

**MAJOR SUBDIVISION
PRELIMINARY PLAN APPLICATION
TO TOWN OF WINDHAM**

FOR

**519 ROOSEVELT CONDOMINIUM
519 ROOSEVELT TRAIL
WINDHAM, MAINE**

PREPARED FOR

**JTSH, LLC
PO BOX 232
WINDHAM, ME 04062**

PREPARED BY

DM ROMA
CONSULTING ENGINEERS

**59 HARVEST HILL ROAD
WINDHAM, ME 04062**

JANUARY 22, 2018

Project Name: 519 ROOSEVELT CONDOMINIUM

Tax Map: 48 **Lot:** 30-A

Number of lots/dwelling units: 5 **Estimated road length:** 370 FT

Is the total disturbance proposed > 1 acre? Yes No

Contact Information

1. Applicant

Name: JTSH, LLC

Mailing Address: PO BOX 232, WINDHAM, ME 04062

Telephone: _____ Fax: _____ E-mail: _____

2. Record owner of property

(Check here if same as applicant)

Name: _____

Mailing Address: _____

Telephone: _____ Fax: _____ Email: _____

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: 59 HARVEST HILL ROAD, WINDHAM, ME 04062

Telephone: 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

1-22-2018

Signature

Date

Preliminary Plan - Major Subdivision: Submission Requirements

A. Mandatory Written Information		Applicant	Staff
1	A fully executed and signed application form	X	
2	Evidence of payment of the application and escrow fees	X	
3	Proposed name of the subdivision	X	
4	Verification of right, title, or interest in the property, and any abutting property, by deed, purchase and sales agreement, option to purchase, or some other proof of interest.	X	
5	Copy of the most recently recorded deed for the parcel, along with a copy of all existing deed restrictions, easements, rights-of-way, or some other proof of interest	X	
6	Copy of any existing or proposed covenants or deed restrictions intended to cover all or part of the lots or dwellings in the subdivision	X	
7	Copy of any existing or proposed easements on the property	X	
8	Name, registration number and seal of the Maine Licensed Professional Land Surveyor who conducted the survey	X	
9	Name, registration number and seal of any other licensed professional of the state who prepared the plan (if applicable)	X	
10	An indication of the type of sewage disposal to be used in the subdivision <ul style="list-style-type: none"> i. If connecting to public sewer, provide a letter from Portland Water District stating the District has the capacity to collect and treat the waste water ii. If using subsurface waste water disposal systems (septic), submit test pit analyses prepared by a Maine Licensed Site Evaluator or Certified Soil Scientist. Test pit locations must be shown on a map. 	X N/A PENDING DESIGN	
11	Indicate type of water supply system(s) to be used in the subdivision.	X	
12	If connecting to public water, submit a written statement from the Portland Water District indicating there is adequate supply and pressure for the subdivision.	PENDING	
13	Names and addresses of the record owner, applicant, and adjoining property owners	X	
14	An acceptable title opinion proving right of access to the proposed subdivision or site for any property proposed for development on or off of a private way or private road.	N/A	
15	The name and contact information for the road association who's private way or road is used to access the subdivision.	N/A	

Applicant Staff

16	Financial Capacity.	PENDING
	i. Estimated costs of development, and itemization of major costs	
	ii. Financing - provide one of the following:	
	a. Letter of commitment to fund from financial institution, governmental agency, or other funding agency	
	b. Annual corporate report with explanatory material showing availability of liquid assets to finance development	
	c. Bank statement showing availability of funds if personally financing development	
	d. Cash equity commitment	
	e. Financial plan for remaining financing	
	f. Letter from financial institution indicating an intention to finance	
	iii. If a corporation, Certificate of Good Standing from the Secretary of State	
17	Technical Capacity	X
	i. A statement of the applicant's experience and training related to the nature of the development, including developments receiving permits from the Town.	X
	ii. Resumes or similar documents showing experience and qualifications of full-time, permanent or temporary staff contracted with or employed by the applicant who will design the development.	X

B. Mandatory Plan Information		
1	Name of subdivision, date and scale	X
2	Stamp of the Maine License Professional Land Surveyor that conducted the survey, including at least one copy of original stamped seal that is embossed and signed	X
3	Stamp with date and signature of the Maine Licensed Professional Engineer that prepared the plans.	X
4	North arrow identifying all of the following: Grid North, Magnetic North, declination between Grid and Magnetic, and whether Magnetic or Grid bearings were used in the plan design	X
5	Location map showing the subdivision within the municipality	X
6	Vicinity plan showing the area within 250 feet, to include: <ul style="list-style-type: none"> i. approximate location of all property lines and acreage of parcels ii. locations, widths, and names of existing, filed, or proposed streets, easements or building footprints iii. location and designations of any public spaces iv. outline of proposed subdivision, together with its street system and indication of future probably street system, if the proposed subdivision encompasses only part of the applicants entire property. 	X
7	Standard boundary survey of parcel, including all contiguous land in common ownership within the last 5 years	X
8	Proposed lot lines with approximate dimensions and area of each lot.	X
9	Contour lines at 2-foot intervals, or at intervals required by the Board, showing elevations in relation to the required datum.	X

		Applicant	Staff
10	Typical cross sections of the proposed grading for roadways, sidewalks, etc., including width, type of pavement, elevations, and grades.	X	
11	Wetland areas shall be delineated on the survey. If none, please note.	X	
12	Number of acres within the proposed subdivision, location of property lines, existing buildings, vegetative cover type, specimen trees, if present, and other essential existing physical features.	X	
13	Rivers, streams, and brooks within or adjacent to the proposed subdivision. If any portion of the proposed subdivision is located in the direct watershed of a great pond, note which great pond.	X	
14	Zoning district in which the proposed subdivision is located, and the location of any zoning boundaries affecting the subdivision.	X	
15	Location & size of existing and proposed sewers, water mains, culverts, bridges, and drainage ways on or adjacent to the property to be subdivided. The Board may require this information to be depicted via cross-section, plan or profile views.	X	
16	Location, names, and present width of existing streets, highways, easements, building lines, parks, and other open spaces on or adjacent to the subdivision	X	
17	Location and widths of any streets, public improvements, or open space within the subdivision (if any) shown on the official map and the comprehensive plan	X	
18	All parcels of land proposed to be dedicated to public use and the conditions of such dedication.	X	
19	Location of any open space to be preserved or common areas to be created, and general description of proposed ownership, improvement, and management	X	
20	Approximate location of treeline after development	X	
21	Delineate boundaries of any flood hazard areas and the 100-year flood elevation as depicted on the Town's Flood Insurance Rate Map	X	
22	Show any areas within or adjacent to the proposed subdivision which have been identified by the Maine Department of Inland Fisheries and Wildlife "Beginning with Habitat project maps or within the Comprehensive Plan..	X	
23	Show areas within or adjacent to the proposed subdivision which are either listed on or eligible for the National Register of Historic Places, or have been identified in the comprehensive plan or by the Maine Historic Preservation Commission as sensitive or likely to contain such sites	X	
24	Erosion & Sedimentation control plan, prepared in accordance with MDEP Stormwater Law Chapter 500 Basic Standards, and the MDEP Maine Erosion and Sediment Control Best Management Practices, published March 2003.	X	
25	Stormwater management plan, prepared by a Maine Licensed Professional Engineer in accordance with the most recent edition of Stormwater Management for Maine: BMPS Technical Design Manual, published by the MDEP 2006.	X	

C. Submission information for which a waiver may be granted.		Applicant	Staff
1	High-intensity soil survey by a Certified Soil Scientist	WAIVER	
2	Landscape Plan	X	
3	Hydrogeologic assessment - required if i) subdivision is not served by public sewer and either any part of the subdivision is over a sand and gravel aquifer or has an average density of more than one dwelling unit per 100,000 square feet, or ii) where site considerations or development design indicate greater potential of adverse impacts on groundwater quality.	WAIVER	
	a) map showing basic soil types		
	b) depth to the water table at representative points		
	c) Drainage conditions throughout the subdivision		
	d) data on existing ground water quality		
	e) analysis and evaluation of the effect of the subdivision on groundwater		
	f) map showing location of any subsurface wastewater disposal systems and drinking water wells within the subdivision & within 200 feet of the subdivision boundaries.		
4	Estimate of the amount and type of vehicular traffic to be generated on a daily basis and at peak hours	X	
5	Traffic Impact Analysis for subdivisions involving 28 or more parking spaces or projected to generate more than 140 vehicle trips per day.	N/A	
6	If any portion of the subdivision is in the direct watershed of a great pond,	N/A	
	i) phosphorous impact analysis and control plan	N/A	
	ii) long term maintenance plan for all phosphorous control measures	N/A	
	iii) contour lines at an interval of 2 feet	N/A	
	iv) delineate areas with sustained slopes greater than 25% covering more than one acre	N/A	

Electronic Submission

X

TOWN OF WINDHAM
SUBDIVISION & SITE PLAN APPLICATION

Performance and Design Standards Waiver Request Form

(Section 808 – Site Plan Review, Waivers)

(Section 908 – Subdivision Review, Waivers)

For each waiver request from the Performance and Design Standards detailed in Section 811 or Section 911 of the Town of Windham Land Use Ordinance, as applicable, please submit a separate completed copy of this waiver request form.

Subdivision or Project Name: 519 ROOSEVELT CONDOMINIUM

Tax Map: 48 **Lot:** 30-A

Waivers are requested from the following Performance and Design Standards (add rows as necessary):

Ordinance Section	Standard	Mark which waiver this form is for
910-C-1-C-1	HIGH INTENSITY SOIL SURVEY	X
910-C-1-C-3	HYDROGEOLOGIC ASSESSMENT	X

a. Describe how a waiver from the standard indicated above will improve the ability of the project to take the property's pre-development natural features into consideration. Natural features include, but are not limited to, topography, location of water bodies, location of unique or valuable natural resources, relation to abutting properties or land uses. Attach a separate sheet if necessary.

1. THE PROPERTY IS RELATIVELY SMALL AT 2 ACRES, WITH A SINGLE SOIL TYPE SHOWN ON THE MEDIUM INTENSITY SOILS MAPS WITH THE EXCEPTION OF A SMALL PORTION NEAR ROUTE 302, WHICH IS NOT PROPOSED TO BE DEVELOPED.
2. A HYDROGEOLOGIC ASSESSMENT IS NOT WARRANTED BECAUSE THIS PROPERTY AND ADJACENT PROPERTIES ARE SERVED BY PUBLIC WATER.

(continued next page)

b. Will the waiver have an impact on any of the following criteria?

	Yes	No
Water or air pollution		X
Light pollution or glare		X
Water supply		X
Soil erosion		X
Traffic congestion or safety		X
Pedestrian safety or access		X
Supply of parking		X
Sewage disposal capacity		X
Solid waste disposal capacity		X
Scenic or natural beauty, aesthetics, historic sites, or rare or irreplaceable natural areas		X
Flooding or drainage issues on abutting properties		X
The Town's ability to provide the subdivision with public safety services (if subdivision)		X

If granting the waiver will result in an impact on any of the criteria above, please provide more detail below.

PROJECT NARRATIVE

SECTION 1 – PROPOSED USE NARRATIVE

The property was previously developed as a single-family residential lot with several storage sheds and a driveway off Roosevelt Trail. The building has recently been demolished and removed from the property. The proposed project includes the construction of five (5) detached single-family dwellings in a condominium ownership. The driveway will be expanded to a 22-foot wide paved surface utilizing the existing curb cut on Roosevelt Trail. The project will be served by public water from the Portland Water District and a new shared wastewater disposal field. Electrical and gas service will be extended to the units underground. All utilities on the property will remain private.

SECTION 2 – RECORD OWNER INFORMATION

See Application Form

SECTION 3 – ABUTTING PROPERTY OWNERS

See Boundary Survey and Subdivision Plan

SECTION 4 – TITLE, RIGHT, OR INTEREST

See attached deed.

SECTION 5 – COVENANTS OR DEED RESTRICTIONS

The lots will be part of a condominium that will maintain all common facilities including driveways, stormwater management components and lawn areas.

SECTION 6 – EASEMENTS

There are no known existing easements on the property.

SECTION 7 – LICENSED PROFESSIONALS

The plans and applications were prepared by DM Roma Consulting Engineers. Dustin Roma is a Maine Licensed Professional Engineer PE#12131. The Boundary Survey was prepared by Wayne Wood & Company. Soils analysis and wetland delineation was performed by Longview Partners, LLC.

SECTION 8 – TECHNICAL ABILITY

The design professionals at DM Roma Consulting Engineers, Wayne Wood & Company, and Longview Partners have been performing similar consulting and design work in Southern Maine for many years, including many projects in Windham and the surrounding communities.

SECTION 9 – UTILITIES

The project will be served with domestic potable water by the Portland Water District. The District will review the project development plans and provide a letter indicating their ability to serve the project upon completion of their review. A new private on-site wastewater disposal system is currently being designed and will be submitted with the final plan.

SECTION 10 –WATER SUPPLY AND SEWAGE DISPOSAL

See section 9.

SECTION 11 – SOLID WASTES

The residential lots will utilize the Town's curbside trash collection program to dispose of solid wastes.

SECTION 12 – VEHICLE TRAFFIC

Vehicle sight distance at the proposed driveway intersections looking right and left is over 500 feet. Based on the Institute of Transportation Engineers Trip Generation Manual, 9th edition, the proposed 5 residential dwellings are expected to generate 5 peak hour trip-ends.

SECTION 13 – UNIQUE NATURAL AREAS

There are no known unique natural areas within the project vicinity.

SECTION 14 – STORMWATER MANAGEMENT

A stormwater management report and stormwater maintenance plan is included as an attachment. As an alternative to providing stormwater peak flow analysis, the project has been designed so that over 75% of the project's new impervious surface and developed area are directed to stormwater buffers or equivalent best management practices.

SECTION 15 – FINANCIAL CAPACITY

The expected construction costs to complete the sitework portion of the project, excluding building foundations, are as follows:

• Clear and grub roadway areas	\$10,000
• Construct gravel roadways	\$25,000
• Bituminous Pavement	\$18,000
• Electrical Conduit & Risers	\$15,000
• Stormwater BMPs	\$5,000
• Leach Field & Septic	\$15,000
• Water service & Meter Pit	\$10,000
 Total Construction Costs	 \$98,000

The applicant already owns the land, so land costs were not included in the project budget. A letter indicating the ability to fund the project will be submitted with the final plan.

Warranty Deed
(Maine Statutory Short Form)

KNOW ALL PERSONS BY THESE PRESENTS THAT, Robie Holdings, LLC., a Maine Limited Liability Company with a mailing address of P.O. Box 1508, Windham, ME 04062 for valuable consideration paid, by **JTS defense, LLC.,** a Maine Limited Liability Company with a mailing address of P.O. Box 232, Windham, ME 04062, the receipt and sufficiency whereof is hereby acknowledged, does hereby GIVE, GRANT, BARGAIN, SELL AND CONVEY, unto the said **JTS defense, LLC.,** their heirs and assigns, with **WARRANTY COVENANTS**, a certain lot or parcel of real property situated in the Town of Windham, County of Cumberland, State of Maine, bounded and described as follows:

**PROPERTY DESCRIBED IN "EXHIBIT A" ATTACHED HERETO AND
MADE A PART HEREOF**

Meaning and intending to convey the premises conveyed to Robie Holdings, LLC by virtue of a deed from Donna M. Rafferty personal representative of the Estate of Carolyn J. Standley dated July 14, 2017 and recorded in the Cumberland County Registry of Deeds in Book 34167, Page 153

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Witness our hands and seal this 27 day of July 2017.


WITNESS

Robie Holdings, LLC


By: Jarod Robie
Its: Sole Member

**STATE OF MAINE
COUNTY OF CUMBERLAND**

Personally, appeared before me on this 27 day of July 2017 the above-named Jarod Robie, Sole Member of Robie Holdings, LLC and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said company

Christopher J. McLain
Notary Public, Maine
My Commission Expires
November 10, 2019


Notary Public/Attorney At Law

Print Name

Exhibit A

A certain lot or parcel of land together with the improvements thereon, situated in the Town of Windham, County of Cumberland and State of Maine, bounded and described as follows:

Commencing at a point on the northerly side of the Portland and Bridgton Road, now called Roosevelt Highway which point is eleven (11) rods from the West corner of land formerly of Perley W. Varney, and being the mid-point of Grantor's land;

Thence northwesterly by the line of said road, eleven (11) rods;

Thence northeasterly by a line parallel with the road leading from the Portland and Bridgton Road by Varney's Mill, so called, to land of Frank D. Atherton;

Thence southeasterly by the Ditch Brook, so called, a distance of eleven (11) rods to the mid-point of Grantor's land;

Thence southwesterly by Grantor's land to the point of beginning.

Received
Recorded Register of Deeds
Jul 31,2017 02:56:29P
Cumberland County
Nancy A. Lane



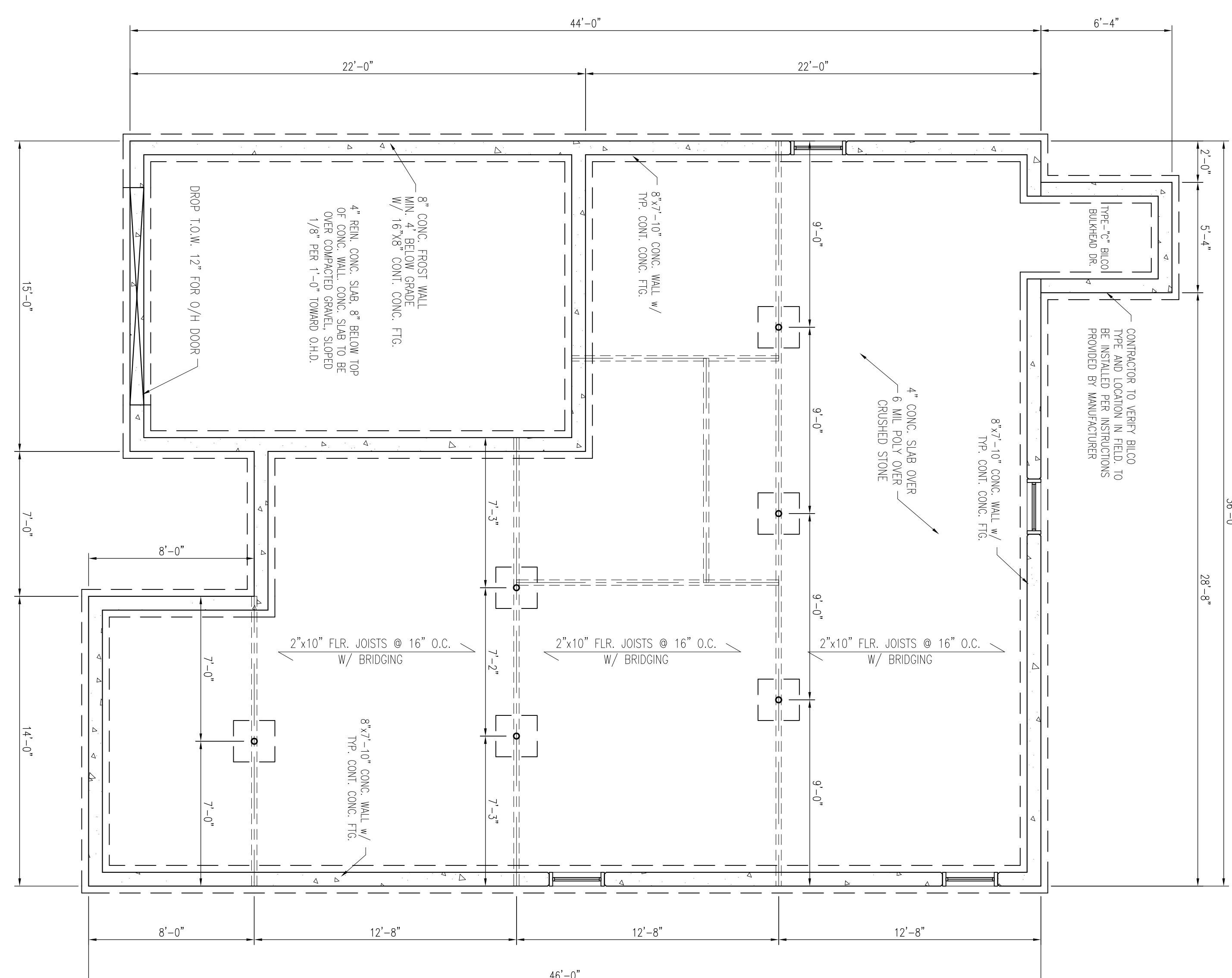
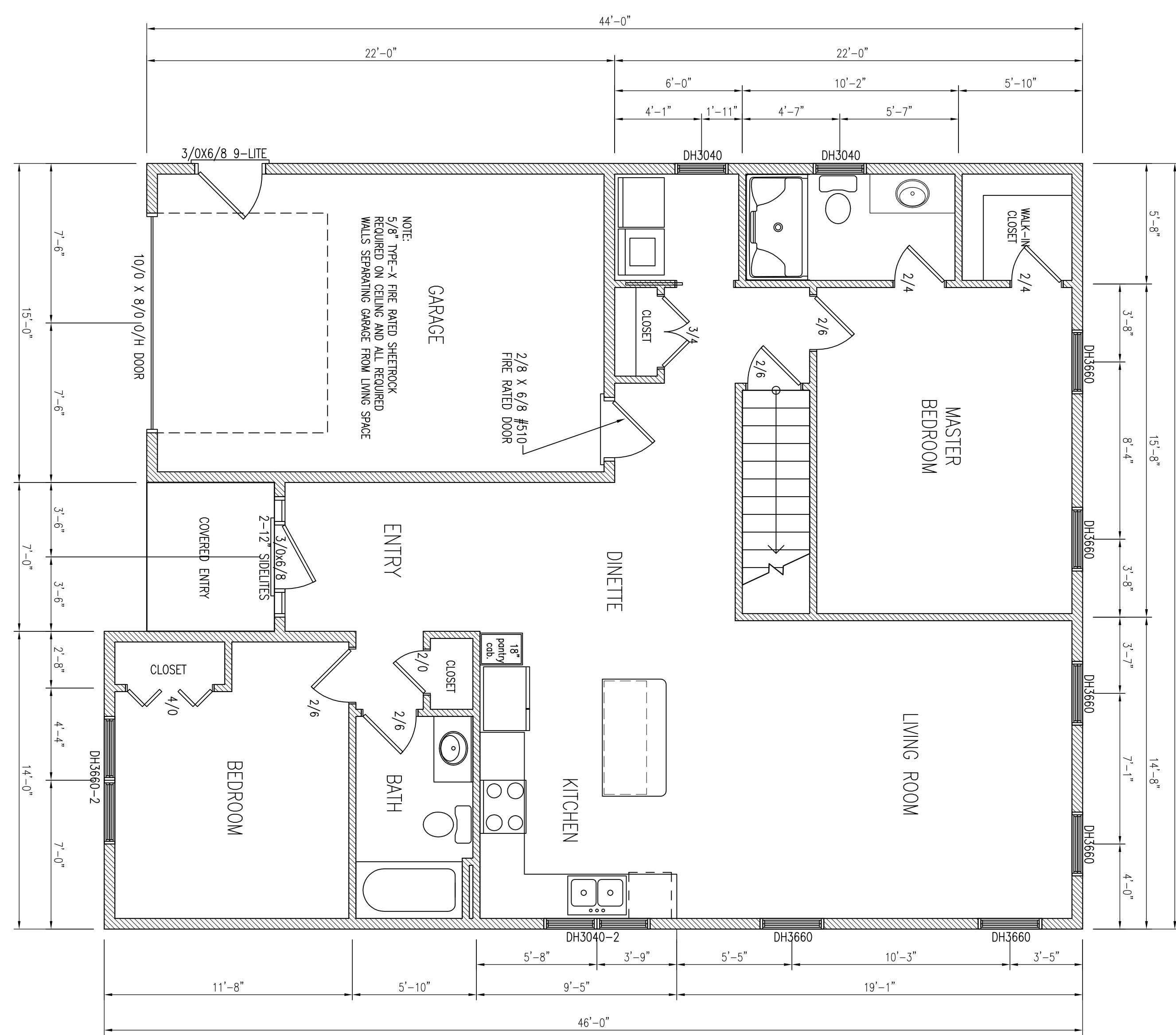
SITE LOCATION MAP

519 ROOSEVELT TRAIL CONDOMINIUM
WINDHAM, MAINE

SCALE: 1"=2000'
DATE: 11-20-2017
JOB NUMBER: 17058

DM ROMA
CONSULTING ENGINEERS

59 HARVEST HILL RD
WINDHAM, ME 04062
(207) 310 - 0506



M. FOUNDATION NOTES:

1. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF 1/2' VERTICAL TO 12' HORIZONTAL FOR A MINIMUM DISTANCE OF 8'-0". THIS CONDITION SHALL EXIST AFTER SETTLEMENT OF BUCKLE HAS OCCURRED.

2. ALL LALLY COLUMNS THIS SHEET ASSUMED TO BE 4" DIAMETER.

3. ALL INTERIOR TOEWS TO BE DESIGNED PER SOIL CONDITIONS.

4. BEAM SUPPORTS ASSUMED TO BE 10" DIAM. SMOOTHES. SOIL CONDITIONS TO DETERMINE FOOTING DESIGN CONTRACTOR TO DETERMINE.

5. FOR PLUMBING LOCATION/LAYOUT SEE GROUND FLOOR PLAN.

6. CONTRACTOR TO VERIFY CONDITIONS IN FIELD AND STEP FRO/FIGS AS REQUIRED PER GRADE AND SOIL CONDITIONS.

7. BASEMENT FINISHES PER OWNER/CON. (TO BE DETERMINED)

8. CONTRACTOR TO VERIFY GRADE IN FIELD BEFORE CONSTRUCTION OF TYPICAL FOUNDATION WALLS OR DRAUGHT BASEMENT DESIGN SHOWN MAY DIFFER FROM ACTUAL FINISHED CONSTRUCTION. FINAL MATERIALS, WINDOW/DOOR LOCATIONS AND SIZES, TO BE DETERMINED PER OWNER/CON. AND LOCAL ORDERS.

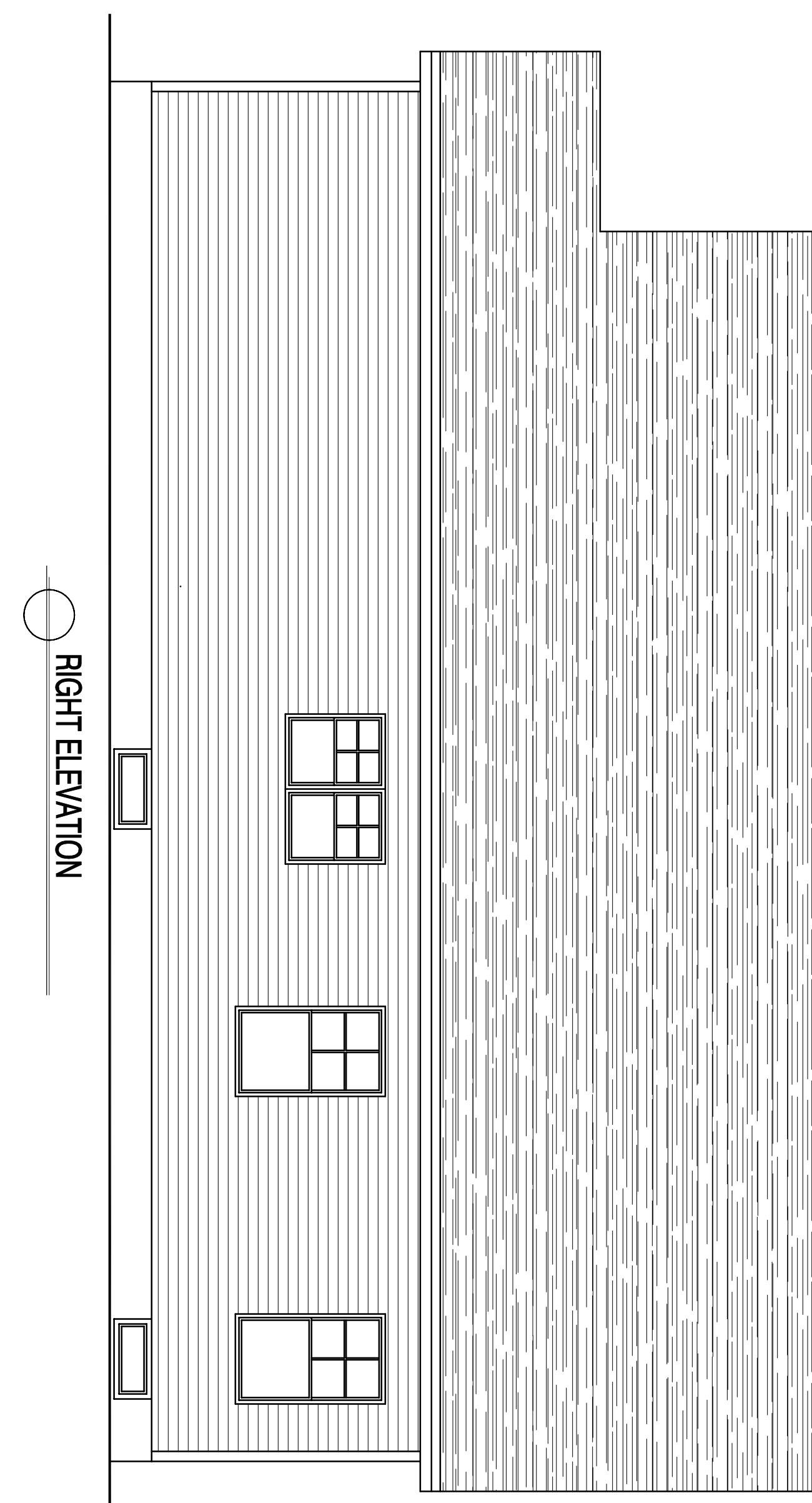
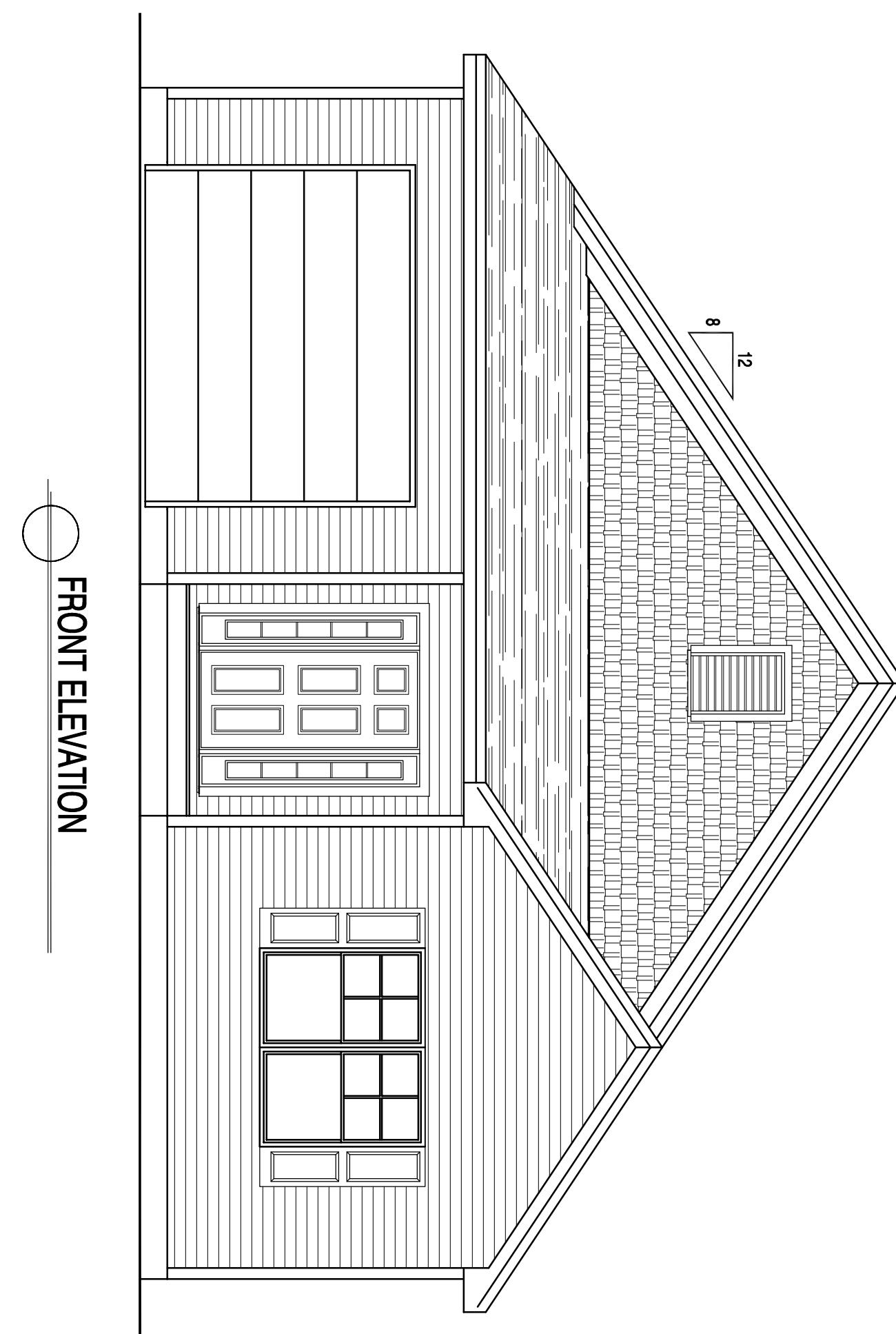
PRELIMINARY DESIGN
JTSH LLC.
DITCH BROOK DEVELOPMENT, SPEC 1



Revisions:

REvised: 11/4/17

Date: 11/10/17
Scale: 1/4"=1'-0"
Drawn By: MTA
Project: RB101017
Sheet Number: -0f-



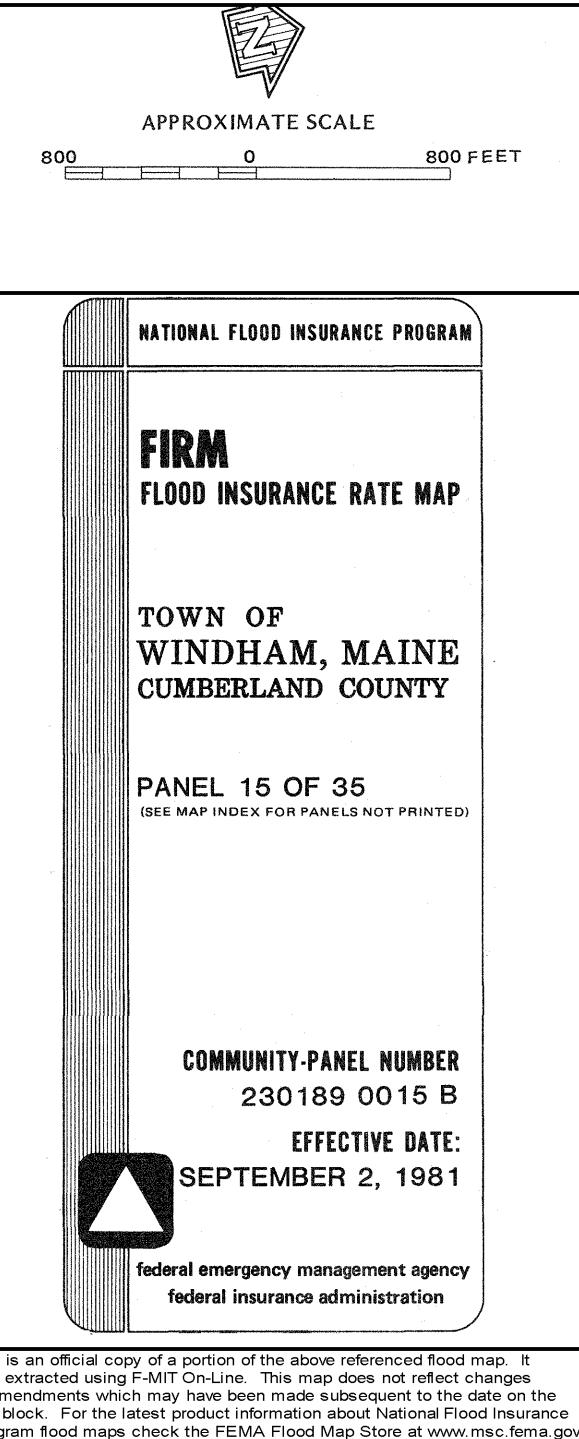
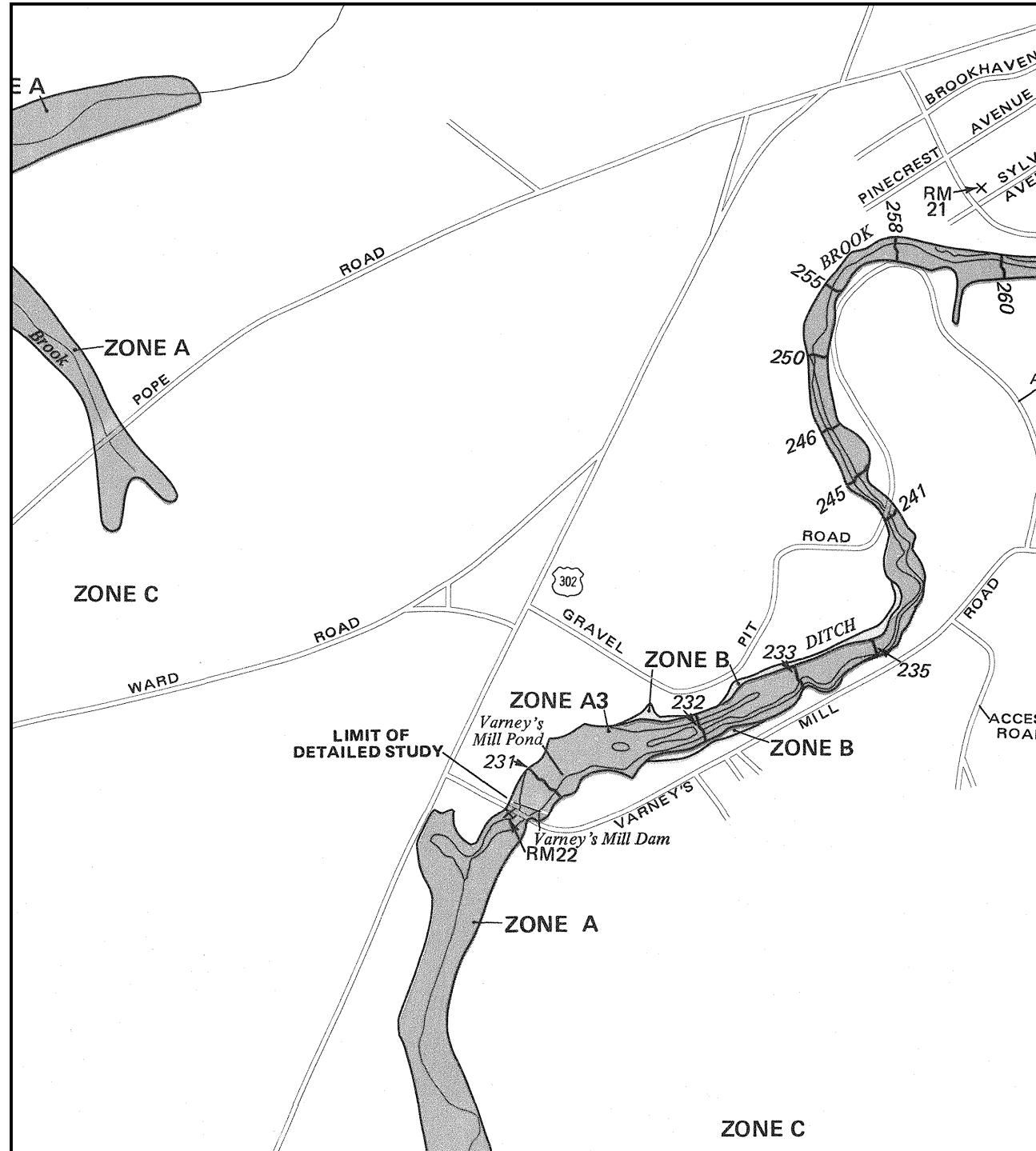
Revisions:

THIS INFORMATION IS PROVIDED TO OUR CUSTOMERS AS A SERVICE OF HANCOCK LUMBER. CUSTOMERS SHOULD APPRECIATE, HOWEVER, THAT THIS INFORMATION IS NOT THE WORK PRODUCT OF ANY ARCHITECT. NEITHER HANCOCK LUMBER NOR ANY OF ITS EMPLOYEES ARE REGISTERED AS ARCHITECTS WITH THE STATE OF MASSACHUSETTS, AND CUSTOMERS MAY CONSULT WITH AN ARCHITECT BEFORE TAKING FINAL ACTION WITH REGARD TO ANY BUILDING OR STRUCTURE. CUSTOMERS SHOULD ALSO APPRECIATE THAT, BY PROVIDING CUSTOMERS WITH THIS INFORMATION, HANCOCK LUMBER DOES NOT GUARANTEE THE SOUNDNESS OR SUITABILITY OF THE INFORMATION FOR ANY PURPOSE OF THE CUSTOMER.

PRELIMINARY DESIGN
JTSH LLC.
DITCH BROOK DEVELOPMENT, SPEC 1



Date : 11/10/17
 Scale : 1/4"=1'-0"
 Drawn By: MTA
 Project: RB10717
 Sheet Number:
 -of-



STORMWATER MANAGEMENT REPORT

519 ROOSEVELT TRAIL CONDOMINIUM WINDHAM, MAINE

A. Narrative

JTSH, LLC is proposing to develop property located at 519 Roosevelt Trail in Windham as a 5-unit condominium project. The development will be served by public water, common subsurface septic and underground electric, telephone and cable. The property is approximately 2 acres, is located in the Medium Density Residential Zoning District and is identified as a portion of lot 30A on the Town of Windham Assessors Map 48. The property currently contains a single-family house with associated gravel driveway, parking and landscaping. In general, the site drains northeasterly and southeasterly to Collins Pond which abuts the property to the northeast.

B. Alterations to Land Cover

The property currently contains approximately 3,730 square feet of impervious area consisting of the existing house and gravel driveway and a total developed area of 11,135 square feet. After the completion of the project, the site will contain approximately 18,935 square feet of impervious area consisting of the buildings and paved road and driveways and a total developed area of approximately 51,550 square feet. As a result of the proposed site development, there will be an increase of 15,205 square feet of impervious surface and an increase of 40,415 square feet of total developed area. This new impervious and developed area will require stormwater treatment as part of the Town's subdivision review. The site is moderately steep (5-8%) in the area of the proposed development and steeper closer to Collins Pond (10-20%). 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	A
DeB	Deerfield Loamy Sand	A
Sn	Scantic silt loam	D

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

The Windham Land Use Ordinance 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 water quality requirements will be met with the utilization of a stone berm level spreaders discharging to a forested buffer, a rain garden and roof dripedges installed on each of the condominium buildings. As a result of the proposed stormwater infrastructure, the project provides water quality treatment for over 100% of the site's new impervious surfaces and 84% 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.

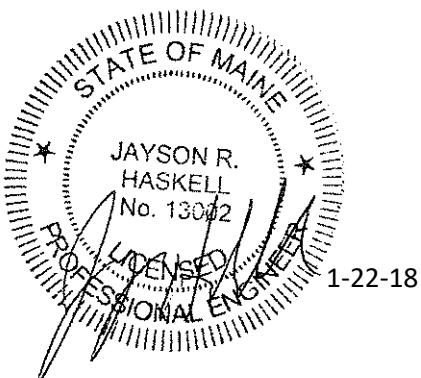
G. Maintenance of common facilities or property

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

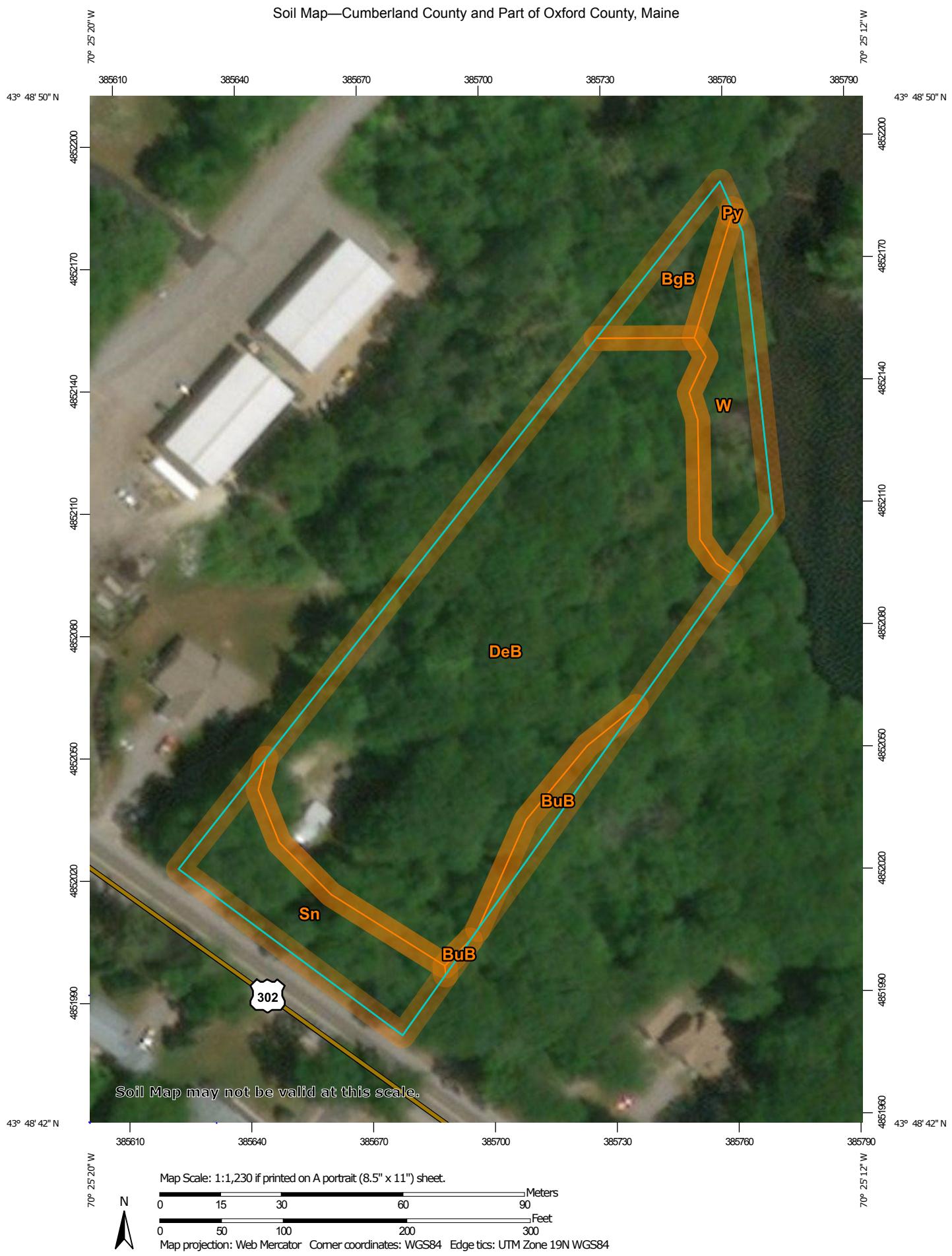

Jayson R. Haskell, P.E.
Southern Maine Regional Manager



ATTACHMENT 1

SOILS MAP

Soil Map—Cumberland County and Part of Oxford County, Maine



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/20/2017
Page 1 of 3

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	0.1	4.5%
BuB	Lamoine silt loam, 3 to 8 percent slopes	0.1	2.0%
DeB	Deerfield loamy sand, 3 to 8 percent slopes	2.2	72.9%
Py	Podunk fine sandy loam, 0 to 3 percent slopes, occasionally flooded	0.0	0.0%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.3	11.4%
W	Water	0.3	9.2%
Totals for Area of Interest		3.0	100.0%

Cumberland County and Part of Oxford County, Maine

DeB—Deerfield loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh6

Elevation: 150 to 1,200 feet

Mean annual precipitation: 30 to 50 inches

Mean annual air temperature: 37 to 45 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 87 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Outwash terraces

Landform position (two-dimensional): Foothslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits derived from granite and gneiss

Typical profile

H1 - 0 to 10 inches: loamy sand

H2 - 10 to 24 inches: loamy sand

H3 - 24 to 65 inches: sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 13, Sep 11, 2017

ATTACHMENT 2

STORMWATER TREATMENT CALCULATIONS

Stormwater Treatment Calculations

519 Roosevelt Trail, Windham

Existing Impervious Area = 3,730 sf

Existing Landscaped Area = 7,405 sf

Total Existing Developed Area = 11,135 sf

Post Construction Impervious Area= 18,935 sf

Post Construction Landscaped Area= 32,615 sf

Total Post Construction Developed Area= 51,550 sf

New Impervious Area Requiring Treatment = 15,205 sf

New Landscaped Area Requiring Treatment= 25,210 sf

Total New Developed Area Requiring Treatment= 40,415 sf

Treatment Devices

	Tributary Impervious Area (SF)	Tributary Landscaped Area (SF)	Tributary Developed Area (SF)
Level Spreader	8,325	10,230	18,555
Rain Garden	0	7,625	7,625
Roof Dripedges	8,060	0	8,060
	16,385	17,855	34,240

% of New Impervious Area Treated = 107.8%

% of New Developed Area Treated = 84.7%

Forested Stormwater Buffer With Level Spreader

Soil: Deerfield
Class: Loamy Sand
HSG: A
Buffer Length= 100 ft
Berm Length Per Acre Impervious = 78 ft
Berm Length Per Acre Landscape = 24 ft

Tributary Impervious Area = 8,325
Tributary Landscaped Area = 10,230
Required Berm Length: 21 ft
Provided Berm Length: 25 ft

ATTACHMENT 3

INSPECTION, MAINTENANCE & HOUSEKEEPING PLAN

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

519 ROOSEVELT TRAIL CONDOMINIUM WINDHAM, MAINE

Responsible Party

Owner: JTSH, LLC
P.O. Box 232
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 qualified third party inspector hired by the owner shall at least annually inspect the stormwater management facilities. This person should have knowledge of erosion and stormwater management control including the standards conditions of the site's approval. 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. Rain Garden: Basin should be inspected semi-annually and following major storm events for the first year and every six months thereafter. The basin 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 top of the filter bed must be rototilled to reestablish the soil's filtration capacity. If water ponds on the surface of the bed 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 in the basin and remove as needed. The mulch layer shall be replaced with fresh material annually. Any bare areas or erosion rills along the vegetated spillway shall be repaired and revegetated as needed. The basin should also be inspected annually for destabilization of side slopes, embankment settling and other signs of structural failure.

F. 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.

G. 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.

H. 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.

Re-certification

As a requirement of the Town, the stormwater infrastructure shall be inspected yearly by a qualified third party inspector. The third party inspector shall perform an initial inspection to determine the status of the stormwater management facilities. If the initial inspection identifies any deficiencies with the facilities, the same third party inspector shall re-inspect the facilities after they have been maintained or repaired to determine if they are performing as intended. Once the site is satisfactory, the third party inspector shall submit the Annual Stormwater Management Facilities Certification form and report to the Office of Code Enforcement. The certification form shall be submitted to the Town prior to May 1 of each year. A copy of the approval form has been included at the end of this document.

Duration of Maintenance

Perform maintenance as described.

MAINTENANCE LOG

RIVER ROAD 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.			

MAINTENANCE LOG

RIVER ROAD SUBDIVISION WINDHAM, MAINE

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Underdrained Filter Basin And Roofline Dripedges	Check after each rainfall event to ensure that pond drains within 24-48 hours.			
	Replace top several inches of filter if pond does not drain within 72 hours.			
	Replace mulch layer annually			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
Regular Maintenance	Clear accumulation of winter sand in paved areas annually.			

APPENDIX 1

Annual Stormwater Management Facilities Certification (to be sent to Municipal Enforcement Authority)

I, _____ (print or type name), certify the following:

1. I am making this annual stormwater management facilities certification for the following property: _____ (print or type name of subdivision, condominium or other development) located at _____ (print or type address), (the "property");

2. The owner, operator, tenant, lessee or homeowners' association of the property is: _____ (name(s) of owner, operator, tenant, lessee, homeowners' association or other party having control over the property);

3. I am the owner, operator, tenant, lessee or president of the homeowners' association, or am a qualified third party inspector hired by the same (circle one);

4. I have knowledge of erosion and stormwater control and have reviewed the approved post-construction stormwater management plan for the property;

5. On _____, 20_____, I inspected or had inspected by _____, a qualified third-party inspector, the stormwater management facilities, including but not limited to parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures required by the approved post-construction stormwater management plan for the property;

6. At the time of my inspection of the stormwater management facilities on the property, I or the qualified third-party inspector identified the following need(s) for routine maintenance or deficiencies in the stormwater management facilities:

7. On _____, 20_____, I took or had taken the following routine maintenance or the following corrective action(s) to address the deficiencies in the stormwater management facilities stated in 6 above:

8. As of the date of this certification, the stormwater management facilities are functioning as intended by the approved post-construction stormwater management plan for the property

Date: _____, 20_____.
By: _____

Signature

Print Name

STATE OF MAINE

_____, ss _____, 20____

Personally appeared the above-named _____, the

of _____, and acknowledged the foregoing annual
certification to be said person's free act and deed in said capacity.

Before me,

Notary Public/Attorney at Law

Print Name: _____

Mail this certification to the Town of Windham at the following address:

**Office of Code Enforcement
Town of Windham
8 School Road
Windham, ME 04062**