DM ROMA
CONSULTING ENGINEERS

May 21, 2018

Amanda Lessard, Town Planner
Town of Windham
8 School Road
Windham, ME 04062

Re: Amendment to Approved Subdivision Plan
Sabatus Lane Subdivision
Grondin Corporation - Applicant

Dear Amanda:

On behalf of Grondin Corporation we have prepared the enclosed revised plans to amend the Subdivision Approval for the Sabatus Lane Subdivision, which was approved by the Planning Board in March of 2018. The nature of the request is to revise the tree clearing limits on Lots 1, 3, 4, 5, 8, 9, 10, 11, 12 ,13, 14 and 15 to allow for a more suitable building envelope on each lot. The previous plans assumed a relatively modest building envelope, but the current developer intends to build slightly larger homes which require the clearing limits to be extended to accommodate a reasonable size yard and building envelope.

The existing stormwater treatment measures consist of stone-berm level spreaders draining to a forested buffer, forested buffers located downhill of a residential lot and roofline dripedges. Stormwater Buffer and Level Spreader 2 needed to be lengthened and an additional level spreader was needed in the general location of Level Spreader 1 to mitigate for the expanded lot clearing limits. Tables have been included to demonstrate that the proposed modifications to the plans and stormwater treatment tables have been designed in accordance with the Town's standards.

In addition to the road and lot construction, a recreational field will be built in the Open Space with a footprint of approximately 105,330 square feet. The field is to be graded with a relatively flat slope (2% max.) and to be loamed and seeded. This flat slope will allow the runoff generated by the developed area to infiltrate into the ground. Any excess runoff is directed to natural forested buffers surrounding the field, providing adequate treatment prior to entering the wetlands.

Included in this submission is the application form, the revised design plans and the revised Stormwater Management Report. Upon your review of this information, please let us know if you have any questions or require any additional information.

Sincerely,

DM ROMA CONSULTING ENGINEERS

Dustin M. Roma

Dustin M. Roma, P.E.
President

PO Box 1116, Windham, ME 04062 ○ (207) 310-0506 ○ dustin@dmroma.com

TOWN OF WINDHAM
MAJOR SUBDIVISION APPLICATION

Final Plan

(Section 910 – Subdivision Review, Submission Requirements)

The original signed copy of this application must be accompanied by:

- The required application and review escrow fees,
- Five (5) collated submission packets, which must include
  - Full size paper copies of each plan, map, or drawing, and
  - A bound copy of the required information found in Section 910 of the Land Use Ordinance.
    - The checklist below offers a brief description of these requirements for the purpose of determining the completeness of a submission. Please use the Ordinance for assembling the submission packets.
- Electronic submission in PDF format of:
  - All plans, maps, and drawings.
    - These may be submitted as a single PDF file or a PDF for each sheet in the plan set.
  - A PDF of the required information found in Section 910 of the Land Use Ordinance

The submission deadline for Final plans is three (3) weeks before the Planning Board meeting for which it will be scheduled.

Applicants are strongly encouraged to schedule a brief submission meeting with Planning Staff, to walk through the application checklist at the time a Planning Board submission is made. This will allow applicants to receive a determination of completeness, or a punch list of outstanding items, at the time a submission is made.

If you have questions about the submission requirements, please contact:

Windham Planning Department	(207) 894-5960, ext. 2
Amanda Lessard, Planner	allessard@windhammaine.us
Ben Smith, Planning Director	bwsmith@windhammaine.us

Project Name: SABATUS LANE SUBDIVISION

Tax Map: 11 **Lot:** 12

Number of lots/dwelling units: 17 **Estimated road length:** 800'

Is the total disturbance proposed > 1 acre? ☒ **Yes** □ **No**

Contact Information

1. Applicant

Name: GRONDIN CORPORATION

Mailing Address: 39 BELANGER AVENUE, WINDHAM, MAINE 04062

Telephone: 207-749-6691 Fax: _____ E-mail: _____

2. Record owner of property

☒ (Check here if same as applicant)

Name: _____

Mailing Address: _____

Telephone: _____ Fax: _____ E-mail: _____

3. Contact Person/Agent (if completed and signed by applicant's agent, provide written documentation of authority to act on behalf of applicant)

Name: DUSTIN ROMA, PE

Company Name: DM ROMA CONSULTING ENGINEERS

Mailing Address: PO BOX 1116, WINDHAM, MAINE 04062

Telephone: 207-310-0506 Fax: _____ E-mail: DUSTIN@DMROMA.COM

I certify all the information in this application form and accompanying materials is true and accurate to the best of my knowledge.

Dustin M. Roma 5-21-18

Signature Date

Applicant Staff

Final Plan - Major Subdivision: Submission Requirements			
A.	**Mandatory Written Information**		
1	A fully executed application form	X	
2	Evidence that the escrow account balance is greater than 25% of the initial Preliminary Plan deposit	X	
3	If public open space is to be provided, written offers of cession to the Town of Windham shall be provided	X	
4	If the subdivider reserves title to spaces within the subdivision, provide copies of agreements or other documents.	X	
5	Copies of any outside agency approvals	N/A	
6	Statement from the Maine Inland Fisheries & Wildlife that no significant wildlife habitat exists on the site	N/A	
7	Digital transfer of subdivision plan data (GIS format)	X	
B.	**Mandatory Plan Information**		
1	All information presented on the Preliminary Plan, and any amendments suggested or required by the Board.	X	
2	Map and lot numbers for all lots as assigned by the Town of Windham Assessing Department	X	
3	Seal of the Maine Licensed Professional who prepared the plan	X	
4	All public open space for which offers of cession are made by the subdivider and those spaces to which title is reserved by the subdivider	X	
5	Location of all permanent monuments	X	

Electronic Submission	X	

STORMWATER MANAGEMENT REPORT

SABATUS LANE SUBDIVISION
WINDHAM, MAINE

A. Narrative

Grondin Corporation is proposing to develop a 28-acre parcel at the end of Sabbatus Lane in Windham. The project site is identified as Lot 12 on Town of Windham Assessors Map 11 and is located in the Farm Zoning District.

The development will consist of 17 single family residential lots including the construction of approximately 700 linear feet of paved roadway, utilities and stormwater infrastructure. The development will be served by public water, private subsurface septic and underground electric, telephone and cable. The property is currently undeveloped woods. In general, the site drains to two wetland areas located in the center of the property. These wetland areas drain south off the property eventually discharging to Dundee Pond.

B. Alterations to Land Cover

The property is currently an undeveloped wooded lot. The proposed roadway will generate approximately 25,110 square feet of new impervious surface and approximately 44,600 square feet of developed area. The lot development will generate an additional 44,595 square feet of impervious surface and a developed area of 277,130 square feet of developed area. In addition to the road and lot construction, a recreational field will be built with a developed area of approximately 105,330 square feet. The entire development will create a total of approximately 69,705 square feet of new impervious area and a total developed area of approximately 427,060 square feet. The site has a wide range of slopes. Areas in the lower drainage areas and wetlands are relatively flat (3-5%) with areas that are more moderately sloped (8-15%) in the uplands. The onsite soils as identified on the Medium Intensity Soil Maps for Cumberland County, Maine published by the Natural Resources Conservation Service are listed below in Table 1 and included as on the enclosed Soils Map identified as Attachment 1 of this report.

Table 1 – Onsite Soils

Map Unit Symbol	Soil Name	Hydrologic Soils Group
BgB	Belgrade Very Fine Sandy Loam	B
PbB, PbC	Paxton Fine Sandy Loam	C
Sn	Scantic Silt Loam	D
WmB	Windsor Loamy Sand	A

C. Methodology and Modeling Assumptions

The proposed stormwater management system has been designed utilizing Best Management Practices (BMPs) to maintain existing drainage patterns while providing stormwater quality improvement measures. The goal of the storm drainage design is to remove potential pollutants while promoting infiltration and filtration of runoff generated by the development.

D. Basic Standards

The project is required by the Town and the Maine Department of Environmental Protection (MDEP) to provide permanent and temporary Erosion Control Best Management Practices. These methods are outlined in detail in the plan set.

E. General Standard

It is the intention of the applicant to construct the roadway without developing the lots. Since the proposed roadway will generate less than 1 acre of new impervious surface and less than 5 acres of total developed area, a Chapter 500 Stormwater Permit from the Maine Department of Environmental Protection (MDEP) will not be required. Although the State of Maine doesn't require stormwater treatment under the Stormwater Permit, the Windham Land Use Ordinance still requires that projects requiring Subdivision Review shall comply with Section 4B-General Standards of the MDEP Chapter 500 Stormwater Management. This document outlines the requirement of the project to provide stormwater quality treatment for no less than 95% of the new impervious surface and 80% of the total new developed area associated with the project. The Town's Ordinance does require treatment for both the roadway and the lot development regardless of the applicant's development intentions. The water quality requirements will be met with the utilization of three stone berm level spreaders discharging to a forested buffer, a buffer adjacent to a single family residential lot, and roof dripedges installed on each of the proposed buildings.

The intention of the recreation field in the Open Space is to grade the land at a relatively flat slope (2% max.) and to be loamed and seeded. This flat slope will allow the runoff generated by the developed area to infiltrate into the ground. Any excess runoff is directed to natural forested buffers surrounding the field, providing adequate treatment prior to entering the wetlands.

As a result of the proposed stormwater infrastructure, the project provides water quality treatment for 95% of the site's new impervious surfaces and 85% of the new developed areas. Calculations can be found on the Treatment Plan and included as Attachment 2 of this report.

F. Flooding Standards

The Windham Land Use Ordinance requires that projects requiring Subdivision Review shall comply with Section 4E-Flooding Standards of the MDEP Chapter 500 Stormwater Management. Pursuant to Section 911.J.6 of the Town of Windham Land Use Ordinance we are requesting a waiver of the Flooding Standard for this project. The development has been designed to send more than 75% of the new impervious and new developed areas associated with the project to buffers or similar infiltration BMPs in accordance with DEP Chapter 500 Stormwater Management.

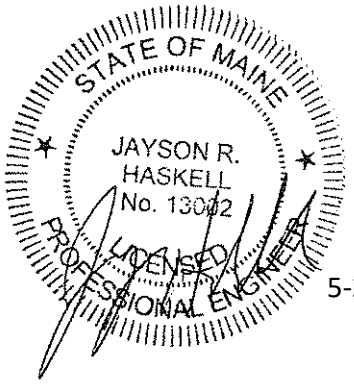
G. Maintenance of common facilities or property

The homeowner's association will be responsible for the maintenance of the stormwater facilities. Enclosed is an Inspection, Maintenance and Housekeeping Plan for the project.

Prepared by:

DM ROMA CONSULTING ENGINEERS

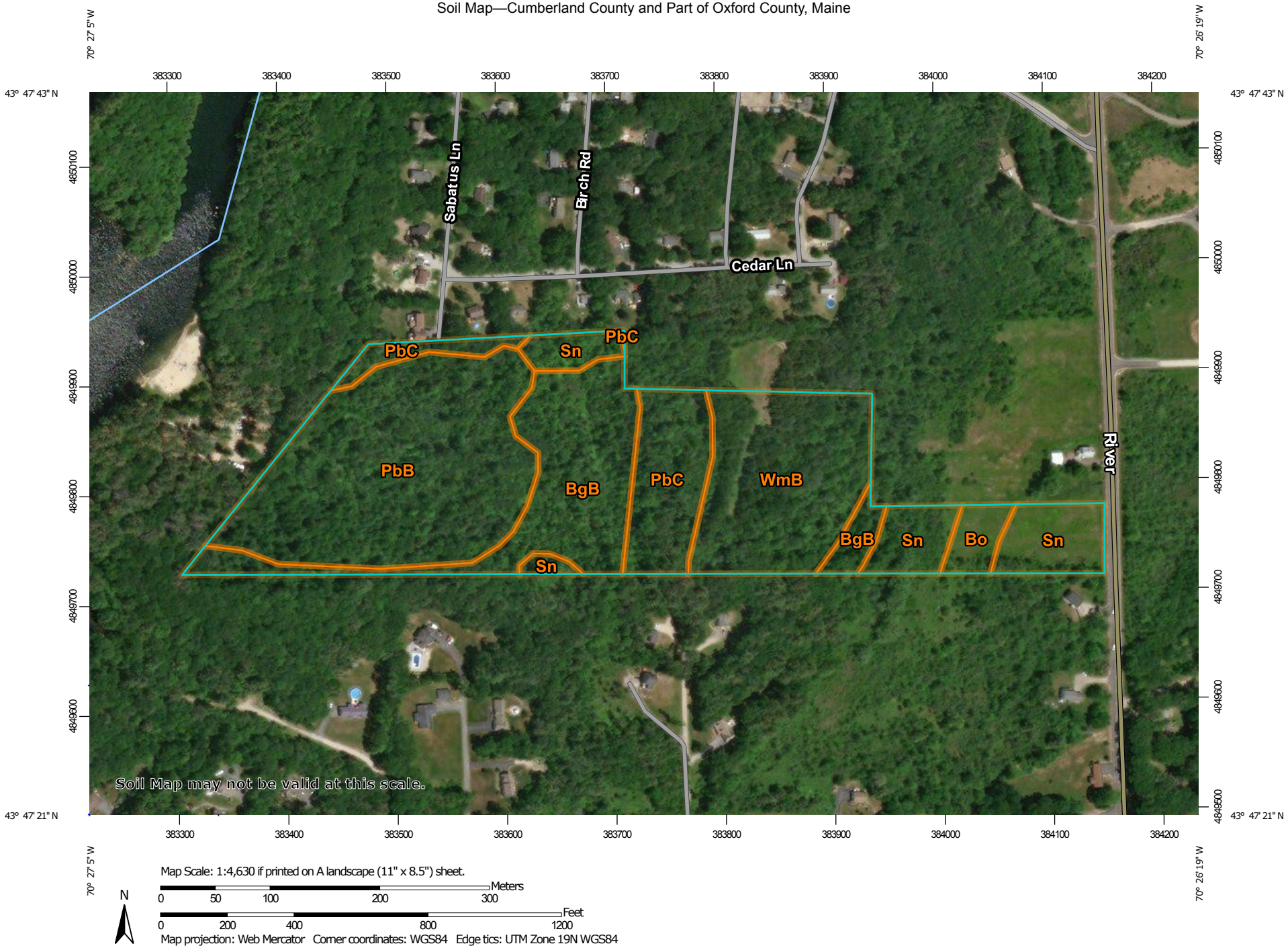
Jayson R. Haskell, P.E.
Southern Maine Regional Manager



5-21-18

ATTACHMENT 1

SOILS MAP



Map Scale: 1:4,630 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgB	Belgrade very fine sandy loam, 0 to 8 percent slopes	5.9	20.0%
Bo	Biddeford mucky peat, 0 to 3 percent slopes	0.7	2.4%
PbB	Paxton fine sandy loam, 3 to 8 percent slopes	10.4	35.1%
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	3.4	11.4%
Sn	Scantic silt loam, 0 to 3 percent slopes	3.4	11.5%
WmB	Windsor loamy sand, 0 to 8 percent slopes	5.8	19.6%
Totals for Area of Interest		**29.6**	**100.0%**

ATTACHMENT 2

STORMWATER TREATMENT CALCULATIONS

Stormwater Treatment Table

Sabatus Lane Subdivision

	Total Watershed Area (SF)	New Driveway and Road Impervious Area (SF)	New Building Area (SF)*	New Landscaped Area (SF)	Existing Undeveloped Area (SF)	Treatment Provided	New Impervious Area Treated In Treatment Device (SF)	New Landscaped Area Treated In Treatment Device (SF)	Treatment Device
WS-1A	89,800	14,180	7,100	63,035	5,485	Yes	14,180	63,035	Buffer 1
WS-1B	16,475	2,355	0	12,480	1,640	Yes	2,355	12,480	Buffer 2
WS-2	198,830	25,560	9,940	110,420	52,910	Yes	25,560	110,420	Buffer 2
WS-3	8,615	0	1,420	6,080	1,115	Yes	0	6,080	Buffer 3
WS-4	64,645	0	0	9,640	55,005	No	0	0	None
WS-5	125,010	0	2,840	18,720	103,450	No	0	0	None
WS-6	60,000	3,470	2,840	31,650	22,040	No	0	0	None
WS-7	105,330	0	0	105,330	0	Yes	0	105,330	Buffer 4
Total		**45,565**	**24,140**	**357,355**			**42,095**	**297,345**	

* All new buildings shall install a roofline drip edge to provide treatment for the rooftop impervious surface. The building's impervious area is included in the watershed and overall treatment calculations below, but not included in the BMP sizing calculations for each treatment device.

New Impervious Area =	69,705	sf
Impervious Area Requiring Treatment (95%) =	66,220	sf
Impervious Area Treatment Provided =	66,235	sf
	95%	New Impervious Area Treated
New Developed Area =	427,060	sf
Developed Area Requiring Treatment (80%) =	341,648	sf
Developed Area Treatment Provided =	363,580	sf
	85%	New Developed Area Treated

Forested Stormwater Buffer - Level Spreader LS-1A

Tributary Impervious Area =	14,180	sf	(WS-1A)
Tributary Landscaped Area =	63,035	sf	(WS-1A)

Soil:	Paxton
Class:	Fine Sandy Loam
HSG:	C
Slopes:	0-8%

Buffer Length=	100	ft
Berm Length Per Acre Impervious =	100	ft
Berm Length Per Acre Landscape =	30	ft
Required Berm Length:	76	ft
Provided Berm Length:	78	ft

Forested Stormwater Buffer - Level Spreader LS-1B

Tributary Impervious Area =	2,355	sf	(WS-1B)
Tributary Landscaped Area =	12,480	sf	(WS-1B)

Soil:	Paxton
Class:	Fine Sandy Loam
HSG:	C
Slopes:	0-8%

Buffer Length=	100	ft
Berm Length Per Acre Impervious =	100	ft
Berm Length Per Acre Landscape =	30	ft
Required Berm Length:	14	ft
Provided Berm Length:	20	ft

Forested Stormwater Buffer - Level Spreader LS-2

Tributary Impervious Area =	25,560	sf	(WS-2)
Tributary Landscaped Area =	110,420	sf	(WS-2)

Soil:	Paxton
Class:	Fine Sandy Loam
HSG:	C
Slopes:	0-8%

Buffer Length=	100	ft
Berm Length Per Acre Impervious =	100	ft
Berm Length Per Acre Landscape =	30	ft
Required Berm Length:	135	ft
Provided Berm Length:	135	ft

Flooding Waiver Calculations

Total New Site Impervious Area = 69,705 sf
Total New Site Developed Area = 427,060 sf

Watersheds Treated By Buffer/Infiltration Device

	New Impervious Area (SF)	New Landscaped Area (SF)	New Developed Area (SF)	Treatment Device
WS-1A	14,180	63,035	77,215	Buffer 1A
WS-1B	2,355	12,480	14,835	Buffer 1B
WS-2	25,560	110,420	135,980	Buffer 2
WS-3	0	6,080	6,080	Buffer 3
WS-7	0	105,330	105,330	Buffer 4
Houses	24,140	0	24,140	Roofline Dripedges
	66,235		**363,580**	

% of New Impervious Area Treated In Buffer/Infiltration BMPs = 95.0% >75%
% of New Developed Area Treated In Buffe/Infiltration BMPs = 85.1% >75%

ATTACHMENT 3

INSPECTION, MAINTENANCE & HOUSEKEEPING PLAN

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

SABATUS LANE SUBDIVISION
WINDHAM, MAINE

Responsible Party

Owner: Grondin Corporation
89 Belanger Avenue
Windham, ME 04062

The owners are responsible for the maintenance of all stormwater management structures and related site components and the keeping of a maintenance log book with service records until such time that a condominium association is created. Records of all inspections and maintenance work performed must be kept on file with the owner and retained for a minimum of five years. The maintenance log will be made available to the Town and Maine Department of Environmental Protection (MDEP) upon request. At a minimum, the maintenance of stormwater management systems will be performed on the prescribed schedule.

The procedures outlined in this plan are provided as a general overview of the anticipated practices to be utilized on this site. In some instances, additional measures may be required due to unexpected conditions. *The Maine Erosion and Sedimentation Control BMP* and *Stormwater Management for Maine: Best Management Practices* Manuals published by the MDEP should be referenced for additional information.

During Construction

1. **Inspection and Corrective Action:** It is the contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. Inspection shall occur on all disturbed and impervious areas, erosion control measures, material storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as 24 hours before and after a storm event and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.

2. **Maintenance:** Erosion controls shall be maintained in effective operating condition until areas are permanently stabilized. If best management practices (BMPs) need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven calendar days and prior to any rainfall event.

3. **Documentation:** A report summarizing the inspections and any corrective action taken must be maintained on site. The log must include the name(s) and qualifications of the person making the inspections; the date(s) of the inspections; and the major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to MDEP staff, and a copy must be provided upon request. The owner shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

Houskeeping

1. **Spill prevention:** Controls must be used to prevent pollutants from construction and waste materials on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

2. **Groundwater protection:** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

3. **Fugitive sediment and dust:** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should

wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

4. **Debris and other materials:** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

5. **Excavation de-watering:** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

6. **Authorized Non-stormwater discharges:** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
   (a) Discharges from firefighting activity;
   (b) Fire hydrant flushings;
   (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
   (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
   (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
   (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
   (g) Uncontaminated air conditioning or compressor condensate;
   (h) Uncontaminated groundwater or spring water;
   (i) Foundation or footer drain-water where flows are not contaminated;
   (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));
   (k) Potable water sources including waterline flushings; and
   (l) Landscape irrigation.

7. **Unauthorized non-stormwater discharges:** Approval from the MDEP does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges

in compliance with Section 6 above. Specifically, the MDEP's approval does not authorize discharges of the following:
(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
(d) Toxic or hazardous substances from a spill or other release.

Post construction

1. **Inspection and Corrective Action:** All measures must be maintained by the owner in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions of the permit, shall conduct the inspections. The following areas, facilities, and measures must be inspected, and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site.

   A. **Vegetated Areas:** Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

   B. **Ditches, Swales, and Open Channels:** Inspect ditches, swales, and other open channels in the spring, late fall, and after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, control vegetative growth that could obstruct flow, and repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side slopes.

   C. **Culverts:** Inspect culverts in the spring, late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.

D. Buffers: Wooded buffers must remain fully wooded and have no disturbance to the duff layer. Vegetation in non-wooded buffers may not be cut more than three times per year, and may not be cut shorter than six inches. Stormwater runoff should enter the buffer as sheet flow, and any observed channelization of flows or erosion should be corrected immediately. Activities that may result in disturbance of the duff layer are prohibited in a buffer.

E. Roofline Dripedge: The dripedges should be inspected semi-annually and following major storm events for the first year and every six months thereafter. The reservoir crushed stone should drain within 48 hours following a one-inch storm and if a larger storm fills the system to overflow, it shall drain within 36 to 60 hours. If ponding exceeds 48 hours, the stone reservoir course shall be removed and the filter bed be rototilled to reestablish the soil's filtration capacity. If water ponds in the reservoir course for more than 72 hours, the top several inches of the filter shall be replaced with fresh material. Inspect for debris and sediment build up at surface and remove as needed. The dripedges are part of the stormwater management plan and cannot be paved over or altered in anyway.

F. Regular Maintenance: Clear accumulations of winter sand along roadway once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along pavement shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.

G. Documentation: Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to Town staff upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization. Attached is a sample log.

Duration of Maintenance

Perform maintenance as described.

MAINTENANCE LOG

SABATUS LANE SUBDIVISION
WINDHAM, MAINE

The following stormwater management and erosion control items shall be inspected and maintained as prescribed in the Maintenance Plan with recommended frequencies as identified below. The owner is responsible for keeping this maintenance log on file for a minimum of five years and shall provide a copy to the Town upon request. Inspections are to be performed by a qualified third party inspector and all corrective actions shall be performed by personnel familiar with stormwater management systems and erosion controls.

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Vegetated Areas	Inspect slopes and embankments early in Spring.			
Ditches, swales, and other open channels	Inspect after major rainfall event producing 1" of rain in two hours.			
	Inspect for erosion or slumping & repair			
	Mowed at least annually.			
Culverts	Inspect semiannually and after major rainfall.			
	Repair erosion at inlet or outlet of pipe.			
	Repair displaced riprap.			
	Clean accumulated sediment in culverts when >20% full.			
Buffers	Inspect for erosion and channelized flow semiannually.			
	Remove accumulated sediment semiannually.			
	Inspect vegetation cover and reestablish as needed.			
Roofline Dripedges	Check after each rainfall event to ensure that pond drains within 24-48 hours.			
	Replace top several inches of filter stone does not drain within 72 hours.			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
Regular Maintenance	Clear accumulation of winter sand in paved areas annually.			