be completed by the SWPPP inspector or monitor is provided in SWPPP Appendix F. Completed forms should be distributed to the owner and all recipients involved in the SWPPP. Completed forms will be maintained on-site during the entire construction project. Following construction, the completed forms will be retained at the construction manager's office for a minimum of three (3) years.

If construction activities or design modifications are made to the site plan, which could impact stormwater, this SWPPP must be amended appropriately. The amended SWPPP will have a description of the new activities that contribute to the increased pollutant loading and the planned source control activities.

Additional Inspection Recommendations: Visual inspections of all areas of the construction site should be performed daily by the SWPPP operator and prior to any upcoming rainfall events. The SWPPP operator should also verify that the on-site procedures required to prevent stormwater contamination from construction materials and petroleum products are effective and being implemented on a daily basis for all personnel on the site.

Inspections by EPA: In accordance with the 2017 CGP Part 4.8, the Site Operator must allow EPA, or its authorized representative, to conduct an inspection at a reasonable time, and this may include any of the following:

- Site operator must make arrangements for EPA to access shared controls that are not at the project site;
- Review all areas of the project site, or off-site areas covered by the CGP for this project;
- Access to all records related to compliance with the CGP for this project;
- Review any stormwater controls required for compliance with the CGP for this project;
- Sample or monitor for the purpose of ensuring compliance.

6.2 Maintenance of Controls

Minimum Requirements that must be met:

- Per 2017 CGP Parts 2.1.4 and 2.3, all erosion and sediment controls, and pollution prevention controls on the site must be maintained in effective operating condition and protected from activities that might reduce their effectiveness;
- All erosion and sediment controls, and pollution prevention controls on the site must be maintained, repaired and/or replaced according to the following schedule:
    - For routine minor maintenance and/or repairs, work must be initiated to fix the problem immediately after the issue is discovered, and completed by the end of the next work day; and
    - For significant repair, replacement, or installation of new controls, work must be completed and the control operational in accordance with corrective action requirements in SWPPP Section 6.3 (within seven (7) days from the time of discovery).
- If infeasible to meet the routine maintenance and/or significant repair deadlines, the SWPPP, as well as inspection reports and/or corrective action logs should note reasons for this infeasibility and when the work was completed;
- Maintenance activities for individual BMPs must be recorded, including the date, BMP, location, and maintenance performed, in the inspection reports;

- If any changes to the SWPPP become necessary as a result of a significant repair, the SWPPP must be modified within seven (7) days following completion of the work; and
- Corrective Actions: See Section 6.3 for further requirements.

Additional Maintenance Considerations: Implementing a BMP maintenance program is essential to the success of the project. Inspection and maintenance is just as important as proper planning, design, and installation of controls. Without adequate maintenance, erosion and sediment controls will quickly fail, sometimes after just one rainfall, and cause significant sediment and/or pollution discharges, potential downstream water quality problems, and potential violations of the 2017 CGP or other project permits. This permit requires ongoing maintenance of the BMPs. Inspecting both prior to predicted storm events and after will help ensure that controls are working effectively. Maintenance and/or corrective action must be performed on a timely basis as soon as problems are noted in the inspection reports or discovered on the site, to maintain compliance with the permit conditions.

Inspection and maintenance of erosion and sediment control measures is required more frequently in the winter and spring than in the summer. Careful attention must be given to weather predictions of precipitation or thaw cycles. Inspection and maintenance of all control measures must be ongoing to ensure that structures will manage the potentially heavy and intense runoff. Constant maintenance of critical control measures may be necessary during the winter and early spring to prevent failure or overloading of control measures. A second line of control must be quickly installed if problems occur. A substantial amount of time, equipment, and manpower must be devoted to erosion and sediment control.

The following shall be considered when conducting maintenance:

- Follow the designers or manufacturer's recommended maintenance procedures for all BMPs;
- Remove sediment from BMPs as appropriate and properly dispose of sediment into controlled areas to prevent soil from returning to the BMP during subsequent rain events;
- Remove sediment from paved roadways and from around BMPs protecting storm drain inlets;
- Silt fences should be inspected for depth of sediment, for tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground;
- Built up sediment should be removed from silt fencing when it has reached one-third the height of the fence, and for other controls when it has reached on-half the height;
- Temporary sediment control structures surrounding catch basins should be inspected for sediment built up and removal as necessary;
- Temporary and permanent seeding should be inspected for bare spots, washouts, and healthy growth;
- The stabilized construction entrance should be inspected for sediment tracked on the road, for clean gravel, and to make sure that the culvert beneath the entrance is working and that all traffic use the stabilized entrance when leaving the site;

- Ensure that construction support activities, including borrow areas, waste areas, contractor work areas, stockpiles, material storage areas, and dedicated concrete and asphalt batch plants are clean and maintained;
- Replace damaged BMPs, such as silt fences, that no longer operate effectively; and
- Trash and debris should be cleaned-up, dumpsters should be checked and covered, nearby streets and sidewalks should be swept daily.

6.3 Corrective Actions

Minimum Requirements that must be met, per 2017 CGP Part 5:

- Corrective actions must be taken to address any of the following conditions identified at the permitted site:
  - A stormwater control needs repair or replacement (beyond routine maintenance required under 2017 CGP Part 2.1.4);
  - A stormwater control necessary to comply with the requirements of the 2017 CGP was never installed, or was installed incorrectly;
  - The site discharges are causing an exceedance of applicable water quality standards; or
  - A prohibited discharge has occurred (see 2017 CGP Part 1.3).

- **Corrective Action Deadlines** - for any corrective action triggering the above conditions, the Site Operator must:
  - Site operator must immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events;
  - When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;
  - When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery;
  - If it is infeasible to complete the installation or repair within seven (7) calendar days, the Site Operator must document in their records why it is infeasible to complete the installation or repair within the 7-day timeframe and document the anticipated schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe;
  - Where these actions result in changes to any of the stormwater controls or procedures documented in this SWPPP, this SWPPP must modified accordingly within seven (7) calendar days of completing this work.

- **Corrective Action Required by EPA** – the Site Operator must comply with any corrective actions required by EPA.

- **Corrective Action Report** – a report is required for each corrective action taken, and must include the following:

- Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified;
- Within 24 hours of completing the corrective action (in accordance with above deadlines), document the actions taken to address the condition, including whether any SWPPP modifications are required;
- Each corrective action report must be signed in accordance with 2017 CGP Appendix I, Part I.11;
- Corrective action reports must be kept at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA;
- Corrective action reports must be retained for at least three (3) years from the date that the site's permit coverage expires or is terminated.

Additional Corrective Action Guidance:

This following guidelines are intended to describe additional recommendations pertaining to the intent and procedures relating to corrective actions:

- Corrective actions are intended to resolve issues or a more serious nature than minor maintenance and/or repair activities that can be addressed through pro-active daily BMP maintenance, but may be utilized to resolve the following activities:
  - Repair, modify, or replace any stormwater control on the site that is not functioning as intended;
  - Clean up and properly dispose of spills, releases or other deposits;
  - Address pollution prevention issues that arise during construction, and are not addressed in other sections of this SWPPP or CGP;
  - Remedy a separate permit violation;
  - Address significant erosion, sediment discharges, or failure of sediment, erosion, and/or pollution controls;
  - Failure to install BMPs, or complete maintenance activities identified on the inspection reports within the required time deadlines set forth in SWPPP Section 6.2, since these could be considered a violation of the permit conditions;
- Any separate notifications to the owner, regulatory agencies or other parties should be completed as part of the corrective action process;
- The SWPPP should identify the specific personnel responsible for overseeing corrective actions;

A Corrective Action Log is provided in Appendix F of this SWPPP. Activities that trigger a corrective action should be recorded on the form, including the information outlined above, a description of the issue triggering the action, initial and follow-up actions taken, who is completing the actions, any additional follow-up or notifications to other parties that is required, applicable dates, and signatures for the party certifying the completion of the corrective actions.

Personnel Responsible for Corrective Actions:

Name			

Title			
Company			
Qualifications			

Name			
Title			
Company			
Qualifications			

6.4 Delegation of Authority

This SWPPP, modifications to this SWPPP, the Notice of Intent, Notice of Termination, Inspection Reports, Corrective Action Reports, and any other documents required for compliance with the 2017 CGP coverage for this project, must be signed by a duly authorized official for the Site Operator(s), per 2017 CGP Appendix I, Part I.11. However, the duly authorized official for the Site Operator(s) may designate another representative to sign documents if the following conditions are met, in accordance with 2017 CGP Appendix I, Part I.11.2:

- The authorization is made in writing by the duly authorized official;
- The authorization specifies either an individual or position of the regulated facility or activity (e.g., plant manager, well of well field operator, superintendent, position of equivalent responsibility, or position responsible for environmental matters for the company);
- The signed and dated written authorization is included in this SWPPP;
- A copy of this authorization must be submitted to EPA, if requested.

A Delegation of Authority form has been provided in the SWPPP Appendix K for this purpose, and shall be utilized if any individual other than the duly authorized official will be signing any documents. If the individual needs to change at any point, it is the Site Operators responsibility to obtain a new Delegation of Authority form to authorize this change.

The following individual(s) has the delegated authority for the purposes of signing the SWPPP, inspection reports, certificates, or other information.

Name: ???????
Position: ???????????????
Company: ????????????
Address: ???????????????
Phone: NA
Fax: NA
Mobile: ???????????????

7.0 TRAINING AND RECORDKEEPING

7.1 Training

Minimum Requirements that must be met, per 2017 CGP Part 6:

- The Site Operator(s) must designate a "stormwater team" to carry out compliance activities associated with the requirements of the 2017 CGP for this project;
- Prior to commencement of the construction activities, the Site Operator(s) must ensure that the following personnel on the stormwater team understand the requirements of the 2017 CGP and their specific responsibilities with respect to these requirements:
  - Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention measures);
  - Personnel responsible for the application and storage of treatment chemicals (if applicable);
  - Personnel who are responsible for conducting inspections; and
  - Personnel who are responsible for taking corrective actions.
- The Site Operator(s) is responsible for ensuring that all activities on the site comply with the 2017 CGP. While documentation of formal training is not required for subcontractors or other outside service providers, the Site Operator(s) must ensure that such personnel understand the requirements of the 2017 CGP that may be affected by their work;
- Members of the stormwater team must be trained to understand the following if related to the scope of their job duties::
  - The permit deadlines associated with installation, maintenance, and removal of stormwater controls, and stabilization
  - The location of all stormwater controls on the site required by this permit, and how they are to be maintained;
  - The proper procedures to follow with respect to the permit's pollution prevention requirements; and
  - When and how to conduct inspections, record applicable findings, and take corrective actions.
- Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of the 2017 CGP, the most updated copy of this SWPPP, and other relevant documents or information that must be kept with the SWPPP.

Additional Training Guidance:

A form is provided in SWPPP Appendix J to be utilized for documenting training of the stormwater team. The SWPPP should be updated to document that the required personnel and/or subcontractors have completed the appropriate training. The form identifies the date, name of attendees, subjects covered, and length of training to be documented.

An employee-training program should be developed and implemented to educate personnel about the requirements of the SWPPP and 2017 CGP. This education program should include background on the components, goals of the SWPPP and

hands-on training in erosion and pollution controls. All required personnel should be trained prior to their first day on the site. Training staff and subcontractors in the basics of erosion control, good housekeeping, and pollution prevention is one of the most effective BMPs to ensure compliance with this SWPPP and 2017 CGP.

Basic training should include:

- Requirements and goals of the SWPPP and 2017 CGP;
- The 2017 CGP deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization
- Hands-on training in erosion and pollution controls;
- Spill prevention and response;
- Good housekeeping procedures that must be implemented continuously;
- Proper material handling, disposal and control of waste;
- Equipment fueling;
- Proper storage, washing, and inspection procedures;
- Spill prevention and cleanup measures, including the prohibition of dumping any material into storm drains or waterways;
- Basic purpose of stormwater BMPs, including what common BMPs are on-site, what they should look like, and how to avoid damaging them;
- What to look for and who to notify; and
- Potential penalties associated with stormwater noncompliance.

Staff directly responsible for implementing the SWPPP should receive comprehensive stormwater training, including:

- The location and type of BMPs being implemented;
- The installation requirements and water quality purpose for each BMP;
- Maintenance procedures for each of the BMPs being implemented;
- Spill prevention and cleanup measures; and
- Inspection and maintenance recordkeeping requirements.

7.2 Recordkeeping

Copies of the SWPPP, inspection reports and corrective action logs, site maps and records of all data used to complete the NOI to be covered by the permit must be kept for a period of at least three (3) years from the date that permit coverage expires or is terminated.

Records should include:

- A copy of the SWPPP, with any modifications;
- A copy of the NOI and Notice of Termination (NOT), and any stormwater related correspondence with Federal, State, and local regulatory authorities;
- Inspection forms, including the date, place, and time of BMP inspections;
- Names of inspector(s);
- The date, time, exact location, and a characterization of significant observations, including spills and leaks;
- Records of any non-stormwater discharges;
- BMP maintenance and corrective actions taken (Corrective Action Log);

- Any documentation and correspondence related to receiving waters, endangered species and historic preservation requirements;
- Weather conditions (e.g., temperature, precipitation);
- Date(s) when major land disturbing (e.g. clearing, grading, and excavating) activities occur in an area;
- Date(s) when construction activities are either temporarily or permanently ceased in an area; and
- Date(s) when an area is either temporarily or permanently stabilized.

7.3 Log of Changes to the SWPPP

As noted on Page ii, this SWPPP is a document that must be amended to reflect changes occurring at the site, in accordance with 2017 CGP Part 7.4.1. Additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, and updates to site maps shall be reflected in this SWPPP. Document all revisions to the SWPPP in the revision documentation form provided in the beginning of this plan. A form to document additional revisions to the SWPPP is provided in SWPPP Appendix G.

7.4 Notice of Termination

Until termination of coverage under the 2017 CGP, the Site Operator(s) must comply with all conditions and effluent limitations in the 2017 CGP. To terminate permit coverage, the Site Operator must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that the following minimum requirements have been met for terminating coverage in accordance with the 2017 CGP Part 8:

- **Conditions for Terminating CGP Coverage (per 2017 CGP Part 8.2):**
  - All construction activities have been completed on the site, and if applicable, construction support activities covered under the 2017 CGP;
  - Requirements for final vegetation or non-vegetative stabilization have been met, per SWPPP Section 4.15 and 2017 CGP 2.2.14.b;
  - All construction materials, waste, and waste handling devices have been removed and properly disposed, and construction equipment and vehicles (unless continued use is necessary) have been removed;
  - Stormwater controls have been removed, except those that are intended for long-term use or are biodegradable;
  - All potential pollutants and pollutant-generating activities have been removed, unless needed for long-term use.
  - Control of the site has been transferred to another operator who has submitted a Notice of Intent and obtained coverage under the 2017 CGP;
  - Coverage under an individual or alternative general NPDES permit has been obtained for the site.
- **Deadline for Submitting NOT** – NOT must be submitted within 30 calendar days after one of the above conditions occurs.

Submitting the NOT:

Once the above conditions have been met, the Site Operator must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit the NOT for terminating the 2017 CGP coverage. This process requires the NPDES number (i.e., tracking number), basis for submitting the NOT, Site Operator information, name and address of the site, and certification by the duly authorized official.

The NeT is available at the following link:

https://cdxnodengn.epa.gov/oeca-cgp-web/action/login

Additional Guidance for Completing Construction Prior to Submitting NOT:

Before terminating permit coverage, the Site Operator(s) should ensure that the following is completed:

- Any areas disturbed during construction should either be covered over by permanent structures, final vegetative (i.e., 70 percent or more cover), or non-vegetative stabilization;
- All construction materials, waste, equipment, and vehicles used during construction have been removed;
- Remove temporary BMPs (such as silt fence) and all stormwater controls. Remove any residual sediment as needed. Seed and mulch any small bare spots. BMPs and stormwater controls that are intended for long-term use following the termination of permit coverage or those that are biodegradable and will decompose, including some fiber rolls and blankets, may be left in place;
- Check areas where erosion-control blankets or matting were installed. Cut away and remove all loose, exposed material, especially in areas where walking or mowing will occur. Reseed all bare soil areas;
- Repair any remaining signs of erosion;
- Ensure that post-construction BMPs are in place and operational. Provide written maintenance requirements for all post-construction BMPs to the appropriate party;
- Check all drainage conveyances and outlets to ensure they were installed correctly and are operational. Inspect inlet areas to ensure complete stabilization and remove any brush or debris that could clog inlets. Ensure banks and ditch bottoms are well vegetated. Reseed bare areas and replace rock that has become dislodged;
- Seed and mulch or otherwise stabilize any areas where runoff flows might converge or high velocity flows are expected;
- Remove temporary stream crossings. Grade, seed, or re-plant vegetation damaged or removed;
- Ensure that all temporary work areas, staging areas, and access roads have been properly restored and/or stabilized;
- Ensure subcontractors have repaired their work areas before final closeout;
- All potential pollutants and pollutant-generating activities associated with construction have been removed, unless needed for long-term use following the termination of permit coverage.

8.0 CERTIFICATION AND NOTIFICATION

This SWPPP must be certified by all Site Operators in accordance with the 2017 CGP Appendix I, Part I.11.

8.1 Site Operator Certification (General Contractor)

????????????
????????????
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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision for the **Space Place Self Storage Expansion Project** in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. By signing this certification, I confirm that I meet the requirements to make such a designation as set forth in Appendix I , Subsection I.11.1 of the EPA's Construction General Permit (2017 CGP)"

Name: ???????????? Title: ????????????????

Signature: _____

Date: _____

APPENDICES

APPENDIX A
SITE LOCATION MAP

APPENDIX B
SOIL CHARACTERISTICS

APPENDIX C
SITE PLANS

APPENDIX D
COPY OF CONSTRUCTION GENERAL PERMIT
(2017 CGP)

APPENDIX E
POST-AUTHORIZATION ADDITIONS TO THE SWPPP (NOI)

- **COPY OF NOTICE OF INTENT (NOI)**
- **AUTHORIZATION LETTER FROM EPA ASSIGNING PERMITEE NPDES ID**
- **CORRESPONDENCE BETWEEN PERMITEE(S) AND EPA RELATED TO COVERAGE UNDER THIS PERMIT**

APPENDIX F
INSPECTION REPORTS
AND
CORRECTIVE ACTION LOGS

Stormwater Construction Site Inspection Report

General Information			
Project Name			
NPDES Tracking No.		**Location**	
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Describe present phase of construction			
Type of Inspection ❑ **Regular** ❑ **Pre-storm event** ❑ **During storm event** ❑ **Post-storm event**			
Weather Information			
Has there been a storm event since the last inspection? ❑Yes ❑No **If yes, provide:** **Storm Start Date & Time:** **Storm Duration (hrs):** **Approximate Rainfall (in):** **Data Source: Weather Station Name/Location or Rain Gauge** _____.			
Weather at time of this inspection? ❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snowing ❑ High Winds ❑ Other: Temperature:			
Is it suspected that discharges may have occurred since the last inspection? ❑Yes ❑No **If yes, describe:**			
Are there any discharges at the time of inspection? ❑Yes ❑No **If yes, describe:**			

Site-specific BMPs

- *Number the structural and non-structural BMPs identified in this SWPPP on the site map and list them below (add as many BMPs as necessary). Carry a copy of this numbered site map during the inspections. This list will help ensure that all required BMPs are inspected at the site.*
- *Describe maintenance and/or corrective actions initiated, dates noted and completed, and include corrective actions on Corrective Action Log.*
- *Use **BOLD TEXT** to indicate new or outstanding items noted during latest site visit.*

	BMP Description	BMP Installed & Operating Properly?	BMP Maintenance Required?	Note Specific Site Location of BMP & Required Maintenance and/or Corrective Action	Date Completed & Responsible Person
1		❑Yes ❑No	❑Yes ❑No		
2		❑Yes ❑No	❑Yes ❑No		
3		❑Yes ❑No	❑Yes ❑No		
4		❑Yes ❑No	❑Yes ❑No		
5		❑Yes ❑No	❑Yes ❑No		
6		❑Yes ❑No	❑Yes ❑No		
7		❑Yes ❑No	❑Yes ❑No		
8		❑Yes ❑No	❑Yes ❑No		
9		❑Yes ❑No	❑Yes ❑No		
10		❑Yes ❑No	❑Yes ❑No		
11		❑Yes ❑No	❑Yes ❑No		
12		❑Yes ❑No	❑Yes ❑No		
13		❑Yes ❑No	❑Yes ❑No		
14		❑Yes ❑No	❑Yes ❑No		
15		❑Yes ❑No	❑Yes ❑No		
16		❑Yes ❑No	❑Yes ❑No		
17		❑Yes ❑No	❑Yes ❑No		

	BMP Description	BMP Installed & Operating Properly?	BMP Maintenance Required?	Note Specific Site Location of BMP & Required Maintenance and/or Corrective Action	Date Completed & Responsible Person
18		❑Yes ❑No	❑Yes ❑No		
19		❑Yes ❑No	❑Yes ❑No		
20		❑Yes ❑No	❑Yes ❑No		

Overall Site Issues and/or Pollution Prevention:
Below are some general site issues that should be assessed during inspections. Please customize this list as needed for conditions and list specific locations and remedial work needed at the site.

Overall Site Issues

	BMP/activity	Implemented?	Maintained?	Note Specific Site Location & Required Maintenance and/or Corrective Action	Date Completed & Responsible Person
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No		
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes ❑No	❑Yes ❑No		
4	Are discharge points and receiving waters free of sediment deposits?	❑Yes ❑No	❑Yes ❑No		
5	Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No		
6	Is there evidence of sediment being tracked into the street?	❑Yes ❑No	❑Yes ❑No		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No		
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No		
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No		
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No		

	BMP/activity	Implemented?	Maintained?	Note Specific Site Location & Required Maintenance and/or Corrective Action	Date Completed & Responsible Person
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No		
12	(Other)	❑Yes ❑No	❑Yes ❑No		

Turbidity Sample Measurements

Below are the turbidity sample readings collected during our site visit with location and measurement in Nephelometric Turbidity Units (NTU). Use this section only as necessary per SWPPP Section 4.14.

#	Sample Location (Description)	Reading in (NTU)	Corrective Action Needed and Notes
1			

If determined that it is unsafe to inspect a portion of the site, describe the reason it was found to be unsafe and specify the locations to which this condition applies:_____

_____

_____

_____

_____

_____

Certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name: _____

Signature: _____

Date: _____

Note: ***All inspection reports completed for this site must be retained for at least three (3) years from the date that the site's permit coverage expires or is terminated. They should be kept in SWPPP Appendix F.***

SWPPP Corrective Action Report

Project Name: _____ **Report Date:** _____

SWPPP Contact: _____

Use the following form to list corrective action and any subsequent follow up actions:

I.D.	Action Start Date	SWPPP Inspector	BMP Location	BMP Description	Status of Action	Recommendation and/or Required Corrective Action	Responsible Party	Due Date	Date When Resolved	Checked By
1										

Certification Required Once Resolved:

Site Operator (General Contractor): _____
Date: _____

Owner ( ): _____
Date: _____

I.D.	Action Start Date	SWPPP Inspector	BMP Location	BMP Description	Status of Action	Recommendation and/or Required Corrective Action	Responsible Party	Due Date	Date When Resolved	Checked By
2										

Certification Required Once Resolved:

Site Operator (General Contractor): _____
Date: _____

Owner ( ): _____
Date: _____

Note: ***All corrective action reports completed for this site must be retained for at least three (3) years from the date that the site's permit coverage expires or is terminated. They should be kept in SWPPP Appendix F.***

APPENDIX G
SWPPP REVISION DOCUMENTATION LOG
(refer also to page iii of SWPPP)

SWPPP Revision Documentation Log

Project Name: _____

SWPPP Contact: _____

Amendment No.	Date of Amendment	Description of the Amendment	Amendment Prepared By [Name(s) & Title]	Authorized Representative Signature (per 2017 CGP Appendix I, Part I.11)
Draft Issued	February 26, 2019	Draft Issued	Pathways Consulting, LLC: Daniel P. Moss, P.E., CPESC	NEED MOSS SIGNATURE
1	January 11, 2019	Final Issued	Pathways Consulting, LLC: Daniel P. Moss, P.E., CPESC	
2				
3				
4				
5				
6				
7				

APPENDIX H
SUBCONTRACTOR CERTIFICATIONS/AGREEMENTS

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the SWPPP for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

APPENDIX I
GRADING AND STABILIZATION ACTIVITIES LOG

Grading and Stabilization Activities Log

Project Name: _____

SWPPP Contact: _____

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

APPENDIX J
SWPPP TRAINING LOG

SWPPP Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ **Erosion Control BMPs**
- ❑ **Emergency Procedures**
- ❑ **Sediment Control BMPs**
- ❑ **Good Housekeeping BMPs**
- ❑ **Non-Stormwater BMPs**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

APPENDIX K
DELEGATION OF AUTHORITY FORM

Delegation of Authority

I, _???????___ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the SPACE PLACE SELF STORAGE EXPANSION PROJECT construction site. The designee is authorized to sign any reports, SWPPP and all other documents required by the permit.

???????????	(name of person or position)
????????????????	(company)
????????????????	(address)
?????????????	(city, state, zip)
?????????????????	(mobile phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I, Subsection I.11.1 of the EPA's Construction General Permit (2017 CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in 2017 CGP Appendix I, Subsection I.11.2.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: ????????????

Company: ????????????

Title: ????????????

Signature: _____

Date: _____

APPENDIX L
COPIES OF ADDITIONAL PERMITS AND ENVIRONMENTAL DOCUMENTATION

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

==========

WETLANDS AND NON-SITE SPECIFIC PERMIT 2018-03809

NOTE CONDITIONS

PERMITTEE:	**HIGH PINE PROPERTIES LLC** **41 INTERCHANGE DRIVE** **WEST LEBANON NH 03784**
PROJECT LOCATION:	**990 ROUTE 11, SUNAPEE** **TAX MAP #211, LOT #17**
WATERBODY:	**UNNAMED WETLAND**

APPROVAL DATE: **MARCH 06, 2019** **EXPIRATION DATE:** **MARCH 06, 2024**

==========

Based upon review of the above referenced application, in accordance with RSA 482-A and RSA 485-A:17, a Wetlands Permit and Non-Site Specific Permit was issued by the New Hampshire Department of Environmental Services (NHDES). This permit shall not be considered valid unless signed as specified below.

PERMIT DESCRIPTION: Dredge and fill 500 square feet of palustrine forested wetland to install a 24-inch diameter pipe culvert extending 74 feet in length for development of a self-storage facility.

THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Pathways Consulting, LLC dated December 13, 2018, revised February 28, 2019, as received by the NH Department of Environmental Services (NHDES) on February 28, 2019.
2. Not less than 5 state business days prior to starting work authorized by this permit, the permittee shall notify the NHDES Wetlands Program and the local conservation commission in writing of the date on which work under this permit is expected to start.
3. Prior to construction, all wetland and surface water boundaries adjacent to construction areas shall be clearly marked to prevent unintentional encroachment on adjacent wetlands and surface waters.
4. Prior to starting any work authorized by this permit, the permittee shall place orange construction fencing at the limits of construction to prevent unintentional encroachment on wetlands.
5. Any further alteration of areas on this property that are subject to RSA 482-A jurisdiction will require a new application and further permitting.
6. No person undertaking any activity shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards in RSA 485-A and Env-Wq 1700.
7. Work shall be done during low flow and in the dry only.
8. Appropriate siltation and erosion controls shall be in place prior to construction, shall be maintained during construction, and shall remain until the area is stabilized. Temporary controls shall be removed once the area has been stabilized.
9. Erosion and siltation controls with synthetic netting or thread, such as welded plastic, biodegradable plastic netting or thread-in erosion control matting, shall not be permitted on this site.
10. Work shall be conducted in a manner so as to minimize turbidity and sedimentation to surface waters and wetlands.
11. All dredged and excavated material and construction-related debris shall be placed outside of the areas subject to RSA 482-A.

12. The contractor responsible for completion of the work shall use techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
13. Proper headwalls shall be constructed within seven days of culvert installation.
14. Construction equipment shall be inspected daily for leaking fuel, oil, and hydraulic fluid prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
15. The permittee's contractor shall maintain appropriate oil/diesel fuel spill kits on site that are readily accessible at all times during construction, and shall train each operator in the use of the kits.
16. Any fill used shall be clean sand, gravel, rock, or other suitable material.
17. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1.

GENERAL CONDITIONS THAT APPLY TO ALL NHDES WETLANDS PERMITS:

1. A copy of this permit shall be posted on site during construction in a prominent location visible to inspecting personnel;
2. This permit does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;
3. The NHDES Wetlands Bureau shall be notified upon completion of work;
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits, and/or consult with other agencies as may be required (including US EPA, US Army Corps of Engineers, NH Department of Transportation, NH Division of Historical Resources (NH Department of Cultural Resources), NHDES Alteration of Terrain, etc.);
5. Transfer of this permit to a new owner shall require notification to and approval by NHDES;
6. This project has been screened for potential impacts to **known** occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have only received cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species;
7. Review enclosed sheet for status of the US Army Corps of Engineers' federal wetlands permit.

APPROVED:

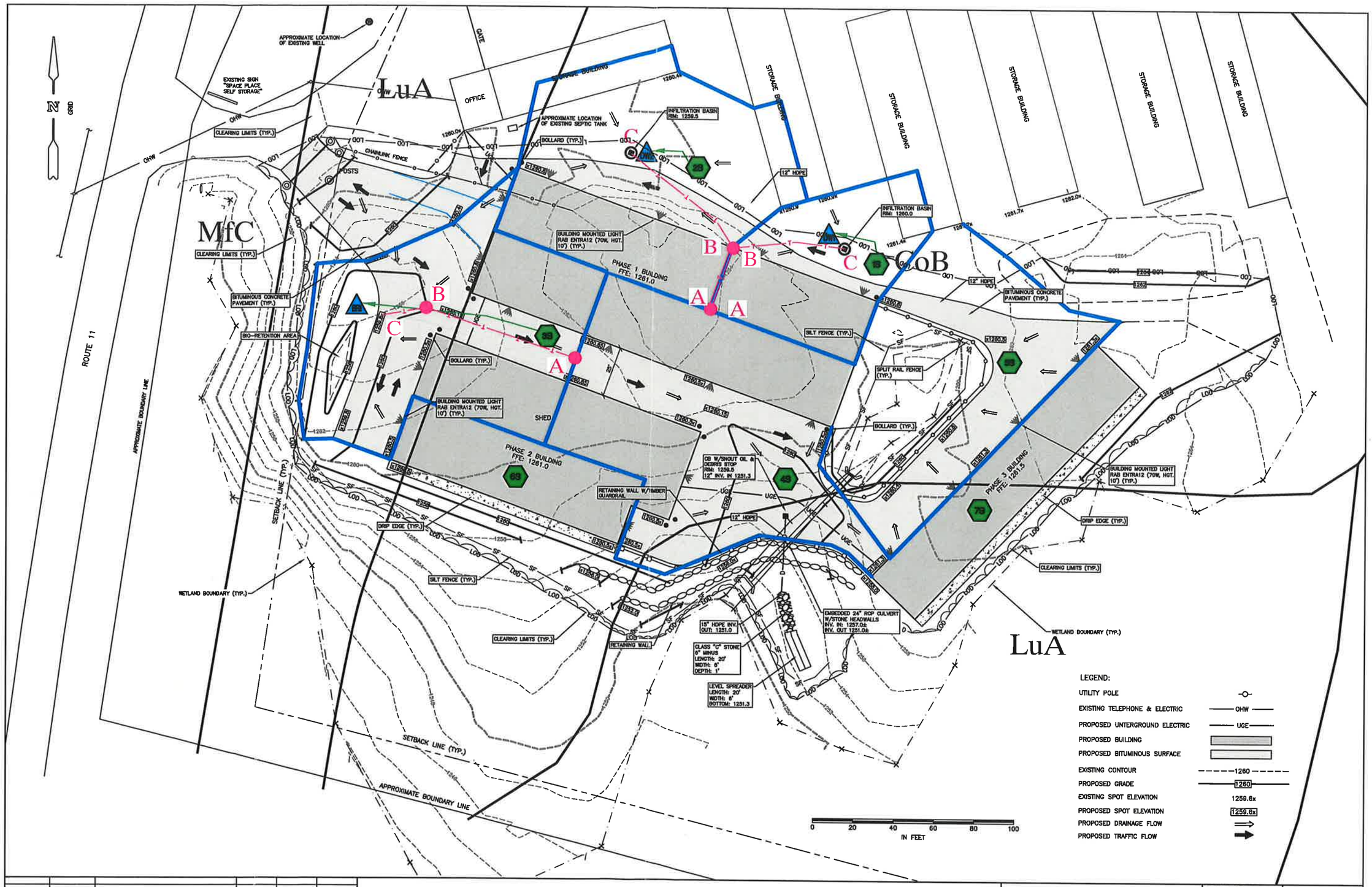
Seta A. Detzel
Wetlands Bureau
Land Resources Management

==========

BY SIGNING BELOW I HEREBY CERTIFY THAT I HAVE FULLY READ THIS PERMIT AND AGREE TO ABIDE BY ALL PERMIT CONDITIONS.

OWNER'S SIGNATURE (required)

CONTRACTOR'S SIGNATURE (required)



REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

POST– CONSTRUCTION WATERSHED MODELING EXHIBIT

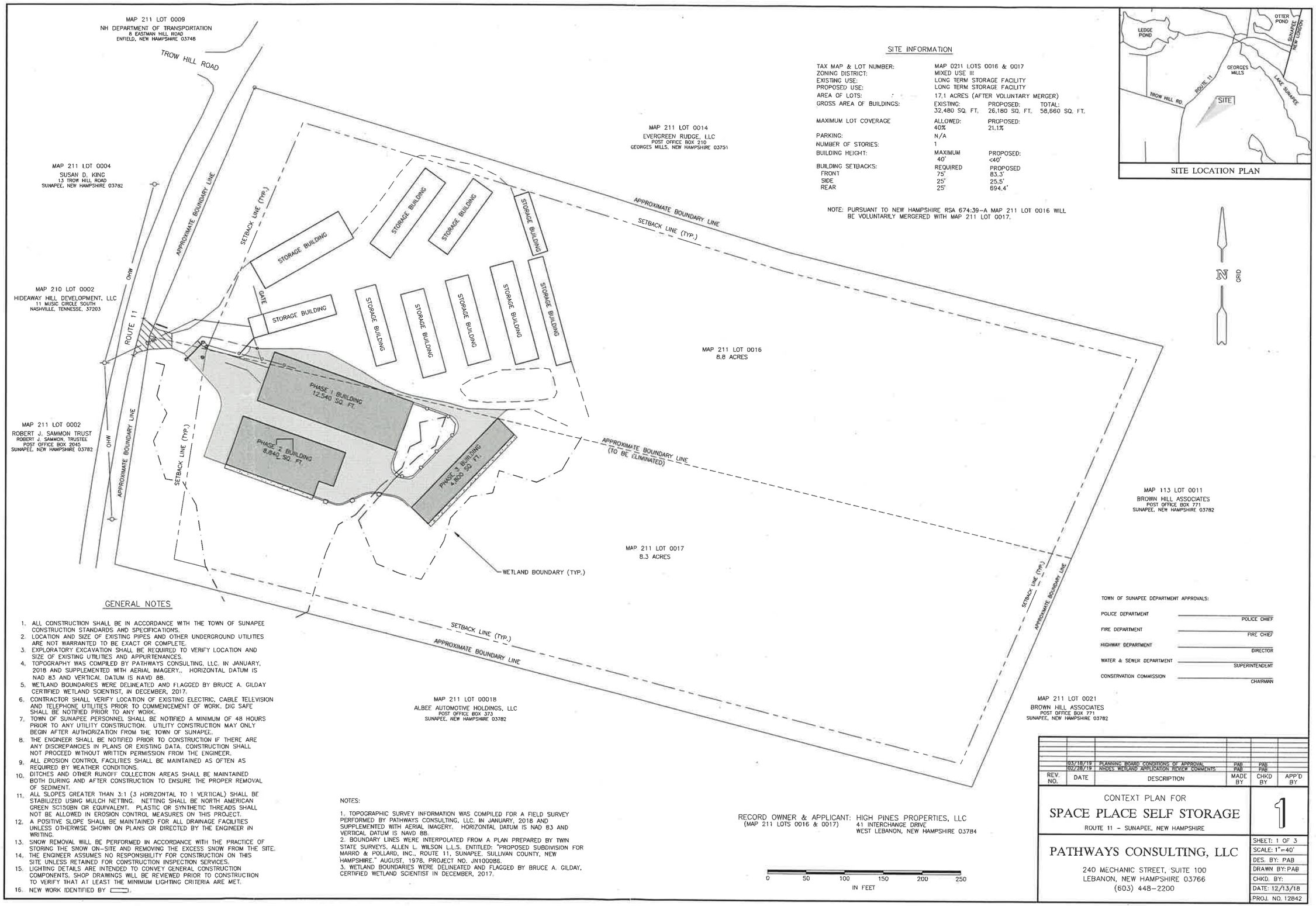
SPACE PLACE SELF STORAGE

ROUTE 11 – SUNAPEE, NEW HAMPSHIRE

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448–2200

SCALE: AS SHOWN	W1
DESIGNED BY: PAB	
DRAWN BY: PAB	
CHECKED BY:	
DATE: 12/13/18	
PROJ. NO. 12842	SHEET 1 OF 1

PATHWAYS CONSULTING, LLC
PLANNING • ENGINEERING • SURVEYING • CONSTRUCTION ASSISTANCE
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200 • FAX: (603) 448-1221



SITE INFORMATION

TAX MAP & LOT NUMBER:	MAP 0211 LOTS 0016 & 0017		
ZONING DISTRICT:	MIXED USE III		
EXISTING USE:	LONG TERM STORAGE FACILITY		
PROPOSED USE:	LONG TERM STORAGE FACILITY		
AREA OF LOTS:	17.1 ACRES (AFTER VOLUNTARY MERGER)		
GROSS AREA OF BUILDINGS:	EXISTING: 32,480 SQ. FT.	PROPOSED: 26,180 SQ. FT.	TOTAL: 58,660 SQ. FT.
MAXIMUM LOT COVERAGE	ALLOWED: 40%	PROPOSED: 21.1%	
PARKING:	N/A		
NUMBER OF STORIES:	1		
BUILDING HEIGHT:	MAXIMUM 40'	PROPOSED: <40'	
BUILDING SETBACKS:	REQUIRED	PROPOSED	
FRONT	75'	83.3'	
SIDE	25'	25.5'	
REAR	25'	694.4'	

NOTE: PURSUANT TO NEW HAMPSHIRE RSA 674:39-A MAP 211 LOT 0016 WILL BE VOLUNTARILY MERGERED WITH MAP 211 LOT 0017.

SITE LOCATION PLAN

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF SUNAPEE CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. LOCATION AND SIZE OF EXISTING PIPES AND OTHER UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE EXACT OR COMPLETE.
3. EXPLORATORY EXCAVATION SHALL BE REQUIRED TO VERIFY LOCATION AND SIZE OF EXISTING UTILITIES AND APPURTENANCES.
4. TOPOGRAPHY WAS COMPILED BY PATHWAYS CONSULTING, LLC. IN JANUARY, 2018 AND SUPPLEMENTED WITH AERIAL IMAGERY. HORIZONTAL DATUM IS NAD 83 AND VERTICAL DATUM IS NAVD 88.
5. WETLAND BOUNDARIES WERE DELINEATED AND FLAGGED BY BRUCE A. GILDAY CERTIFIED WETLAND SCIENTIST, IN DECEMBER, 2017.
6. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING ELECTRIC, CABLE TELEVISION AND TELEPHONE UTILITIES PRIOR TO COMMENCEMENT OF WORK. DIG SAFE SHALL BE NOTIFIED PRIOR TO ANY WORK.
7. TOWN OF SUNAPEE PERSONNEL SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO ANY UTILITY CONSTRUCTION. UTILITY CONSTRUCTION MAY ONLY BEGIN AFTER AUTHORIZATION FROM THE TOWN OF SUNAPEE.
8. THE ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION IF THERE ARE ANY DISCREPANCIES IN PLANS OR EXISTING DATA. CONSTRUCTION SHALL NOT PROCEED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
9. ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED AS OFTEN AS REQUIRED BY WEATHER CONDITIONS.
10. DITCHES AND OTHER RUNOFF COLLECTION AREAS SHALL BE MAINTAINED BOTH DURING AND AFTER CONSTRUCTION TO ENSURE THE PROPER REMOVAL OF SEDIMENT.
11. ALL SLOPES GREATER THAN 3:1 (3 HORIZONTAL TO 1 VERTICAL) SHALL BE STABILIZED USING MULCH NETTING. NETTING SHALL BE NORTH AMERICAN GREEN SC150BN OR EQUIVALENT. PLASTIC OR SYNTHETIC THREADS SHALL NOT BE ALLOWED IN EROSION CONTROL MEASURES ON THIS PROJECT.
12. A POSITIVE SLOPE SHALL BE MAINTAINED FOR ALL DRAINAGE FACILITIES UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY THE ENGINEER IN WRITING.
13. SNOW REMOVAL WILL BE PERFORMED IN ACCORDANCE WITH THE PRACTICE OF STORING THE SNOW ON-SITE AND REMOVING THE EXCESS SNOW FROM THE SITE.
14. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION ON THIS SITE UNLESS RETAINED FOR CONSTRUCTION INSPECTION SERVICES.
15. LIGHTING DETAILS ARE INTENDED TO CONVEY GENERAL CONSTRUCTION COMPONENTS. SHOP DRAWINGS WILL BE REVIEWED PRIOR TO CONSTRUCTION TO VERIFY THAT AT LEAST THE MINIMUM LIGHTING CRITERIA ARE MET.
16. NEW WORK IDENTIFIED BY ▭.

NOTES:

1. TOPOGRAPHIC SURVEY INFORMATION WAS COMPILED FOR A FIELD SURVEY PERFORMED BY PATHWAYS CONSULTING, LLC. IN JANUARY, 2018 AND SUPPLEMENTED WITH AERIAL IMAGERY. HORIZONTAL DATUM IS NAD 83 AND VERTICAL DATUM IS NAVD 88.
2. BOUNDARY LINES WERE INTERPOLATED FROM A PLAN PREPARED BY TWIN STATE SURVEYS, ALLEN L. WILSON L.L.S. ENTITLED: "PROPOSED SUBDIVISION FOR MARRO & POLLARD, INC., ROUTE 11, SUNAPEE, SULLIVAN COUNTY, NEW HAMPSHIRE." AUGUST, 1978. PROJECT NO. JN100086.
3. WETLAND BOUNDARIES WERE DELINEATED AND FLAGGED BY BRUCE A. GILDAY, CERTIFIED WETLAND SCIENTIST IN DECEMBER, 2017.

RECORD OWNER & APPLICANT: HIGH PINES PROPERTIES, LLC
(MAP 211 LOTS 0016 & 0017) 41 INTERCHANGE DRIVE
WEST LEBANON, NEW HAMPSHIRE 03784

0 50 100 150 200 250
IN FEET

TOWN OF SUNAPEE DEPARTMENT APPROVALS:

POLICE DEPARTMENT _____ POLICE CHIEF
FIRE DEPARTMENT _____ FIRE CHIEF
HIGHWAY DEPARTMENT _____ DIRECTOR
WATER & SEWER DEPARTMENT _____ SUPERINTENDENT
CONSERVATION COMMISSION _____ CHAIRMAN

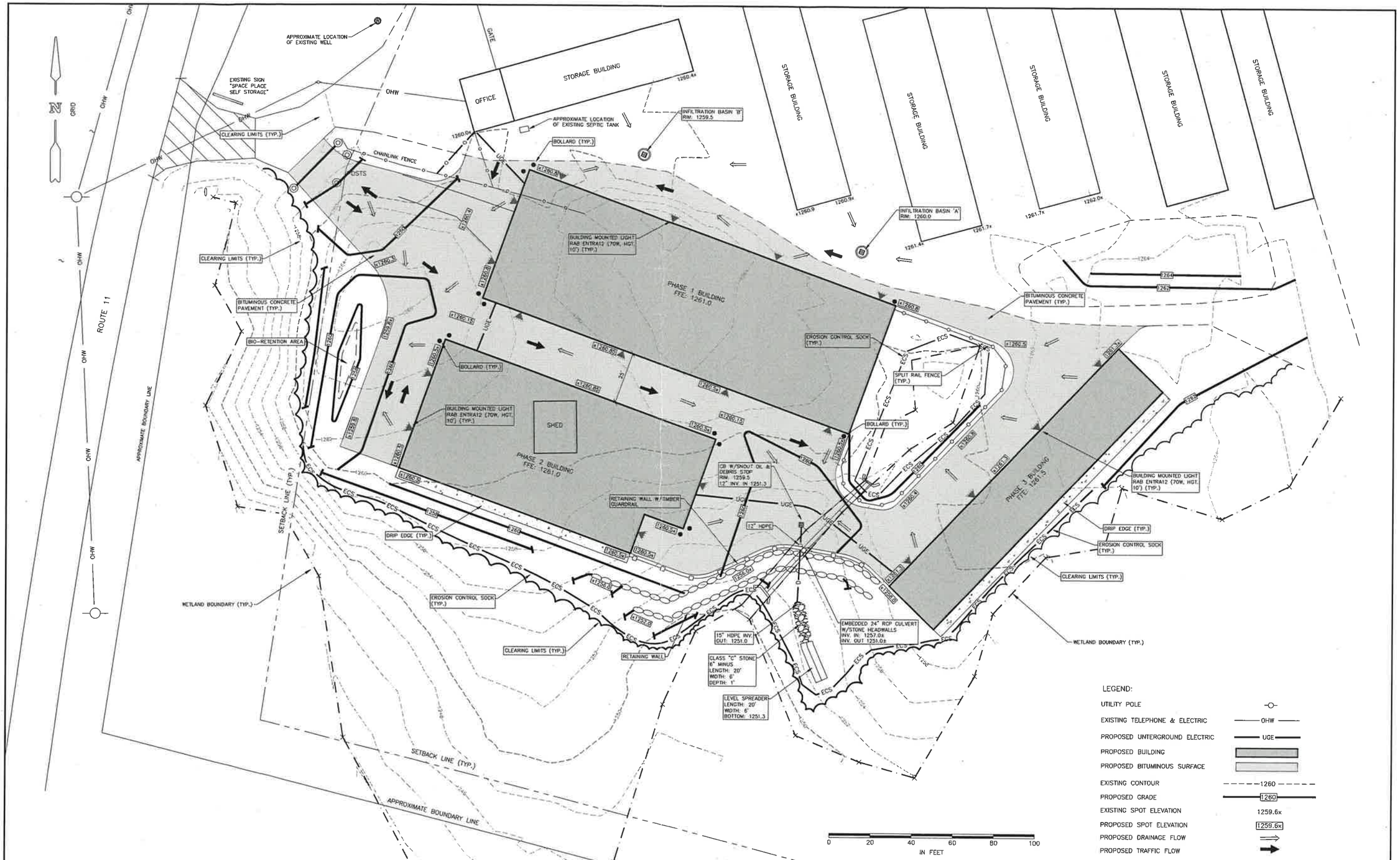
REV. NO.	DATE	DESCRIPTION	MADE BY	CHK'D BY	APP'D BY
	03/18/19	PLANNING BOARD CONDITIONS OF APPROVAL	PAB	PAB	
	02/28/19	NHDES WETLAND APPLICATION REVIEW COMMENTS	PAB	PAB	

CONTEXT PLAN FOR
SPACE PLACE SELF STORAGE
ROUTE 11 - SUNAPEE, NEW HAMPSHIRE

1

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SHEET: 1 OF 3
SCALE: 1"=40'
DES. BY: PAB
DRAWN BY: PAB
CHK'D. BY:
DATE: 12/13/18
PROJ. NO. 12842



REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY
	02/28/19	NHDES WETLAND APPLICATION REVIEW COMMENTS	PAB	PAB	

SITE PLAN FOR

SPACE PLACE SELF STORAGE

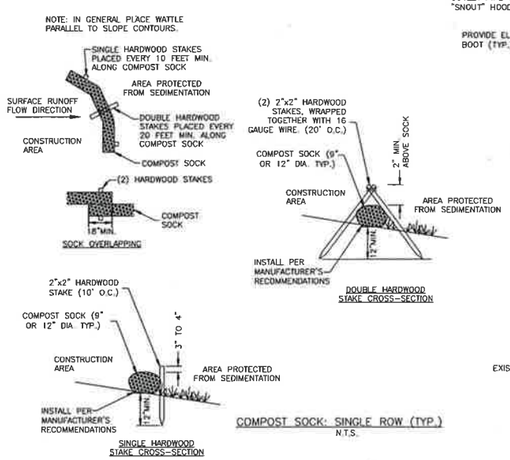
ROUTE 11 – SUNAPEE, NEW HAMPSHIRE

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

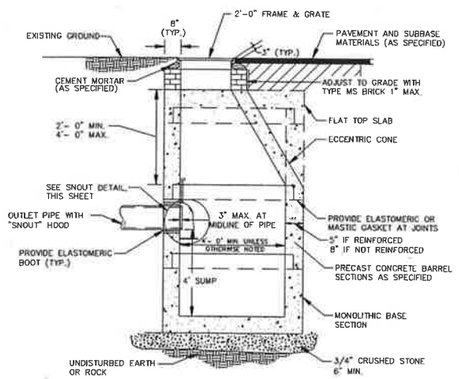
SCALE: AS SHOWN	2
DESIGNED BY: PAB	
DRAWN BY: PAB	
CHECKED BY:	
DATE: 12/13/18	
PROJ. NO. 12842	SHEET 2 OF 3

CONSTRUCTION SEQUENCE

1. PRE-CONSTRUCTION MEETING.
2. INSTALL CATCH BASIN PROTECTION IF REQUIRED.
3. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
4. INSTALL PERIMETER CONTROLS (SILT FENCE, BRUSH BARRIER, CONSTRUCTION FENCE, ETC.).
5. CONSTRUCT STORMWATER TREATMENT COMPONENTS INCLUDING BIORETENTION BASINS AND GRASS TREATMENT SWALES. BIORETENTION SYSTEMS ARE NOT TO PLACED INTO SERVICE UNTIL THEY ARE FULLY PLANTED, STABILIZED AND ALL CONTRIBUTING AREAS ARE FULLY STABILIZED.
6. GRADE AND STABILIZE CONSTRUCTION ROADS.
7. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.), IF REQUIRED, SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
8. LAND CLEARING AND GRADING. SITE PREPARATION INCLUDING CUTTING AND FILLING, BARRIERS, DIVERSIONS, DRAINS, CULVERTS, AND SURFACE ROUGHENING.
9. SURFACE STABILIZATION, TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.
10. BUILDING CONSTRUCTION. BUILDINGS, UTILITIES, AND PAVING.
11. LANDSCAPING AND FINAL STABILIZATION. TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIPRAP.
12. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED.
13. CONTINUOUSLY INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
14. REMOVE TRAPPED SEDIMENTS FROM EROSION AND SEDIMENT CONTROL MEASURES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.



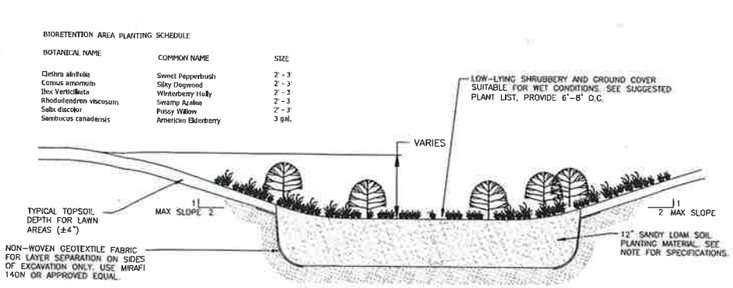
COMPOST SOCK: SINGLE ROW (TYP.)
N.T.S.



PRECAST CONCRETE DEEP SUMP CATCH BASIN
N.T.S.

BIORETENTION AREA PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE
Clethra alnifolia	Sweet Pepperbush	2' - 3'
Cornus amomum	Silky Dogwood	2' - 3'
Ilex Verticillata	Winterberry Holly	2' - 3'
Rhododendron viscosum	Swamp Azalea	2' - 3'
Salix discolor	Pussy Willow	2' - 3'
Sambucus canadensis	American Elderberry	3 gal.

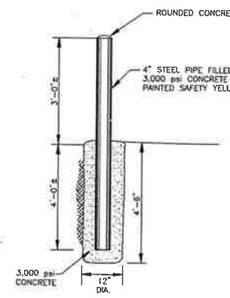


NOTE:

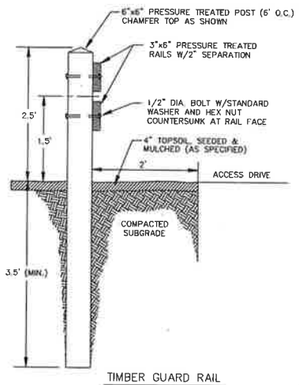
SOIL PLANTING MATERIAL MIX SHALL CONSIST OF:

50% CLEAN SAND
20% TOPSOIL WITH LESS THAN 5% CLAY
20% ORGANIC LEAF COMPOST
10% WOODCHIPS

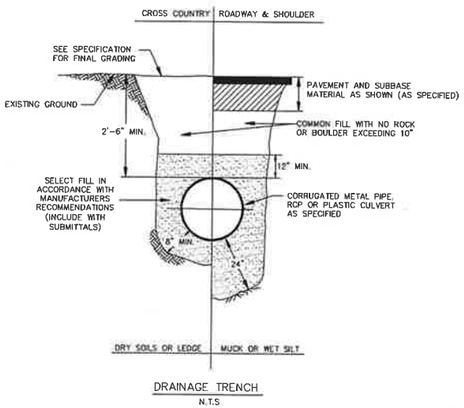
BIORETENTION AREA/RAIN GARDEN DETAIL
N.T.S.



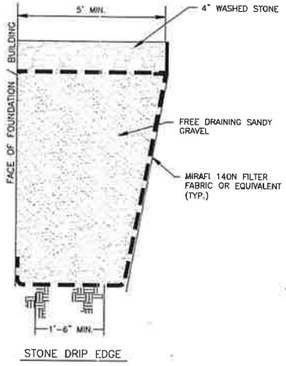
BOLLARD
N.T.S.



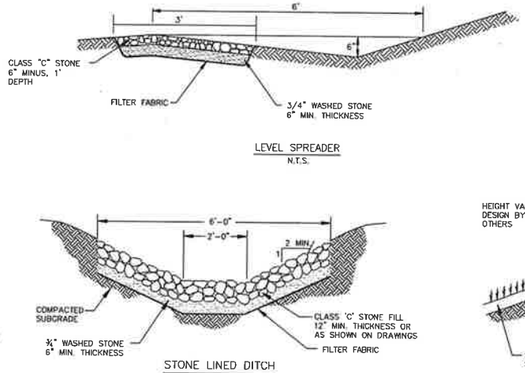
TIMBER GUARD RAIL
N.T.S.



DRAINAGE TRENCH
N.T.S

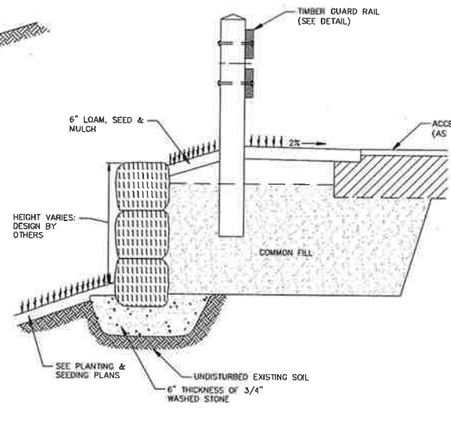


STONE DRIP EDGE
N.T.S.

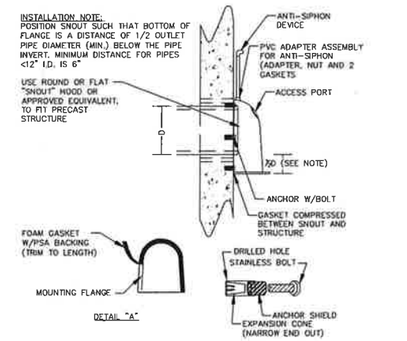


LEVEL SPREADER
N.T.S.

STONE LINED DITCH
N.T.S.



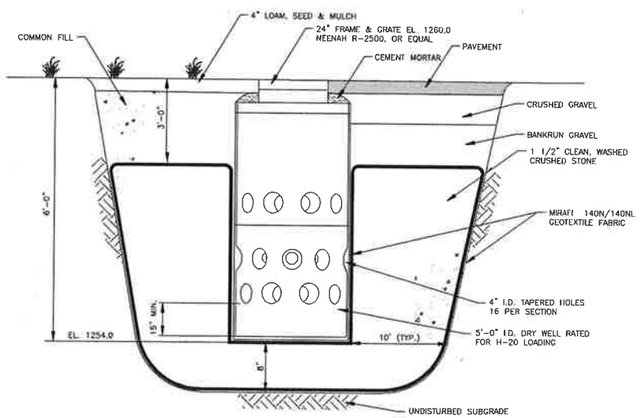
BOULDER RETAINING WALL
N.T.S.



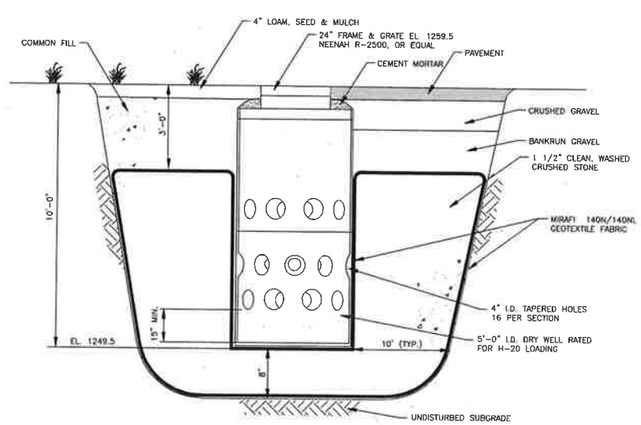
NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   53 MT. ARCHER RD.
   LYME, CT 06371
   (860) 434-0277, (860) 434-3195 FAX
   TOLL FREE: (800) 504-8008 OR (888) 434-0277
   WEB SITE: www.bmpinc.com
   OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
   A. INSTALLATION INSTRUCTIONS
   B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
   C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
   D. 3/8" STAINLESS STEEL BOLTS
   E. ANCHOR SHIELDS

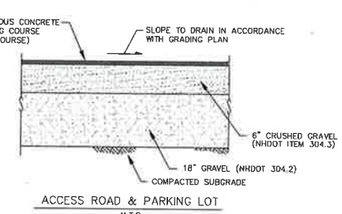
"SNOUT" HOOD OIL AND DEBRIS STOP
N.T.S.



STORMWATER INFILTRATION BASIN "A"
N.T.S.



STORMWATER INFILTRATION BASIN "B"
N.T.S.



ACCESS ROAD & PARKING LOT
N.T.S.

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY
	02/26/19	NHDES WETLAND APPLICATION REVIEW COMMENTS	PAB	PAB	

MISCELLANEOUS DETAILS FOR

SPACE PLACE SELF STORAGE

ROUTE 11 - SUNAPEE, NEW HAMPSHIRE

PATHWAYS CONSULTING, LLC
240 MECHANIC STREET, SUITE 100
LEBANON, NEW HAMPSHIRE 03766
(603) 448-2200

SCALE: AS SHOWN	3
DESIGNED BY: PAB	
DRAWN BY: PAB	
CHECKED BY:	
DATE: 12/13/18	
PROJ. NO. 12842	SHEET 3 OF 3

6.85 / abutter

Rev. 2-16-2018

PERMIT APPROVAL #_____

TOWN OF SUNAPEE

TREE CUTTING & VEGETATION CLEARING REQUEST FORM

For properties 250' or closer to certain lakes, pond and rivers.

RECEIVED MAR 1 2019 By Sunapee Planning & Zoning

This application is required prior to:

1) Any tree cutting within 150' of Lake Sunapee, Ledge Pond, Mountain View Lake, Otter Pond, Perkins Pond, Sugar River
2) Any stump or root removal within 50' of Lake Sunapee, Ledge Pond, Mountain View Lake, Otter Pond, Perkins Pond, Sugar River
3) Any project that involves the removal of more than 1,000 square feet of vegetation (plants, trees or saplings) within 150-feet of Lake Sunapee, Ledge Pond, Mountain View Lake, Otter Pond, Perkins Pond, Sugar River

What is the Shoreline Overlay? All lands within 250' feet of Lake Sunapee, Ledge Pond, Mountain View Lake, Otter Pond, Perkins Pond, Sugar River.[i]

What is the Natural Woodland Buffer? The Natural Woodland Buffer is the area within 150-feet from the shorelines (normal high water mark) of Lake Sunapee, Ledge Pond, Mountain View Lake, Otter Pond, Perkins Pond, Sugar River.[ii]

1. Landowners Name: ANDREW & ANGELA NEILSON 2. Parcel ID: 235/83
2. Parcel Street Address: SOMERSET
3. Mailing Address: 30 WEST HILL Rd
4. Phone #: 978-621-5263 5. Email: ANDREW.NEILSON@AGILENT.COM
5. Preferred method of contact (check all that apply): __ Phone X Email X US Post Mail
6. Name of river/lake/pond abutting property: MOUNTAIN VIEW LAKE

Have you obtained any permits from State of NH, Department of Environmental Services (DES) for this project?

✓ Yes __No __If yes, attach copy of permit to this application.

NOTE: Any cutting, or removal of natural vegetation, on ponds, lakes or rivers must be by permit from DES.[iii]

PROPOSED TREE CUTTING

Please mark all trees listed on this application with ribbon or surveyor's tape to assist the Town with any necessary site inspections. Attach any plan, site sketch, or photos to this application. Be sure to include location of buildings and driveways in relation to proposed tree cutting, and measurements to the shoreline and/or property lines.

Are you planning to cut more than 5 trees in the Woodland Buffer within a 12-month period? ✓ Yes __No

Are those trees at least 6" in diameter (or 18" circumference) at 4.5' above the ground? ✓ Yes __No

X If yes, attach to this application a Cutting & Clearing Plan, showing the exact location, size and type of tree to be cut. Your application will be reviewed by the Sunapee Planning Board at their next available meeting.[iv]

1. **List all trees within the first 50-feet** of the shoreline, that are at least 6" in diameter (i.e. 18" in circumference) at 4.5-feet above ground level.[v]

Tree Type	Diameter	Condition	Tree Type	Diameter	Condition
1.			4.		
2.			5.		
3.					

(Attach list of additional trees if needed)

2. **List all trees located between 50 to 150-feet** of the shoreline, that are at least 6" in diameter (i.e. 18" in circumference) at 4.5-feet above ground level.

Tree Type	Diameter	Condition	Tree Type	Diameter	Condition
1.			4.		
2.			5.		
3.					

(Attach list of additional trees if needed)

SEE PLAN & MARKED TREES ON PROPERTY

STUMPS & ROOTS WITHIN THE FIRST 50-FEET OF THE SHORELINE

Stumps and their root systems which are located within 50' of normal high-water shall be left intact in the ground, *unless* removal is specifically approved by the Wetlands Board (NH DES) pursuant to RSA 482-A.[vi]

Check the appropriate option below:

✓ **1. Stumps or roots systems will NOT be removed within the first 50-feet of the shoreline.**

___ **2. Stumps and roost systems WILL be removed within the first 50-feet of the shoreline, in accordance with the attached permit issued by NH DES.**

___ **3. Not Applicable. This project does not involve any activity within the 50-foot buffer.**

PROPOSED VEGETATION REMOVAL

Does your project include removal of more than 1,000 square feet of vegetation (plants, trees or saplings) within 150-feet of the shoreline, i.e. the Natural Woodland Buffer?

__Yes ✓No

☐ If yes, attach to this application a Cutting & Clearing Plan. Include a diagram showing the square footage of the vegetation area to be removed, and describe in detail the replanting plan. Your application will be reviewed by the Sunapee Planning Board at their next available meeting.[vii]

Note: Where natural vegetation is removed it shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion and preserving natural beauty.[viii]

***** SEE PAGE 3 FOR SIGNATURE *****

ADDITIONAL GUIDELINES

The following is a summary of additional requirements related to the Shoreline Overlay District, per the Sunapee Zoning Ordinance, *Article 4.33 Shorelines - Specific Provisions, Section B, (8) Erosion Control, Part (B) Cutting and Removal Of Natural Vegetation Within The Natural Woodland Buffer*. You may read the Zoning Ordinance in its entirety online at www.town.sunapee.nh.us or view the paper copy available at the Sunapee Town Office, 23 Edgemont Road.

Concerning The Removal Of Natural Vegetation Within The Natural Woodland Buffer:

- Where natural vegetation is removed it shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion and preserving natural beauty.[ix]
- The following activities are permitted within the Natural Woodland Buffer: normal trimming, pruning, and thinning (of saplings less than 6" in diameter) to enhance growth, to minimize the entry of vegetative debris into lakes and ponds, or to prevent the overgrowth of natural beaches; and felling and replacement of decaying trees and shrubs.[x]
- Not more than 50% of the entire basal area* may be removed for any purpose in a 20-year period. Replacement planting with native or naturalized species may be permitted to maintain the 50% level.
    - Exception: Up to 7,500 square-feet of basal area removed for structures, driveways, or parking areas shall be excluded when computing percentage limitations.[xi]
- A *Well-Distributed Stand of Vegetative Matter* (see definition below) shall be maintained in the Natural Woodland Buffer . . .
    - Exception: . . . except for those areas within 20' of existing or proposed structures, 12' from the centerline of driveways, and 10' from the edge of parking areas.[xii]
- DEFINITIONS - *Well-Distributed Stand of Vegetative Matter* - This matter includes trees, saplings, shrubs, and ground covers and their living, undamaged root systems. The distribution of such shall be as follows[xiii]:
    - *Undeveloped Lots (Prior to March 12, 1996)* - Permitted cutting per 50 feet of linear water frontage shall not reduce the total *basal area* below 9 square feet. If a lot is not 150' in depth, the required *basal area* shall be proportioned accordingly. Saplings with less than 2" diameter shall not be used to calculate minimum *basal area*. In no case shall there be any area more than 500 square feet completely cleared of vegetative matter unless such is naturally occurring.
    - *Lots with Dwelling Units (Prior to March 12, 1996)* - Permitted cutting per 50 feet of linear water frontage shall not reduce the total *basal area* below 6 square feet. If a lot is not 150' in depth, the required *basal area* shall be proportioned accordingly. Saplings with less than 2" diameter shall not be used to calculate minimum basal area.
    - *Basal area** is defined as the cross-sectional area of a tree measured at a point 4.5' above the ground. (Adopted 3/12/1996).
        - **Basal Area*: For purposes of this application, the basal area is considered the cross section at 4.5' from the ground of all trees, shrubs and saplings with at least a 2" diameter.

SIGNATURE OF PROPERTY OWNER(S):

By signing below, I verify that: 1) all trees listed on this application have been marked with ribbon or surveyor's tape; 2) I have read the above Additional Guidelines; and 3) I give permission for a Town official(s) to visit the property in association with the approval of this application.

Signature of Landowner(s) — Date: 3/1/19

ANDREW NELSON

Printed Name(s)

THIS PAGE TO BE COMPLETED BY TOWN OF SUNAPEE:

✓ Planning Board action required.

__ Planning Board not required.

Signature of Zoning Administrator — Date: 3-1-2019

Planning Board

The application was reviewed by the Sunapee Planning Board on _____(date) and the following action was taken:

__ Approved __ Approved with Conditions __ Denied __ Other

Signature of Planning Board Chair *or* Town Planner: _____

Printed Name / Title: _____ Date: _____

Zoning Administrator

The Applicant is hereby **Granted / Denied** a permit for cutting trees and/or clearing vegetation at

Parcel ID _____ pursuant to the attached application and conditions.

Conditions: _____

_____

_____ _____

Signature of Zoning Administrator Date

SOURCES from Sunapee Zoning Ordinance, March 2017 Edition

i Article II, Section 2.30, Water Resources Overlay Districts (3).

ii Article IV, Section 4.33 Shorelines - Specific Provisions, Section B, (8) Erosion Control, Part (b) Cutting And Removal of Natural Vegetation within the Natural Woodland Buffer.

iii Article IV, Section 4.33.B.(8).(b).(I)

iv Article IV, Section 4.33.B.(8).(b).(I).(1-2)

v Article IV, Section 4.33.B.(8).(b).(I).(1)

vi Article IV, Section 4.33.B.(8).(b).(VI)

vii Article IV, Section 4.33.B.(8).(b).(I).(1-2)

viii Article IV, Section 4.33.B.(8).(b).(III)

ix Article IV, Section 4.33.B.(8).(b).(III)

x Article IV, Section 4.33.B.(8).(b).(IV)

xi Article IV, Section 4.33.B.(8).(b).(V)

xii Article IV, Section 4.33.B.(8).(b).(VII)

xiii Article XI: Definitions and Explanations - Well-Distributed Stand of Vegetative Matter

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

APPROVAL FOR CONSTRUCTION OF INDIVIDUAL SEWAGE DISPOSAL SYSTEM (ISDS)

AS AUTHORIZED BY THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES, WATER DIVISION PURSUANT TO RSA 485-A, WATER POLLUTION AND WASTE DISPOSAL AND ENV-WQ 1000, SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES.

APPLICATION APPROVAL DATE: 2/8/2019

APPROVAL NUMBER: eCA2019020819

I. PROPERTY INFORMATION
Address: EDGEMONT ROAD
SUNAPEE NH 03782
Subdivision Approval No.: SA19990001197
Subdivision Name:
County: SULLIVAN
Tax Map/Lot No.: 235/83

II. OWNER INFORMATION
Name: ANDREW NEILSON
Address: 30 WEST HILL
SUNAPEE NH 03782-2340

III. APPLICANT INFORMATION
Name: CHRISTOPHER LEISTER
Address: PO BOX 525
BETHEL VT 05032

IV. DESIGNER INFORMATION
Name: CHRISTOPHER LEISTER
Address: PO BOX 525
BETHEL VT 05032
Permit No.: 01674

V. SPECIFIC TERMS AND CONDITIONS: Applicable to this Approval for Construction

A. TYPE OF SYSTEM: ADVANCED ENVIRO-SEPTIC
B. NO. OF BEDROOMS: 4
C. APPROVED FLOW: 600 GPD
D. OTHER CONDITIONS AND WAIVERS:
1. This approval is valid for 4 years from date of approval, per Env-Wq 1004.13.
2. All activity shall be in accordance with RSA 483-B, the Shoreland Water Quality Protection Act, and shoreland permit 2019-00080
3. No waivers have been approved.

Travis Guest
Subsurface Systems Bureau

VI. GENERAL TERMS AND CONDITIONS: Applicable to all Approvals for Construction

A. This Approval for Construction is issued to construct the ISDS as identified on Page 1 of this Approval.
B. This Approval is valid until 2/8/2023, unless an Approval for Operation has been granted.
C. By exercising any rights under this approval, the parties have agreed to all terms and conditions.
D. No liability is incurred by the State of New Hampshire by reason of any approval of any Approval for Construction. Approval by the Department of Environmental Services of sewage and waste disposal systems is based on plans and specifications supplied by the Applicant.
E. The system must be constructed in strict accordance with the approved plans and specifications.
F. The installed system must be left uncovered and cannot be used after construction until it is inspected and has received an Approval for Operation of Individual Sewage Disposal System (ISDS) by an authorized agent of the Department.
G. This system must be installed by an installer holding a valid permit. An owner may install the system for his/primary domicile.
H. This Approval for Construction does not supersede any equivalent or more stringent local ordinances or regulations. State standards are minimal and must be met statewide.

VII. ADDITIONAL OWNERS

ANGELA NEILSON
30 WEST HILL
SUNAPEE NH 03782-2340

WORK NUMBER: 201900084-2
APPROVAL NUMBER: eCA2019020819
RECEIVED DATE: January 7, 2019
TYPE OF SYSTEM: ADVANCED ENVIRO-SEPTIC

NHDES-W-06-037

SHORELAND PERMIT APPLICATION

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Water Division/ Shoreland Program
Land Resources Management

Check the status of your application: www.des.nh.gov/onestop

RECEIVED
JAN 11 2019
By Sunapee Zoning

RSA/Rule: RSA 483-B, Env-Wq 1400

This is an application for a permit to excavate, fill or construct new structures within the protected shoreland as regulated under RSA 483-B. For a complete list of activities that do not require a shoreland permit, view the shoreland program frequently asked questions (FAQs).

Please type or print clearly. **Please note**: Application packages missing required elements will be returned to the applicant in their entirety, including the fee. Land Resources Management will include a letter identifying the missing elements and describing how to resubmit the application package to NHDES. Application packages that are accepted will proceed to technical review to ensure the applicant has fulfilled all requirements as specified by statute or rules. For more information, visit the new Land Resources Management Application Return Process website located on the Shoreland Program page.

1. PROPERTY OWNER			
LAST NAME, FIRST NAME, M.I.: NEILSON, ANDREW & ANGELA			
ADDRESS: 30 WEST HILL	TOWN/CITY: SUNAPEE	STATE: NH	ZIP CODE: 03086
PHONE: 978-621-5263	EMAIL: ANDREW.NEILSON@ASILENT.COM		
2. PROJECT LOCATION			
ADDRESS: EDGEMONT ROAD	TOWN/CITY: SUNAPEE	STATE: NH	ZIP CODE: 03086
WATERBODY NAME: MOUNTIANVIEW LAKE	TAX MAP: 235	LOT NUMBER: 83	
3. CONTRACTOR OR AGENT			
LAST NAME, FIRST NAME, M.I: LEISTER, CHRISTOPHER,C			
ADDRESS: PO BOX 525	TOWN/CITY: BETHEL	STATE: VT	ZIP CODE: 05032
PHONE: 603-46409801	EMAIL: HOGGHILLDESIGN@GMAIL.COM		

4. CRITERIA

Please check at least one of the following below:

☒ This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standard.

☐ This shoreland permit application includes a proposal to make the structures and/or the property more nearly conforming.

☐ This shoreland permit application includes a request for a waiver of the following minimum standard(s) under RSA 483-B:9, V_____.

5. PROJECT DESCRIPTION

Total square feet of *impact area* within the protected shoreland: 14410 Total square feet of new impervious area: 9376

***To calculate total *impact area*, see Page 2, Section 10.**

Provide a complete description of the proposed project. Construct new 4 bedroom residence on undeveloped parcel. Construct new circular drive, revised access to parcel next door, new wastewater disposal system, drill new well, build new garage, build new patio fire pit area.

6. RELATED NHDES LAND RESOURCES MANAGEMENT PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT:

0235-0083-000 Nielsen Edgemont Rd / Samoset Rd (private)

Please indicate if any of the following permit applications are required and, if required, the status of the application.
To determine if other Land Resources Management permits are required, refer to the Land Resources Management Web Page.

Permit Type	Permit Required	File Number	Permit Application Status
Alteration of Terrain Permit Per RSA 485-A:17	☐ YES ☒ NO		☐ APPROVED ☐ PENDING ☐ DENIED
Individual Sewerage Disposal per RSA 485-A:2	☒ YES ☐ NO		☐ APPROVED ☒ PENDING ☐ DENIED
Subdivision Approval Per RSA 485-A	☐ YES ☒ NO		☒ APPROVED ☐ PENDING ☐ DENIED
Wetlands Permit Per RSA 482-A	☐ YES ☒ NO		☐ APPROVED ☐ PENDING ☐ DENIED

7. REFERENCE LINE ELEVATION (REQUIRED FOR LAKES, PONDS AND ARTIFICIAL IMPOUNDMENTS)

Reference line elevations for most lakes, ponds and artificial impoundments greater than 10 acres in size are listed in the Consolidated List of Waterbodies Subject to the Shoreland Water Quality Protection Act. Please see RSA 483-B:4, xvii for the definition of reference line.

The reference line for this waterbody is 1116 **feet above sea level.**

8. SHORELAND FRONTAGE Shoreland frontage is the actual frontage along the waterfront measured at the reference line.

The shoreland frontage on this lot is 278 **linear feet.**

☐ N/A – No direct frontage on this lot

9. APPLICATION FEE

A non-refundable permit application fee of $100 plus $0.10 per total square feet is required at the time the application is submitted. Fees are capped at $750 for projects impacting less than 10,000 sq ft, $1,875 for projects impacting between 10,000 and less than 25,000 sq ft, and $3,750 for projects impacting 25,000 sq ft and greater. Please note that your application will not be considered complete if it does not include the appropriate fee. **Please make checks payable to the Treasurer, State of NH.**

10. CALCULATING THE TOTAL IMPACT AREA AND PERMIT APPLICATION FEE

Total impact area is calculated by determining the sum of all areas disturbed by regrading, excavation, filling, construction and structure removal. Impacts often include, but are not limited to: constructing new driveways, constructing new structures, areas disturbed when installing septic systems and foundations, creating temporary access roads to drill a new well and regrading associated with landscaping activities.

Total Area Impacted within 250 feet of the reference line. = 14410 **(A) square feet**

Multiply the Total Impact Area By $0.10 and add $100. [(A) X .10 + $100] = $ 1,541 **Permit Fee**

11. REQUIRED CERTIFICATIONS

By initialing within the blank before each of the following statements, and signing below, you are certifying that: to the best of my knowledge, the information provided is true, complete and not misleading.

AN I understand that any permit or waiver granted based on false, incomplete, or misleading information shall be subject to revocation.

AN I am aware that obtaining a shoreland permit will not exempt the work I am proposing from other state, local or federal approvals.

AN I have notified the municipality or municipalities in which the proposed impacts are located and provided them with a complete copy of the application and all supporting materials on __/__/__ via certified mail.

AN ☐ This project is within ¼ mile of a designated river (**river name:**) and I have notified the Local River Management Advisory Committee by providing them with a copy of the complete application, including all supporting materials, via certified mail on **day:** __ **month:** __ **year:** ____ and I have included a copy of the certified mail receipt in the application submittal (RSA **483-B:5-b, IV-a**).

☒ This project is not within ¼ mile of a designated river.

AN I have notified all abutters of the proposed impacts via certified mail as required by RSA 483-B:5-b, IV-a. (see definition of "abutter" on page (6).

12. SIGNATURES (Both the property owner, and applicant must sign the application form per Env-Wq 1406.08)

OWNER NAME	Andrew Angela Nelson	PRINT NAME LEGIBLY: ANDREW & ANGELA NELSON	DATE: 01.02.19
APPLICANT NAME	Chris Leister	PRINT NAME LEGIBLY: CHRIS LEISTER	DATE: 1-2-19

Please mail this application and all other attachments to the NHDES Wetlands Bureau, PO Box 95, Concord NH 03302-0095. Missing information will delay processing your permit application and may result in denial of a Shoreland Permit.

SHORELAND APPLICATION WORKSHEET

This form must be submitted to the NHDES Wetlands Bureau accompanied with a Shoreland Permit Application. Instructions for completing this form are available on the Shoreland Program web page.

For the purposes of this worksheet, "**Pre-Construction**" impervious surface areas[1] means all human made impervious surfaces[2] currently in existence on the property, whether to be removed or to remain after the project is completed. "**Post-Construction**" impervious area means all impervious surfaces that will exist on the property upon completion of the project, including both new and any remaining pre-existing impervious surfaces. All answers shall be given in square feet.

CALCULATING IMPERVIOUS AREA WITHIN 250 FEET OF THE REFERENCE LINE			
	STRUCTURE DESCRIPTION	**PRE-CONSTRUCTION IMPERVIOUS AREA**	**POST-CONSTRUCTION IMPERVIOUS AREA**
PRIMARY STRUCTURE Include all attached decks and porches.	HOUSE	0 FT²	1830 FT²
ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds.	GARAGE	0 FT²	730 FT²
	SHED	115 FT²	115 FT²
	DRIVE NEW	1770 FT²	3908 FT²
	PATIO	0 FT²	144 FT²
	DECK	0 FT²	840 FT²
	DRIVE2	1800 FT²	1800 FT²
TOTAL:		(A) 3685 FT²	(B) 9376 FT²
Area of the lot located within 250 feet of reference line:			(C) 77120 FT²
Percentage of lot covered by pre-construction impervious area within 250 feet of the reference line: *[divide (a) by (c) x 100]*			(D) 4.8 %
Percentage of lot to be covered by post-construction impervious area within 250 feet of the reference line upon completion of the project: *[divide (b) by (c) x 100]*			(E) 12.1 %

IMPERVIOUS AREA THRESHOLDS

DETERMINING the STORMWATER MANAGEMENT REQUIREMENTS

[1] **"Impervious surface area"** as defined in Env-Wq 1402.15 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

[2] **"Impervious Surface"** as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas and walkways.

☒ The percentage of post-construction impervious area **(Calculation E)** is less than or equal to 20%. This project **does not** require a stormwater management plan and **does not** require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.
☐ A net increase in impervious area is proposed and the percentage of post-construction impervious area **(Calculation E)** is greater than 20%, but less than 30%. This project **requires** a stormwater management but, **does not** require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score. See details on the *Checklist of Required Items* on page 6
☐ A net increase in impervious area is proposed and the percentage of post-construction impervious area **(Calculation E)** is greater than 30%. This project **requires** a stormwater management plan be designed and certified by a professional engineer **and requires** plans demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score. See details on the *Checklist of Required Items* on page 6

NATURAL WOODLAND AREA REQUIREMENT

DETERMINING THE AREA TO REMAIN AS NATURAL WOODLAND	
Total area of the lot between 50 ft and 150 ft of the reference line within which the vegetation currently exists as natural woodlands[3] **(see definition below)**.	**(F)** 11100
Total area of the lot between 50 ft and 150 ft from the reference line.	**(G)** 28520
At least 25% of area **(G)** must remain in as natural woodland. [.25 x G]	**(H)** 7130
Place the lesser of area **(F)** and calculation **(H)** on this line. In order to remain compliant with the **natural woodland area requirement**, this is the minimum area that must remain as natural woodland between 50 ft and 150 ft from the reference line. This area **must** be represented on all plans and this area, exclusive of existing lawn, must remain in an unaltered state[4].	**(I)** 7130
Name of person who prepared this worksheet: CCL Chris Lerster	
Name and date of the plan this worksheet is based upon: Shoreland Protection Plan	
SIGNATURE:	DATE: 1-7-19

[3] **"Natural Woodland"** means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth.

[4] **"Unaltered State"** means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health.

Tri Town, NH

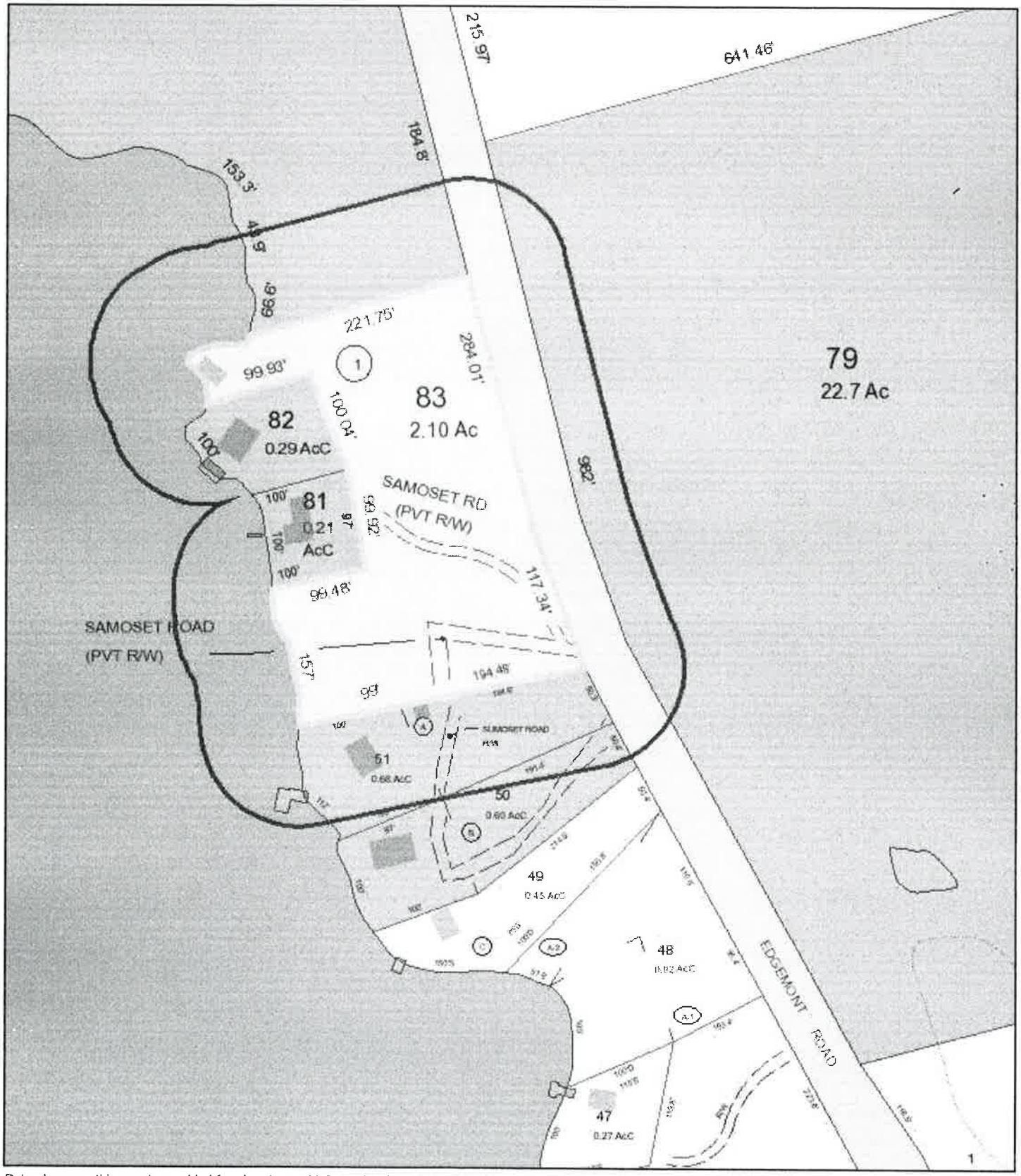
1 inch = 134 Feet

0 134 268 403

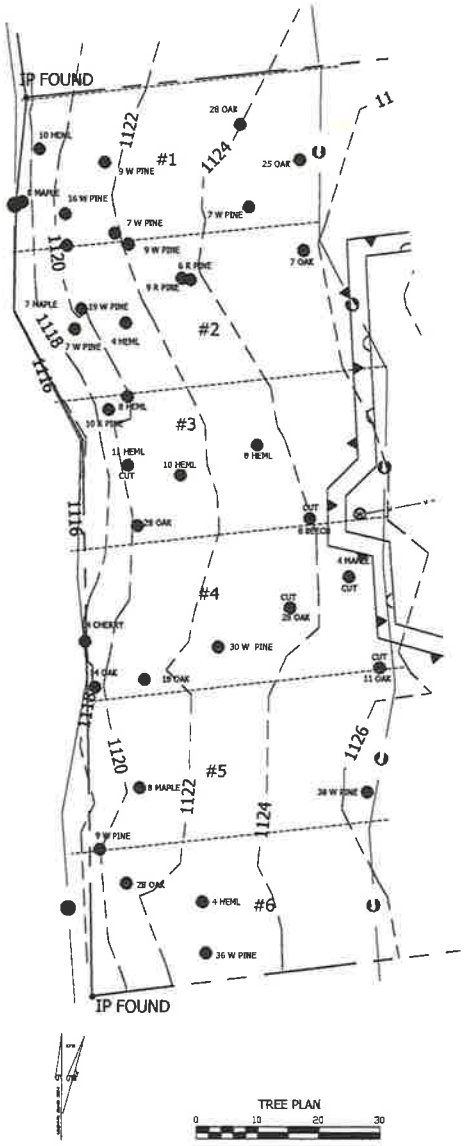
November 20, 2018

CAI Technologies

www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.



TREE PLAN

0 10 20 30

SCALE 1" = 10'

NEILSON - EDGEMONT ROAD – SUNAPEE
TREE SCORE

GRID	TREE	POINTS	KEEP/CUT	FINAL PTS
1	NO TREES CUT			>25
2	NO TREES CUT			>25
3	10 RPINE	10	K	10
3	8 HEM	10	K	10
3	11 HEM	10	C	0
3	28 OAK	15	K	15
3	10 HEM	10	K	10
3	8 HEM	10	K	10
3	8 BEECH	10	C	0
		75		55
4	14 CHERRY	15	K	15
4	14 OAK	15	K	15
4	18 OAK	15	K	15
4	30 WPINE	15	K	15
4	28 OAK	15	C	0
4	4 MAPLE	5	C	0
4	11 OAK	10	C	0
		90		60
5	38 W PINE	15		15
5	8 MAPLE	10		10
5	8 W PINE	10		10
	(NO TREES CUT)	35		35
6	NO TREES CUT			>25

SHORELAND BUFFER NOTES:

1. TREES IN THE 50 FOOT LAKE FRONT BUFFER TO BE REMOVED ONLY ACCORDING THE ABOVE SCHEDULE AND THIS PLAN. DEAD OR DECEASED TREES TO BE REMOVED AND ARE NOT SHOWN ON THIS PLAN.
2. NO EXCAVATION IS PLANNED INSIDE THE 50 FOOT BUFFER.
3. PROPOSED DRILLED WELL IS JUST INSIDE THE SHORELAND BUFFER.

SHORELAND PROTECTION PLAN

SCALE AS NOTED

EROSION CONTROL - CONSTRUCTION PERIOD:

1. ERECT SILT FENCE PER DETAIL, BELOW. BEFORE EXCAVATION BEGINS.
2. MAINTAIN SILT FENCE EACH WEEK AND AFTER EACH RAIN EVENT. REMOVE ACCUMULATED SILT AND DEBRIS.
3. SEED AND MULCH AND/OR APPLY EROSION CONTROL FABRIC TO ALL DISTURBED AREAS UPON COMPLETION. ALLOW VIGOROUS GRASS GROWTH TO DEVELOP BEFORE REMOVAL OF THE EROSION CONTROL FENCE.
4. DO NOT DISTURB EARTH OUTSIDE AREA DEFINED ON THE PLAN, AND PROTECTED BY SILT FENCE.

EXISTING SITE NOTES:

EXISTING PROPERTY IS CURRENTLY UNDEVELOPED.

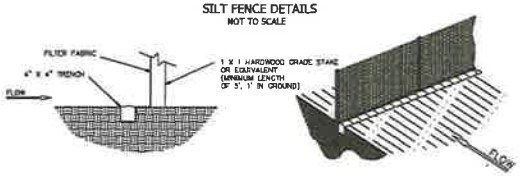
FOUNDATION UNDERDRAIN:

PLAN NOTES:

1. IMPERVIOUS AREAS ARE CALCULATED TO THE DRIP LINE OF BUILDINGS. DRIP LINES ARE ASSUMED 1' BEYOND WALL LINES.
2. THIS PLAN IS NOT A SURVEY. CONSULT AN LLS OR STAMPED PLAT FOR PROPERTY LINE INFORMATION. USE OF THIS PLAN FOR BOUNDARY INFORMATION IS A VIOLATION OF STATE LAW. SEE SUBDIVISION PLAT ON FILE IN THE COUNTY REGISTRY OF DEEDS, P6 F1 #30 PF4

SILT FENCE DETAILS

NOT TO SCALE



PROPOSED SITE PLAN

0' 20' 40' 60'

SCALE 1" = 20'

LEGEND

Property Line
Disturbed area
Erosion control Fence
Existing Contour
New Contour
Sewer
Stone wall
Water Line
Water course
Force main
Well radius
Culvert
Zoning setback
Reference line
50' from reference
150' from reference
250' from reference
Tree
Building
Undisturbed area 50'-150' setback
Wetlands

OWNERS: ANDREW AND ANGELA NEILSON

TAX MAP/LOT: 235/83 BOOK/PAGE: 1575/758

ADDRESS: EDGEMONT ROAD

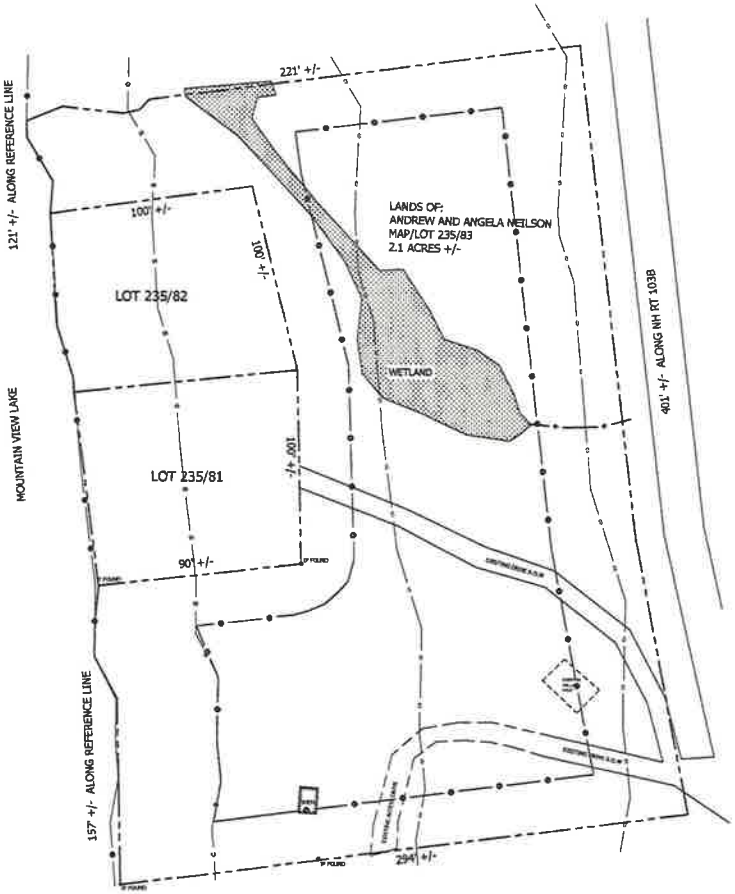
CITY: SUNAPEE

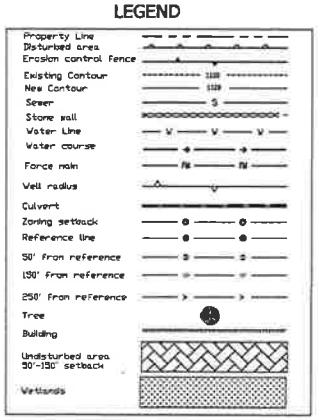
DATE: DECEMBER 20 2018

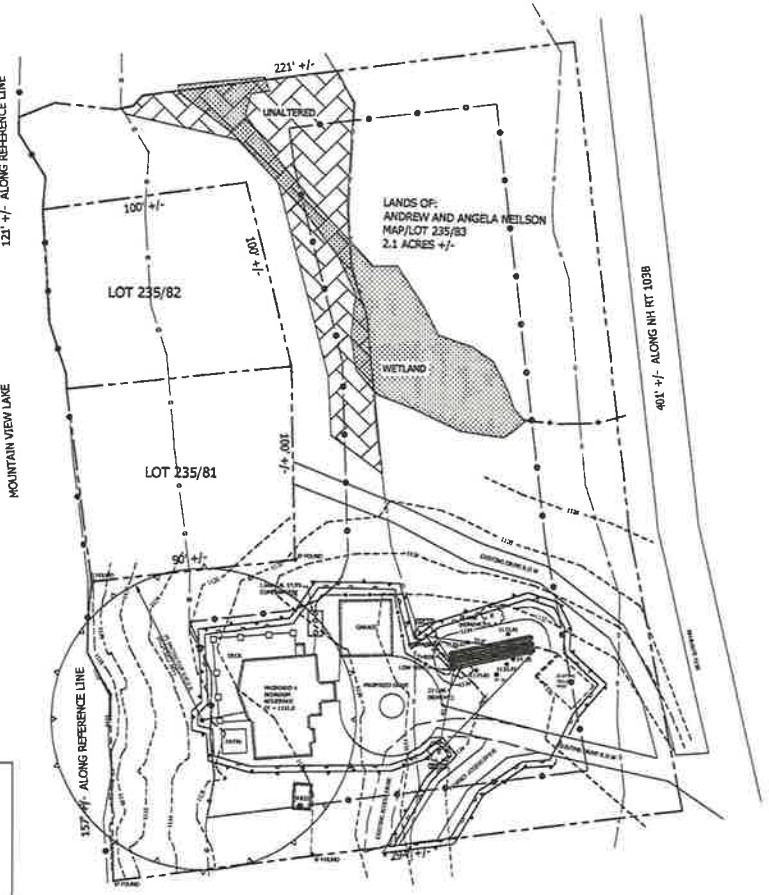
REVISIONS:
1. _____
2. _____
3. _____
4. _____
5. _____

SHORELAND TREE PLAN
SHEET 1 OF 2

HOGG HILL
DESIGN, L.L.C.
PO BOX 509
BETHEL VT 05032
chris@hogghilldesign.com 603-464-9501
NEW HAMPSHIRE DESIGNERS LICENSE #1674
VERMONT DESIGNERS LICENSE # 554







SHORELAND PROTECTION PLAN
SCALE AS NOTED

SHORELAND - PLAN
SHEET 2 OF 2

OWNERS: ANDREW AND ANGELA NEILSON
TAX MAP/LOT: 235/83 BOOK/PAGE: 1975/758
ADDRESS: EDGEMONT ROAD
CITY: SUNAPEE
DATE: DECEMBER 20 2010

REVISIONS:
1. _____
2. _____
3. _____
4. _____
5. _____

HOGG HILL
DESIGN, L.L.C.
PO BOX 525
BETHEL VT 05032
chris@hogghilldesign.com 603-464-9801
NEW HAMPSHIRE DESIGNERS LICENSE #1674
VERMONT DESIGNERS LICENSE # 554

Memo

Date:	March 28, 2019
To:	Michael Marquise, Planner
From:	Nicole Gage, Zoning Administrator
CC:	Zoning Board of Adjustment
	William Wightman, Property Owner
Re:	Statement of Property Usage & ZBA Application #19-06

Here is the Statement of Property Usage for the Planning Board to review and sign. I have enclosed copies of the correspondence, ZBA materials, and what history I could find on this property. The ZBA and Planning Board may find this information useful.

This is coming before the ZBA on April 18th for a Special Exception to rebuild the storage/workshop area, which is nonconforming due to being too close to the side and front setback. The proposal is to build a 2-story structure with rooftop garden-type area.

TOWN OF SUNAPEE
STATEMENT OF PROPERTY USAGE

1. Owner's Name: William Wightman
   Address (Mail): PO Box 304
   Sunapee, NH 03782

2. Phone: 603-763-8732 hm
   603-381-1662 cell

3. Property Location: 25 Main St. By: _____
   Parcel ID: ~~Map #26 / Lot #29~~ 0129-0081-0000

4. CURRENT USE OF PROPERTY:
   a. Describe in detail the current use of Property:
   Currently Commercial Space consists of the lower level of the dwelling that can be viewed as two main sections:
      1. An area directly below an upper living area (23' x 35'). This area is used as a office/music studio for production and teaching services.
      2. An area within the structure to be renovated (22' x 52'). This area is used for construction and storage services.
   b. # of Employees (none)
   c. Square Feet of Commercial Space:
      1. 23' x 35' = 805 sq. ft. – office/service
      2. 22' x 52' = 1,144 sq. ft. - service
      Total: 1,949 sq. ft.
   d. Hours of Operation: (varied)

5. PROPOSED USE OF PROPERTY:
   a. Describe in detail the proposed use of Property:
   The use of the property would essentially remain the same with the same described activities. The advantage of the renovation is to allow for garage areas and an upper storage/work area above the existing "garage bays" area as indicated on the provided survey.
   b. # of Employees (none)
   c. Square Feet of Commercial Space:
      1. 23' x 35' = 805 sq. ft. – office/service
      2. 22' x 52' = 1,144 sq. ft. – storage/service
      Total: 1,949 sq. ft.
   d. Hours of Operation: (varied)

6. Certification/Permission for Inspection: To the best of my knowledge the above is true and accurate. I hereby grant permission for site inspection to Planning or Zoning Officials.

William Wightman 3/15/19
Signature of Landowners

Property Changes Noted

1.	Increase in Employees?	Yes ____	No X
2.	Increase in Business Area?	Yes ____	No X
3.	Increase in Use Intensity?	Yes ____	No X
4.	Increase in Days/Hours Operation	Yes ____	No X

Town Planner's Comments

IT SEEMS FROM THE NARRATIVE THAT ADDITIONAL AREA WILL BE EFFECTIVELY CREATED WHICH MAY INCREASE USE COMMERCIALLY. RECOMMEND A CONSULT WITH PB TO MAKE DETERMINATION.

Signature

3-20-19
Date

Zoning Administrator's Determinations

Based on the above data, findings, and comments, it is recommended that

____ (1) the applicant should apply for a Site Plan Review Hearing

✓ (2) the applicant should consult with the Planning Board to determine if a Site Plan Review Hearing is required.

____ (3) the applicant may move forward with the conversion without applying to the Planning Board for Site Plan Review as no use increase or other impacts have been identified.

Nick

Signature

3/22/2019
Date

Planning Board Decision (As Per #2 Above)

Based on the information provided by the applicant, the recommendations above, and as a result of review and discussion by the Planning Board, it is the opinion of the Board that this project **will/will not** require a Site Plan Review Hearing for the proposed conversion.

Signature

Date

CORRESPONDENCE

Zoning

From: Zoning
Sent: Thursday, March 28, 2019 11:30 AM
To: 'Bill Wightman'; Michael Marquise
Subject: RE: April 11th Planning Board meeting?

Thank you Bill. I am going to share this information with the Planning Board and Zoning Board of Adjustment to assist them with their upcoming meetings. Talk to you soon.

CC: Michael Marquise, Town Planner

Nicole Gage
Zoning Administrator
Town of Sunapee, NH
23 Edgemont Rd., Sunapee, NH 03782
Email zoning@town.sunapee.nh.us / Web www.town.sunapee.nh.us
Direct (603) 763-3194 / Town Office (603) 763-2212

From: Bill Wightman <bill.wightman@comcast.net>
Sent: Friday, March 22, 2019 5:49 PM
To: Zoning <zoning@town.sunapee.nh.us>; Michael Marquise <Michael@town.sunapee.nh.us>
Subject: Re: April 11th Planning Board meeting?

Hi Nicole,

Thanks for your timely work on this project and your questions.
I've provided some answers below:

1. What is a "construction and storage service"? Can you provide more description? What type of items would be stored? What type of service would be offered? Etc.

Wightsteeple Productions has provided and continues to provide a number of different services. These have and will continue to included construction services as well as musical and theatrical educational productions and programs. These services are most always conducted off-site, i.e., at businesses or homes, or in schools. I have also conducted on-site services including construction shop work and music production work (i.e., recordings and lessons).

The structure to be renovated has been used predominantly as a shop for these services and for storage of theatrical and musical equipment. With the provision of the garage area, it is intended that the upper area will provide for the space that the new garage area will displace. Essentially, there will not be an increase in the space used commercially. It would only be transferred.

2. Is this a new business?

No, this is not a new business – the services will remain the same.

3. Can you please provide a layout and a list of current and proposed square footage for each use (apartment, office, and construction/storage services).

The square footage of commercial use below the living area will remain the same and continue to be 805 square feet (23' x 35').

The square footage of the commercial use of the structure to be renovated will also remain the same. The current area is approx. 1,144 square feet (22' x 52'). Of that, approx. one half will be converted into garage space and that area will be transferred to the upper level. The additional space above (over the garages) will be unable to be used as it will lack sufficient headroom due to the garage doors below.

4. Is the storage area that you want to covert, is that heated? Or is there livable space there now?

The current shop space has heat and it is planned that these new spaces will have heat of some kind. None of the renovated space is consider as living space.

5. Do you propose to use the new rooftop design for activities related to the businesses?

It is not intended that the rooftop design be for business related activities.

Thanks,
Bill

Bill Wightman, Owner / Director
Wightsteeple Productions
PO Box 304, 25 Main St.
Sunapee, NH 03782
603-381-1662 Cell
603-763-8732 Home Office
bill.wightman@comcast.net
www.josajazz.com

Zoning

From: Zoning
Sent: Friday, April 6, 2018 2:02 PM
To: bill.wightman@comcast.net
Subject: 25 Main St

Hi Bill.

To expand beyond the building envelope (the exact box that's there), and to change the use from a storage/utility area to garage bays and shop, I recommend the following:

1) Complete a Statement of Property Usage, to be reviewed by the Planning Board, to see if a Site Plan Review will be required.. Here is a link to the online form: http://www.town.sunapee.nh.us/Pages//SunapeeNH_Planning/Property%20Usage%20Form.pdf
2) Contact Scott Hazelton, Highway Department, to discuss the requirements for a Driveway Permit to enter the proposed garage bays
3) Request a Special Exception from the Zoning Board, Part Article VI, 6.12, to allow you to expand a Pre-Existing, Non-Conforming structure beyond the existing building envelope (ie, go up a little higher, and possibly fill in the crawl space below) when you replace or reconstruct the structure. 6.12 allows you to do expand beyond the envelope by either Variance or Special Exception. A special Exception is much more straightforward, and the Zoning Board can refer to 3.50 (f) and 3.55, 1-2 for the criteria to grant a special exception.
4) Apply for a permit to construct (Certificate of Zoning Compliance) once you get your Special Exception.

Nicole Gage
Zoning Administrator
Town of Sunapee, NH
Email zoning@town.sunapee.nh.us / Web www.town.sunapee.nh.us
Direct (603) 763-3194 / Town Office (603) 763-2212

PROPERTY CARD

Property Location: 25 MAIN ST | **MAP ID:** 0129/ 0081/ 0000/ / | **Bldg Name:** | **State Use:** 3400

Vision ID: 1297 | **Account #** 2666 | **Bldg #:** 1 of 1 | **Sec #:** 1 of 1 | **Card** 1 of 1 | **Print Date:** 02/04/2019 11:03

CURRENT OWNER	TOPO.	UTILITIES	STRT./ROAD	LOCATION
WIGHTMAN, WILLIAM	4 Rolling	2 Public Water	1 Paved	3 Rural
PO BOX 304		3 Public Sewer		
SUNAPEE, NH 03782-0304				
Additional Owners:				

SUPPLEMENTAL DATA

Other ID:	0129-0081-0000	PP	
SEPTIC APPR		LAKE FRON	
UTILITY		LOT DEPTH	
DES PERMITS		MULTIPLE	
Routing #	1634		
SUBDIVISION			
GIS ID:	0129-0081-0000	*ASSOC PID#*	

CURRENT ASSESSMENT

Description	Code	Appraised Value	Assessed Value
COMMERC.	3400	74,500	74,500
COM LAND	3400	106,100	106,100
COMMERC.	3400	4,600	4,600
	Total	185,200	185,200

2413 SUNAPEE, NH

VISION

RECORD OF OWNERSHIP	BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
WIGHTMAN, WILLIAM	1119/ 620	05/28/1997				

PREVIOUS ASSESSMENTS (HISTORY)

Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
2018	3400	74,500	2018	3400	74,500	2017	3400	74,500
2018	3400	106,100	2018	3400	106,100	2017	3400	106,100
2018	3400	4,600	2018	3400	4,600	2017	3400	4,600
	Total:	185,200	*Total:*		185,200	*Total:*		185,200

EXEMPTIONS

Year	Type	Description	Amount
		Total:	

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
0001/A				

NOTES

1. WIGHT STEEPLE PRODUCTIONS
2. 1 BD RM APT FUNC=PARKING

PARKING AN ISSUE UST TO LEFT

4/08 DORMERS ADDED, INT OF TQS OPEN STUD

NO SIDING CHK 09 4/11-EST 100 % COMPLETE

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	74,500
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	4,600
Appraised Land Value (Bldg)	106,100
Special Land Value	0
Total Appraised Parcel Value	185,200
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	185,200

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments
2408	06/18/2007	AD	Addition	0	09/01/2011	100	04/01/2011	9.5 X 27 2ND STORY DC

VISIT/ CHANGE HISTORY

Date	Type	IS	ID	Cd.	Purpose/Result
09/02/2015			NB	FR	IN FIELD REVIEW
09/20/2011			MP	ZC	ZONING CHANGE
09/01/2011			NB	BP	BUILDING PERMIT
04/20/2010			MC	BP	BUILDING PERMIT
09/10/2009			NB	AC	ADMIN DATA ENTRY

LAND LINE VALUATION SECTION

B #	Use Code	Use Description	Zone	D	Front	Depth	Units	Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing	S Adj Fact	Adj. Unit Price	Land Value
1	3400	OFFICE BLD MDL-94	VC				8,712 SF	5.41	1.5000	6	1.0000	1.50		0.00	LOCATION		1.00	12.18	106,100

Total Card Land Units: 0.20 AC | **Parcel Total Land Area:** 0.2 AC | **Total Land Value:** 106,100

Property Location: 25 MAIN ST | **MAP ID:** 0129/ 0081/ 0000/ / | **Bldg Name:** | **State Use:** 3400

Vision ID: 1297 | **Account #** 2666 | **Bldg #:** 1 of 1 | **Sec #:** 1 of 1 | **Card** 1 of 1 | **Print Date:** 02/04/2019 11:03

CONSTRUCTION DETAIL

Element	Cd.	Ch.	Description
Style	81		Office/Apt
Model	94		Commercial
Grade	02		Below Average
Stories	1		
Occupancy	2		
Exterior Wall 1	11		Clapboard
Exterior Wall 2			
Roof Structure	03		Gable/Hip
Roof Cover	03		Asph/F Gls/Cmp
Interior Wall 1	03		Plastered
Interior Wall 2	07		K PINE/A WD
Interior Floor 1	09		Pine/Soft Wood
Interior Floor 2	14		Carpet
Heating Fuel	02		Oil
Heating Type	04		Forced Air-Duc
AC Type	01		None
Bldg Use	3400		OFFICE BLD MDL-94
Total Rooms			
Total Bedrms			
Total Baths			
Heat/AC	00		NONE
Frame Type	02		WOOD FRAME
Baths/Plumbing	01		LIGHT
Ceiling/Wall	06		CEIL & WALLS
Rooms/Prtns	02		AVERAGE
Wall Height	8		
% Comn Wall			

CONSTRUCTION DETAIL (CONTINUED)

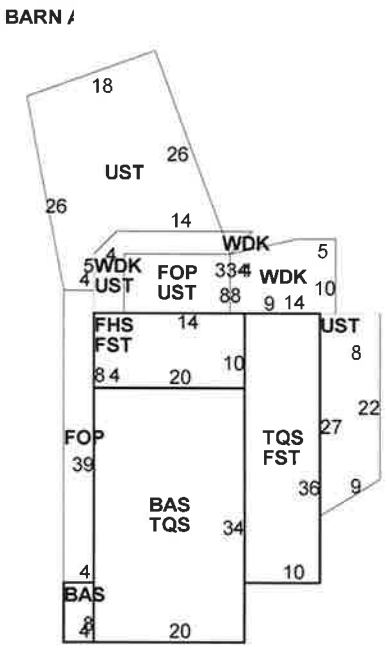
Element	Cd.	Ch.	Description

MIXED USE

Code	Description	Percentage
3400	OFFICE BLD MDL-94	100

COST/MARKET VALUATION

Adj. Base Rate:	68.83
	148,952
Net Other Adj:	0.00
Replace Cost	148,952
AYB	1900
EYB	1990
Dep Code	A
Remodel Rating	
Year Remodeled	
Dep %	50
Functional Obslnc	
External Obslnc	0
Cost Trend Factor	1
Condition	
% Complete	
Overall % Cond	50
Apprais Val	74,500
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
BRN1	BARN - 1 STOI			L	455	20.00	1900		0		50	4,600

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	712	712	712		49,008
FHS	Half Story, Finished	200	200	100		6,883
FOP	Porch, Open, Finished	0	268	67		4,612
FST	Utility, Finished	0	560	224		15,418
TQS	Three Quarter Story	1,040	1,040	780		53,689
UST	Utility, Storage, Unfinished	0	864	259		17,827
WDK	Deck, Wood	0	217	22		1,514
	Ttl. Gross Liv/Lease Area:	1,952	3,861	2,164		148,952

HISTORY

NO. 500

TOWN OF SUNAPEE , N.H.

CERTIFICATE OF ZONING COMPLIANCE

BASED ON THE ZONING ORDINANCE AND ADOPTED ADMINISTRATIVE PROCEDURES THE APPLICANT:

CHARLES W. WEINSTEIN
NAME

P.O. BOX 22, Sunapee, NH 03782
ADDRESS

HAS BEEN GRANTED /~~XDENIED~~ THIS CERTIFICATE FOR THE PROPOSED DEVELOPMENT OF Leveling the shed roof to serve as exit and flat deck.

ON LAND DESCRIBED AS Map 26 Lot 29 Main Street

IN THE TOWN OF SUNAPEE TAX RECORDS.

REASON FOR DENIAL _____

October 1, 1990
DATE

BOARD OF SELECTMEN

RECEIVED
JUN 28 1997

TOWN OF SUNAPEE

SIGN PERMIT APPLICATION

Please Print Clearly or Type

No. 235

Name Bill Wightman

Address PO Box 300
New London, NH 03257

Phone 763-8732

Street Location 25 Main St.

Map # 26 Lot # 29

Number of Signs Proposed 2

Area of Sign #1 .9 sq ft (18" x 72")

Area of Sign #2 6 sq. ft. (32" x 24")

Total Area of Proposed Signs 15 sq. ft.

Total Area of Existing Signs on Property 0

General Description of Proposed Signs (inc. Lighting, Location, Dimensions, etc.)

one sign on bracket (#2)
one sign on bld. (#1)

To the Best of my Knowledge the above is True and Correct

William Wightman
Owner's Name

6/27/97
Date

For Office Use Only

I Do [redacted] recommend this application for approval pursuant to Article V of the Zoning Ordinance.

Zoning Administrator

7-3-97
Date

The Applicant is **Granted/**[redacted] a Permit for the Placement of a Sign subject to the following **Conditions** or **Reasons for Denial.**

Date July 7, 1997

Board of Selectmen

Frederick C. Gallup
Jean W. Tuttle
William H Chaloner

2408
Permit Number

Town of Sunapee
Decision Sheet

434
Census Code

Landowner(s) Name: William Wightman

Findings:

Lot Coverage: N/C Percent: —

Soil Type: — Class: —

Septic Approval: Town Sewer No. of Beds: —

Non-conforming Lot or Structure? ______

Energy Permit Approved? —

Flood Zone? No

Map/Lot: 129/81

Street Location: 25 Main St

Recommended Action:

Not Applicable (No permit required) ______

Approval ✓ Denial ______

Reasons for Denial:

1.) ______

2.) ______

[signature] 6/17/07
Signature of Zoning Administrator Date

Zoning Board Appeal

Date of Hearing: ______ Case No. ______

Action of Board: ______

Signature of ZBA Chair ______ Date ______ Zoning Administrator Concurrence ______

Certificate of Zoning Compliance

Based on the Zoning Ordinance and adopted administrative procedures, the applicant William Wightman is hereby GRANTED/~~DENIED~~ a Certificate of Compliance for property at Map 129 Lot 81 of the Sunapee Tax Records for a 9½ x 27' 2nd Story Dormer Heated Living Space For BR. & Bath

Certificate of Compliance expires: 6/18/08

Not Applicable (No permit required): ______

Anna M. Smith [signature]

[signature]

[signature]

William Roach [signature]

Richard C. [signature]

6/18/07

ZBA APPLICATION FOR APRIL 18, 2019

TOWN OF SUNAPEE
ZONING BOARD OF ADJUSTMENT

Description of proposed use, showing justification for a Special exception as specified in the Zoning Ordinance, Article **III** Section **3.50i**

It is requested that the portion of the pre-existing, non-conforming structure, located at 25 Main St., located along the 'gateway' to Sunapee Harbor, be approved for an improvement renovation as described below. Having purchased this property from former Selectperson, Charles Weinstein in 1997, I have slowly been upgrading its appearance and this renovation represents a final phase of those efforts that will provide a number of solutions a numerous issues:

1. The structure is in need of work from both an aesthetic and a functional perspective. This renovation will address both of these.

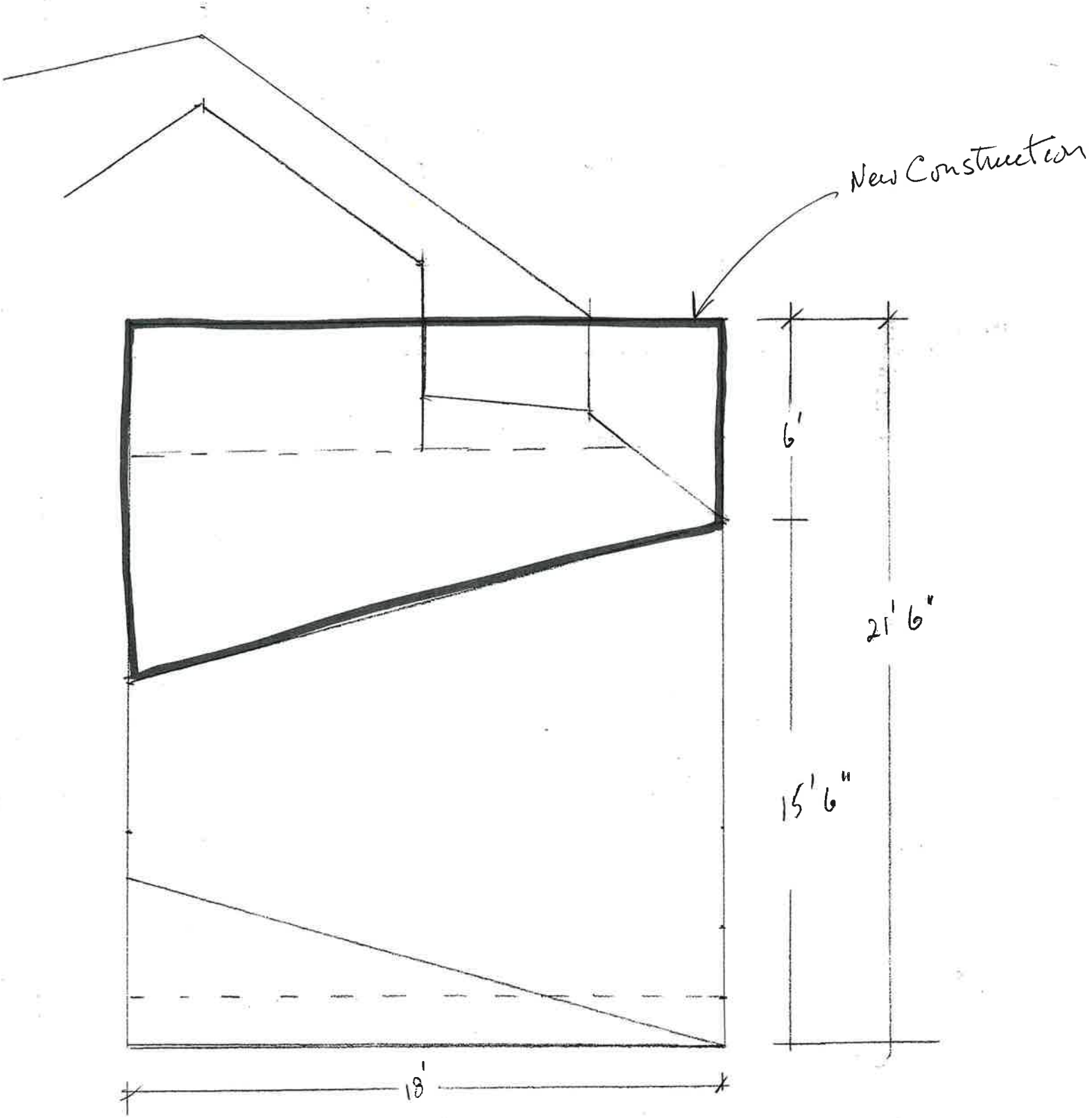
2. When purchased, Mr. Weinstein described the property as having 3 to 4, town approved parking spaces along the Main St. side of the building. While this allows for parking throughout most of the year, it does not allow for parking during winter months when I'm required to park off the street in a lot where I have arranged permission from John Wiggins to do so. These proposed renovations will re-activate the garage function with two 8' bays located directly adjacent to the main part building and remedy the winter parking issue.

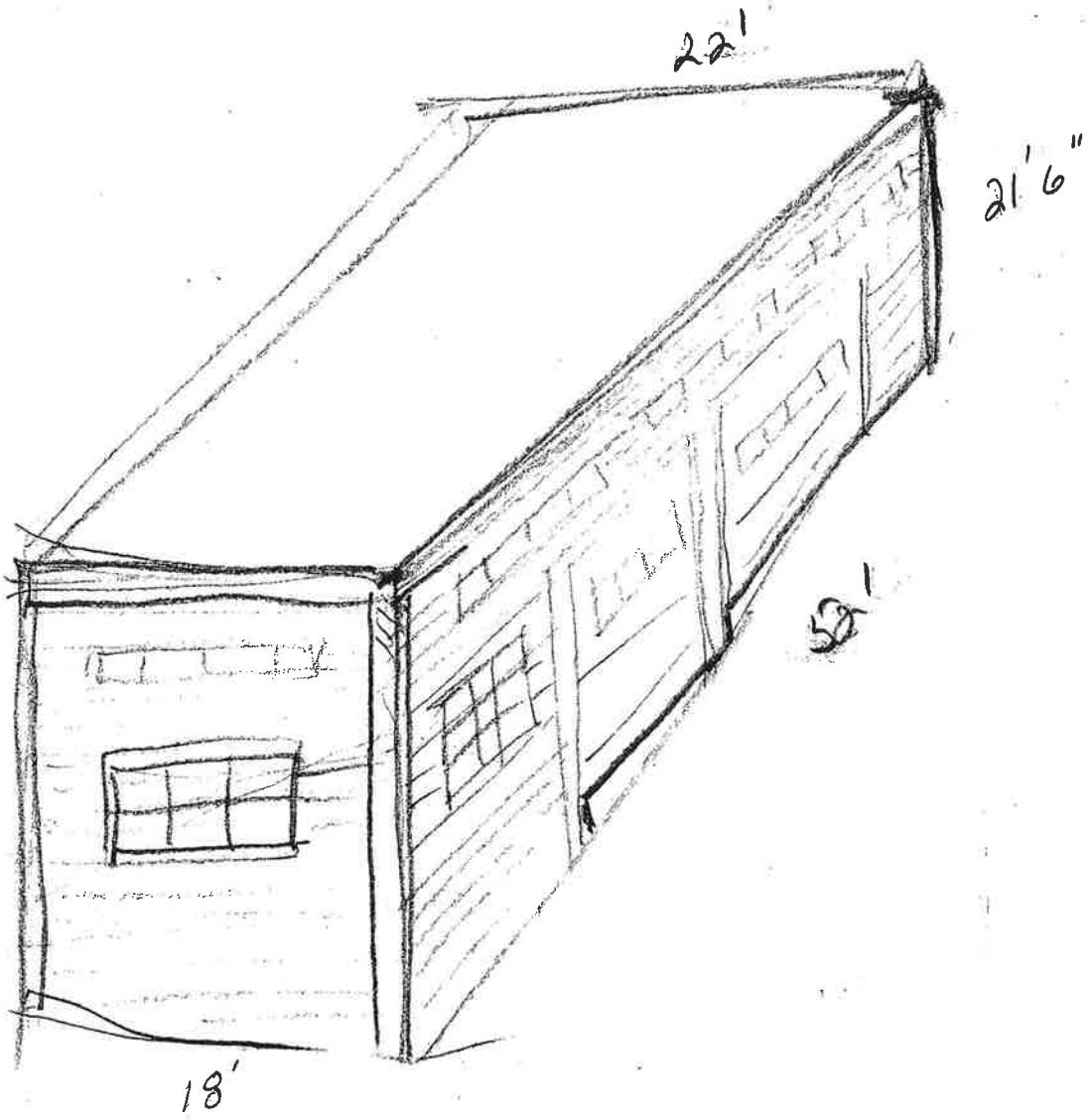
3. The structure is currently used in a commercial sense by Wightsteeple Productions as a shop for any off-site construction activities. It would continue to be used as such but in a far more efficient way and with a far more attractive exterior.

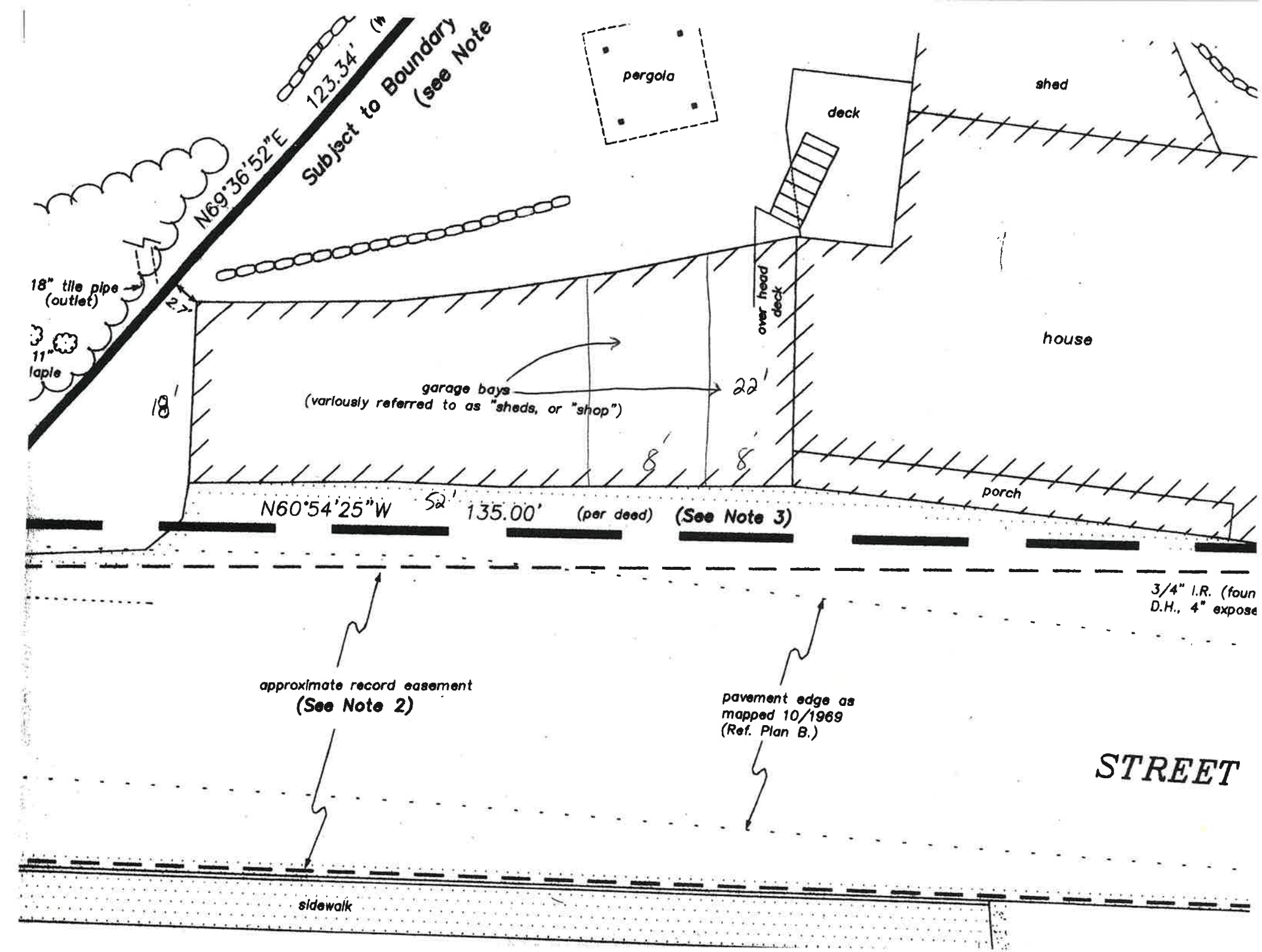
4. Plans for the renovation are being designed at LaValleys Building Supply to assure compliance with structural integrity and building codes. New plans show an increase of six (6) feet in total height to allow for use of a 2nd story for additional shop space and storage. Discussions with the designers included a flat roof that could allow for a roof-top garden in alignment with current environmental and ecological building uses.

5. The new structure would remain within the existing footprint but the envelope would increase in height by 6 feet. In reference to the noted Article and Section, it appears this renovation would be in compliance with each of the Section's noted requirements.

ZBA application for 4-18-2019 hearing

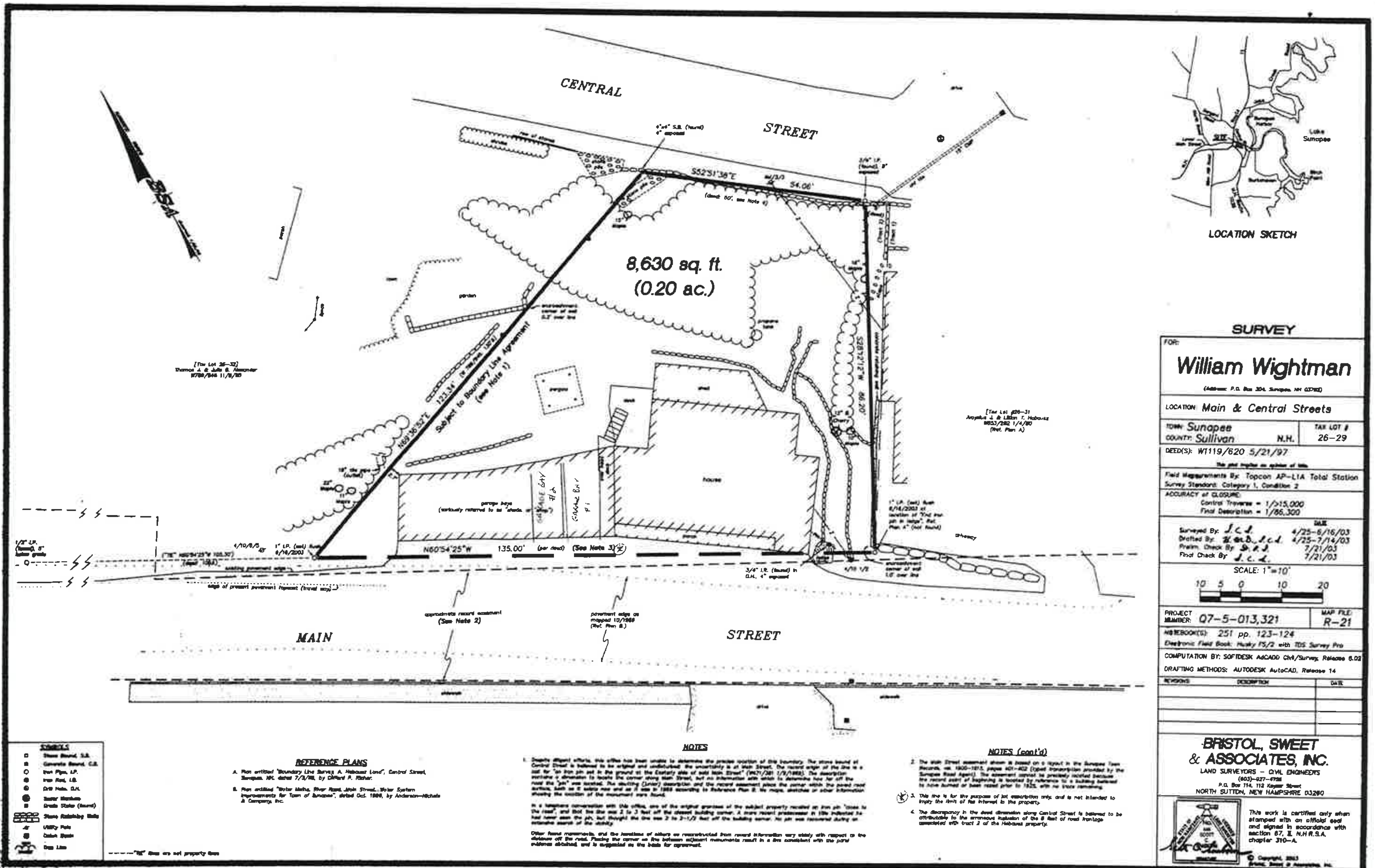

New Construction
6'
21' 6"
15' 6"
18'


22'
21'6"
52'
18'


123.34'
Subject to Boundary
(see Note
N69°36'52"E
pergola
deck
shed
18" tile pipe
(outlet)
2'
11"
laple
over head
deck
house
garage bays
(variously referred to as "sheds, or "shop")
18'
22'
8'
8'
porch
N60°54'25"W
52'
135.00'
(per deed)
(See Note 3)
3/4" I.R. (foun
D.H., 4" expose
approximate record easement
(See Note 2)
pavement edge as
mapped 10/1969
(Ref. Plan B.)
STREET
sidewalk

victorian flat roof co...

Types of Roof Construction | Roof Construction Basics | Flat Roof Construction | Small Roof Construction


CENTRAL
STREET
MAIN
STREET
8,630 sq. ft.
(0.20 ac.)
S52°31'38"E
54.06'
N60°54'25"W
135.00'
(See Note 3)
123.34'
Subject to Boundary Line Agreement
(see Note 1)
S28°12'12"W
86.20'
house
LOCATION SKETCH
SURVEY
FOR:
William Wightman
LOCATION: Main & Central Streets
TOWN: Sunapee
COUNTY: Sullivan
N.H.
TAX LOT #
26-29
DEED(S): W1119/620 5/21/97
Field Measurements By: Topcon AP-L1A Total Station
ACCURACY of CLOSURE:
Control Traverse = 1/215,000
Final Description = 1/86,300
SCALE: 1"=10'
10
5
0
10
20
PROJECT NUMBER: Q7-5-013,321
MAP FILE: R-21
NOTEBOOK(S): 251 pp. 123-124
COMPUTATION BY: SOFTDESK AdCADD Civil/Survey, Release 6.02
DRAFTING METHODS: AUTODESK AutoCAD, Release 14
REVISIONS
DESCRIPTION
DATE
BRISTOL, SWEET
& ASSOCIATES, INC.
LAND SURVEYORS - CIVIL ENGINEERS
NORTH SUTTON, NEW HAMPSHIRE 03260
REFERENCE PLANS
NOTES
NOTES (cont'd)
SYMBOLS