Town of Windham

Town Offices
8 School Road
Windham, Maine

Meeting Agenda

Planning Board

Monday, July 13, 2026 | **6:00 PM** | **Council Chambers**

Call to Order

Chair's Opening Remarks

Roll Call and Declaration of Quorum

Approval of Minutes – The meeting of June 22, 2026

Public Hearings and Continuing Business

PB 26-030 #25-08 A Plus Auto - Major Site Plan - Final Plan Review - 1027 Roosevelt Trail - A Plus Truck Sales, Inc

The applicant has requested that the public hearing be postponed until the Planner determines that the application is complete

The application is for a 32,500 square foot building with associated parking for automobile sales and repair services on a 12.23-acre property. Subject property is identified as Tax Map: 21; Lot: 12; Zone: Commercial I North (C1-N) and Stream Protection (SP) in the Hyde Brook/Sebago Lake watershed.

Attachments:

25-08_MJR_SP_FP_APPL_A Plus Auto_063025

25-08_MJR_SP_FP_PLANSET_APlusAuto_2026-06-29

25-08_MJR_SP_FP_RESPONSE_APlusAuto_2026-06-29

New Business

PB 26-039

Attachments:

26-09_MJR_SP_SKP_APP_Windham Carwash_5-11-26

26-09_MJR_SP_SKP_PLANS_Windham Carwash_5-11-26

PB 26-006

#25-12 Legacy Village Retirement Community - Major Subdivision & Site Plan - Sketch Plan Review - Webb Road - Robie Holdings, LLC

The application is to divide a 21.43-acre vacant parcel into two lots. Lot 1 (15.31 acres) is proposed to be developed as Legacy Village Retirement Community, a 30-unit detached dwelling retirement condominium served by a new private access drive (Legacy Drive, approximately 1,100 feet), a public 8-inch water main extension along Webb Road, and a shared on-site engineered wastewater disposal system. Lot 2 (6.12 acres) is proposed as a Country Subdivision lot for future single-family residential use served by a private well and septic system. Subject property is identified as Tax Map: 6; Lot: 33-F; Zone: Farm (F) and Retirement Community Care Facility Overlay (RCCFO) in the Black Brook/Presumpscot River watershed.

Attachments:

25-12_MJR_SUB_SP_PRLM_APP_WebbRdRetirement_LegacyVill_05-19-202

25-12_MJR_SUB_SP_PRLM_PLAN_WebbRdRetirement_LegacyVill_05-19-20

PB 26-040

#26-13 Chapter 120 Land Use Ordinance Amendments Articles 4 and 9 to update Conservation Subdivision and Zoning Standards
The LUO amendment updates Conservation Subdivision standards in §120-911K by removing single-family-only limitations, clarifying conservation area integration and buffer requirements, revising open space calculations, and allowing limited resource alteration where conservation intent is maintained. Related Article 4 changes correct prior density omissions in the Farm (F) and Farm Residential (FR) districts and require conservation subdivisions for parcels greater than 8 acres and 5 acres, respectively.

Attachments:

26-13_PB_Memo_AMD_Art4&9ConservationSubdivision_(sjp063026).pdf

26-13_ORG-RDLN-C_LUO_AMD_Art4&9ConservationSubdivision_(sjp063026)

Other Business

Adjournment

Town of Windham

Town Offices
8 School Road
Windham, Maine

Cover Sheet

File Number: PB 26-030

Agenda Date: 6/8/2026 **Version:** 1 **Status:** Agenda Ready

In Control: Planning Board **File Type:** Planning Board Document

Agenda Number:

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BH2M

Civil Engineering | Surveying

June 30, 2025

Steve Puleo, Planning Director
Town of Windham
8 School Road
Windham, ME 04062

RE: Major Site Plan Application Submission
Double A Properties – A Plus Auto Sales, Service, & Body Shop Building
968 Roosevelt Trail

Dear Steve,

Please find attached three (3) sets of the following information in support of the submission of a major site plan application as described above:

Attachment 1 - Major Site Plan Application, Checklist, & Application Fee ($5,425)
Attachment 2 - Figures (Tax, USGS, FEMA, Beginning with Habitat, and Soils)
Attachment 3 - Parcel Deed (Book 41146, Page 341)
Attachment 4 - Wetland Delineation Letter - Mark Hampton Associates, LLC
Attachment 5 - Abutters List
Attachment 6 - Letter of Good Standing
Attachment 7 - Cost Estimate
Attachment 8 - Building Plans – Island Cove Building and Development, INC.
Attachment 9 - Lighting Plan - Visible Light
Attachment 10 - Financial Capacity - A Plus Auto
Attachment 11 - Technical Capacity - BH2M
Attachment 12 - Stormwater Report - BH2M (3 Copies Provided)
Attachment 13 - Site Plan - BH2M - Full Size

The applicant, Double A Properties LLC, is requesting to construct a 32,500 square foot sales/service building and associated parking located at 1027 Roosevelt Trail. The existing use of this property is an undeveloped woodland. The parcel is known as Tax Map 21 Lot 12. The parcel is zoned Commercial 1 North (C-1N). As the town knows the applicant is currently running operations in several buildings in Town. This project is intended to allow most of these operations to be relocated into one location.

Please call me if you have any questions regarding this application or if any additional information is needed for this submission. We look forward to working with the Town on this project.

Sincerely,



Andrew S. Morrell, PE
Project Engineer

Attachment 1
Major Site Plan Application, Checklist, and Fee

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

MAJOR SITE PLAN REVIEW APPLICATION

FEES FOR MAJOR SITE PLAN REVIEW		**APPLICATION FEE:** (No Bldg.) (W/Bldg.: $25/1,000 SF up to 5,000 SF) **REVIEW ESCROW: (GFA)** 2,000 SF - 5,000 SF = $2,000 5,000 SF - 15,000 SF = $3,000 15,000 SF - 35,000 SF = $4,000 Over 35,000 SF = $5,000 No Building = $2,000	☐ $1,300.00 ☑ $1,425 ☐ $_____ ☐ $_____ ☑ $4,000 ☐ $_____ ☐ $_____	**TOTAL AMOUNT PAID:** $_____ **DATE:** _____ *Office Use:*		
☐ **Amended Site Plan – (Each Revision)**		**AMENDED APPLICATION FEE:** **AMENDED REVIEW ESCROW:**	☐ **$350.00** ☐ **$250.00**			*Office Stamp:*	
PROPERTY DESCRIPTION	**Parcel Information:**	**Map(s):** 21	**Lot(s):** 12	**Zoning District(s):**	C-1N	**Size of the Parcel in SF:**	544,747 sf
	Total Disturbance. >1Ac	☑ **Y** ☐ **N**	**Estimated. Building SF:**	32,500	**IF NO BUILDING; Estimated SF of Total Development:**		
	Physical Address:	1027 Roosevelt Trail		**Watershed:**	Hyde Brook to Sebago Lake		
PROPERTY OWNER'S INFORMATION	**Name:**	Double A Properties, LLC		**Name of the Business:**	A Plus Auto		
	Phone:	(207) 572-4444		**Mailing Address:**	968 Roosevelt Trail, Windham, ME 04062		
	Fax or Cell:	N/A					
	Email:	andrew@aplustrucks.com					
APPLICANT'S INFORMATION (*IF DIFFERENT FROM OWNER*)	**Name:**	A Plus Auto		**Name of Business:**	A Plus Auto		
	Phone	(207) 572-4444		**Mailing Address:**	1263 Roosevelt Trail, Windham, ME 04062		
	Fax or Cell	N/A					
	Email:	andrew@aplustrucks.com					
APPLICANT'S AGENT INFORMATION	**Name:**	Andy Morrell		**Name of Business:**	BH2M		
	Phone:	(207) 839-2771		**Mailing Address:**	380B Main St Gorham, ME 04038		
	Fax or Cell:	N/A					
	Email:	amorrell@bh2m.com					

PROJECT INFORMATION

Existing Land Use ***(Use extra paper, if necessary)*****:**

Undeveloped wooded lot

Provide a narrative description of the Proposed Project ***(Use extra paper, if necessary)*****:**

Applicant proposes to construct a 32,500 s.f. commercial building with associated parking for auto sales, service, and body shop.

Provide a narrative description of construction constraints (wetlands, shoreland zone, flood plain, non-conformance, etc.):

Hyde Brook on the northern portion of parcel. Area of minimal flood hazard.

MAJOR SITE PLAN REVIEW APPLICATION REQUIREMENTS

Section 120-811 of the Land Use Ordinance

The submission shall contain five (5) copies of the following information, including full plan sets. Along with one (1) electronic version of the entire submission, unless waiver of a submission requirement is granted, and one (1) complete plan set.

The Major Plan document/map:

A) Plan size: 24" X 36"
B) Plan Scale: No greater 1":100'
C) Title block: Applicant's name, project name, and address

- Name of the preparer of plans with professional information
- Parcel's tax map identification (map and lot) and street address, if available

- Complete application submission deadline: three (3) weeks (21-days) before the desired Planning Board meeting.
  - Five copies of the application and plans
  - Application Payment and Review Escrow
- A pre-submission meeting with the Town staff is required.
- Contact information:
  Windham Planning Department (207) 894-5960, ext. 2
  Steve Puleo, Town Planner sjpuleo@windhammaine.us
  Amanda Lessard, Planning Director allessard@windhammaine.us

APPLICANT/PLANNER'S CHECKLIST FOR MAJOR SITE PLAN REVIEW

SUBMITTALS THAT THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

The following checklist includes items generally required for development by the Town of Windham's LAND USE ORDINANCE, Sections 120-811, 120-812, 120-813 & 120-814. Due to projects specifics, the applicant is required to provide a complete and accurate set of plans, reports, and supporting documentation (as listed in the checklist below).

IT IS THE RESPONSIBILITY OF THE APPLICANT TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

Column #1.			Column #2.		
1. Final Plan -Major Site Plan: Submission Requirements	**Applicant**	**Staff**	**Plan Requirements – Existing Conditions (Continued):**	**Applicant**	**Staff**
A. Completed Major Site Plan Application form	☑	☐	vii. Zoning classification(s), including overlay and/or subdistricts, of the property and the location of zoning district boundaries if the property is located in 2 or more districts or abuts a different district	☑	☐
B. Evidence of Payment of application & escrow fees	☑	☐	viii. Bearings and lengths of all property lines of the property to be developed, and the stamp of the surveyor that performed the survey	☑	☐
C. Written information – submitted in a **bounded and tabbed** report			ix. Existing topography of the site at 2-foot contour intervals.	☑	☐
1. A narrative describing the proposed use or activity.	☑	☐	x. Location and size of any existing sewer and water mains, culverts and drains, on-site sewage disposal systems, wells, underground tanks or installations, and power and telephone lines and poles on the property and on abutting streets or land that may serve the development.	☑	☐
2. Name, address, & phone number of record owner, and applicant if different (see Agent Autorotation form).	☑	☐	xi. Location, names, and present widths of existing public and/or private streets and rights-of-way within or adjacent to the proposed development.	☑	☐
3. Names and addresses of all abutting property owners	☑	☐	xii. Location, dimensions, and ground floor elevation of all existing buildings.	☑	☐
4. Documentation demonstrating right, title, or interest in the property	☑	☐	xiii. Location and dimensions of existing driveways, parking and loading areas, walkways, and sidewalks on or adjacent to the site.	☑	☐
5. Copies of existing proposed covenants or deed restrictions.	☑	☐	xiv. Location of intersecting roads or driveways within 200 feet of the site.	☑	☐
6. Copies of existing or proposed easements on the property.	☑	☐	xv. Location of the following		
7. Name, registration number, and seal of the licensed professional who prepared the plan, if applicable.	☑	☐	a. Open drainage courses	☑	☐
8. Evidence of applicant's technical capability to carry out the project.	☑	☐	b. Wetlands	☑	☐
			c. Stone walls	☑	☐
9. Assessment of the adequacy of any existing sewer and water mains, culverts and drains, on-site sewage disposal systems, wells, underground tanks or installations, and power and telephone lines and poles on the property.	☑	☐	d. Graveyards	☑	☐

Continued from Column #1. (Page 2)			Continued from Column #2. (Page 2)		
10. Estimated demands for water and sewage disposal.	☐	☐	e. Fences	☑	☐
			f. Stands of trees or treeline, and	☑	☐
			g. Other important or unique natural areas and site features, including but not limited to, floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, sand and gravel aquifers, and historic and/or archaeological resources.	☐	☐
11. Provisions for handling all solid wastes, including hazardous and special wastes.	☐	☐	xvi. Direction of existing surface water drainage across the site	☐	☐
12. Detail sheets of proposed light fixtures.	☐	☐	xvii. Location, front view, dimensions, & lighting of exsiting signs.	☐	☐
13. Listing of proposed trees or shrubs to be used for landscaping	☐	☐			
14. Estimate weekday AM and PM and Saturday peak hours and daily traffic to be generated by the project.	☐	☐	xviii. Location & dimensions of existing easements that encumber or benefit the site.	☐	☐
15. Description of important or unique natural areas and site features, including floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and	☐	☐	xix. Location of the nearest fire hydrant, dry hydrant, or other water supply.	☑	☐
16. If the project requires a stormwater permit from MaineDEP or if the Planning Board or if the Staff Review Committee determines that such information is required, submit the following.			**E. Plan Requirements - Proposed Development Activity**		
			i. Location and dimensions of all provisions for water supply and wastewater disposal, and evidence of their adequacy for the proposed use, including soils test pit data if on-site sewage disposal is proposed	☑	☐
a. stormwater calculations.	☐	☐	ii. Grading plan showing the proposed topography of the site at 2-foot contour intervals	☑	☐
b. erosion and sedimentation control measures.	☐	☐	iii. The direction of proposed surface water drainage across the site and from the site, with an assessment of impacts on downstream properties.	☑	☐
c. water quality and/or phosphorous export management provisions.	☐	☐	iv. Location and proposed screening of any on-site collection or storage facilities	☑	☐
17. If public water or sewerage will be utilized, provide a statement from the utility district regarding the adequacy of water supply in terms of quantity and pressure for both domestic and fire flows, and the capacity of the sewer system to accommodate additional wastewater.	☐	☐	v. Location, dimensions, and materials to be used in the construction of proposed driveways, parking, and loading areas, and walkways, and any changes in traffic flow onto or off-site	☑	☐
18. Financial Capacity			vi. Proposed landscaping and buffering	☐	☐
i. Estimated costs of development and itemize estimated major expenses.	☐	☐	vii. Location, dimensions, and ground floor elevation of all buildings or expansions	☑	☐
ii. Financing (submit one of the following)			viii. Location, front view, materials, and dimensions of proposed signs together with a method for securing sign	☐	☐
a. Letter of commitment to fund	☐	☐	ix. Location and type of exterior lighting. Photometric plan to demonstrate the coverage area of all lighting may be required by the Planning Board.	☑	☐
b. Self-financing	☐	☐	x. Location of all utilities, including fire protection systems	☑	☐
1. Annual corporate report	☐	☐	xi. Approval block: Provide space on the plan drawing for the following words, "Approved: Town of Windham Planning Board" along with space for signatures and date	☐	☐
2. Bank Statement	☐	☐	**2. Major Final Site Plan Requirements as Exhibits to the Application**		
c. Other			a. Narrative and/or plan describing how the proposed development plan relates to the sketch plan.	☐	☐
1. Cash equity commitment of 20% of the total cost of development	☐	☐	b. Stormwater drainage and erosion control program shows:		
2. Financial plan for remaining financing.	☐	☐	1. The existing and proposed method of handling stormwater runoff	☐	☐

Continued from Column #1. (Page 3)		
3. Letter from institution indicating intent to finance.	☐	☐
iii. If a registered corporation a Certificate of Good Standing from:		
- Secretary of State, or	☐	☐
- the statement signed by a corporate officer	☐	☐
19. Technical Capacity (address both).		
i. Prior experience relating to developments in the Town.	☑	☐
ii. Personnel resumes or documents showing experience and qualification of development designers	☑	☐
D. Plan Requirements – Existing Conditions		
i. Location Map adequate to locate project within the municipality	☑	☐
ii. Vicinity Plan. Drawn to a scale of not over 400 feet to the inch, and showing area within 250 feet of the property line, and shall show the following:	☑	☐
a. Approximate location of all property lines and acreage of the parcel(s).	☑	☐
b. Locations, widths, and names of existing, filed, or proposed streets, easements, or building footprints.	☑	☐
c. Location and designations of any public spaces.	☑	☐
d. Outline of the proposed site plan, together with its street system and an indication of the future probable street system of the remaining portion of the tract.	☑	☐
iii. North Arrow identifying Grid North; Magnetic North with the declination between Grid and Magnetic; and whether Magnetic or Grid bearings were used.	☑	☐
iv. Location of all required building setbacks, yards, and buffers.	☑	☐
v. Boundaries of all contiguous property under the total or partial control of the owner or applicant.	☑	☐
vi. Tax map and lot number of the parcel(s) on which the project is located	☑	☐

Continued from Column #2. (Page 3)		
2. The direction of the flow of the runoff, through the use of arrows and a description of the type of flow (e.g., sheet flow, concentrated flow, etc.)	☐	☐
3. Location, elevation, and size of all catch basins, dry wells, drainage ditches, swales, retention basins, and storm sewers	☐	☐
4. Engineering calculations were used to determine drainage requirements based on the 25-year, 24-hour storm frequency.	☐	☐
5. Methods of minimizing erosion and controlling sedimentation during and after construction.	☐	☐
c. A groundwater impact analysis prepared by a groundwater hydrologist for projects involving on-site water supply or sewage disposal facilities with a capacity of 2,000 gallons or more per day	☐	☐
d. Name, registration number, and seal of the Maine Licensed Professional Architect, Engineer, Surveyor, Landscape Architect, and/or similar professional who prepared the plan.	☐	☐
e. A utility plan showing, in addition to provisions for water supply and wastewater disposal, the location and nature of electrical, telephone, cable TV, and any other utility services to be installed on the site.	☐	☐
f. A planting schedule keyed to the site plan indicating the general varieties and sizes of trees, shrubs, and other vegetation to be planted on the site, as well as information of provisions that will be made to retain and protect existing trees, shrubs, and other vegetation.	☐	☐
g. Digital transfer of any site plan data to the town (GIS format)	☐	☐
h. A traffic impact study if the project expansion will generate 50 or more trips during the AM or PM peak hour, or if required by the Planning Board)	☐	☐
PDF\Electronic Submission.	☑	☐

The undersigned hereby makes an application to the Town of Windham for approval of the proposed project and declares the foregoing to be true and accurate to the best of his/her knowledge.

	6/25/25
APPLICANT OR AGENT'S SIGNATURE	DATE

Andrew Capparelli

PLEASE TYPE OR PRINT NAME

Agent Authorization

Property Description	**Physical Address/ Location**	**1027 Roosevelt Trail Windham, Maine 04062**	**Map 21**	
			Lot 12	
Applicant Information	**Name**	**A Plus Auto**	**Mailing Address**	**1263 Roosevelt Trail Windham, Maine 04062**
	Phone			
	Email	**mmeyer@islandcovebuilding.com**		
Owner Information	**Name**	**Double A Properties, LLC**	**Mailing Address**	**968 Roosevelt Trail Windham, Maine 04062**
	Phone			
	Email	**mmeyer@islandcovebuilding.com**		
Applicant's Agent Information	**Name**	**Andrew Morrell**	**Business Name**	**BH2M**
	Phone	**(207) 839-2771**	**Mailing Address**	**380B Main Street Gorham, Maine 04038**
	Email	**amorrell@gmail.com**		

The above-listed company/agents may represent me to expedite and complete the approval of the permits/applications required for development for this parcel.

[signature] 3/20/25

APPLICANT SIGNAURE **DATE**

Andrew Coppet

PRINTED NAME

CO-APPLICANT SIGNATURE (if applicable) **DATE**

PRINTED NAME

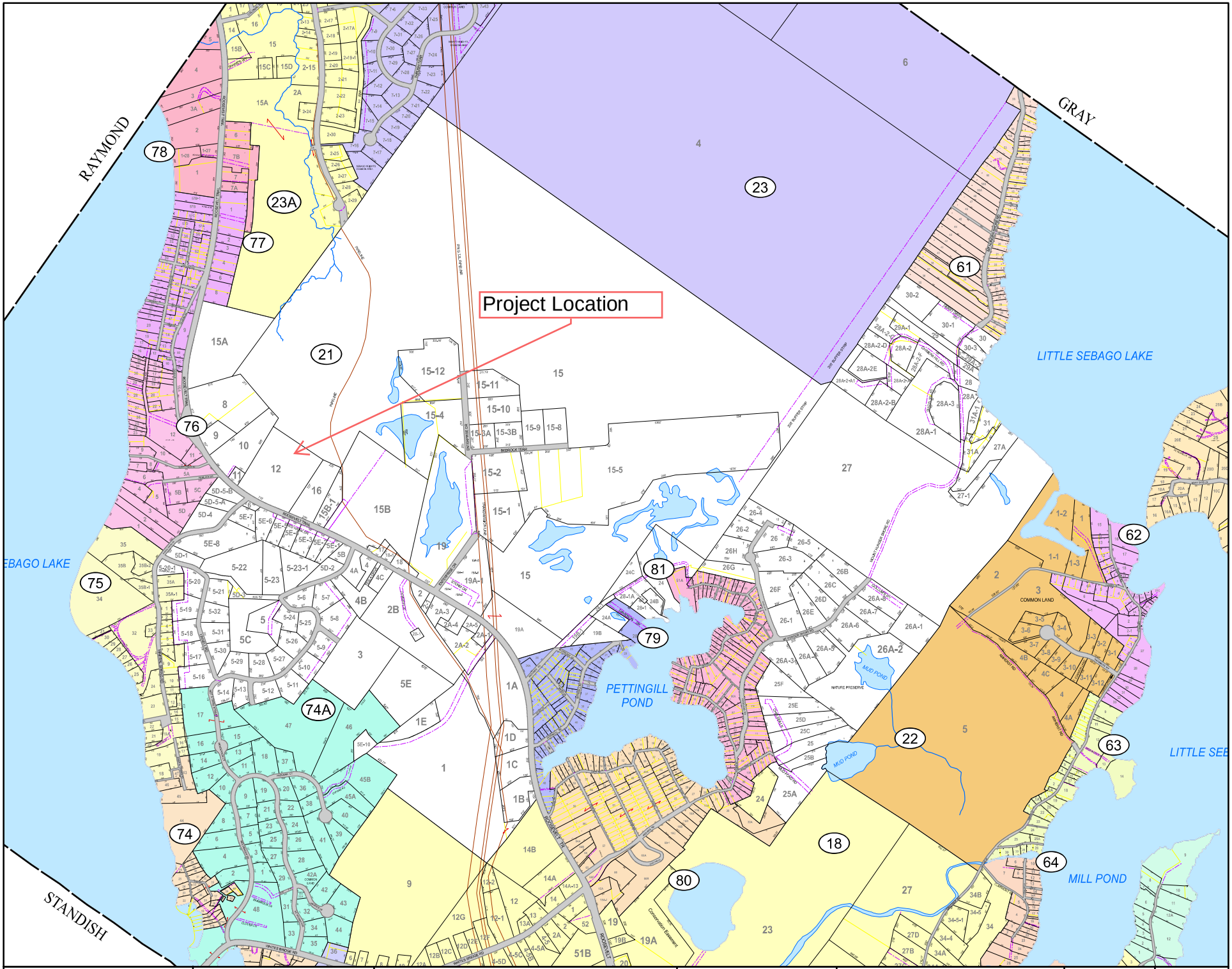
[signature] 3/21/25

AGENT SIGNATURE **DATE**

Andrew Morrell - BH2M

PRINTED NAME

Attachment 2
Figures



THIS MAP IS FOR ASSESSMENT PURPOSES. IT IS NOT VALID FOR LEGAL DESCRIPTION OR CONVEYANCE.

THE HORIZONTAL DATUM IS THE MAINE STATE PLANE COORDINATE SYSTEM, NAD 83.

ORIGINAL MAPPING BY JAMES W. SEWALL COMPANY, OLD TOWN, MAINE

REVISED & REPRINTED BY

CAI Technologies

11 Pleasant Street, Upton, NH 03261

603.722-5940 • www.cai-tech.com

LEGEND

PARCEL NUMBER · · · · · · · · 12D

RECORD DIMENSION · · · · · · 100

SUBDIVISION LOT NO. · · · · · · 2

COMMON OWNERSHIP · · · · · ↔

STREAMS · · · · · · · · · · · · ~

CEMETERY · · · · · · · · · · ·

CONDOMINIUM · · · · · · · · ·

FARMSTEAD · · · · · · · · · ·

OLD PROPERTY LINES · · · · ·

UTILITY LINES · · · · · · · · ·

ROW EASEMENT · · · · · · · · ·

ROW EASEMENT PAID · · · · · ·

SCALE: 1" = 400'

FEET 400 200 0 400 800 1,200

METERS 100 50 0 100 200 300

REVISED TO: APRIL 1, 2024

PROPERTY MAPS

WINDHAM

MAINE

INDEX DIAGRAM

MAP NO. 21



REFERENCES:
1. USGS QUADRANGLE NORTH WINDHAM, ME 2024

Scale: 1" = 2000'

2000' 0 2000' 4000'

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
Fax (207) 839-8250

C:\Users\gfeeney\Desktop\CAD\USGS Map.dwg, 2/28/2025 9:38:59 AM, HP

National Flood Hazard Layer FIRMette

FEMA

70°28'6"W 43°51'55"N



70°27'28"W 43°51'29"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/28/2025 at 3:02 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Beginning With Habitat



February 28, 2025

- Parcels- Unorganized Townships
- Parcels- Organized Towns\Cities
- Aquifers
- National Wetlands Inventory Wetlands
- Shellfish Beds
- Stream Buffer (75 feet)
- Great Ponds, Rivers and Coastal Buffer (250 feet)
- Atlantic Salmon Habitat
- Shorebird Habitat
- Seabird Nesting Island
- Tidal Waterfowl / Wading Bird Habitat
- Inland Waterfowl / Wading Bird Habitat
- Significant Vernal Pools
- Deer Wintering Areas
- Essential Wildlife Habitats
- Endangered, Threatened, and Special Concern Species
- Natural Communities
- Rare Plants and Natural Communities
- Focus Areas- Overlapping Organized Towns
- Conserved Lands
- Highway Bridge Connectors

Riparian Connectors
- Less than 2000 Vehicles/Day
- More than 2000 Vehicles/Day

Undeveloped Block Connectors
- Less than 2000 Vehicles/Day
- More than 2000 Vehicles/Day
- Undeveloped Habitat Blocks

1:18,056

0 0.1 0.2 0.4 mi

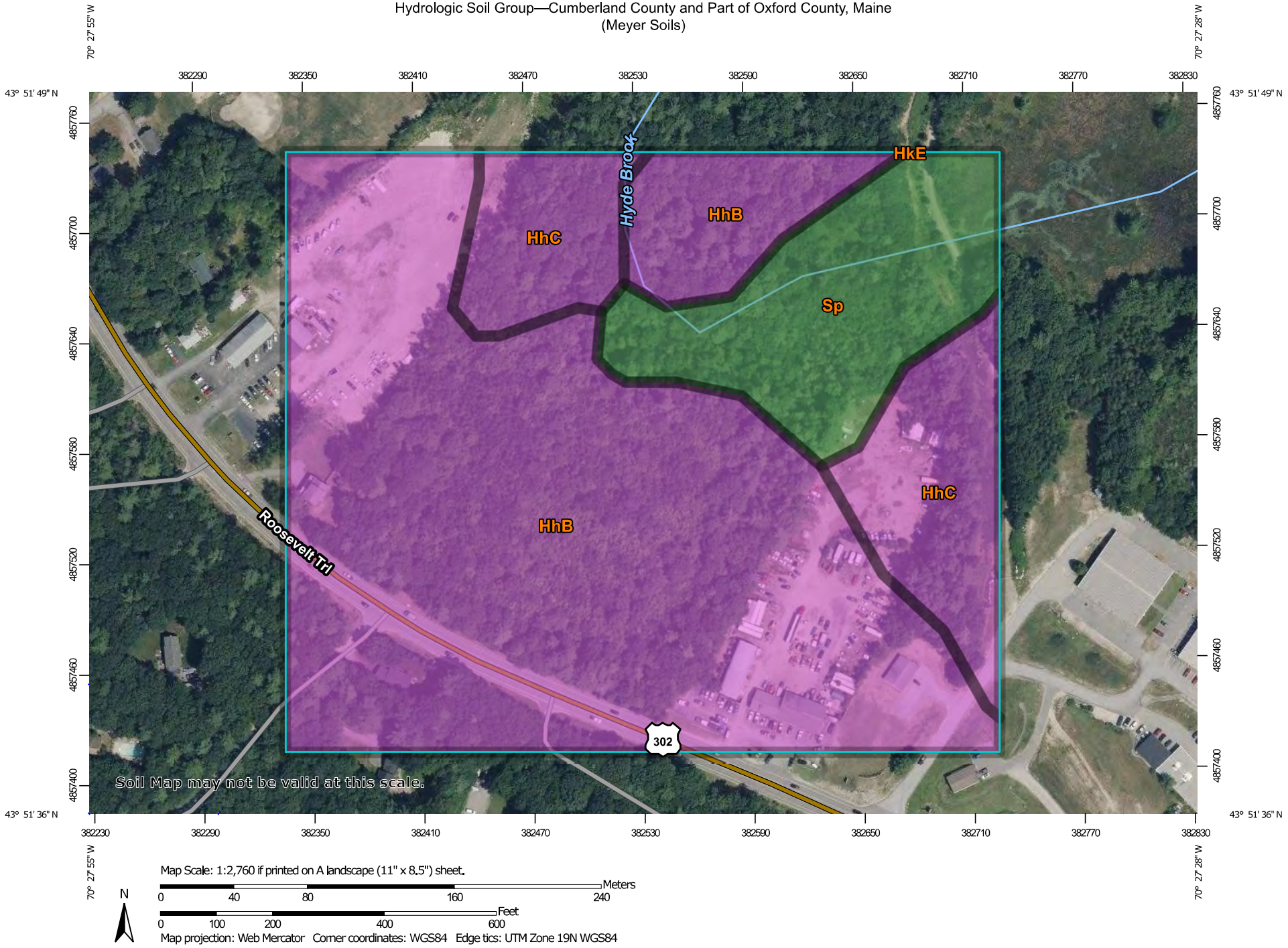
0 0.17 0.35 0.7 km

Maxar

Beginning with Habitat Program for Planning Purpo

Map Created With BWH Ma

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(Meyer Soils)



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 1:24,000.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 21, Aug 26, 2024

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

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

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
HhB	Hermon sandy loam, 0 to 8 percent slopes, very stony	A	21.9	69.6%
HhC	Hermon sandy loam, 8 to 15 percent slopes, very stony	A	4.8	15.3%
HkE	Hermon sandy loam, 20 to 60 percent slopes, extremely stony	A	0.0	0.0%
Sp	Sebago mucky peat	A/D	4.7	15.1%
Totals for Area of Interest			**31.5**	**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

Attachment 3
Parcel Deed

MAINE REAL ESTATE TAX-Paid

QUITCLAIM DEED
Release Deed
Statutory Short Form

DLN: 2117681

KNOW ALL BY THESE PRESENTS, That **I, Stanley Sclar** whose mailing address is 65 East Avenue, Lewiston, Maine 04240, for consideration paid, grant to **Double A Properties, LLC a Maine Limited Liability Company** with a mailing address of **968 Roosevelt Trail, Windham, ME 04062**, the real property in the Town of **Windham**, County of **Cumberland** and State of **Maine**, more particularly described as follows:

A certain lot or parcel of land lying in the fourth division of lands in Windham and described as follows, to wit: Commencing at a hub driven into the ground and one rod southeast of the corner of the stone wall; running thence southeast by the northerly line of the County road forty-three rods to John Lombard's land; thence northeast by said Lombard's land to the line of Lot No. 2 or the Haskell lot; thence northwest forty-three rods to a division line formerly made and agreed upon; thence southwest by said division line to the first bounds; containing eleven and one-half acres, more or less. Also the dwelling house standing on said parcel. Meaning hereby to convey the easterly half of same premises that Daniel Boston purchased of Harrison and Joseph Brazier, being a part of Lot No. 43 in said fourth division and being the northeasterly side of County road running through said lot.

Excluding from the above-described premises an area of approximately 0.29 acres for widening State Highway 14 and a ditch easement across said premises described in a deed from Samuel J. Ball to the State of Maine dated June 23,1955 and recorded in the Cumberland County Registry of Deeds in Book 2239, Page 18.

The above-described parcel is subject to a quitclaim deed from Andrea L. Fawcett and Erin J. Anderson to Stanley Sclar dated May 26, 2022 and recorded in the Cumberland County Registry of Deeds in Book 39495, Page 191.

Meaning and intending to convey and conveying the real property described in a deed to Stanley Sclar, from Kermit B. Elliot and Marie A. Elliot, dated March 30, 1972 and recorded in the Cumberland County Registry of Deeds at Book 3219, Page 337.

Witness my hand and seal this 22nd day of November, 2024.

Witness to all:

_____

Stanley Sclar

DOC :44905 BK:41146 PG:342
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
11/25/2024, 11:56:49A
Register of Deeds Jessica M. Spaulding E-RECORDED

STATE OF **MAINE**
COUNTY OF **ANDROSCOGGIN**, ss. November 22, 2024

Personally appeared on the above date, the above-named **Stanley Sclar** and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public/Attorney at Law
Print name: _____
Exp: _____

COREY M. ST.PIERRE
My Commission Expires
06-12-2026
NOTARY PUBLIC

Attachment 4
Wetland Delineation Letter

MARK HAMPTON ASSOCIATES, INC.
SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8266
April 22, 2025

Mr. Andy Morrell
BH2M
380 B Main Street
Gorham ME 04038

Re: Wetland Delineation, 1027 Roosevelt Trail Windham, ME

Dear Andy,

I completed a delineation of wetlands on the parcel located at 1027 Roosevelt Trail Windham, ME. The wetland delineation was completed in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Regions dated January 2012. These manuals require the presence of three parameters for a wetland to be present, wetland hydrology, hydrophytic vegetation, and hydric soils.

The wetlands I found on the parcel were flagged with yellow flagging. The flagging was labeled in an alphanumeric sequence. The wetland flags were located by GPS equipment capable of locating a point to within three feet. This information will be sent to your office. The wetlands delineated onsite are forested wetlands. The wetlands on the property within 25 feet of the stream meet the definition for wetlands of special significance by the Maine Department of Environmental Protection.

If you have any questions or require additional information, please contact me.

Sincerely,

Mark J. Hampton C.S.S., L.S.E.
Certified Soil Scientist #216
Licensed Site Evaluator #263

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

Attachment 5
Abutters List

200 feet Abutters List Report

Windham, ME
May 20, 2025

Subject Property:

Parcel Number:	021012000000	Mailing Address:	DOUBLE A PROPERTIES LLC
CAMA Number:	021-012-000-000		968 ROOSEVELT TRAIL
Property Address:	1027 ROOSEVELT TR		WINDHAM, ME 04062

Abutters:

Parcel Number:	021005D05A00	Mailing Address:	DOERING WILLIAM C & DOERING KIMBERLY K
CAMA Number:	021-005-D05-A00		9 MINERAL SPRING ROAD
Property Address:	9 MINERAL SPR RD		WINDHAM, ME 04062
Parcel Number:	021005D05B00	Mailing Address:	DOERING WILLIAM C & DOERING KIMBERLY K
CAMA Number:	021-005-D05-B00		9 MINERAL SPRING ROAD
Property Address:	MINERAL SPR RD		WINDHAM, ME 04062
Parcel Number:	021005E03000	Mailing Address:	PELLETIER KYLE A & PELLETIER SELENA
CAMA Number:	021-005-E03-000		13 RED HAWK DRIVE
Property Address:	13 RED HAWK DR		WINDHAM, ME 04062
Parcel Number:	021005E04000	Mailing Address:	COOK MICHAEL J & COOK SHELLY M
CAMA Number:	021-005-E04-000		9 RED HAWK DRIVE
Property Address:	9 RED HAWK DR		WINDHAM, ME 04062
Parcel Number:	021005E05000	Mailing Address:	MARTIN MICHAEL D & MARTIN LYNN R
CAMA Number:	021-005-E05-000		PO BOX 1534
Property Address:	5 RED HAWK DR		WINDHAM, ME 04062
Parcel Number:	021005E06000	Mailing Address:	HINSE ANTHONY
CAMA Number:	021-005-E06-000		1 RED HAWK DR
Property Address:	1 RED HAWK DR		WINDHAM, ME 04062
Parcel Number:	021005E07000	Mailing Address:	HURLBURT CHRISTOPHER & HURLBURT ALLISON M
CAMA Number:	021-005-E07-000		6 MINERAL SPRING ROAD
Property Address:	6 MINERAL SPR RD		WINDHAM, ME 04062
Parcel Number:	021006000000	Mailing Address:	AGRINSONI JOSEPH & SIMPSON SAMANTHA
CAMA Number:	021-006-000-000		2 MINERAL SPR RD
Property Address:	2 MINERAL SPR RD		WINDHAM, ME 04062
Parcel Number:	021008000000	Mailing Address:	WINDHAM ASSEMBLY OF GOD MINISTRIES
CAMA Number:	021-008-000-000		1051 ROOSEVELT TR
Property Address:	1051 ROOSEVELT TR		WINDHAM, ME 04062
Parcel Number:	021008000000	Mailing Address:	FAIRPOINT COMMUNICATIONS INC TAX DEPARTMENT
CAMA Number:	021-008-L00-000		2116 SOUTH 17TH ST, TAX DEPT
Property Address:	1051 ROOSEVELT TR		MATTOON, IL 61938

200 feet Abutters List Report

Windham, ME
May 20, 2025

Parcel Number:	021010000000	Mailing Address:	1037 ROOSEVELT TRAIL LLC
CAMA Number:	021-010-000-000		1037 ROOSEVELT TRAIL
Property Address:	1037 ROOSEVELT TR		WINDHAM, ME 04062
Parcel Number:	021011000000	Mailing Address:	TAYLOR CAITLIN A & TAYLOR STEPHEN
CAMA Number:	021-011-000-000		1029 ROOSEVELT TR
Property Address:	1029 ROOSEVELT TR		WINDHAM, ME 04062
Parcel Number:	021015000000	Mailing Address:	RJGF LLC C/O ROBERT GRONDIN
CAMA Number:	021-015-000-000		PO BOX 869
Property Address:	ENTERPRISE DR		RAYMOND, ME 04071
Parcel Number:	021016000000	Mailing Address:	AUTO & TRUCK USED PARTS RECYCLERS
CAMA Number:	021-016-000-000		227 MERROW ROAD
Property Address:	1011 ROOSEVELT TR		AUBURN, ME 04210

Attachment 6
Letter of Good Standing



Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Tue May 20 2025 10:48:11. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
DOUBLE A PROPERTIES, LLC	20173055DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
12/27/2016	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Principal Home Office Address

Physical	Mailing
8 STORM DRIVE WINDHAM, ME 04062	8 STORM DRIVE WINDHAM, ME 04062

Clerk/Registered Agent

Physical	Mailing
GREGORY W. FILES 778 ROOSEVELT TRAIL WINDHAM, ME 04062	GREGORY W. FILES 778 ROOSEVELT TRAIL WINDHAM, ME 04062

New Search

Click on a link to obtain additional information.

List of Filings	View list of filings	
Obtain additional information:		
Certificate of Existence (Good Standing) (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

Attachment 7
Cost Estimate

ENGINEER'S ESTIMATE OF
PROBABLE CONSTRUCTION COSTS - SKETCH PLAN
A Plus Auto

Site Preparation	Quantity	Unit	Unit Cost	Total Cost
Grubbing & Clearing	4.35	ACRE	$ 10,000	$ 43,500
Erosion Control	1	LS	$ 5,000	$ 5,000
Subtotal				**$ 48,500**

Underground Electric Utilities	Quantity	Unit	Unit Cost	Total Cost
Transformer Pad	1	EA	$ 2,500	$ 2,500
Underground Elec/Tel./Cable	200	LF	$ 40	$ 8,000
Subtotal				**$ 10,500**

Roadway	Quantity	Unit	Unit Cost	Total Cost
Subbase Gravel	5,250	CY	$ 28	$ 147,000
Base Gravel	900	CY	$ 41	$ 36,900
Hot Bituminous Binder Pavement	500	TONS	$ 125	$ 62,500
Hot Bituminous Surface Pavement	225	TONS	$ 150	$ 33,750
Curbing	1,224	LF	$ 30	$ 36,720
Subtotal				**$ 316,870**

Storm Drain System	Quantity	Unit	Unit Cost	Total Cost
Vegetated Soil Filter Field	3	LS	$ 60,000.00	$ 180,000.00
Subtotal				**$ 180,000.00**

Miscellaneous	Quantity	Unit	Unit Cost	Total Cost
Loam and Seed	775	CY	$ 35	$ 27,125
Landscaping (Trees)	16	EA	$ 100	$ 1,600.00
Dumpster	2	LS	$ 5,000	$ 10,000
Lighting	1	LS	$ 10,000	$ 10,000
Septic System	1	LS	$ 20,000	$ 20,000
Gas Service	150	LF	$ 50	$ 7,500
Water Service	420	LF	$ 50	$ 21,000
Signage	1	LS	$ 1,500	$ 1,500
Subtotal				**$ 98,725**

TOTAL CONSTRUCTION COST	**$ 654,595**
15% CONTINGENCY	**$ 98,190**
TOTAL CONSTRUCTION COST WITH CONTINGENCY	**$ 752,785**

Asumed Pavement Section:

Pavement Section	
18	(Subbase Gravel)
3	(Base Gravel)
2.75	(Binder Pavement)
1.25	(Surface Pavement)
Pavement Area =	94,500

Notes:

1. In providing this Estimate, the Client understands that BH2M has no control over the cost or availability of labor, equipment or materials, or over market conditions at the time of bidding

2. This estimate is based upon a concept plan dated June 2025. This is an approximate estimate based on a sketch plan only. Once the design is complete, a more detailed estimate can be provided.

Attachment 8
Building Plans

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

APPLICANT/PLANNER'S CHECKLIST FOR MAJOR SITE PLAN REVIEW
COMMERCIAL DISTRICT DESIGN STANDARDS SECTION 120-813

The following checklist includes Design Standards for nonresidential developments within Windham's Commercial* 1, Commercial 1 North, Commercial 2, Commercial 3, Village Commercial, and Windham Center Districts.** ***Where there is a conflict between provision of the Design Standards and any other ordinance provision, the more restrictive provision shall apply. In addition to meeting all Design Standards required in the applicable zoning districts, development must comply with he minimum of eight (8) other Design Standards.

For purposed of this section ,"development" shall mean that portion of the project that:

- ***a. Is subject to the site plan review under Article 8 Site Plan Review; or***
- ***b. Will renovate twenty percent (20%) or more of the entire wall area of a structure on the site. (For this type of renovation, the renovation will be subject to the required Design Standards in Section A. but will not be subject to other required Design Standards.)***

Design Standards Framework

			C-1	C-1N	C-2	C-3	VC	WC	Checklist	
A.	**Architecture/Building**								**Applicant**	**Staff**
	1	Building Style	R[1]	R	R	R	R	R	☑	☐
	2	Materials	R	R	R	R	R	R	☑	☐
	3	Color	R	R	R	R	R	R	☑	☐
	4	Roofline	R	R	R	R	R	R	☑	☐
	5	Façade	R	R	R	R	R	R	☑	☐
	6	Building style coordination (multi-building)	R	R	R	R	R	R	☑	☐
	7	Entrance	R	R	R	R	R	R	☑	☐
	8	Architectural Details	R	R	R	R	R	R	☑	☐
	9	LEED certification							☐	☐
B	**Site/Parking**									
	1	Parking location							☑	☐
	2	Internal traffic flow							☑	☐
	3	Interconnected Parking lots							☑	☐
	4	Orientation of Building							☑	☐
	5	Screening, Parking			R			R	☑	☐
	6	Screening, utilities and service areas/structures	R	R	R		R	R	☑	☐
	7	Parking Lot Landscaping							☐	☐
	8	Low-Impact Design Stormwater							☑	☐
	9	Shared Stormwater Treatment							☑	☐
C	**Landscaping/Lighting**									
	1	Lighting/Photometric Plan	R	R			R		☑	☐
	2	Lighting coordinated with architecture	R	R			R		☑	☐
	3	Light coordinated with landscaping	R	R			R		☑	☐
	4	Existing trees preserved				R		R	☐	☐
	5	Snow area designated	R	R	R	R	R	R	☑	☐
	6	Planting variety							☐	☐
	7	Planting suitability							☐	☐
	8	Mass plantings							☐	☐
	9	Illumination levels							☑	☐
D.	**Bike/Ped**									
	1	Internal walkways	R	R					☑	☐
	2	Links to community	R	R	R		R	R	☑	☐
	3	Outdoor activity area							☐	☐
	4	Sidewalk	R	R				R	☑	☐
	5	Crosswalk	R	R					☐	☐
	6	Bike parking/racks	R	R	R		R	R	☐	☐

1. Any item with an **R** in the Table is a required Design Standards in that zoning district.

BH2M

Civil Engineering | Surveying

July 2, 2025

Steve Puleo - Planning Director
Town of Windham
8 School Road
Windham, Maine 04062

Re: Major Site Plan Application
Commercial District Design Standards
A Plus Auto Group

Dear Steve,

On behalf of the applicant, Double A Properties LLC, we are submitting a Commercial District Design Standard checklist and narrative. The applicant is proposing a 32,500 sf service, sales, and body shop building along State Route 302 (Roosevelt Trail).

The following is a summary of how this project meets section 12-813 of Windham Ordinance:

Design Standards Framework A. 1-9

The client is currently working with the architect to submit updated architectural plans that will meet all required design standards.

Design Standards Framework B. 1-9

All required design standards in section B have been met and are shown on the preliminary site plan.

Design Standards Framework C. 1-9

All design standards in section C have been met and are shown on the preliminary site plan and lighting plan.

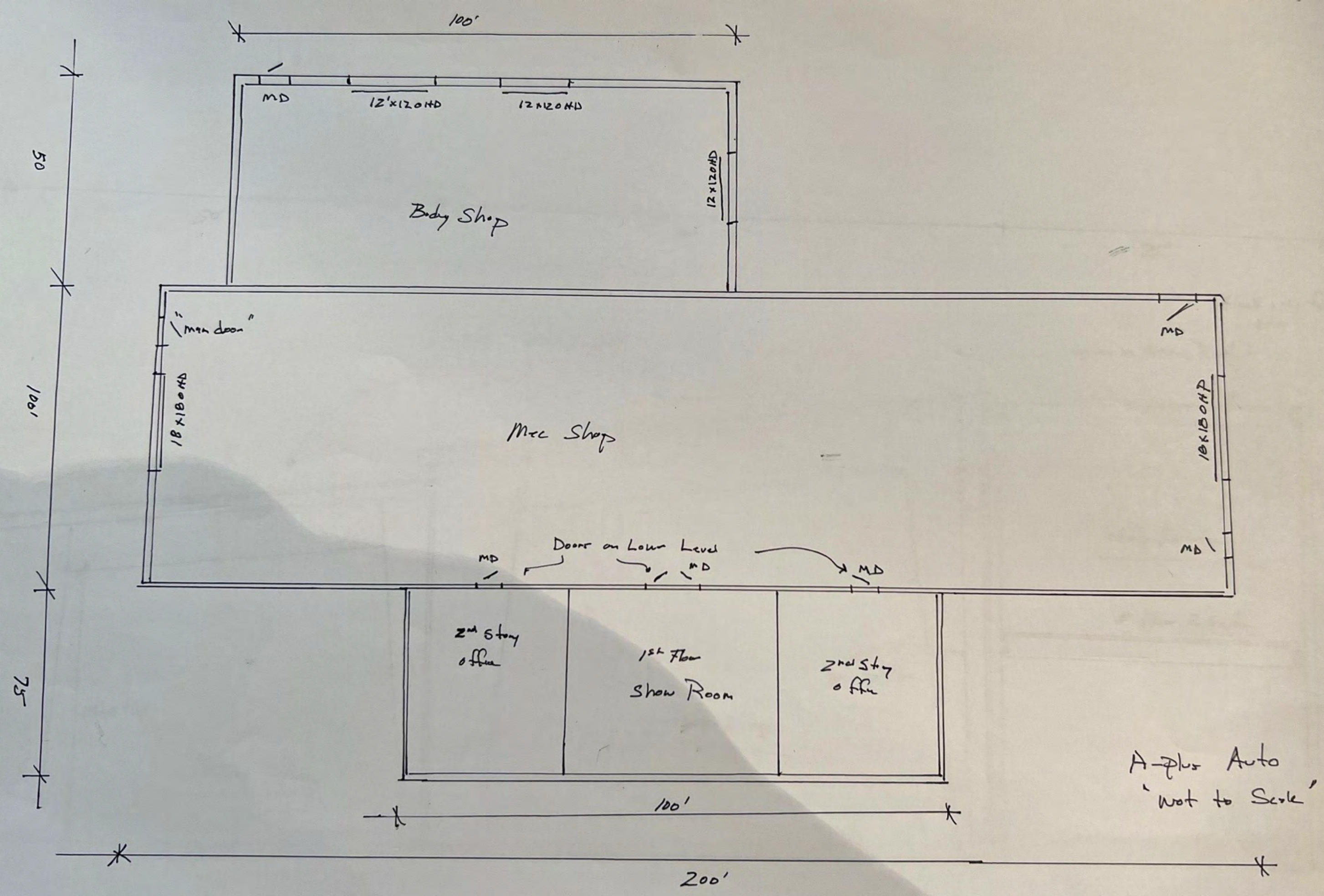
Design Standards Framework D. 1-6

All required design standards in section D have been met and are shown on the preliminary site plan excluding bike parking/racks.

Please let me know if you have any questions or need any additional information. We look forward to working with you on this project.

Sincerely,

Andrew S. Morrell, PE
Project Engineer


100'
50
MD
12'x12'HD
12'x12'HD
12'x12'HD
Body Shop
"main door"
18'x18'HD
Mec Shop
MD
18'x18'HD
MD
Door on Lower Level
MD
MD
MD
2nd Story office
1st Floor Show Room
2nd Story office
75'
100'
200'
A-Plus Auto
'not to Scale'

50'

100'

75'

Complete Finished Shell

Shell only for Now

option on Slope Roof ?

14'-0 +/-

Body Shop

Mec Shop

20'-22' +/-

office/Showroom

2" Flow 2 Stories

4'-0" +/-
Step

Steel Building

Standing Seam metal

Standing Seam Metal Roof

Body Shop

Service / Parts

Sales

Maybe
OH D

Attachment 9
Lighting Plan

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, 0.120"), or 50 KSI (7-gauge, 0.179"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include 4" tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Extra durable painted finish is coated with TGIC (Triglycidyl Isocyanurate) Polyester powder that meets 5A and 5B classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

GOVERNEMENT PROCUREMENT —

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

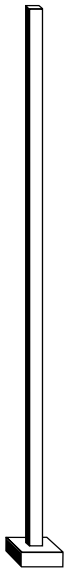
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.



Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

BAA BABA

SSS Square Straight Steel Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** SSS 20 5C DM28AS DDBXD

SSS					
Series	**Nominal fixture mounting height**	**Nominal shaft base size/wall thickness[1]**	**Mounting[2]**	**Options**	**Finish**
SSS	10'-39' (for 1/2 ft increments, add -6 to the pole height. **Ex:** 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.)	4C 4" 11g (0.120") 4G 4" 7g (0.179") 5C 5" 11g (0.120") 5G 5" 7g (0.179") 6G 6" 7g (0.179") (See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) DSX/RSX/OMERO™ Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[3] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90° Arm drill mounting To be added as series + drill orientations **EX:** SMAC19 for SMAC arm drilling 1 at 90°	Shipped installed VD Vibration damper[4] JHxy J-Hook for cable strain relief[5] HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5,7] FDLGFCIxy Festoon with GFCI outlet and in-use cover[5,8] CPL12/xy 1/2" coupling[5] CPL34/xy 3/4" coupling[5] CPL1/xy 1" coupling[5] NPL12/xy 1/2" threaded nipple[5] NPL34/xy 3/4" threaded nipple[5] NPL1/xy 1" threaded nipple[5] EHHxy Extra handhole[5,9] STLTMP Steel anchor bolt template (standard is paper) STLHHC Steel handhole cover (standard is plastic, finish is smooth)[10] FBCSTL2PC 2 Piece steel base cover (standard is plastic)[10] IC Interior coating[11] L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant[12] VM/original order# Match pole to prior order or project[13]	Super durable paint colors DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DGCXD Charcoal gray DTGXD Tennis green DBRXD Bright red DSBXD Steel blue DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white Other finishes GALV Galvanized finish Architectural colors and special finishes[14] [PAINT] GALV Paint over galvanizing VP30 3 year warranty extension VP53 5 year warranty extension RAL#### Use designated Lithonia Lighting nomenclature in brochure Custom color Nomenclature assigned through Customer Care "Custom Color Process"

Accessories: *Order as separate catalog number.*	
PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxAS drillings
FVD xxFT	Field installed vibration damper (snake style)

NOTES:
1. Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" - 0.120" | "G" - 0.179".
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, specify as drilling option/tenon option. The combination includes a required extra handhole.
   Example: DM28/T20.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. On 4" and 5" poles, VD cannot be installed if provisions (EHH, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height.
   Example: Pole height is 25ft, A provision cannot be placed above 16ft.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8 ", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D. If ordering two horizontal arm at the same height, specify with HAxyy.
   Example: HA20BD.
7. FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
8. Festoon option that comes with GFCI and in-use cover. GFCI and in-use cover ship separately from pole.
9. Combination of tenon-top and drill mount includes extra handhole. EHH includes cover.
10. Plastic hand hole cover and base covers come standard with all poles. Items ship separately. Additional parts can be ordered as replacements.
11. N/A with GALV.
12. Use when mill certifications are required.
13. Must add original order number. Not for replacement parts or post sales issues, contact tech support or post sales teams. VM is used to ensure poles match in appearance exactly from order to order, on a single project site. A common use case would be a multi-phase project with multiple orders. *Example: VM/010-36784*
14. Must be quoted through AQD. Finishes do not require RFA. RAL colors available are shown in "Architectural Colors brochure". Lead times may be extended up to 2 weeks due to paint procurement.

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TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust

Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in.)	Gauge	EPA (ft^2) with 1.3 gust						Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight	
SSS 10 4C	10	4.0 x 10.0	0.120"	11	30.6	765	23.8	595	18.9	473	75
SSS 12 4C	12	4.0 x 12.0	0.120"	11	24.4	610	18.8	470	14.8	370	90
SSS 14 4C	14	4.0 x 14.0	0.120"	11	19.9	498	15.1	378	11.7	293	100
SSS 16 4C	16	4.0 x 16.0	0.120"	11	15.9	398	11.8	295	8.9	223	115
SSS 18 4C	18	4.0 x 18.0	0.120"	11	12.6	315	9.2	230	6.7	168	125
SSS 20 4C	20	4.0 x 20.0	0.120"	11	9.6	240	6.7	167	4.5	150	140
SSS 20 4G	20	4.0 x 20.0	0.179"	7	14	350	11	275	8	200	198
SSS 20 5C	20	5.0 x 20.0	0.120"	11	17.7	443	12.7	343	9.4	235	185
SSS 20 5G	20	5.0 x 20.0	0.179"	7	28.1	703	21.4	535	16.2	405	265
SSS 25 4C	25	4.0 x 25.0	0.120"	11	4.8	150	2.6	100	1	50	170
SSS 25 4G	25	4.0 x 25.0	0.179"	7	10.8	270	7.7	188	5.4	135	245
SSS 25 5C	25	5.0 x 25.0	0.120"	11	9.8	245	6.3	157	3.7	150	225
SSS 25 5G	25	5.0 x 25.0	0.179"	7	18.5	463	13.3	333	9.5	238	360
SSS 30 4G	30	4.0 x 30.0	0.179"	7	6.7	168	4.4	110	2.6	65	295
SSS 30 5C	30	5.0 x 30.0	0.120"	11	4.7	150	2	50	--	--	265
SSS 30 5G	30	5.0 x 30.0	0.179"	7	10.7	267	6.7	167	3.9	100	380
SSS 30 6G	30	6.0 x 30.0	0.179"	7	19	475	13.2	330	9	225	520
SSS 35 5G	35	5.0 x 35.0	0.179"	7	5.9	150	2.5	100	--	--	440
SSS 35 6G	35	6.0 x 35.0	0.179"	7	12.4	310	7.6	190	4.2	105	540
SSS 39 6G	39	6.0 x 39.0	0.179"	7	7.2	180	3	75	--	--	605

NOTE: EPA values are based ASCE 7-93 wind map.
* For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

TECHNICAL INFORMATION — EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013

Series	Mounting Height (ft.)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
SSS	10	4C	20	500	16	400	13	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	4C	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	4C	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	4C	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	4C	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	-	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	.5	13	170
SSS	20	4C	6	150	4	100	2.5	63	1	25	-	-	-	-	-	-	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25			205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	-	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	4C	2	50	0.5	13	-	-	-	-	-	-	-	-	-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38	-	-	-	-	-	-	-	-	245
SSS	25	5C	4.5	113	2	50	-	-	-	-	-	-	-	-	-	-	225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38	-	-	-	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25			445
SSS	30	4G	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63	-	-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-	-	-	-	-	-	-	-	-	-	-	-	440
SSS	35	6G	4	100	-	-	-	-	-	-	-	-	-	-	-	-	540
SSS	39	6G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605

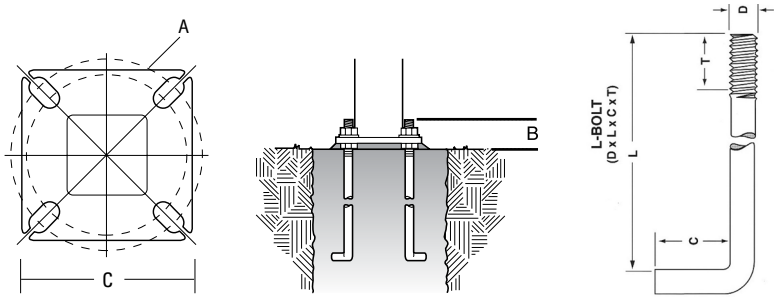
NOTE: AASHTO 2013 design criteria is the most common EPA and uses wind map ASCE7-05. Please review the project Spec document to determine the correct design criteria for the poles on your jobsite.
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

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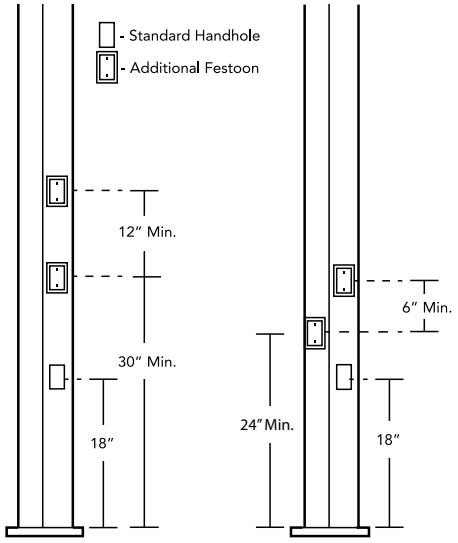
ANCHORAGE AND TEMPLATE INFORMATION								
Shaft base size	**Bolt circle A**	**Bolt projection B**	**Base square C**	**Base plate thickness**	**Template description ***	**Anchor bolt description**	**Bolt size (in.) D x L x C**	**Anchor bolt/ Template Combo**
4"C	8" – 9"	3.25"- 3.75"	8"- 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	3/4 x 18 x 3	ABSSS-4C
4"G	8" – 9"	3.38"- 3.75"	8"- 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	3/4 x 30 x 3	ABSSS-4G
5"	10" – 12"	3.5"- 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	1 x 36 x 4	ABSSS-5
6"	11" – 13"	4"- 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	1 x 36 x 4	N/A

* Paper template standard. Add STL to end of description for the steel template.

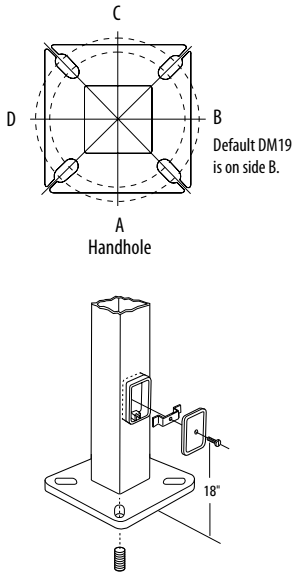
BASE & BOLT DETAIL



SQUARE STEEL HANDHOLE AND FESTOON - PLACEMENT RULES



HANDHOLE DETAIL



IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.
- Bolt circles have +/- 1/2" tolerance.

CAUTION: These specifications are intended for general purposes only. Lithonia Lighting reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

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D-Series Size 2
LED Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of up to 80% vs. 1000W HID and expected service life of over 100,000 hours.

Specifications

EPA: 1.06 ft² (0.10 m²)

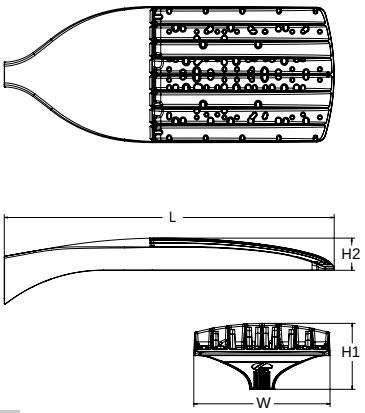
Length: 40.59" (103.1 cm)

Width: 16.76" (42.6 cm)

Height H1: 8.11" (20.6 cm)

Height H2: 3.96" (10.1 cm)

Weight: 46 lbs (20.9 kg)



Design Select options indicated by this color background.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Ordering Information

EXAMPLE: DSX2 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED

Series	LEDs	Color temperature [2]	Color Rendering Index [2]	Distribution		Voltage	Mounting
DSX2 LED	**Forward optics**	(this section 70CRI only)		AFR Automotive front row	T5M Type V medium	MVOLT (120V-277V) [4]	**Shipped included**
	P1 P5	30K 3000K	70CRI	T1S Type I short	T5LG Type V low glare	HVOLT (347V-480V) [5,6]	SPA Square pole mounting (#8 drilling)
	P2 P6	40K 4000K	70CRI	T2M Type II medium	T5W Type V wide	XVOLT (277V - 480V) [7,8]	RPA Round pole mounting (#8 drilling)
	P3 P7	50K 5000K	70CRI	T3M Type III medium	BLC3 Type III backlight control [3]	120 [16,26]	SPA5 Square pole mounting #5 drilling [9]
	P4 P8			T3LG Type III low glare [3]	BLC4 Type IV backlight control [3]	208 [16,26]	RPA5 Round pole mounting #5 drilling [9]
	Rotated optics	27K 2700K	80CRI	T4M Type IV medium	LCCO Left corner cutoff [3]	240 [16,26]	SPA8N Square narrow pole mounting #8 drilling
	P10 [1] P13 [1]	30K 3000K	80CRI	T4LG Type IV low glare [3]	RCCO Right corner cutoff [3]	277 [16,26]	WBA Wall bracket [10]
	P11 [1] P14 [1]	35K 3500K	80CRI	TFTM Forward throw medium		347 [16,26]	MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)
	P12 [1]	40K 4000K	80CRI			480 [16,26]	
		50K 5000K	80CRI				

Control options

Shipped installed

NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. [11,12,20,21]
PIR	High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc [13,20,21]
PER	NEMA twist-lock receptacle only (controls ordered separate) [14]
PER5	Five-pin receptacle only (controls ordered separate) [14,21]
PER7	Seven-pin receptacle only (controls ordered separate) [14,21]
FAO	Field adjustable output [15,21]
BL30	Bi-level switched dimming, 30% [16,21]
BL50	Bi-level switched dimming, 50% [16,21]
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]
DS	Dual switching [18,19,21]

Other options

Shipped installed

SPD20KV	20KV surge protection
HS	Houseside shield (black finish standard) [22]
L90	Left rotated optics [1]
R90	Right rotated optics [1]
CCE	Coastal Construction [23]
HA	50°C ambient operation [24]
BAA	Buy America(n) Act and/or Build America Buy America Qualified
SF	Single fuse (120, 277, 347V) [26]
DF	Double fuse (208, 240, 480V) [26]
3G	Vibration rated for 3G [27]

Shipped separately

EGSR	External Glare Shield (reversible, field install required, matches housing finish)
BSDB	Bird Spikes (field install required)

Finish *(required)*

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [25]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [25]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [25]
DSHORT SBK	Shorting cap [25]
DSX2HS P#	House-side shield (enter package number 1-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSX2EGSR (FINISH)	External glare shield (specify finish)
DSX2BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

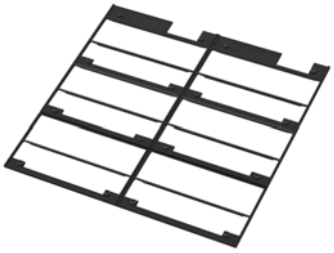
NOTES

1 Rotated optics available with packages P10, P11, P12, P13 and P14. Must be combined with option L90 or R90.
2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6 HVOLT not available with package P10 when combined with option NLTAIR2 PIRHN or option PIR.
7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8 XVOLT not available in package P10. XVOLT not available with fusing (SF or DF).
9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this link
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P10 using HVOLT. NLTAIR2 PIRHN not available with P10 using XVOLT.
13 PIR not available with NLTAIR2 PIRHN, PER, PER5, PER7, FAO BL30, BL50, DMG and DS. PIR not available with P10 using HVOLT. PIR not available with P10 using XVOLT.
14 14) PER/PER5/PER7 not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, DMG and DS.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO, DMG and DS. BL30 or BL50 must specify 120 or 277V.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DS.
18 DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG.
19 DS requires (2) separately switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads on P1, P2, P3, P4, P5 (2 drivers). Note: Provides 60/40 operation using (2) different sets of leads on P6, P7, P8, P9, P10, P11, P12, P13, P14 (3 drivers).
20 Reference Motion Sensor Default Settings table on page 4 to see functionality.
21 Reference Controls Options table on page 4.
22 HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
23 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
24 Option HA not available with performance packages P5, P6, P7, P8, P13 and P14.
25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
26 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
27 Option 3G for use with (MA) mast arm mount only when 3G vibration is required.

Shield Accessories



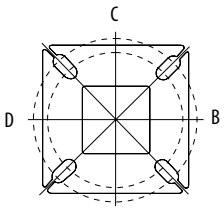
External Glare Shield (EGSR)



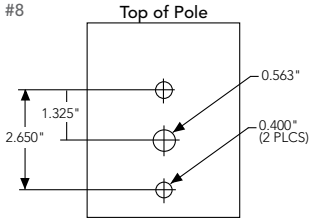
House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION



Template #8



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX2 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

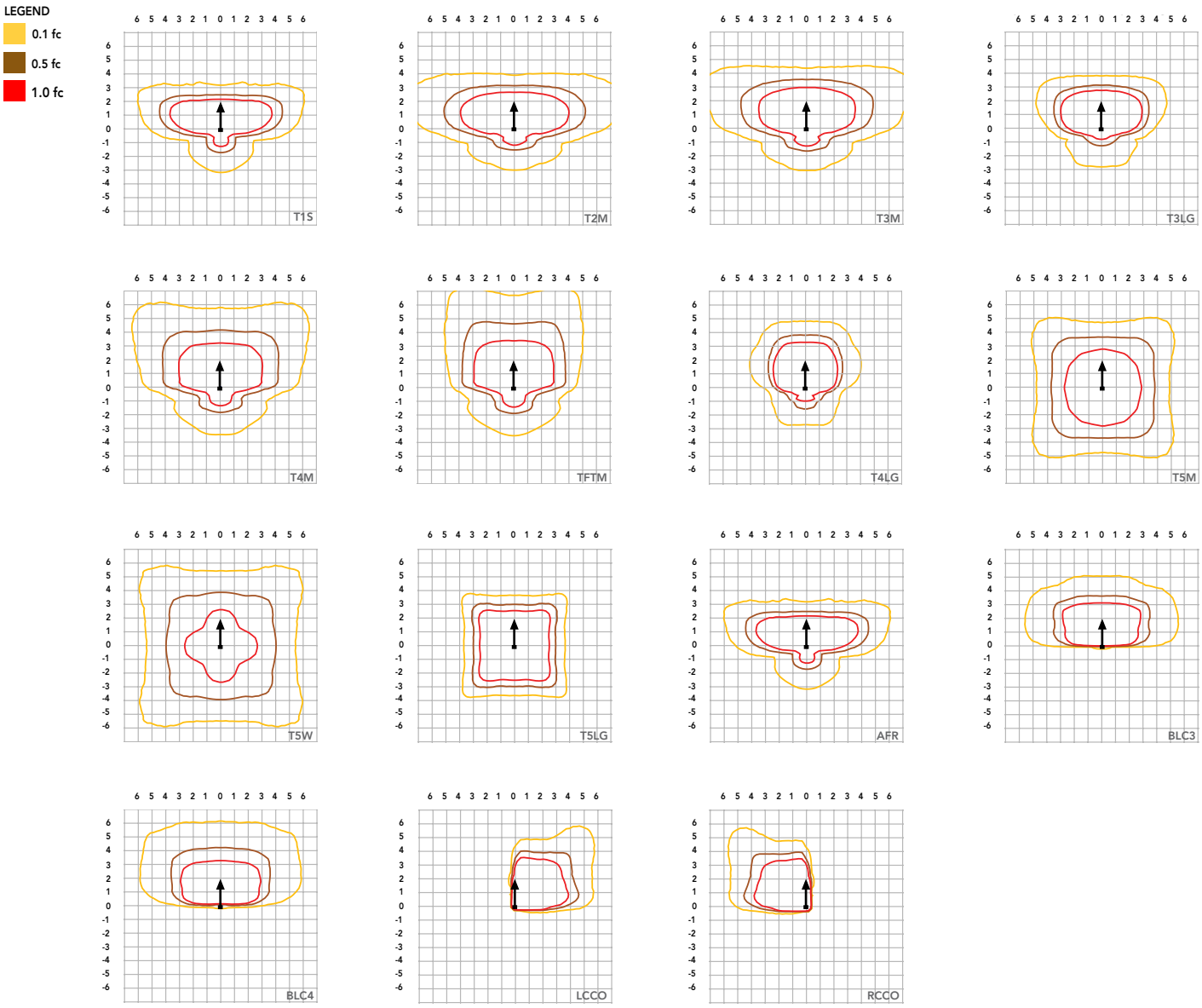
Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX2 with SPA	1.06	2.12	1.84	2.32	---	2.33
DSX2 with SPA5, SPA8N	1.07	2.14	1.90	2.43	---	2.44
DSX2 with RPA, RPA5	1.07	2.14	1.90	2.43	2.31	2.44
DSX2 with MA	1.20	2.40	2.12	3.00	2.92	3.00

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Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's homepage.

Isofootcandle plots for the DSX2 LED P8 40K 70CRI. Distances are in units of mounting height (40').



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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.03
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.95
50,000	0.90
100,000	0.82

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use published values for each package based on input watts and lumens by optic type.

Electrical Load

	Performance Package	LED Count	Drive Current (mA)	Wattage	Current (A) 120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	80	530	135	1.12	0.65	0.56	0.49	0.39	0.28
	P2	80	700	181	1.49	0.86	0.75	0.65	0.52	0.37
	P3	80	850	222	1.83	1.05	0.91	0.79	0.63	0.46
	P4	80	1050	277	2.27	1.31	1.14	0.98	0.79	0.57
	P5	80	1250	333	2.72	1.57	1.36	1.18	0.94	0.68
	P6	100	1050	345	2.85	1.64	1.42	1.23	0.98	0.71
	P7	100	1250	414	3.41	1.97	1.70	1.48	1.18	0.85
	P8	100	1400	466	3.85	2.22	1.93	1.67	1.33	0.96
Rotated Optics (Requires L90 or R90)	P10	90	530	152	1.27	0.73	0.63	0.55	0.44	0.32
	P11	90	700	203	1.69	0.97	0.84	0.73	0.58	0.42
	P12	90	850	249	2.06	1.19	1.03	0.89	0.71	0.52
	P13	90	1200	358	2.95	1.70	1.47	1.28	1.02	0.74
	P14	90	1400	421	3.46	2.00	1.73	1.50	1.20	0.87

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80CRI		90CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Photocell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V

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Performance Data

Lumen Output

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Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	135W	80	530	T1S	19,946	2	0	3	148	20,787	2	0	3	155	21,192	2	0	3	158
				T2M	18,477	3	0	4	137	19,256	3	0	4	143	19,632	3	0	4	146
				T3M	18,691	3	0	5	139	19,480	3	0	5	145	19,859	3	0	5	148
				T3LG	16,696	2	0	2	124	17,400	2	0	2	129	17,740	2	0	2	132
				T4M	18,970	3	0	5	141	19,770	3	0	5	147	20,155	3	0	5	150
				T4LG	17,253	2	0	2	128	17,981	2	0	2	134	18,331	2	0	2	136
				TFTM	19,101	3	0	5	142	19,907	3	0	5	148	20,295	3	0	5	151
				T5M	19,517	5	0	3	145	20,341	5	0	3	151	20,737	5	0	3	154
				T5W	19,834	5	0	3	147	20,670	5	0	3	154	21,073	5	0	3	157
				T5LG	19,574	4	0	2	146	20,400	4	0	2	152	20,797	4	0	2	155
				BLC3	13,595	0	0	3	101	14,169	0	0	3	105	14,445	0	0	3	107
				BLC4	14,042	0	0	4	104	14,634	0	0	4	109	14,919	0	0	4	111
				RCCO	13,718	1	0	3	102	14,297	1	0	3	106	14,576	1	0	3	108
				LCCO	13,718	1	0	3	102	14,297	1	0	3	106	14,576	1	0	3	108
				AFR	19,946	2	0	3	148	20,787	2	0	3	155	21,192	2	0	3	158
P2	179W	80	700	T1S	25,520	3	0	3	142	26,597	3	0	3	148	27,116	3	0	3	151
				T2M	23,641	3	0	5	132	24,638	3	0	5	137	25,118	3	0	5	140
				T3M	23,915	3	0	5	133	24,924	3	0	5	139	25,410	3	0	5	142
				T3LG	21,363	3	0	3	119	22,264	3	0	3	124	22,698	3	0	3	127
				T4M	24,272	3	0	5	135	25,296	3	0	5	141	25,789	3	0	5	144
				T4LG	22,075	3	0	3	123	23,006	3	0	3	128	23,455	3	0	3	131
				TFTM	24,440	3	0	5	136	25,471	3	0	5	142	25,967	3	0	5	145
				T5M	24,972	5	0	3	139	26,026	5	0	3	145	26,533	5	0	4	148
				T5W	25,377	5	0	4	142	26,448	5	0	4	148	26,963	5	0	4	150
				T5LG	25,045	4	0	2	140	26,101	4	0	2	146	26,610	4	0	2	148
				BLC3	17,395	0	0	4	97	18,129	0	0	4	101	18,482	0	0	4	103
				BLC4	17,966	0	0	4	100	18,724	0	0	5	104	19,089	0	0	5	107
				RCCO	17,552	1	0	4	98	18,293	1	0	4	102	18,649	1	0	4	104
				LCCO	17,552	1	0	4	98	18,293	1	0	4	102	18,649	1	0	4	104
				AFR	25,520	3	0	3	142	26,597	3	0	3	148	27,116	3	0	3	151
P3	219W	80	850	T1S	30,127	3	0	4	137	31,398	3	0	4	143	32,010	3	0	4	146
				T2M	27,908	3	0	5	127	29,085	3	0	5	133	29,652	3	0	5	135
				T3M	28,232	3	0	5	129	29,423	3	0	5	134	29,996	3	0	5	137
				T3LG	25,218	3	0	3	115	26,282	3	0	3	120	26,794	3	0	3	122
				T4M	28,652	3	0	5	131	29,861	3	0	5	136	30,443	3	0	5	139
				T4LG	26,059	3	0	3	119	27,159	3	0	3	124	27,688	3	0	3	126
				TFTM	28,851	3	0	5	132	30,068	3	0	5	137	30,654	3	0	5	140
				T5M	29,479	5	0	4	134	30,723	5	0	4	140	31,322	5	0	4	143
				T5W	29,957	5	0	4	137	31,221	5	0	4	142	31,830	5	0	4	145
				T5LG	29,565	4	0	2	135	30,812	5	0	2	140	31,413	5	0	2	143
				BLC3	20,535	0	0	4	94	21,401	0	0	4	98	21,818	0	0	4	99
				BLC4	21,209	0	0	5	97	22,104	0	0	5	101	22,534	0	0	5	103
				RCCO	20,720	1	0	4	94	21,594	1	0	4	98	22,015	1	0	4	100
				LCCO	20,720	1	0	4	94	21,594	1	0	4	98	22,015	1	0	4	100
				AFR	30,127	3	0	4	137	31,398	3	0	4	143	32,010	3	0	4	146
P4	273W	80	1050	T1S	35,879	3	0	4	132	37,392	3	0	4	137	38,121	3	0	4	140
				T2M	33,236	3	0	5	122	34,638	3	0	5	127	35,313	3	0	5	130
				T3M	33,622	3	0	5	123	35,040	3	0	5	129	35,723	3	0	5	131
				T3LG	30,033	3	0	4	110	31,300	3	0	4	115	31,910	3	0	4	117
				T4M	34,123	3	0	5	125	35,562	3	0	5	130	36,255	3	0	5	133
				T4LG	31,035	3	0	4	114	32,344	3	0	4	119	32,974	3	0	4	121
				TFTM	34,359	3	0	5	126	35,808	3	0	5	131	36,506	3	0	5	134
				T5M	35,108	5	0	4	129	36,589	5	0	4	134	37,302	5	0	4	137
				T5W	35,677	5	0	4	131	37,182	5	0	5	136	37,907	5	0	5	139
				T5LG	35,209	5	0	3	129	36,695	5	0	3	135	37,410	5	0	3	137
				BLC3	24,456	0	0	4	90	25,487	0	0	4	93	25,984	0	0	5	95
				BLC4	25,258	0	0	5	93	26,324	0	0	5	97	26,837	0	0	5	98
				RCCO	24,676	1	0	4	91	25,717	1	0	4	94	26,218	1	0	4	96
				LCCO	24,676	1	0	4	91	25,717	1	0	4	94	26,218	1	0	4	96
				AFR	35,879	3	0	4	132	37,392	3	0	4	137	38,121	3	0	4	140

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Performance Data

Lumen Output

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Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P5	327W	80	1250	T1S	41,149	3	0	4	126	42,885	3	0	4	131	43,721	3	0	4	134
				T2M	38,118	4	0	5	117	39,727	4	0	5	122	40,501	4	0	5	124
				T3M	38,561	3	0	5	118	40,187	3	0	5	123	40,971	3	0	5	125
				T3LG	34,445	3	0	4	105	35,898	3	0	4	110	36,598	3	0	4	112
				T4M	39,135	3	0	5	120	40,786	3	0	5	125	41,581	3	0	5	127
				T4LG	35,594	3	0	4	109	37,095	3	0	4	114	37,818	3	0	4	116
				TFTM	39,406	3	0	5	121	41,069	3	0	5	126	41,869	3	0	5	128
				T5M	40,265	5	0	4	123	41,964	5	0	4	128	42,782	5	0	5	131
				T5W	40,918	5	0	5	125	42,644	5	0	5	131	43,475	5	0	5	133
				T5LG	40,382	5	0	3	124	42,085	5	0	3	129	42,906	5	0	3	131
				BLC3	28,048	0	0	5	86	29,231	0	0	5	90	29,801	0	0	5	91
				BLC4	28,969	0	0	5	89	30,191	0	0	5	92	30,779	0	0	5	94
				RCCO	28,301	2	0	5	87	29,495	2	0	5	90	30,070	2	0	5	92
				LCCO	28,301	2	0	5	87	29,495	2	0	5	90	30,070	2	0	5	92
				AFR	41,149	3	0	4	126	42,885	3	0	4	131	43,721	3	0	4	134
P6	342W	100	1050	T1S	45,968	3	0	4	135	47,907	3	0	5	140	48,841	3	0	5	143
				T2M	42,582	4	0	5	125	44,379	4	0	5	130	45,244	4	0	5	132
				T3M	43,076	4	0	5	126	44,894	4	0	5	131	45,769	4	0	5	134
				T3LG	38,479	3	0	4	113	40,102	3	0	4	117	40,884	3	0	4	120
				T4M	43,719	4	0	5	128	45,563	4	0	5	133	46,451	4	0	5	136
				T4LG	39,762	3	0	4	116	41,439	3	0	4	121	42,247	3	0	4	124
				TFTM	44,021	3	0	5	129	45,878	4	0	5	134	46,772	4	0	5	137
				T5M	44,980	5	0	5	132	46,878	5	0	5	137	47,792	5	0	5	140
				T5W	45,710	5	0	5	134	47,638	5	0	5	139	48,566	5	0	5	142
				T5LG	45,111	5	0	3	132	47,014	5	0	3	138	47,930	5	0	3	140
				BLC3	31,333	0	0	5	92	32,655	0	0	5	96	33,291	0	0	5	97
				BLC4	32,361	0	0	5	95	33,726	0	0	5	99	34,384	0	0	5	101
				RCCO	31,615	2	0	5	93	32,949	2	0	5	96	33,591	2	0	5	98
				LCCO	31,615	2	0	5	93	32,949	2	0	5	96	33,591	2	0	5	98
				AFR	45,968	3	0	4	135	47,907	3	0	5	140	48,841	3	0	5	143
P7	409W	100	1250	T1S	52,692	3	0	5	129	54,915	3	0	5	134	55,986	3	0	5	137
				T2M	48,811	4	0	5	119	50,871	4	0	5	124	51,862	4	0	5	127
				T3M	49,378	4	0	5	121	51,461	4	0	5	126	52,464	4	0	5	128
				T3LG	44,107	3	0	4	108	45,968	3	0	4	112	46,864	3	0	5	115
				T4M	50,114	4	0	5	122	52,228	4	0	5	128	53,246	4	0	5	130
				T4LG	45,579	3	0	4	111	47,501	3	0	4	116	48,427	3	0	4	118
				TFTM	50,460	4	0	5	123	52,589	4	0	5	129	53,614	4	0	5	131
				T5M	51,560	5	0	5	126	53,735	5	0	5	131	54,783	5	0	5	134
				T5W	52,396	5	0	5	128	54,607	5	0	5	133	55,671	5	0	5	136
				T5LG	51,710	5	0	4	126	53,891	5	0	4	132	54,941	5	0	4	134
				BLC3	35,916	1	0	5	88	37,431	1	0	5	91	38,161	1	0	5	93
				BLC4	37,095	0	0	5	91	38,660	0	0	5	94	39,413	0	0	5	96
				RCCO	36,240	2	0	5	89	37,769	2	0	5	92	38,505	2	0	5	94
				LCCO	36,240	2	0	5	89	37,769	2	0	5	92	38,505	2	0	5	94
				AFR	52,692	3	0	5	129	54,915	3	0	5	134	55,986	3	0	5	137
P8	462W	100	1400	T1S	57,662	3	0	5	125	60,094	4	0	5	130	61,266	4	0	5	132
				T2M	53,415	4	0	5	116	55,668	4	0	5	120	56,753	4	0	5	123
				T3M	54,034	4	0	5	117	56,314	4	0	5	122	57,412	4	0	5	124
				T3LG	48,267	3	0	5	104	50,304	3	0	5	109	51,284	4	0	5	111
				T4M	54,840	4	0	5	119	57,154	4	0	5	124	58,268	4	0	5	126
				T4LG	49,877	3	0	5	108	51,981	3	0	5	112	52,994	3	0	5	115
				TFTM	55,219	4	0	5	119	57,549	4	0	5	124	58,671	4	0	5	127
				T5M	56,423	5	0	5	122	58,803	5	0	5	127	59,949	5	0	5	130
				T5W	57,338	5	0	5	124	59,757	5	0	5	129	60,921	5	0	5	132
				T5LG	56,586	5	0	4	122	58,974	5	0	4	128	60,123	5	0	4	130
				BLC3	39,303	1	0	5	85	40,962	1	0	5	89	41,760	1	0	5	90
				BLC4	40,593	0	0	5	88	42,306	0	0	5	91	43,130	0	0	5	93
				RCCO	39,658	2	0	5	86	41,331	2	0	5	89	42,137	2	0	5	91
				LCCO	39,658	2	0	5	86	41,331	2	0	5	89	42,137	2	0	5	91
				AFR	57,662	3	0	5	125	60,094	4	0	5	130	61,266	4	0	5	132

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Rotated Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	152W	90	530	T1S	22,798	4	0	4	150	23,760	4	0	4	156	24,223	4	0	4	159
				T2M	21,119	5	0	5	139	22,010	5	0	5	145	22,439	5	0	5	148
				T3M	21,361	5	0	5	141	22,262	5	0	5	147	22,696	5	0	5	149
				T3LG	19,084	4	0	4	126	19,889	4	0	4	131	20,277	4	0	4	133
				T4M	21,679	5	0	5	143	22,594	5	0	5	149	23,034	5	0	5	152
				T4LG	19,717	4	0	4	130	20,549	4	0	4	135	20,950	4	0	4	138
				TFTM	21,833	5	0	5	144	22,754	5	0	5	150	23,197	5	0	5	153
				T5M	22,305	5	0	3	147	23,246	5	0	3	153	23,699	5	0	3	156
				T5W	22,667	5	0	3	149	23,623	5	0	4	155	24,084	5	0	4	158
				T5LG	22,370	4	0	2	147	23,314	4	0	2	153	23,768	4	0	2	156
				BLC3	15,539	4	0	4	102	16,194	4	0	4	107	16,510	4	0	4	109
				BLC4	16,048	4	0	4	106	16,725	4	0	4	110	17,051	4	0	4	112
				RCCO	15,679	1	0	3	103	16,340	1	0	3	108	16,659	1	0	3	110
				LCCO	15,679	1	0	3	103	16,340	1	0	3	108	16,659	1	0	3	110
				AFR	22,798	4	0	4	150	23,760	4	0	4	156	24,223	4	0	4	159
P11	203W	90	700	T1S	29,222	4	0	4	144	30,455	4	0	4	150	31,048	4	0	4	153
				T2M	27,070	5	0	5	134	28,212	5	0	5	139	28,762	5	0	5	142
				T3M	27,380	5	0	5	135	28,535	5	0	5	141	29,091	5	0	5	144
				T3LG	24,462	4	0	4	121	25,493	4	0	4	126	25,990	4	0	4	128
				T4M	27,788	5	0	5	137	28,960	5	0	5	143	29,525	5	0	5	146
				T4LG	25,273	4	0	4	125	26,339	4	0	4	130	26,853	4	0	4	133
				TFTM	27,985	5	0	5	138	29,165	5	0	5	144	29,734	5	0	5	147
				T5M	28,591	5	0	4	141	29,797	5	0	4	147	30,377	5	0	4	150
				T5W	29,054	5	0	4	143	30,280	5	0	4	149	30,870	5	0	4	152
				T5LG	28,673	4	0	2	142	29,883	4	0	2	148	30,465	5	0	2	150
				BLC3	19,917	4	0	4	98	20,757	4	0	4	102	21,162	4	0	4	104
				BLC4	20,570	5	0	5	102	21,437	5	0	5	106	21,855	5	0	5	108
				RCCO	20,097	1	0	4	99	20,945	1	0	4	103	21,353	1	0	4	105
				LCCO	20,097	1	0	4	99	20,945	1	0	4	103	21,353	1	0	4	105
				AFR	29,222	4	0	4	144	30,455	4	0	4	150	31,048	4	0	4	153
P12	248W	90	850	T1S	34,526	5	0	5	139	35,983	5	0	5	145	36,684	5	0	5	148
				T2M	31,984	5	0	5	129	33,333	5	0	5	135	33,983	5	0	5	137
				T3M	32,350	5	0	5	131	33,715	5	0	5	136	34,372	5	0	5	139
				T3LG	28,902	4	0	4	117	30,121	4	0	4	122	30,708	4	0	4	124
				T4M	32,832	5	0	5	133	34,217	5	0	5	138	34,884	5	0	5	141
				T4LG	29,861	4	0	4	121	31,120	4	0	4	126	31,727	5	0	4	128
				TFTM	33,064	5	0	5	134	34,459	5	0	5	139	35,131	5	0	5	142
				T5M	33,780	5	0	4	136	35,205	5	0	4	142	35,891	5	0	4	145
				T5W	34,327	5	0	4	139	35,776	5	0	4	145	36,473	5	0	4	147
				T5LG	33,878	5	0	3	137	35,307	5	0	3	143	35,995	5	0	3	145
				BLC3	23,532	5	0	5	95	24,525	5	0	5	99	25,003	5	0	5	101
				BLC4	24,303	5	0	5	98	25,328	5	0	5	102	25,822	5	0	5	104
				RCCO	23,745	1	0	4	96	24,747	1	0	4	100	25,229	1	0	4	102
				LCCO	23,745	1	0	4	96	24,747	1	0	4	100	25,229	1	0	4	102
				AFR	34,526	5	0	5	139	35,983	5	0	5	145	36,684	5	0	5	148

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Performance Data

Lumen Output

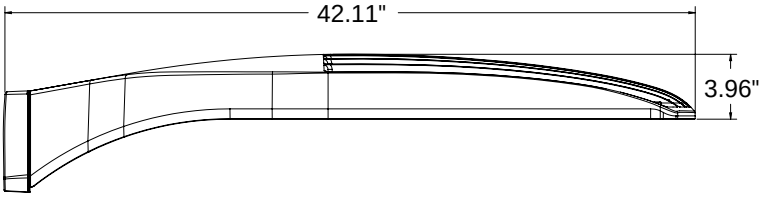
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

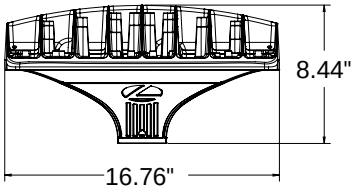
Rotated Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P13	354W	90	1200	T1S	45,748	5	0	5	129	47,678	5	0	5	135	48,608	5	0	5	137
				T2M	42,380	5	0	5	120	44,168	5	0	5	125	45,029	5	0	5	127
				T3M	42,865	5	0	5	121	44,673	5	0	5	126	45,544	5	0	5	129
				T3LG	38,296	5	0	5	108	39,911	5	0	5	113	40,689	5	0	5	115
				T4M	43,503	5	0	5	123	45,339	5	0	5	128	46,222	5	0	5	131
				T4LG	39,566	5	0	5	112	41,235	5	0	5	117	42,039	5	0	5	119
				TFTM	43,811	5	0	5	124	45,659	5	0	5	129	46,549	5	0	5	132
				T5M	44,760	5	0	5	126	46,648	5	0	5	132	47,557	5	0	5	134
				T5W	45,485	5	0	5	129	47,404	5	0	5	134	48,328	5	0	5	137
				T5LG	44,889	5	0	3	127	46,783	5	0	3	132	47,695	5	0	3	135
				BLC3	31,181	5	0	5	88	32,496	5	0	5	92	33,130	5	0	5	94
				BLC4	32,202	5	0	5	91	33,561	5	0	5	95	34,215	5	0	5	97
				RCCO	31,463	2	0	5	89	32,790	2	0	5	93	33,429	2	0	5	94
				LCCO	31,463	2	0	5	89	32,790	2	0	5	93	33,429	2	0	5	94
				AFR	45,748	5	0	5	129	47,678	5	0	5	135	48,608	5	0	5	137
P14	415W	90	1400	T1S	51,272	5	0	5	123	53,435	5	0	5	129	54,476	5	0	5	131
				T2M	47,497	5	0	5	114	49,500	5	0	5	119	50,465	5	0	5	121
				T3M	48,040	5	0	5	116	50,067	5	0	5	121	51,043	5	0	5	123
				T3LG	42,919	5	0	5	103	44,730	5	0	5	108	45,602	5	0	5	110
				T4M	48,756	5	0	5	117	50,813	5	0	5	122	51,803	5	0	5	125
				T4LG	44,343	5	0	5	107	46,214	5	0	5	111	47,115	5	0	5	113
				TFTM	49,101	5	0	5	118	51,172	5	0	5	123	52,169	5	0	5	126
				T5M	50,164	5	0	5	121	52,280	5	0	5	126	53,299	5	0	5	128
				T5W	50,977	5	0	5	123	53,127	5	0	5	128	54,163	5	0	5	130
				T5LG	50,309	5	0	4	121	52,432	5	0	4	126	53,453	5	0	4	129
				BLC3	34,945	5	0	5	84	36,420	5	0	5	88	37,130	5	0	5	89
				BLC4	36,090	5	0	5	87	37,613	5	0	5	91	38,346	5	0	5	92
				RCCO	35,261	2	0	5	85	36,749	2	0	5	88	37,465	2	0	5	90
				LCCO	35,261	2	0	5	85	36,749	2	0	5	88	37,465	2	0	5	90
				AFR	51,272	5	0	5	123	53,435	5	0	5	129	54,476	5	0	5	131

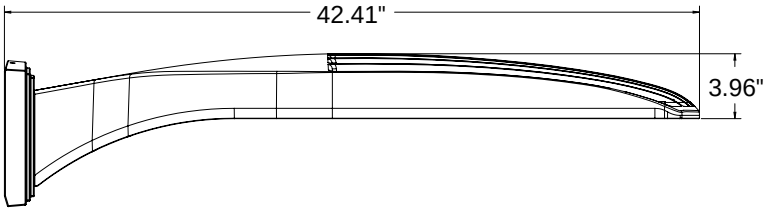
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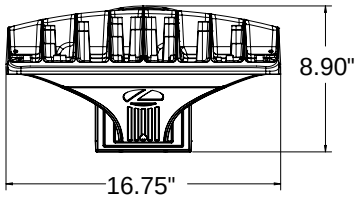
Dimensions



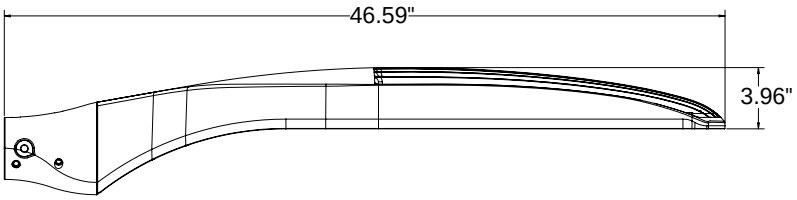


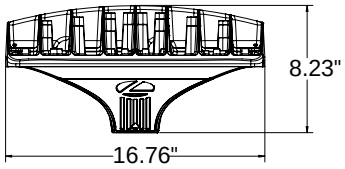
DSX2 with RPA, RPA5, SPA5, SPA8N mount
Weight: 48 lbs





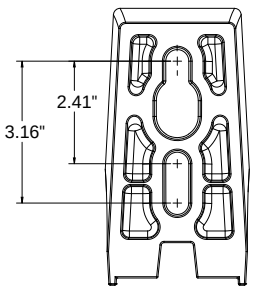
DSX2 with WBA mount
Weight: 50 lbs



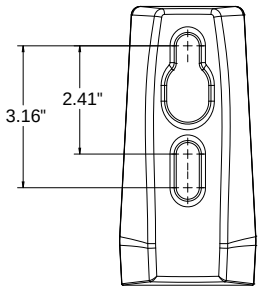


DSX2 with MA mount
Weight: 50 lbs

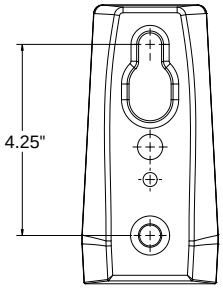
SPA (STANDARD ARM)



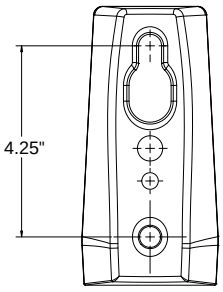
RPA



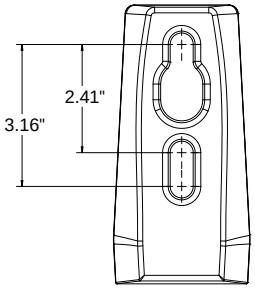
SPA5



RPA5



SPA8N



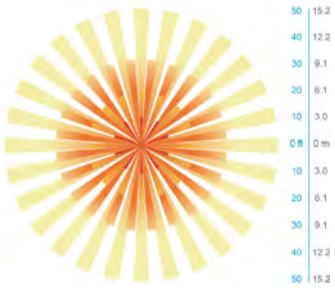
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nLight Control - Sensor Coverage and Settings

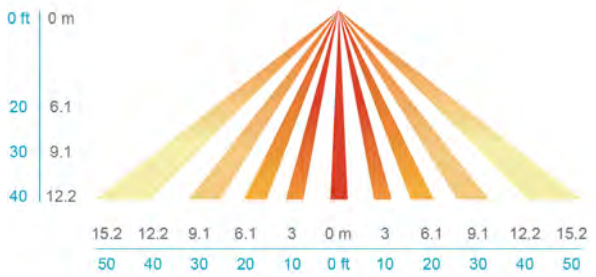
nLight Sensor Coverage Pattern

NLTAIR2 PIRHN





Top



Side

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 1.5G. 3G vibration rated available for (MA) mast arm mount when specifying option 3G. Low EPA (1.06 ft^2) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

Coastal Construction (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 2 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L82/100,000 hrs at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

STANDARD CONTROLS

The DSX2 LED area luminaire has a number of control options. DSX Size 2, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensor with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX2 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

GOVERNMENT PROCUREMENT

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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WDGE2 LED

Architectural Wall Sconce
Precision Refractive Optic

Catalog Number

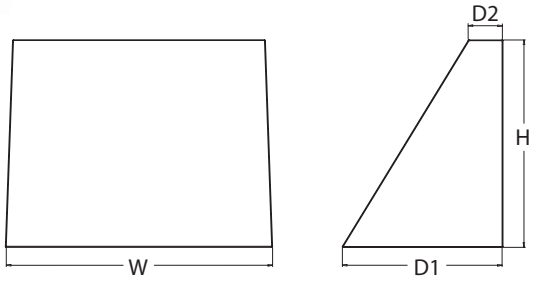
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: (without options) 13.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	--	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI T3M MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE2 LED	P0[1]	27K 2700K	70CRI[4]	T1S Type I Short	MVOLT	**Shipped included**
	P1[2]	30K 3000K	80CRI	T2M Type II Medium	347[5]	SRM Surface mounting bracket
	P2[2]	40K 4000K	LW[3] Limited Wavelength	T3M Type III Medium	480[5]	ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[6]
	P3[2]	50K 5000K		T4M Type IV Medium		**Shipped separately**
	P4[2]	AMB[3] Amber		TFTM Forward Throw Medium		AWS 3/8inch Architectural wall spacer[7]
						PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available[7]

Options

E10WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)
PE	Photocell, Button Type[8]
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[9]
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.
CCE	Coastal Construction[7]

Standalone Sensors/Controls

PIR	Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIRH	Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching
PIR1FC3V	Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation.
PIRH1FC3V	Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.

Networked Sensors/Controls

NLTAIR2 PIR	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIR2 PIRH	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights.
NLTAIREM2 PIR	Embedded wireless controls by nLight with UL924 listed emegency operation, Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights
NLTAIREM2 PIRH	Embedded wireless controls by nLight with UL924 listed emegency operation, Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights.

See page 4 for out of box functionality

Finish

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DSSXD	Sandstone
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white
DSSTXD	Textured sandstone

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Accessories

Ordered and shipped separately.

WDGEAWS DDBXD U	WDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE2PBBW DDBXD U	WDGE2 surface-mounted back box (specify finish)

NOTES

1 P0 option not available with sensors/controls.
2 P1-P4 not available with AMB and LW.
3 AMB and LW always go together.
4 70CRI only available with T3M and T4M.
5 347V and 480V not available with E10WH or E20WC.
6 Not qualified for DLC. Not available with emergency battery backup or sensors/controls.
7 For PBBW and AWS with CCE option, require an RFA.
8 PE not available in 480V or with sensors/controls.
9 DMG option not available with sensors/controls.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)					Amber (Limited Wavelength)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P0	7W	T1S	636	92	0	0	0	666	97	0	0	0	699	101	0	0	1	691	100	0	0	1	712	47	0	0	1
		T2M	662	96	0	0	0	693	101	0	0	0	728	106	0	0	0	719	104	0	0	0	741	48	0	0	0
		T3M	662	96	0	0	0	693	101	0	0	0	728	106	0	0	0	719	104	0	0	0	741	48	0	0	0
		T4M	648	94	0	0	0	679	98	0	0	0	712	103	0	0	0	704	102	0	0	0	726	47	0	0	0
		TFTM	652	95	0	0	0	683	99	0	0	0	717	104	0	0	0	708	103	0	0	0	730	48	0	0	1
P1	11W	T1S	1,105	99	0	0	1	1,157	104	0	0	1	1,215	109	0	0	1	1,200	107	0	0	1					
		T2M	1,150	103	0	0	1	1,204	108	0	0	1	1,264	113	0	0	1	1,249	112	0	0	1					
		T3M	1,150	103	0	0	1	1,205	108	0	0	1	1,265	113	0	0	1	1,250	112	0	0	1					
		T4M	1,126	101	0	0	1	1,179	106	0	0	1	1,238	111	0	0	1	1,223	110	0	0	1					
		TFTM	1,133	101	0	0	1	1,186	106	0	0	1	1,245	112	0	0	1	1,230	110	0	0	1					
P2	19W	T1S	1,801	95	1	0	1	1,886	99	1	0	1	1,981	104	1	0	1	1,957	103	1	0	1					
		T2M	1,875	99	1	0	1	1,963	103	1	0	1	2,061	109	1	0	1	2,037	107	1	0	1					
		T3M	1,876	99	1	0	1	1,964	103	1	0	1	2,062	109	1	0	1	2,038	107	1	0	1					
		T4M	1,836	97	1	0	1	1,922	101	1	0	1	2,018	106	1	0	1	1,994	105	1	0	1					
		TFTM	1,847	97	1	0	1	1,934	102	1	0	1	2,030	107	1	0	1	2,006	106	1	0	1					
P3	32W	T1S	2,809	87	1	0	1	2,942	92	1	0	1	3,089	96	1	0	1	3,052	95	1	0	1					
		T2M	2,924	91	1	0	1	3,062	95	1	0	1	3,215	100	1	0	1	3,176	99	1	0	1					
		T3M	2,925	91	1	0	1	3,063	95	1	0	1	3,216	100	1	0	1	3,177	99	1	0	1					
		T4M	2,862	89	1	0	1	2,997	93	1	0	1	3,147	98	1	0	1	3,110	97	1	0	1					
		TFTM	2,880	90	1	0	1	3,015	94	1	0	1	3,166	99	1	0	1	3,128	97	1	0	1					
P4	47W	T1S	3,729	80	1	0	1	3,904	84	1	0	1	4,099	88	1	0	1	4,051	87	1	0	1					
		T2M	3,881	83	1	0	1	4,063	87	1	0	1	4,267	91	1	0	1	4,216	90	1	0	1					
		T3M	3,882	83	1	0	1	4,065	87	1	0	1	4,268	91	1	0	1	4,217	90	1	0	1					
		T4M	3,799	81	1	0	1	3,978	85	1	0	1	4,177	90	1	0	1	4,127	88	1	0	1					
		TFTM	3,822	82	1	0	1	4,002	86	1	0	1	4,202	90	1	0	1	4,152	89	1	0	1					

Performance Package	System Watts	Dist. Type	27K (2700K, 70 CRI)					30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P0	7W	T3M	737	107	0	0	0	763	111	0	0	0	822	119	0	0	0	832	121	0	0	1
		T4M	721	105	0	0	0	746	108	0	0	0	804	117	0	0	1	814	118	0	0	1
P1	11W	T3M	1,280	115	0	0	1	1,325	119	0	0	1	1,427	128	1	0	1	1,445	129	1	0	1
		T4M	1,253	112	0	0	1	1,297	116	0	0	1	1,397	125	0	0	1	1,415	127	0	0	1
P2	19W	T3M	2,087	110	1	0	1	2,160	114	1	0	1	2,327	123	1	0	1	2,357	124	1	0	1
		T4M	2,042	108	1	0	1	2,114	111	1	0	1	2,278	120	1	0	1	2,306	121	1	0	1
P3	32W	T3M	3,254	101	1	0	1	3,369	105	1	0	1	3,629	113	1	0	1	3,675	114	1	0	1
		T4M	3,185	99	1	0	1	3,297	103	1	0	1	3,552	111	1	0	1	3,597	112	1	0	1
P4	47W	T3M	4,319	93	1	0	1	4,471	96	1	0	1	4,817	103	1	0	2	4,878	105	1	0	2
		T4M	4,227	91	1	0	1	4,376	94	1	0	2	4,714	101	1	0	2	4,774	102	1	0	2

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Electrical Load

Performance Package	System Watts	Current (A)					
		120Vac	208Vac	240Vac	277Vac	347Vac	480Vac
P0	7.0	0.061	0.042	0.04	0.039	--	--
	9.0	--	--	--	--	0.031	0.021
P1	11.0	0.100	0.064	0.059	0.054	--	--
	14.1	--	--	--	--	0.046	0.031
P2	19.0	0.168	0.106	0.095	0.083	--	--
	22.8	--	--	--	--	0.067	0.050
P3	32.0	0.284	0.163	0.144	0.131	--	--
	37.1	--	--	--	--	0.107	0.079
P4	47.0	0.412	0.234	0.207	0.185	--	--
	53.5	--	--	--	--	0.153	0.112

Lumen Output in Emergency Mode (4000K, 80 CRI, T3M)

Option	Lumens
E10WH	1,358
E20WC	2,230

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.93	>0.87

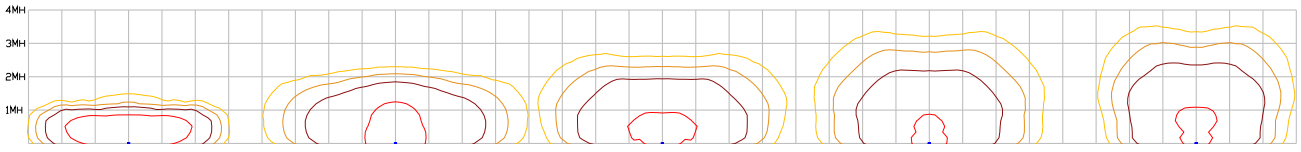
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

0.25 fc
0.5 fc
1.0 fc
3.0 fc

MH = 10ft
Grid = 10ft x 10ft



"P3 40K 80CRI T1S" "P3 40K 80CRI T2M" "P3 40K 80CRI T3M" "P3 40K 80CRI T4M" "P3 40K 80CRI TFTM"

Emergency Egress Options

Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

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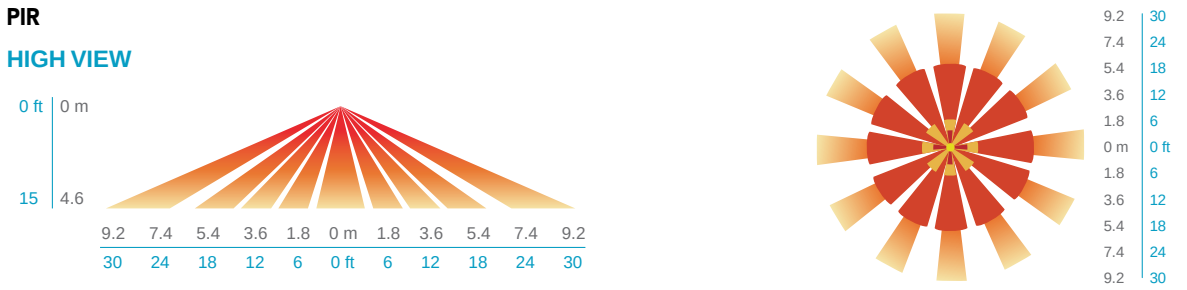
Motion/Ambient Sensor (PIR_, PIRH_)

Motion/Ambeint sensor (Sensor Switch MSOD) is integrated into the the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

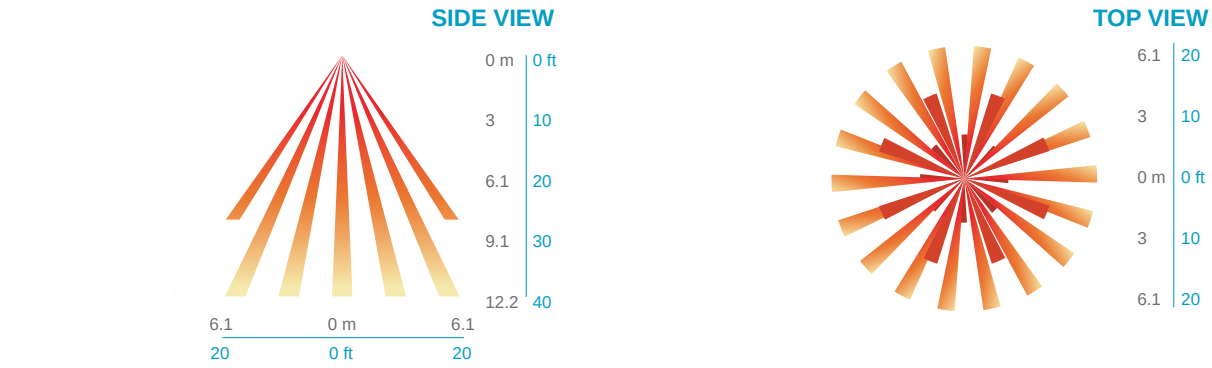
Networked Control (NLTAIR2)

nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™ Pro) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

PIR



PIRH



Option	Dim Level	High Level (when triggered	Photocell Operation	Motion Time Delay	Ramp-down Time	Ramp-up Time
PIR or PIRH	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
PIR1FC3V, PIRH1FC3V	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 1fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
NLTAIR2 PIR, NLTAIR2 PIRH, NLTAIREM2 PIR, NLTAIREM2 PIRH (out of box)	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	7.5 min	5 min	Motion - 3 sec Photocell - 45 sec

UL 924 Response – nLight AIR Devices with EM Option

- NLTAIREM2 devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, NLTAIREM2 devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- The non-emergency devices, NLTAIR2 PIR and NLTAIR2 PIRH, with version 3.4 or later firmware can be used for normal power sensing.

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Motion/Ambient Sensor

D = 7"

H = 9" (Standalone controls)
11" (nLight AIR controls, 2" antenna will be pointing down behind the sensor)

W = 11.5"



PBBW – Surface-Mounted Back Box
Use when there is no junction box available.

D = 1.75"

H = 9"

W = 11.5"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE
Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Individually formed acrylic lenses are engineered for superior application efficiency which maximizes the light in the areas where it is most needed. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2). Fixture ships standard with 0-10v dimmable driver.

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

GOVERNMENT PROCUREMENT
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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WDGE3 LED

Architectural Wall Sconce

Catalog Number

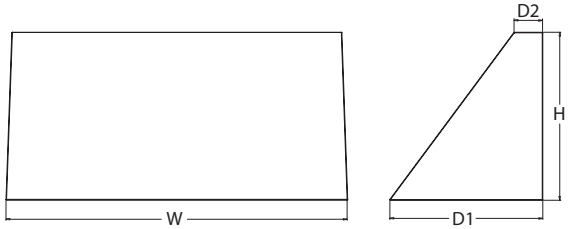
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1):	8"
Depth (D2):	1.5"
Height:	9"
Width:	18"
Weight: (without options)	19.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE3 has been designed to deliver up to 12,000 lumens through a precision refractive lens with wide distribution, perfect for augmenting the lighting from pole mounted luminaires.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	6,000	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE3 LED P3 40K 70CRI R3 MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE3 LED	P0 P1 P2 P3 P4	30K 3000K 40K 4000K 50K 5000K	70CRI 80CRI	R2 Type 2 R3 Type 3 R4 Type 4 RFT Forward Throw	MVOLT 347[1] 480[1]	**Shipped included** SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[2] **Shipped separately** AWS 3/8 inch Architectural wall spacer[3] PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available.[3]

Options

E15WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (15W, 5°C min)
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)
PE	Photocell, Button Type[4]
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[5]
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.
SPD10KV	10kV Surge pack[6]
CCE	Coastal Construction[3]

Standalone Sensors/Controls

PIR	Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIRH	Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching
PIR1FC3V	Bi-level (100/35%) motion sensor for 8-15'mounting heights with photocell pre-programmed for dusk to dawn operation.
PIRH1FC3V	Bi-level (100/35%) motion sensor for 15-30'mounting heights with photocell pre-programmed for dusk to dawn operation.

Networked Sensors/Controls

NLTAIR2 PIR	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIR2 PIRH	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15'-30' mounting heights.
NLTAIREM2 PIR	Embedded wireless controls by nLight with UL924 listed emegency operation, Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights[7]
NLTAIREM2 PIRH	Embedded wireless controls by nLight with UL924 listed emegency operation, Passive Infrared Occ sensor and on/off photocell for 15'-30' mounting heights

See page 4 for out of box functionality

Finish

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DSSXD	Sandstone
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white
DSSTXD	Textured sandstone

Accessories

Ordered and shipped separately.

WDGEAWS DDBXD	WDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE3PBBW DDBXD U	WDGE3 surface-mounted back box (specify finish)

NOTES

1. 347V and 480V not available with E15WH and E20WC.
2. Not qualified for DLC. Not available with emergency battery backup or sensors/controls.
3. For PBBW and AWS with CCE option, require an RFA.
4. PE not available in 480V and with sensors/controls.
5. DMG option not available with sensors/controls.
6. Not available with E20WC option.
7. Available with MVOLT only and only rated to 25C ambient.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P0	41W	R2	6,172	151	1	0	1	6,104	149	2	0	1	6,394	156	2	0	1
		R3	6,071	148	1	0	2	6,004	146	1	0	2	6,290	153	1	0	2
		R4	6,256	153	1	0	2	6,187	151	1	0	2	6,481	158	1	0	2
		RFT	6,126	149	1	0	2	6,058	148	1	0	2	6,347	155	1	0	2
P1	52W	R2	7,037	136	1	0	1	7,649	148	2	0	1	7,649	148	2	0	1
		R3	6,922	134	1	0	2	7,524	145	1	0	2	7,524	145	1	0	2
		R4	7,133	138	1	0	2	7,753	150	1	0	2	7,753	150	1	0	2
		RFT	6,985	135	1	0	2	7,592	147	1	0	2	7,592	147	1	0	2
P2	59W	R2	7,968	135	2	0	1	8,661	147	2	0	1	8,661	147	2	0	1
		R3	7,838	133	1	0	2	8,519	144	1	0	2	8,519	144	1	0	2
		R4	8,077	137	1	0	2	8,779	149	1	0	2	8,779	149	1	0	2
		RFT	7,909	134	1	0	2	8,597	146	2	0	2	8,597	146	2	0	2
P3	71W	R2	9,404	132	2	0	1	10,221	143	2	0	1	10,221	143	2	0	1
		R3	9,250	130	2	0	2	10,054	141	2	0	2	10,054	141	2	0	2
		R4	9,532	134	2	0	2	10,361	145	2	0	2	10,361	145	2	0	2
		RFT	9,334	131	2	0	2	10,146	142	2	0	2	10,146	142	2	0	2
P4	88W	R2	11,380	129	2	0	1	12,369	140	2	0	1	12,369	140	2	0	1
		R3	11,194	127	2	0	2	12,167	138	2	0	2	12,167	138	2	0	2
		R4	11,535	131	2	0	2	12,538	142	2	0	2	12,538	142	2	0	2
		RFT	11,295	128	2	0	2	12,277	139	2	0	2	12,277	139	2	0	2

Lumen Output in Emergency Mode (4000K, 70 CRI)

Option	Dist. Type	Lumens
E15WH	R2	3,185
	R3	3,133
	R4	3,229
	RFT	3,162
E20WC	R2	3,669
	R3	3,609
	R4	3,719
	RFT	3,642

Electrical Load

Performance Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	52W	0.437	0.246	0.213	0.186	0.150	0.110
P2	59W	0.498	0.287	0.251	0.220	0.175	0.126
P3	71W	0.598	0.344	0.300	0.262	0.210	0.152
P4	88W	0.727	0.424	0.373	0.333	0.260	0.190

Lumen Multiplier for 80CRI

CCT	Multiplier
30K	0.891
40K	0.906
50K	0.906

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.05
10°C	50°F	1.03
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.98	>0.97	>0.92

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Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

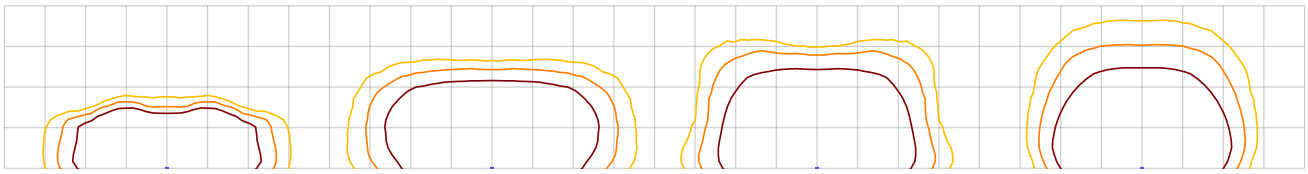
LEGEND

0.25 fc

0.5 fc

1.0 fc

MH = 15ft
Grid = 15ft x 15ft



WDGE3 LED P3 40K 70CRI R2 | WDGE3 LED P3 40K 70CRI R3 | WDGE3 LED P3 40K 70CRI R4 | WDGE3 LED P3 40K 70CRI RFT

Emergency Egress Options

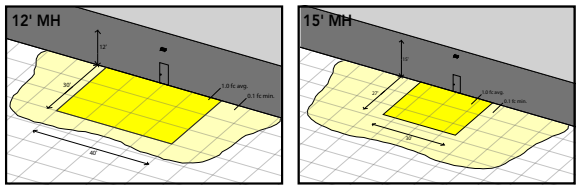
Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain, minimum of 60% of the light output at the end of 90minutes.

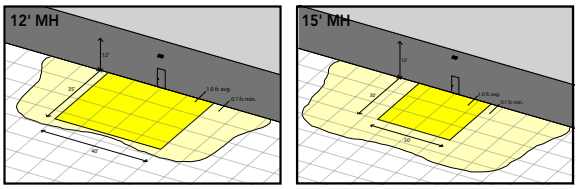
Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

The examples below show illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E15WH or E20WC and R4 distribution.

Grid = 10ft x 10ft



WDGE3 LED xx 40K 70CRI R4 MVOLT E15WH



WDGE3 LED xx 40K 70CRI R4 MVOLT E20WC

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Control / Sensor Options

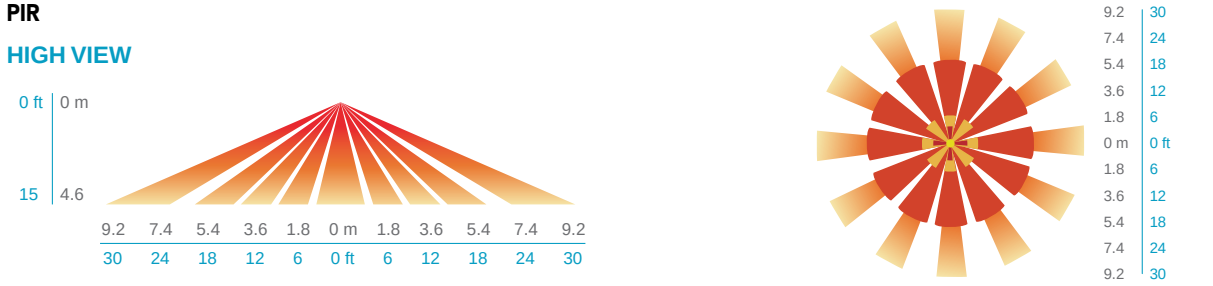
Motion/Ambient Sensor (PIR_, PIRH_)

Motion/Ambeint sensor (Sensor Switch MSOD) is integrated into the the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

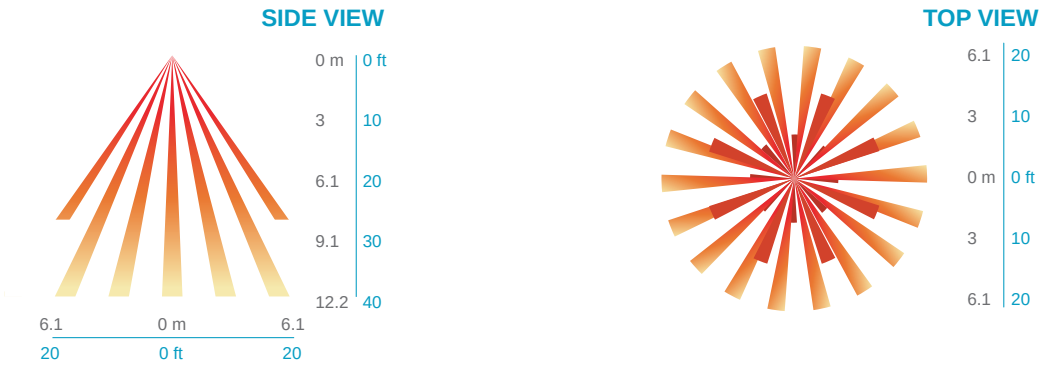
Networked Control (NLTAIR2)

nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™ Pro) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

PIR



PIRH



Motion/Ambient Sensor Default Settings

Option	Dim Level	High Level (when triggered	Photocell Operation	Motion Time Delay	Ramp-down Time	Ramp-up Time
PIR or PIRH	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
PIR1FC3V, PIRH1FC3V	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 1fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
NLTAIR2 PIR, NLTAIR2 PIRH, NLTAIREM2 PIR, NLTAIREM2 PIRH (out of box)	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	7.5 min	5 min	Motion - 3 sec Photocell - 45 sec

UL 924 Response - nLight AIR Devices with EM Option

- NLTAIREM2 devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, NLTAIREM2 devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- The non-emergency devices, NLTAIR2 PIR and NLTAIR2 PIRH, with version 3.4 or later firmware can be used for normal power sensing.

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NLTAIR2 PIR – nLight AIR Motion/Ambient Sensor

D = 8"

H = 11"

W = 18"



PBBW – Surface-Mounted Back Box
Use when there is no junction box available.

D = 1.75"

H = 9"

W = 18"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE
Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION
The single-piece die-cast aluminum housing to optimize thermal transfer from the light engine and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Individually formed acrylic lenses are engineered for superior application efficiency which maximizes the light in the areas where it is most needed. Light engines are available in 3000 K, 4000 K or 5000 K configurations. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L92/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2). Fixture ships standard with 0-10v dimmable driver.

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Light engines are IP66 rated; luminaire is IP65 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature and SRM mounting only.

GOVERNMENT PROCUREMENT
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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Attachment 10
Financial Capacity

Norway Savings Bank

June 25, 2025

Town of Windham
8 School Road
Windham, ME 04062

RE: Aplus Auto Group

Ladies and Gentlemen,

At the request of Andrew Lane and Andrew Coppersmith, I write this letter to provide to you my opinion on their financial capacity to undertake the new complex at 1027 Roosevelt Trail.

I spoke with Mr. Coppersmith about the plans and scope of the project recently. Andrew Lane and Andrew Coppersmith maintain a banking relationship with Norway Savings Bank so I am familiar with both their background and finances.

Based on my banking relationship with both and the information discussed with Mr. Coppersmith about the project it is my opinion that they have the financial capacity to support this project.

Sincerely,

Brian C. Desjardins
Regional Vice President
Commercial Lending

BCD/tbm

Attachment 11
Technical Capacity

BH2M

Berry, Huff, McDonald, Milligan Inc.

COMPANY OVERVIEW

Founded in 1978 in Gorham, Maine to provide quality civil-site engineering and surveying services. Over the past 44 years BH2M has worked on over 6,500 projects for our diverse client base, which consists of Municipal and Private Sector clients.



BH2M has developed a reputation for a strong committment to excellence in all portions of a project.

The staff structure at BH2M is unique in that all the engineers and project managers are partners within the company. This has been a successful formula that has resultsed in many long standing relationships with our clients. Each project at BH2M is overseen by a senior principal within the company to assure the highest level of quality of work and performance.

SERVICES



- Site Development Design
- Subdivision Design
- Stormwater Management Analysis & Design
- Utility Design
- Roadway Design
- Development Permitting
- Construction Administration & Services
- Full Service Survey Department

380B Main Street Gorham, Maine 04038 (207) 839-2771

BH2M

Berry, Huff, McDonald, Milligan Inc.

ANDREW S. MORRELL

Andy has worked for BH2M for over 20 years and has over 24 years of experience in both the public and private sector in Maine.

Site Development, Subdivisions and the design of supporting Stormwater Management Systems are Andy's expertise.

The following is a list of recent projects worked on by Andy:

- Maine Optometry, Gorham
- Natalee Place Condominiums, Gorham
- Dance Studio of Maine, Gorham
- Harrasekcett Ridge Condominiums, Freeport
- Gorham Rail Trail, Gorham
- Grand Trail Place II Subdivision, Wells
- Sebago Brewing Destination Brewery, Gorham
- Saco River Dentistry, Buxton
- Church Street Station Condominiums, Old Orchard Beach
- Precious Hidden Estates Subdivision, Saco
- Acres of Wildlife Campground, Standish
- Cargill Lot Beach & Ice Fishing Access Facility, Standish

Andrew S. Morrell P.E.
Professional Engineer
P.E. #13285

EDUCATION

B.S. Civil Engineering
State University of New York
Buffalo, NY

PROFESSIONAL BACKGROUND

Project Engineer
BH2M - Gorham, Maine
August 2001 - 2007
April 2010 - Present

Project Engineer
DeLuca-Hoffman Associates
South Portland, Maine
August 2007 - March 2010

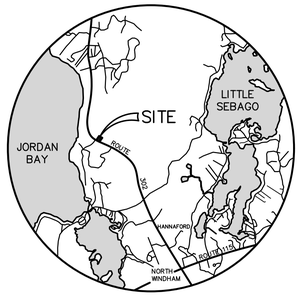
Project Engineer
Diversified Civil Engineering
Westford, MA
May 1999 - August 2001

STORMWATER EXPERIENCE

24 years experience performing stormwater management design and calculations

Attachment 12
Stormwater Report (3 Copies Provided)

Attachment 13
Site Plan – BH2M

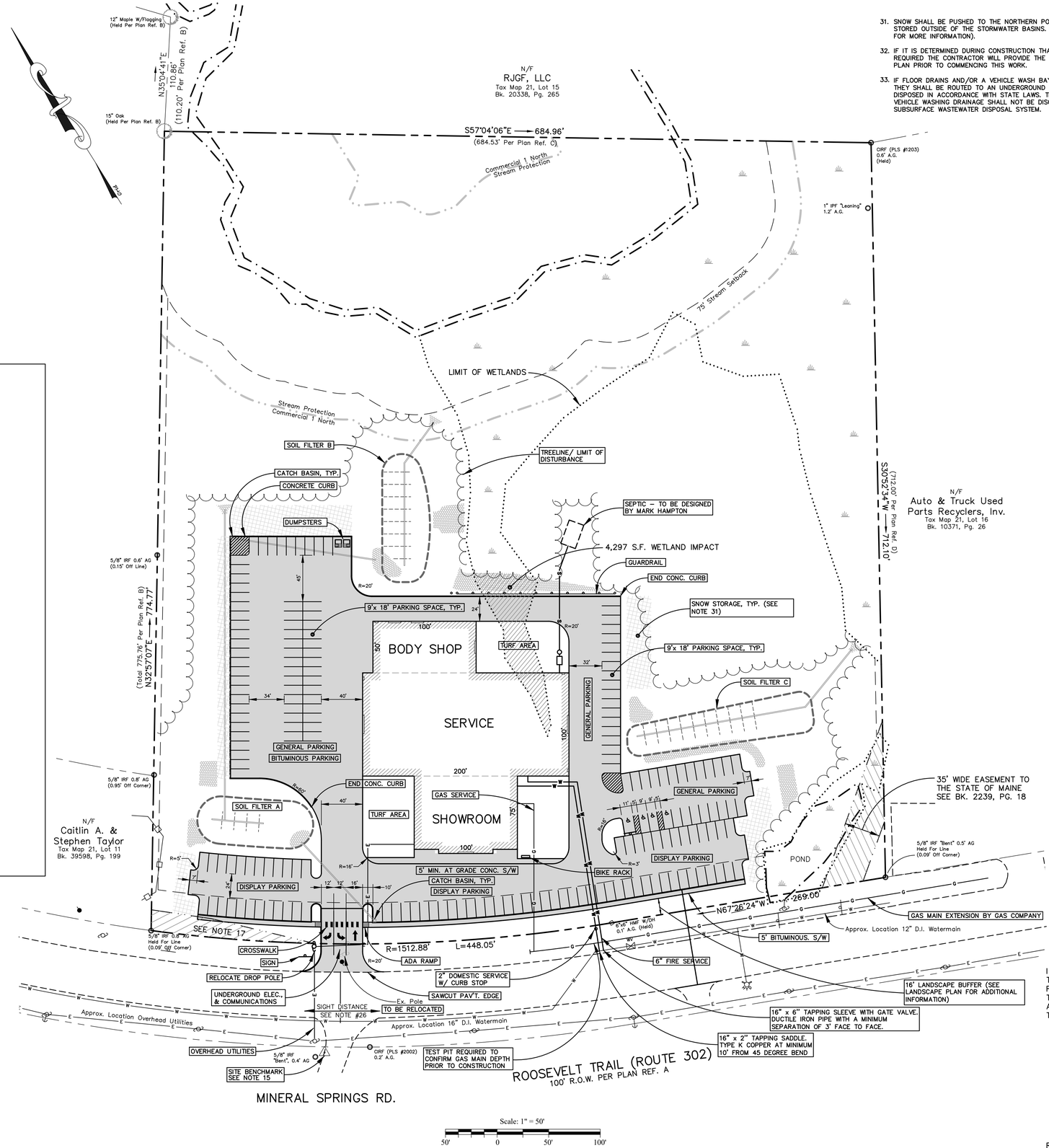


LOCATION MAP
SCALE: 1" = 2000'

CONDITIONS OF APPROVAL:

LEGEND

SYMBOL	DESCRIPTION
IRF/IPF, AG	IRON ROD/PIPE FOUND, ABOVE GRADE
	PROPERTY LINE
	ABUTTING PROPERTY LINE
	BUILDING SETBACK
	EASEMENT
	LIMIT OF WETLANDS
	FENCE LINE
N/F	NOW OR FORMERLY
	UTILITY POLE
E	UNDERGROUND ELECTRIC
G	GAS MAIN
W	WATER LINE
	CATCH BASIN
	EDGE OF PAVEMENT
WV	WATER SHUT OFF
TP	SEPTIC TEST PIT



NOTES:

1. OWNER/APPLICANT: DOUBLE A PROPERTIES, LLC, 968 ROOSEVELT TRAIL, WINDHAM, ME 04062
2. APPLICANT: APLUS TRUCK SALES, INC., 968 ROOSEVELT TRAIL, WINDHAM, ME 04062
3. ENGINEER: ANDREW S. MORRELL, PE #13285, BH2M, 380B MAIN STREET, GORHAM, MAINE
4. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190, BH2M
5. WETLANDS/SEPTIC: MARK HAMPTON ASSOCIATES, PORTLAND, MAINE
6. DEED REFERENCE: BK. 41146, PG. 3410
7. LOT AREA: 532,847 S.F. (12.232 ACRES)
8. TAX MAP REFERENCE: MAP 21, LOT 12
9. MINIMUM STANDARDS: MINIMUM LOT AREA - NONE; FRONTAGE - NONE; SETBACKS - 50' FRONT, 30' SIDE AND REAR; MAX. LOT COVERAGE - NONE; MAX. BUILDING HEIGHT - NONE
10. ZONING: COMMERCIAL 1 NORTH (C-1N)
11. PROPOSED USE: AUTO SALES, AUTO SERVICE, & BODY SHOP
12. SEWER SERVICE: ON SITE SUBSUFACE WASTEWATER DISPOSAL AREA
13. WATER SERVICE: PUBLIC
14. ELECTRIC/TELEPHONE: UNDERGROUND FROM MAIN STREET
15. BENCHMARK: MAGETIC NAIL SET IN PAVEMENT, ELEV. 317.76, NAVD88
16. PARKING: PARKING PROVIDED - 185 SPACES
17. APPROXIMATE LOCATION OF SLOPE EASEMENT TO THE STATE OF MAINE, SEE BOOK 2239, PAGE 18 AND PLAN REF. A.
18. WETLAND IMPACTS: 4,297 S.F.
19. PLAN REFERENCE:
    A. "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHWAY 14, DATED JULY 1954, SHEETS 4 AND 5, S.H.C. FILE NO. 3-94.
    B. "PLAN OF LAND FOR ALLEN LEVENSON LOCATED IN NORTH WINDHAM, MAINE" DATED AUG. 1977 BY WHITMAN & HOWARD INC. AND RECORDED IN THE C.C.R.D. PLAN BOOK 117, PAGE 47
    C. "OVERALL SUBDIVISION PLAN OF ENTERPRISE BUSINESS PARK, PHASE 1A, 1A", DATED APRIL 2003 FOR RJ GRONDIN & SONS, BY SEBAGO TECHNICS AND RECORDED IN THE C.C.R.D., PLAN BOOK 203, PAGE 357.
    D. "SITE PLAN OF AUTO & TRUCK USED PARTS", DATED OCT. 1994 FOR ALBERT BOZENET, JR. BY SEBAGO TECHNICS PROJECT NUMBER 94475.
20. BUILDING SHALL MEET ALL APPLICABLE SECTIONS OF THE NFPA 101 LIFE SAFETY CODE AND THE NFPA FIRE PREVENTION CODE 1. BULDING SHALL BE PROPERLY NUMBERED IN ACCORDANCE WITH E911 STANDARDS INCLUDING HEIGHT, COLOR AND LOCATION.
21. BUILDING SHALL BE SPRINKLED MEETING ALL REQUIREMENTS OF THE TOWN OF WINDHAM'S SPRINKLER ORDINANCE. SPRINKLER PLANS SHALL BE SUBMITTED TO THE STATE FIRE MARSHAL'S OFFICE AND THE WINDHAM FIRE DEPARTMENT FOR REVIEW AND PERMITTING. THE PLANS FOR THE FIRE DEPARTMENT SHALL BE SUBMITTED AT LEAST TWO WEEKS PRIOR TO THE START OF INSTALLATION. SPRINKLER TEST PAPERS SHALL BE PROVIDED TO THE FIRE DEPT. BEFORE A CERTIFICATE OF OCCUPANCY IS ISSUED.
22. EXISTING UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING DIG SAFE AND VERIFYING LOCATIONS PRIOR TO START OF CONSTRUCTION.
23. DEVELOPER SHALL PROVIDE A KNOX BOX WHICH SHALL HOUSE ENTRANCE KEYS TO ALL BUILDING ON SITE AT UNIT SALES BUILDING.
24. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BMP'S, LATEST REVISION.
25. THIS PROJECT REQUIRES A MAINE CONSTRUCTION GENERAL PERMIT FROM THE MAINE DEP. THIS PERMIT SHALL BE ATTAINED BY THE APPLICANTS EARTHWORK CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
26. SEE MEMORANDUM PROVIDED BY VHB DATED JUNE 19, 2026 FOR SIGHT DISTANCES OF PROPOSED ENTRANCE.
27. TRAFFIC ENGINEER: VHB
28. BUILDING ARCHITECT: CUSTOM CONCEPTS INC.
29. SEE LANDSCAPE DESIGN PLANS BY MAINELY OUTDOOR LIVING FOR LANDSCAPE BUFFER AT THE FRONT OF THE SITE.
30. CONTRACTOR TO APPLY FOR A STREET OPENING PERMIT PRIOR TO ANY WORK WITHIN THE RTE. 302 RIGHT OF WAY IN ACCORDANCE WITH CHAPTER 204, ARTICLE 1.
31. SNOW SHALL BE PUSHED TO THE NORTHERN PORTION OF THE SITE AND STORED OUTSIDE OF THE STORMWATER BASINS. (SEE HATCH ON PLANS FOR MORE INFORMATION).
32. IF IT IS DETERMINED DURING CONSTRUCTION THAT BLASTING IS REQUIRED THE CONTRACTOR WILL PROVIDE THE TOWN WITH A BLASTING PLAN PRIOR TO COMMENCING THIS WORK.
33. IF FLOOR DRAINS AND/OR A VEHICLE WASH BAYS ARE PROPOSED, THEY SHALL BE ROUTED TO AN UNDERGROUND HOLDING TANK AND DISPOSED IN ACCORDANCE WITH STATE LAWS. THE FLOOR DRAINS AND VEHICLE WASHING DRAINAGE SHALL NOT BE DISCHARGED INTO THE SUBSURFACE WASTEWATER DISPOSAL SYSTEM.

PLAN REVIEWED AND APPROVED BY THE TOWN OF WINDHAM PLANNING BOARD.

DATE

CHAIR

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

STATE OF MAINE ROBERT C. LIBBY JR. 2190 REGISTERED PROFESSIONAL LAND SURVEYOR

ROBERT C. LIBBY JR. PLS #2190

NO.	DATE	REVISION DESCRIPTION
1	6/30/25	Submitted Site Plan to Town
2	11/12/25	Submitted to DEP
3	1/15/26	Revised per Comments from PWD
4	5/4/26	Revised per Town Comments
5	5/29/26	Revised per Town Comments
6	6/29/26	Revised per Town & ACOE Comments

STATE OF MAINE ANDREW S. MORRELL No. 13285 REGISTERED PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

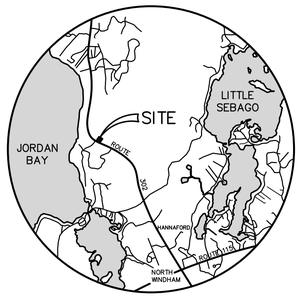
FOR
Double A Properties, LLC
968 Roosevelt Trail
Windham, Maine

SITE PLAN
APLUS AUTO GROUP
1027 ROOSEVELT TRAIL
WINDHAM, MAINE

DESIGNED	DATE
W. Pelkey	June 2025
DRAWN	SCALE
W. Pelkey	1" = 50'
CHECKED	JOB. NO.
A. Morrell	25028

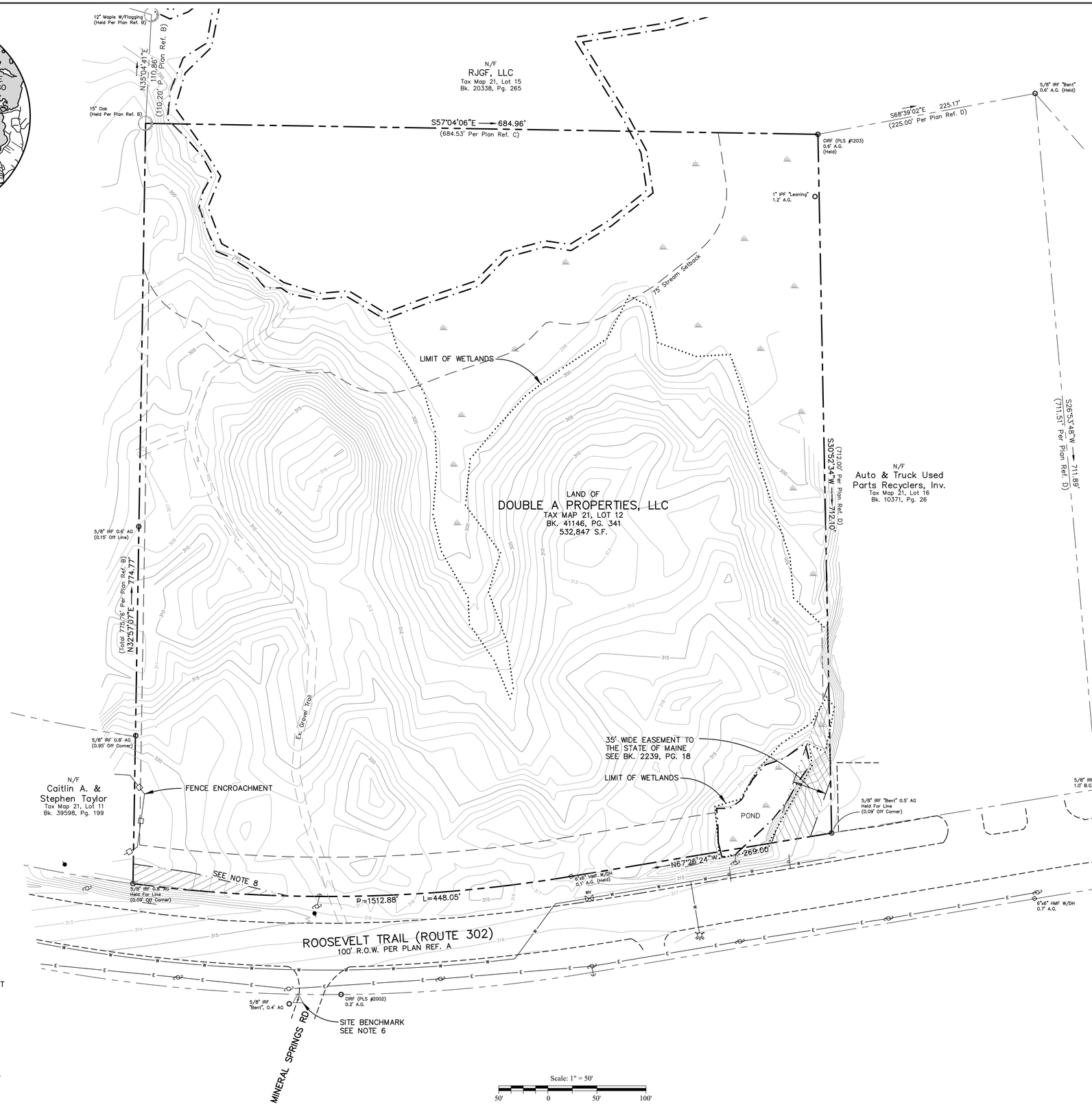
SHEET 1

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LOCATION MAP
SCALE: 1" = 2000'





LEGEND

SYMBOL	DESCRIPTION
●	CAPPED IRON ROD TO BE SET
⊡ GMF	GRANITE MONUMENT FOUND
○ IRF/IRF	IRON ROD/PIPE FOUND
○ CIRF	CAPPED IRON ROD FOUND
A.G./B.G.	ABOVE GRADE/BELOW GRADE
N/F	NOW OR FORMERLY
	HYDRANT
	UTILITY POLE
	SIGN
	PROPERTY LINE
	ABUTTER PROPERTY LINE
	EXISTING EDGE OF PAVEMENT
	EXISTING EDGE OF GRAVEL
	EDGE OF BROOK
	FENCE LINE

NOTES:

1. OWNER: DOUBLE A PROPERTIES, LLC
968 ROOSEVELT TRAIL
WINDHAM, ME 04062
2. SURVEYOR: ROBERT C. LIBBY JR, PLS #2190
BH2M
380B MAIN STREET
GORHAM, ME 04038
3. DEED REFERENCE: BK. 41146, PG. 341
4. TAX MAP REFERENCE: MAP 21, LOT 12
5. AREA OF PARCEL: 532,847 S.F.
6. BENCHMARK: MAGETIC NAIL SET IN PAVEMENT
ELEVATION 317.76, NAVD88
7. PLAN REFERENCES:
   A. "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHEWAY 14", DATED JULY 1954, SHEETS 4 AND 5, S.H.C. FILE NO. 3-94.
   B. "PLAN OF LAND FOR ALLEN LEVENSON LOCATED IN NORTH WINDHAM, MAINE", DATED AUG. 1977, BY WHITMAN & HOWARD, INC. AND RECOREDED IN THE C.C.R.D. PLAN BOOK 117, PAGE 47.
   C. "OVERALL SUBDIVISION PLAN OF ENTERPRISE BUSINESS PARK, PHASE 1A", DATED APRIL 2003 FOR RJ GRONDIN & SONS, BY SEBAGO TECHNICS AND RECORDED IN THE C.C.R.D. PLAN BOOK 203, PAGE 357.
   D. "SITE PLAN OF AUTO & TRUCK USED PARTS", DATED OCT. 1994 FOR ALBERT J. BOZENET, JR. BY SEBAGO TECHNICS PROJEC NUMBER 94475.
8. APPROXIMATE LOCATION OF SLOPE EASEMENT TO THE STATE OF MAINE, SEE BOOK 2239, PAGE 18 AND PLAN REF. A.
9. WETLANDS: MARK HAMPTON ASSOCIATES
PORTLAND, MAINE

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

STATE OF MAINE ROBERT C. LIBBY JR. 2190 REGISTERED PROFESSIONAL LAND SURVEYOR

ROBERT C. LIBBY JR. PLS #2190

REVISION		
NO.	DATE	DESCRIPTION
1	6/30/25	Submitted Site Plan to Town
2	11/12/25	Submitted to DEP
3	1/15/26	Revised per Comments from PWD
4	5/4/26	Revised per Town Comments
5	5/29/26	Revised per Town Comments
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STATE OF MAINE ANDREW S. MORRELL No. 4286 REGISTERED PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
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FOR
A Plus Auto Group
968 Roosevelt Trail
Windham, Maine

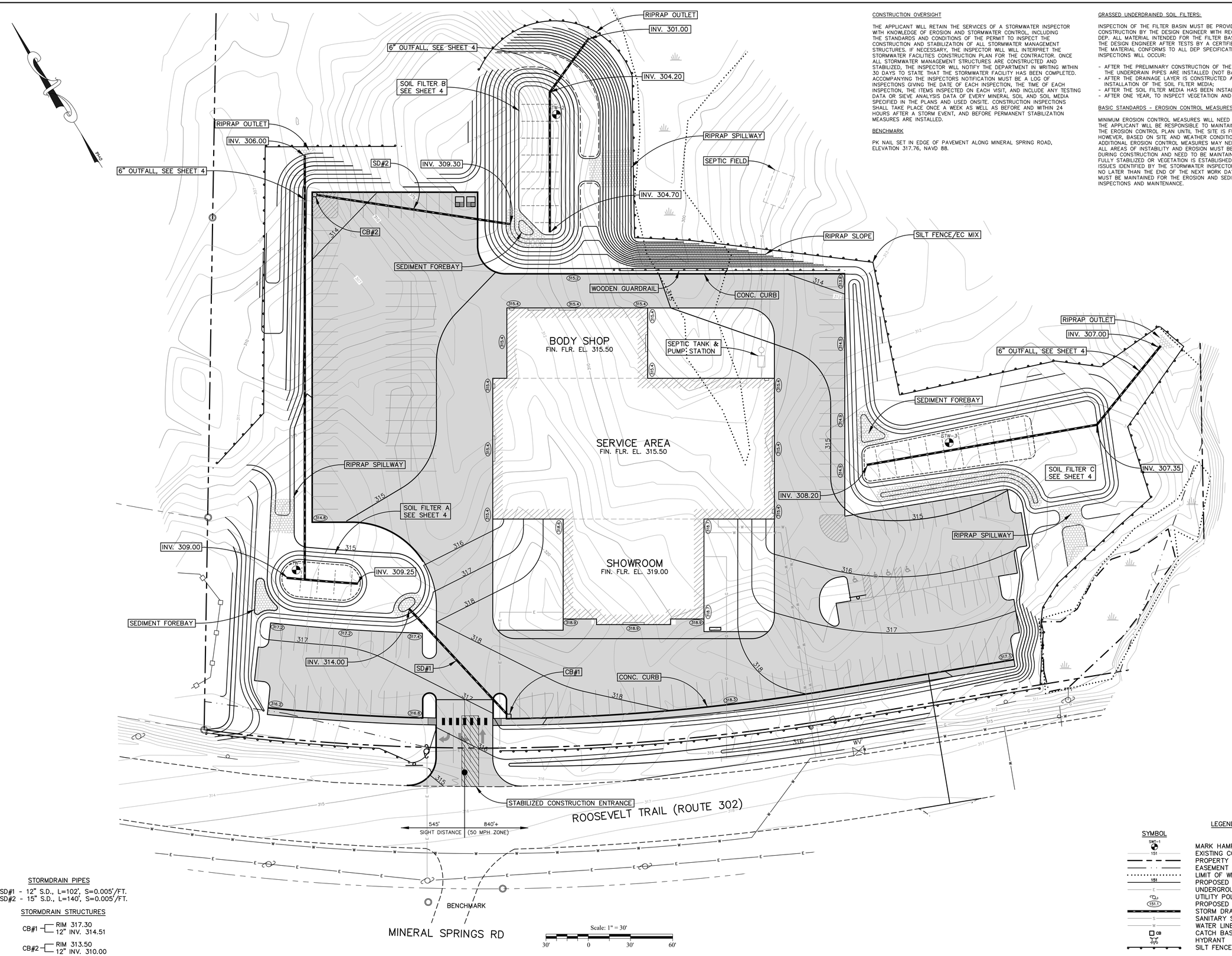
STANDARD BOUNDARY SURVEY & EXISTING CONDITIONS PLAN

LAND OF
DOUBLE A PROPERTIES, LLC
1027 ROOSEVELT TRAIL
WINDHAM, MAINE 04062

DESIGNED	DATE
T. Taggett	June 2025
DRAWN	SCALE
T. Taggett	1" = 60'
CHECKED	JOB. NO.
R. Libby, Jr.	25028

SHEET
2

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CONSTRUCTION OVERSIGHT

THE APPLICANT WILL RETAIN THE SERVICES OF A STORMWATER INSPECTOR WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS OF THE PERMIT TO INSPECT THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTOR WILL WILL INTERPRET THE STORMWATER FACILITIES CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTOR WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS TO STATE THAT THE STORMWATER FACILITY HAS BEEN COMPLETED. ACCOMPANYING THE INSPECTORS NOTIFICATION MUST BE A LOG OF INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ONSITE. CONSTRUCTION INSPECTIONS SHALL TAKE PLACE ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT, AND BEFORE PERMANENT STABILIZATION MEASURES ARE INSTALLED.

BENCHMARK

PK NAIL SET IN EDGE OF PAVEMENT ALONG MINERAL SPRING ROAD, ELEVATION 317.76, NAVD 88.

GRASSED UNDERDRAINED SOIL FILTERS:

INSPECTION OF THE FILTER BASIN MUST BE PROVIDED FOR EACH PHASE OF CONSTRUCTION BY THE DESIGN ENGINEER WITH REQUIRED REPORTING TO THE DEP. ALL MATERIAL INTENDED FOR THE FILTER BASIN MUST BE APPROVED BY THE DESIGN ENGINEER AFTER TESTS BY A CERTIFIED LABORATORY SHOW THAT THE MATERIAL CONFORMS TO ALL DEP SPECIFICATIONS. AT A MINIMUM, INSPECTIONS WILL OCCUR:

- AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED (NOT BACKFILLED);
- AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE SOIL FILTER MEDIA;
- AFTER THE SOIL FILTER MEDIA HAS BEEN INSTALLED, SEEDED AND MULCHED; AND
- AFTER ONE YEAR, TO INSPECT VEGETATION AND MAKE CORRECTIONS.

BASIC STANDARDS - EROSION CONTROL MEASURES

MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. ALL MAINTENANCE ISSUES IDENTIFIED BY THE STORMWATER INSPECTOR NEED TO BE COMPLETED NO LATER THAN THE END OF THE NEXT WORK DAY. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE.

STORMDRAIN PIPES

SD#1 - 12" S.D., L=102', S=0.005'/FT.
SD#2 - 15" S.D., L=140', S=0.005'/FT.

STORMDRAIN STRUCTURES

CB#1 — RIM 317.30, 12" INV. 314.51
CB#2 — RIM 313.50, 12" INV. 310.00

LEGEND

SYMBOL	DESCRIPTION
SWT-1	MARK HAMPTON STORMWATER TEST PIT
151	EXISTING CONTOUR
	PROPERTY LINE
	EASEMENT LINE
	LIMIT OF WETLANDS
151	PROPOSED CONTOUR
E	UNDERGROUND COMMUNICATIONS
	UTILITY POLE
151.1	PROPOSED SPOT GRADE
S	STORM DRAIN
W	SANITARY SEWER
	WATER LINE
CB	CATCH BASIN
	HYDRANT
	SILT FENCE

NO.	DATE	REVISION DESCRIPTION
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STATE OF MAINE — ANDREW S. MORRELL — No. 12085 — REGISTERED PROFESSIONAL ENGINEER

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Gorham, Maine 04038
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FOR
Double A Properties, LLC
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Windham, Maine

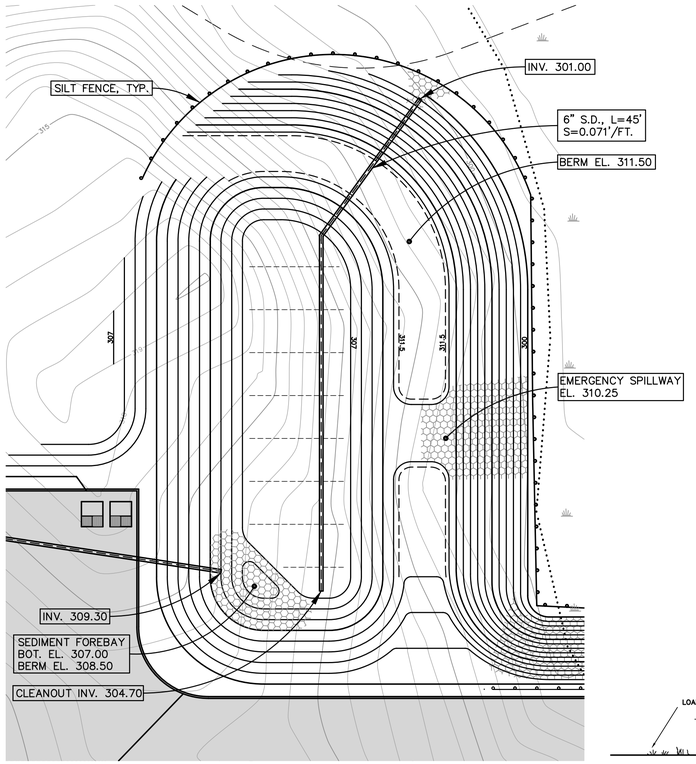
SITE GRADING

APLUS AUTO GROUP
1027 ROOSEVELT TRAIL
WINDHAM, MAINE

DESIGNED	DATE
W. Pelkey	June 2025
DRAWN	SCALE
W. Pelkey	1" = 30'
CHECKED	JOB. NO.
A. Morrell	24133

SHEET
3

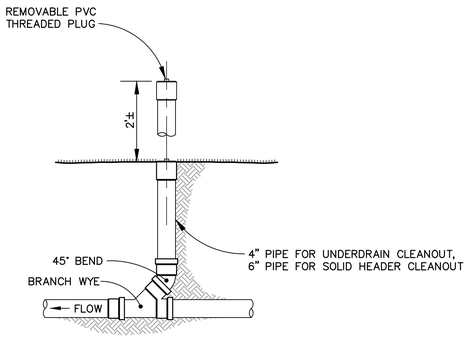
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SOIL FILTER C

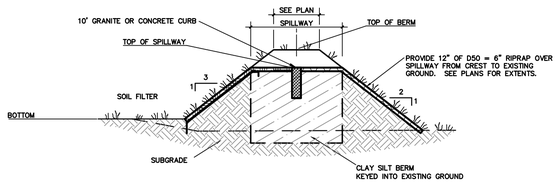
Scale: 1" = 20'

20' 0 20' 40'



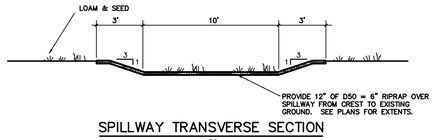
CLEANOUT DETAIL

N.T.S.



SPILLWAY LONGITUDINAL SECTION

N.T.S.



SPILLWAY TRANSVERSE SECTION

N.T.S.

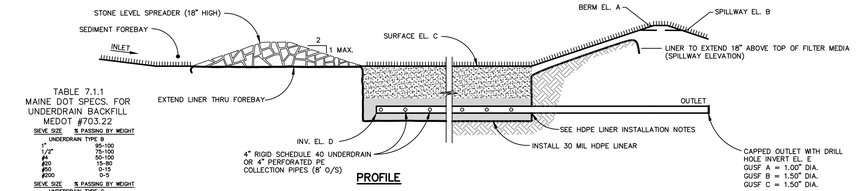
EMBANKMENT AND SPILLWAY DETAIL

NTS

DETENTION POND EMBANKMENT NOTES:

THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, ROOTS BRUSH, BOULDERS, SOD, RUBBISH & TOPSOIL. THE ENGINEER SHALL OBSERVE & APPROVE THE EMBANKMENT SUBGRADE PRIOR TO PLACING ANY FILL TO DETERMINE SUITABILITY & POSSIBLE NEED FOR A CUTOFF TRENCH.

FILL MATERIAL FOR THE EMBANKMENT SHALL CONSIST OF SILT AND/OR CLAY MATERIAL APPROVED BY THE ENGINEER. THE CONTRACTOR SHOULD NOTE THAT ACCEPTABLE MATERIAL MAY NOT BE FOUND ON-SITE. ALL FILL MATERIAL SHALL BE FREE OF SOD, ROOTS, FROZEN SOIL, STONES GREATER THAN 6" IN DIA. & OTHER OBJECTIONABLE MATERIAL. ALL SNOW, ICE, OR FROZEN FILL SHALL BE REMOVED PRIOR TO ADDING ADDITIONAL FILL. FILLING SHALL COMMENCE IN THE LOWEST POINT OF THE CUTOFF TRENCH AND/OR DAM & CONTINUE IN HORIZONTAL LIFTS NO GREATER THAN 12". 92% MODIFIED PROCTOR DENSITIES SHALL BE OBTAINED IN EACH LIFT PRIOR TO ADDITIONAL LIFTS. THE DISTRIBUTION & GRADATION OF THE FILL SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF SUBSTANTIALLY DIFFERENT MATERIALS ARE PLACED IN THE LAYERS IN THE EMBANKMENT. FILL WITHIN 5' OF THE DISCHARGE PIPE & STRUCTURE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.



PROFILE

TABLE 7.1.1
MAINE DOT SPECS. FOR
UNDERDRAIN BACKFILL
MEDOT #703.22

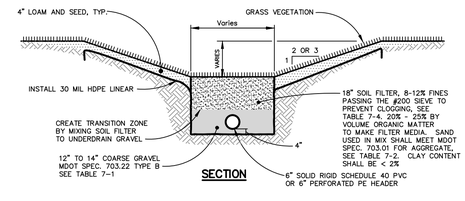
SIEVE SIZE	% PASSING BY WEIGHT
UNDERDRAIN TYPE A	
1"	95-100
1/2"	25-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
SIEVE SIZE	% PASSING BY WEIGHT
UNDERDRAIN TYPE C	
1"	100
3/4"	90-100
3/8"	0-75
#10	0-25
#40	0-5

TABLE 7.1.2
SANDY LOAM TO FINE
SANDY LOAM SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
4	75-95
10	60-90
40	30-85
200	20-70
200 (CLAY SIZE)	< 2.0

TABLE 7.1.3
LOAMY COARSE SAND
SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
10	85-100
20	70-100
60	10-40
200	8-15
200	< 2.0



SECTION

GRASSED UNDERDRAIN SOIL FILTER

NTS

STRUCTURE	PEAK EL. (2-YEAR)	PEAK EL. (10-YEAR)	PEAK EL. (25-YEAR)	PEAK EL. (100-YEAR)
GUSF A	312.40	313.32	313.91	314.08
GUSF B	308.61	309.48	310.16	310.41
GUSF C	311.32	312.09	312.68	313.10

GUSF A ELEVATIONS

A - 315.00
B - 314.00
C - 311.50
D - 309.25
E - 306.00

GUSF B ELEVATIONS

A - 311.50
B - 310.25
C - 307.00
D - 304.70
E - 301.00

GUSF C ELEVATIONS

A - 314.00
B - 313.00
C - 310.50
D - 308.20
E - 307.00

GRASSED UNDERDRAIN SOIL FILTER NOTES

REFERENCES

1. MAINE STORMWATER BEST MANAGEMENT PRACTICES (BMP), VOLUME III BMP TECHNICAL DESIGN MANUAL, CHAPTER 7 FILTRATION BMP'S (LATEST REVISION).

CONSTRUCTION METHODS

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MATERIALS, INSTALLATION, MEANS, METHODS, AND SCHEDULING.
2. ALL WORK SHALL BE IN CONFORMANCE WITH THE PROJECT PLANS AND BMP'S REFERENCED ABOVE.
3. THE SOIL FILTER MEDIA AND VEGETATION SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURES, 90% VEGETATION COVER OR PERMANENT STABILIZATION.

DE-WATERING PLAN

1. DURING CONSTRUCTION OF THE SITE AND VEGETATED SOIL FILTER, THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT A DEWATERING PLAN IN ANTICIPATION OF HEAVY RAIN EVENTS.
2. THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND MAY BE USED FOR A SEDIMENT TRAP FOR THE SITE DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM SHALL BE INSTALLED AT THE APPROPRIATE ELEVATION AND PROTECTED WITH A SEDIMENT BARRIER. THE BASIN IS TO BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE MULCHED AND MAINTAINED TO PREVENT EROSION.

SOIL MEDIA

1. THE SOIL MEDIA SHALL CONSIST OF SILTY SANDY SOIL OR SOIL MIXTURE COMBINED WITH 20% TO 25% BY VOLUME (NO LESS THAN 10% BY DRY WEIGHT) OF MODERATELY SHREDDED BARK OR WOOD FIBER MULCH.
2. THE SOIL FILTER MEDIA SAND SHALL MEET THE GRADATION IN TABLE 7-2 (MDOT 703.01) WITH ADDITIONAL FINES ADDED IF NECESSARY.
3. THE RESULTING SOIL FILTER MEDIA SHALL HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE AND SHALL HAVE A CLAY CONTENT OF LESS THAN 2%.
4. THE COARSE GRAVEL MATERIAL SHALL MEET THE GRADATION OF TABLE 7.1 (MDOT 703.22 UNDERDRAIN, TYPE B).
5. THE FILTER MEDIA SHALL BE LIGHTLY COMPACTED BY SATURATING THE MEDIA IN 6" TO 9" LIFTS AND SHALL HAVE A PERMEABILITY OF 2.4 IN/HR TO 4 IN/HR.
6. THE CLAY CONTENT SHALL BE < 2%.

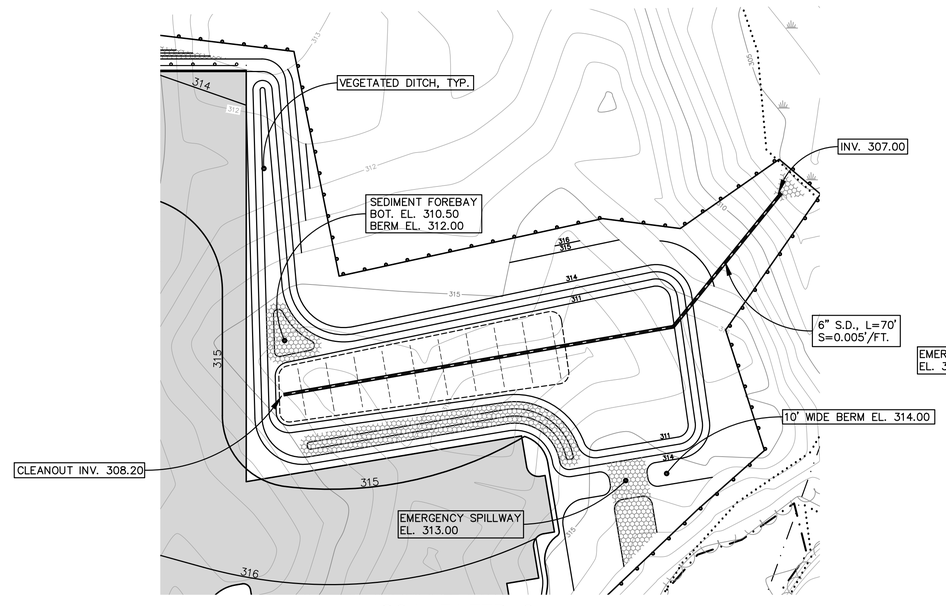
CONSTRUCTION

1. SOIL FILTER MEDIA, COARSE GRAVEL, AND UNDERDRAIN BEDDING MATERIAL SHALL BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR.
2. PERFORATED UNDERDRAIN PIPE SHALL BE 4" AND 6" SCHEDULE 40 OR SDR 35 PVC PIPE. SPACED 8 FEET AND 4 FEET ON CENTER AS SHOWN ON PLANS.
3. TRIBUTARY AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF THE SOIL FILTER MEDIA MIXTURE AND UNDERDRAIN. STABILIZED IS DEFINED AS PAVED IF IN A PARKING AREA OR ROADWAY AND 90% GRASS CATCH IF IN A VEGETATED AREA.
4. OUTFLOW OF THE VEGETATED SOIL FILTER SHALL BE CONTROLLED BY A 2" PLASTIC TYPE 34-6 BALL VALVE WITH TYPE 615 BALL VALVE HANDLE EXTENSION (AVAILABLE FROM E.J. PRESCOTT OR EQUIVALENT). A THREE-PIECE VALVE BOX (AVILABLE FROM E.J. PRESCOTT OR EQUIVALENT) SHALL BE INSTALLED OVER THE VALVE.
5. ALL EQUIPMENT USED WITHIN THE LIMITS OF THE VEGETATED SOIL FILTER SHALL BE LOW GROUND PRESSURE VEHICLES (LESS THAN 2.0 PSI) WHEN FULLY LOADED.
6. IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE CONTRACTOR SHALL INSTALL A 2-3 INCH LAYER OF LOAM (WITH LESS THAN 2% CLAY AS TESTED VIA HYDROMETER TEST) ON THE SURFACE OF THE GRASS FILTER AND RE-SEED/MULCH.
7. THE SURFACE OF THE VEGETATED SOIL FILTER SHALL BE PLANTED WITH A GRASS SPECIES THAT IS TOLERANT OF FREQUENT INUNDATION AND WELL-DRAINED SOILS. UPON SEEDING, THE SURFACES SHALL BE MULCHED WITH HAY OR AN EROSION CONTROL BLANKET BUT SHALL NOT BE FERTILIZED. AN APPROPRIATE SEED MIXTURE SHOULD CONTAIN THE FOLLOWING OR BE AN EQUIVALENT CONSERVATON TYPE MIX:

CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDSFOOT TREFOIL	8 LBS/ACRE
TOTAL	48 LBS/ACRE

TESTING AND SUBMITTALS

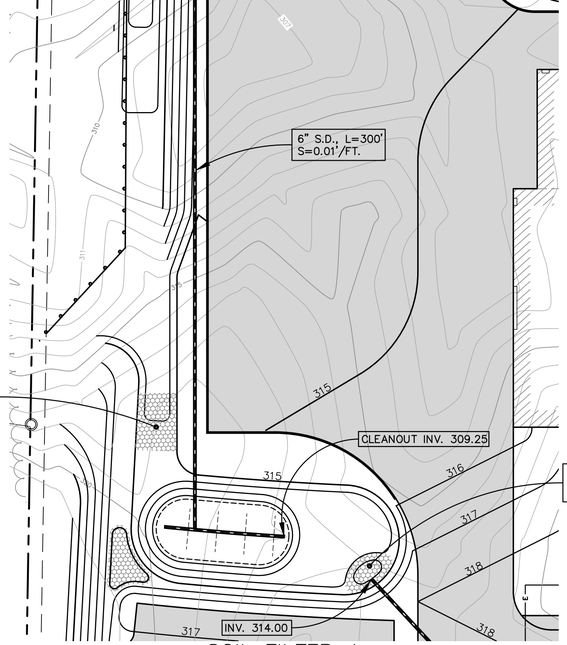
1. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL TESTING RESULTS SHALL BE SUBMITTED TO THE PROJECT ENGINEER.
2. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILLER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE WILL BE DETERMINED BY TESTING LABORATORY.
3. THE CONTRACTOR SHALL PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHODS FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES, 1996A) ON EACH TYPE OF SAMPLE MATERIAL INCLUDING A HYDROMETER TEST FOR CLAY CONTENT.
4. THE CONTRACTOR SHALL PERFORM A PERMEABILITY TEST ON THE SOIL MEDIA MIXTURE CONFORMING TO ASTM D2434.
5. THE CONTRACTOR SHALL PERFORM ONE COMPACTION DENSITY TEST ON THE IN-PLACE SOIL FILTER MEDIA FOR EVERY 1,500 S.F. OF BED OR FRACTION THEREOF. THE TEST SHALL CONFORM TO ASTM 2922.
6. UPON COMPLETION OF THE VEGETATED SOIL FILTER MEDIA AND THE ESTABLISHMENT OF 90% CATCH OF GRASS OVER THE FILTER MEDIA, THE CONTRACTOR SHALL FLOOD THE VEGETATED BASIN TO THE SPILLWAY WITH CLEAR WATER AND ADJUST THE OUTFLOW TO OBTAIN A 24-HOUR TO 32-HOUR RELEASE TIME.



SOIL FILTER C

Scale: 1" = 30'

30' 0 30' 60'



SOIL FILTER A

Scale: 1" = 30'

30' 0 30' 60'

NO.	DATE	REVISION DESCRIPTION
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Engineers, Surveyors
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FOR
Double A Properties, LLC
968 Roosevelt Trail
Windham, Maine

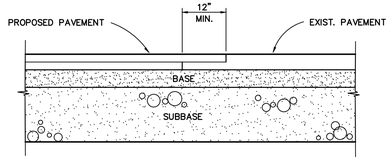
SOIL FILTER DETAILS

APLUS AUTO GROUP
1027 ROOSEVELT TRAIL
WINDHAM, MAINE

DESIGNED	DATE
W. Pelkey	June 2025
DRAWN	SCALE
W. Pelkey	1" = 50'
CHECKED	JOB. NO.
A. Morrell	24133

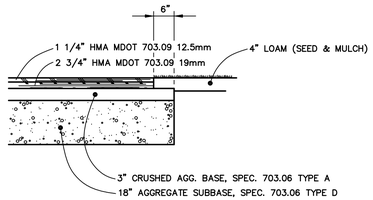
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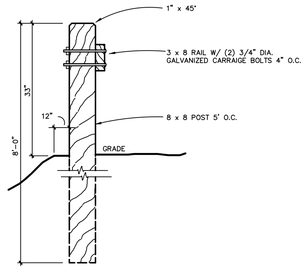


SAWCUT EXIST. PAVEMENT ALONG A SMOOTH LINE TO A NEAT EVEN VERTICAL JOINT, APPLY TACK PRIOR TO PROPOSED PAVING (AS REQ'D)

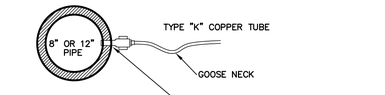
PAVEMENT JOINT DETAIL
N.T.S.



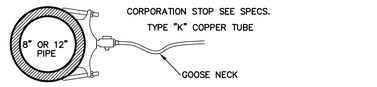
TYP. PAVEMENT DETAIL
NTS



TYPICAL GUARD RAIL
N.T.S.

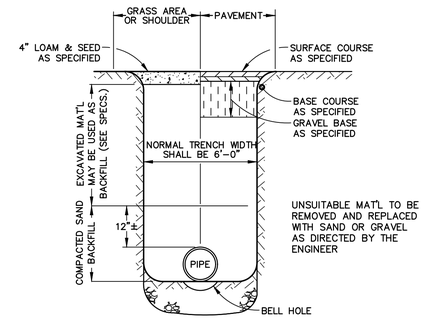


SERVICE TAP
(3/4" AND 1" C.C. THREAD)

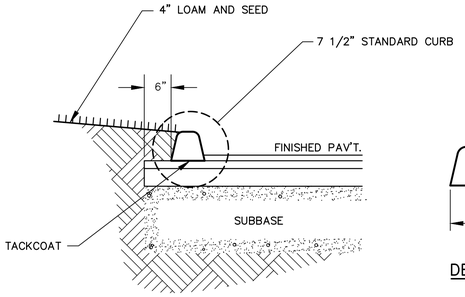


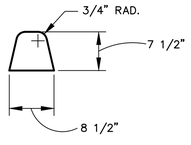
SERVICE SADDLE
(1-1/2" & 2" C.C. OR IRON PIPE THREAD)

NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSON AND/OR CONTRACTION (SEE DETAILS).

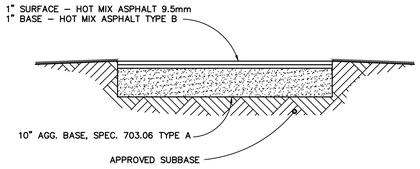


WATER THROUGH EARTH TRENCH
N.T.S.

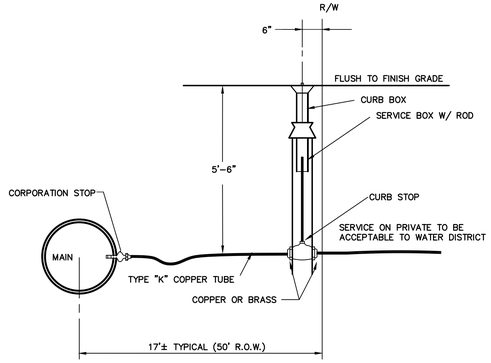




DETAIL "A"
NTS

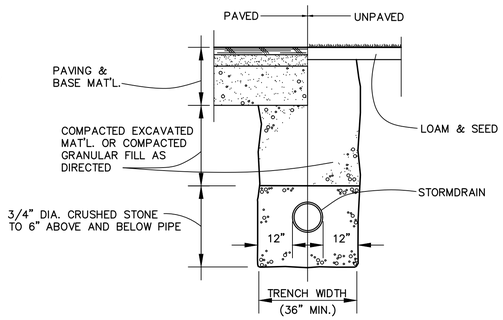


TYPICAL SIDEWALK SECTION
NTS



TYPICAL SERVICE CONNECTION
N.T.S.

NOTES:
1. Trench width shown is payment width for rockexcavation & replacement of unsuitable material.
2. Do not mechanically compact directly over flexible pipe (e.g. PVC, Poltyethylene)
3. Concrete pipe shall have sand bedding.



TRENCH DETAIL
NTS

1 LB. FIBER MESH SHALL BE ADDED TO EVERY CUBIC YARD OF CONCRETE. THE CONCRETE WILL CONTAIN THE MAXIMUM AMOUNT OF WATER TO BE OF A CONSISTENCY THAT THE CONCRETE WILL MAINTAIN THE SHAPE OF THE CURB SECTION WITHOUT SUPPORT. THIS MIX ALSO MEETS THE READY MIX REQUIREMENTS OF ASTM C94 AND WILL MEET OR EXCEED 4,000 PSI IN 28 DAYS.

THE PAVEMENT SHALL BE THOROUGHLY CLEANED TO REMOVE DUST, DIRT AND OIL BEFORE APPROVED ADHESIVE IS APPLIED PER MANUFACTURERS SPECIFICATIONS.

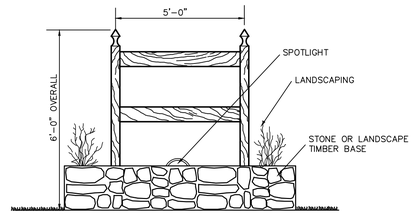
THE FIBER REINFORCED MIX SHALL BE FED INTO THE VIBRATING HOPPER WHERE IT IS COMPACTED INTO THE DESIRED MOLD PROFILE.

FRESHLY EXTRUDED CURB SHALL BE LIGHTLY TOUCHED UP WITH A STEEL HAND TROWEL. CONTROL JOINTS SHALL BE TOOLED AS SOON AS POSSIBLE AT 9' INTERVALS. ADDITIONAL CONTROL JOINTS ADDED ON RADIUS AS NECESSARY.

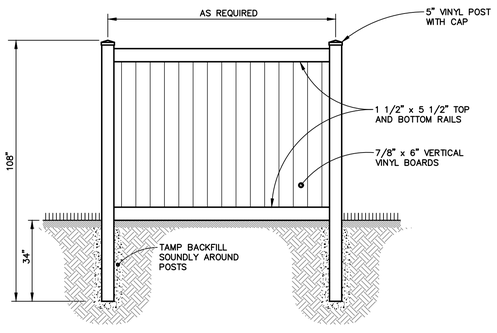
THE FINISHED CURB WILL BE COATED WITH AN APPROVED CURING COMPOUND.

FOLLOW MANUFACTURERS INSTALLATION INSTRUCTIONS AND TEMPERATURE RESTRICTIONS.

EXTRUDED CONCRETE CURB
NTS

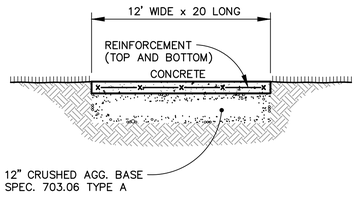


A PLUS AUTO GROUP
N.T.S.



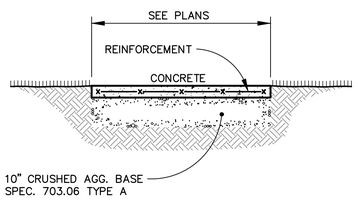
(ILLUSIONS VINYL FENCE OR APPROVED EQUAL)

VINYL DUMPSTER FENCE
NTS



CONCRETE	-	8" THICK 4,000 PSI @ 28 DAYS, 3/4" MAX. AGGRIGATE, 3-5% AIR ENTRAINMENT, 4" MAX. SLUMP
REINFORCEMENT	-	#4 BARS AT 12" O.C. EACH WAY, TOP AND BOTTOM
FINISH	-	SCREED AND BULL FLOAT, BROOM FINISH PERPENDICULAR TO TRAVEL DIRECTION
JOINTS	-	SAWCUT TO 1/3 DEPTH AT 5'-6' O.C.
SEALING	-	APPLY POLY SULFIDE LIQUID SEALANT, GRAY PER MANUFACTURER'S SPEC'S.

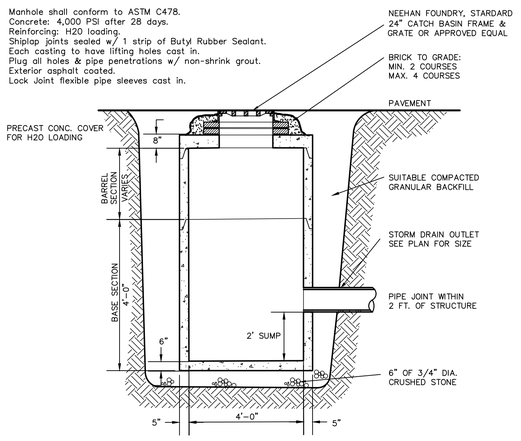
DUMPSTER PAD
NTS



CONCRETE	-	4" THICK @ UNIT S/W & 6" THICK AT ROADWAY S/W 4,000 PSI @ 28 DAYS, 3/4" MAX. AGGRIGATE, 3-5% AIR ENTRAINMENT, 4" MAX. SLUMP
REINFORCEMENT	-	WELDED WIRE MESH, 6x6, 6/6 EPOXY COATED
FINISH	-	SCREED AND BULL FLOAT, BROOM FINISH PERPENDICULAR TO TRAVEL DIRECTION
JOINTS	-	SAWCUT TO 1/3 DEPTH AT 5' O.C. W/IN 24 HOURS OF PLACEMENT. EXPANSION JOINTS AT FULL DEPTH AT 25' INTERVALS OR APPROPRIATE CONNECTIONS
SEALING	-	APPLY POLY SULFIDE LIQUID SEALANT, GRAY PER MANUFACTURER'S SPEC'S.

CONCRETE SIDEWALK SECTION
NTS

Manhole shall conform to ASTM C478.
Concrete: 4,000 PSI after 28 days.
Reinforcing: H20 loading.
Shiplap joints sealed w/ 1 strip of Butyl Rubber Sealant.
Each casting to have lifting holes cast in.
Plug all holes & pipe penetrations w/ non-shrink grout.
Exterior asphalt coated.
Lock Joint flexible pipe sleeves cast in.



PRECAST CONCRETE CATCH BASIN DETAIL
N.T.S.

REVISION		
NO.	DATE	DESCRIPTION
1	6/30/25	Submitted Site Plan to Town
2	11/12/25	Submitted to DEP
3	1/15/26	Revised per Comments from PWD
4	5/4/26	Revised per Town Comments
5	5/29/26	Revised per Town Comments
6	6/29/26	Revised per Town & ACOE Comments

STATE OF MAINE ANDREW S. MORRELL No. 12085 REGISTERED PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Double A Properties, LLC
968 Roosevelt Trail
Windham, Maine

STANDARD DETAILS

APLUS AUTO GROUP
1027 ROOSEVELT TRAIL
WINDHAM, MAINE

DESIGNED	DATE
W. Pelkey	June 2025
DRAWN	SCALE
W. Pelkey	1" = 50'
CHECKED	JOB. NO.
A. Morrell	24133

SHEET
5

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EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

DURING CONSTRUCTION THE DEVELOPER/APPLICANT OR THEIR REPRESENTATIVES WILL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL BMP'S AS WELL ROUTINE INSPECTIONS AND MAINTENANCE OF THE BMP'S.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND FOLLOWING EVERY RAIN EVENT (1 INCH OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.
2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.
4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.
7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.
8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
9. ALL SEDIMENT BARRIERS SHOULD BE INSTALLED ALONG THE CONTOUR, WITH THE ENDS TURNED UP SLOPE.
10. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.
11. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (1.0 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.
12. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).
13. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
14. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
15. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
16. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
    a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY AGRICULTURAL LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
    c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
    d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.
    e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.
14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.
15. WETLANDS WILL BE PROTECTED WITH A DOUBLE ROW OF EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.
17. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

SEASON	SEED	RATE
SUMMER (5/15 – 8/15)	SUDANGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 – 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 – 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 – 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 – 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 2:1. ECM SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 – 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5:1). EROSION CONTROL MIX IS AN ACCEPTABLE STABILIZATION MEASURE FOR SLOPES UP TO 3:1, WITH LIMITS THAT ARE COVERED BY NOTES ON THIS SHEET. SLOPES BETWEEN 3:1 AND 2:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS, AND ALL SLOPES GREATER THAN 2:1 SHALL BE STABILIZED WITH RIPRAP. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.

CONSTRUCTION SCHEDULE/SEQUENCE:

1. PERFORM TREE CLEARING AND STUMP REMOVAL WITHIN THE APPROVED LIMITS OF DISTURBANCE.
2. INSTALL ALL REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES.
3. CONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE.
4. STRIP AND STOCKPILE TOPSOIL FOR REUSE.
5. PERFORM REQUIRED EARTHWORK, INCLUDING CUT AND FILL OPERATIONS FOR THE PROPOSED ACCESS DRIVE, PARKING AREAS, AND BUILDING PAD.
6. CONSTRUCT THE GRAVEL BASE FOR THE ACCESS DRIVE AND PARKING AREAS.
7. INSTALL THE PROPOSED STORM DRAINAGE SYSTEM, INCLUDING PIPES, CATCH BASINS, AND DRAINAGE STRUCTURES.
8. CONSTRUCT THE THREE (3) PROPOSED GRASSED UNDERDRAINED SOIL FILTERS.
9. CONSTRUCT THE PROPOSED BUILDING.
10. INSTALL ALL PROPOSED UTILITIES, INCLUDING THE SUBSURFACE WASTEWATER DISPOSAL SYSTEM.
11. PLACE THE BASE COURSE OF PAVEMENT.
12. FINE GRADE, LOAM, AND PERMANENTLY STABILIZE ALL DISTURBED AREAS WITH SEED OR OTHER APPROVED STABILIZATION MEASURES.
13. INSTALL ALL PROPOSED LANDSCAPING
14. PLACE THE FINAL PAVEMENT SURFACE COURSE AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS BEEN STABILIZED.
15. INSTALL PAVEMENT STRIPING.

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15
2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
   ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
   A. INSTALL A SOD LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
   B. INSTALL A STONE LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
   ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
   A. STABILIZE THE SOIL WITH SOD:
      THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
   B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
      EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
   C. STABILIZE THE SOIL WITH STONE RIPRAP:
      PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
   BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
   A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
      BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
   B. STABILIZE THE SOIL WITH SOD:
      STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
   C. STABILIZE THE SOIL WITH MULCH:
      BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
5. MAINTENANCE:
   IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

   STABILIZATION SCHEDULE BEFORE WINTER:

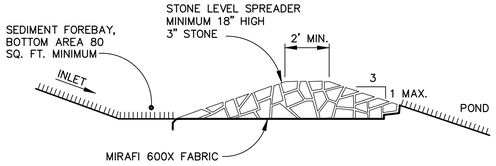
   SEPTEMBER 15 — ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET

   OCTOBER 1 — IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED, ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.

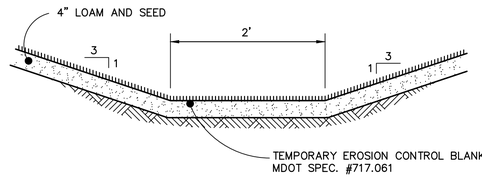
   NOVEMBER 15 — ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.
6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
7. AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

HOUSEKEEPING

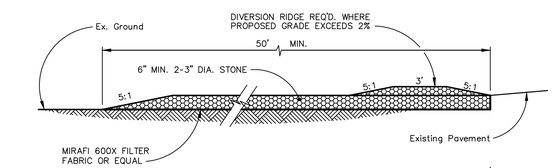
1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION: 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.
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 MY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.
4. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING: TRENCH 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 SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND 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. 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:
   - DISCHARGES FROM FIREFIGHTING ACTIVITY;
   - FIRE HYDRANT FLUSHINGS;
   - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
   - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   - 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;
   - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500);
   - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   - LANDSCAPE IRRIGATION.
7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
   - WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



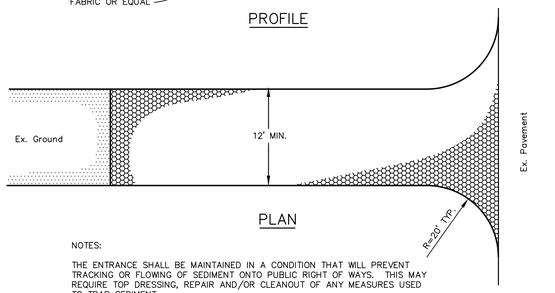
SEDIMENT FOREBAY
NTS



VEGETATED DITCH DETAIL
NTS



PROFILE



PLAN

NOTES:

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.

WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

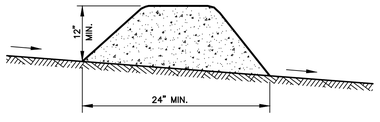
STABILIZED CONSTRUCTION ENTRANCE
NTS

-ORGANIC MATTER > 80% DRY WEIGHT
-PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN

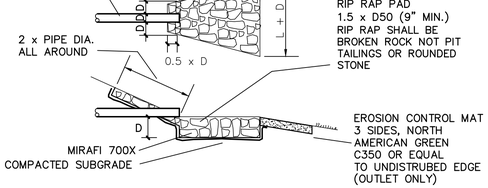
-ORGANIC PORTION TO BE FIBROUS & ELONGATED
-SOLUBLE SALT CONTENT < 4.0 MMOHS/CM.
-pH TO BE BETWEEN 5.0 & 8.0

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR.
ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8% OR WHERE THERE IS FLOWING WATER.
SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

EROSION CONTROL MIX SHOULD CONTAIN A WELL GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINATES, AND MATERIAL TOXIC TO PLANT GROWTH.



EROSION CONTROL MIX BERM
NTS


L=4.5 x D
8' MIN.
RIP RAP (D50 = 6")
CULVERT
D
L = D
RIP RAP PAD 1.5 x D50 (9" MIN.) RIP RAP SHALL BE BROKEN ROCK NOT PIT TAILINGS OR ROUNDED STONE
2 x PIPE DIA. ALL AROUND
0.5 x D
D
EROSION CONTROL MAT 3 SIDES, NORTH AMERICAN GREEN C350 OR EQUAL TO UNDISTRUBED EDGE (OUTLET ONLY)
MIR

Engineering • Surveying • Environmental Solutions

June 29, 2026

Steve Puleo
Planning Director – Town of Windham
8 School Road
Windham, Maine 04062

RE: Plan Revisions-Site Plan
A-Plus Sale & Service, Inc.
1027 Roosevelt Trail

Dear Steve,

As you know, we met earlier in the month to review all of the outstanding comments. We have reviewed the comments from the review memo from your office dated May 14, 2026 and have prepared the following information and responses:

- Revised Inspection and Maintenance Manual from Stormwater Report
- VHB Memo Dated June 19, 2026 re: sight distance & turning lane warrants
- Revised Commercial District Design Standards Checklist
- Revised Landscape Plan – Mainely Outdoor Living (Full Size)
- Revised Plan Set – BH2M (Full Size)

Comments from Planning Staff memo dated May 14, 2026

Planning Department:

1. The buffer yard provided (distance between edge of sidewalk and right of way for Route 302) is 16 feet. Please see the Site Plan (sheet 1) for more information. For clarity we have added this dimension to the attached revised sheet 1 of the plans. Mainely Outdoor Living has revised the landscape plan to assure this buffer meets buffer yard G standards in table 1 from the Windham Ordinance (see attached).
2. Commercial District Design Standards:
    a. Snow storage areas have been added to the attached Site Plan (sheet 1) as requested.
    b. The Applicant/Planner's Checklist for Major Site Plan Review for Commercial District Design Standards has been completed, with all applicable requirements for the C-1N District addressed. The following 8 additional items are provided in support of the application:

    B-2: Internal Traffic Flow: The proposed site layout provides for continuous vehicular circulation throughout the development, eliminating the need for vehicles to turn around within the site.

B-5: Screening – Parking: Proposed landscaping and existing wooded buffer areas provide effective screening of parking areas, minimizing their visibility from the public roadway (see attached revised landscape plan).
B-8: Low Impact Design Stormwater: The proposed stormwater management system incorporates Grassed Underdrained Soil Filters that provide water quality treatment for approximately 96% of the proposed impervious area, consistent with low impact development (LID) stormwater management principles.
C-4: Existing Trees Preserved: The proposed development has been designed to minimize tree clearing and preserve existing mature trees wherever practicable, maintaining the site's natural character to the greatest extent possible.
C-6: Planting Variety: The proposed landscaping plan includes a diverse selection of trees, shrubs, and other plant materials to provide visual interest, seasonal variation, and ecological benefits throughout the site.
C-7: Planting Suitability: The landscaping plan has been prepared by Mainley Outdoor Living (see revised plan attached). All proposed plant materials have been selected based on their suitability for the site's environmental conditions, intended function, and long-term sustainability.
C-8: Mass Plantings: The proposed landscaping plan incorporates a substantial quantity and variety of plantings to enhance the site's appearance, provide screening, and support the overall landscape design. Refer to the Landscaping Plan for the proposed plant quantities and species.
C-9: Illumination Levels: Site lighting has been designed to provide adequate illumination for safe vehicular and pedestrian circulation while minimizing light spillover onto adjacent properties and public rights-of-way. Lighting levels are consistent with the applicable site plan review standards. Lighting was completed and designed by Visible Light Inc.

3. If it is determined during construction that blasting will be required, the contractor will provide the Town with a blasting plan prior to the commencement of this work. Plan note #32 has been added to the attached revised Site Plan to address this issue.
4. The final conditions of approval for the project will be added to the final site plan prior to the Planning Board endorsing the plan. We have reserved room on the plan to accommodate this information.
5. See comments from Gorrill Palmer (LJB) below for more information.

Environmental & Sustainability

6. See above comments (2a) from Planning Department comments where snow storage area was addressed.

Town Engineer

7. See attached memo provided by VHB dated June 19, 2026.
   The sight distance issue has now been resolved. Please note we have added this information to the plans (see revised sheet 1).

Comments from Third Party Consulting Engineer
(LJB Engineering Memo Dated June 3, 2026):

Stormwater Management

1. See responses below regarding delegated review comments.
2. See sheet 3 of the revised plan set for the relocation of callouts.
3. See sheet 4 of the revised plan set for the correction on the elevation of the emergency spillway for GUSF A.
4. No response necessary
5. No response necessary

Erosion Control

6. No response necessary

Sewage Disposal

7. See sheet 1 note #33 in regards to floor drains and/or vehicle wash bays prohibited from discharging into the subsurface wastewater disposal system.

Groundwater Protection

8. No response necessary

Water Quality

9. No response necessary

Sight Distance

10. See attached memo provided by VHB dated June 19, 2026 related to sight distance as well as response 7 from Planning Department comments above for more information.
11. See attached memo provided by VHB dated June 19, 2026 related to right turn lane warrant analysis

Comments from Delegated Review Stormwater Application Checklist (LJB Engineering):

Basic Standards

1. See sheet 6 of the revised plan set for construction schedule/sequence.
2. See sheet 6 of the revised plan set for revisions to note 1 of the Erosion and Sedimentation Control Plan notes.
3. Inspection and Maintenance Manual has been revised removing the reference to Natural Wonders Daycare (see attached).

If you have any questions or need any additional information, please let me know and we will be sure to provide them for your office. We hope with these changes we can get before the Planning Board at the next available planning board meeting. We look forward to being before the planning board discussing this exciting project. The applicants are anxious to move this project to the next stage.

Sincerely,

Andrew S. Morrell
Project Manager

Attachment 1
Revised Inspection and Maintenance Manual

EROSION AND SEDIMENTATION CONTROL
INSPECTION AND MAINTENANCE PLAN

A Plus Auto Service & Showroom

1027 Roosevelt Trail
Windham, Maine

Submitted by:

Double A Properties, LLC
968 Roosevelt
Windham, Maine 04062

Prepared by:



Date:
June 2025

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APPENDIX B	Construction Inspection Forms
APPENDIX C	Post-Construction Inspection Forms
APPENDIX D	Inspection Frequency Checklist and Long-Term Inspection & Maintenance Plan
APPENDIX E	Recertification Forms for Long-Term Maintenance of Stormwater Management Systems
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1.0 INTRODUCTION

The intent of this plan is to establish inspection and maintenance procedures to be implemented for erosion and sediment control best management practices (BMP's) during construction, as well as for post-construction stormwater BMP's, for the A-Plus Auto Service & Showroom Project. This plan has been prepared in conformance with the requirements set forth in 06-096 Chapter 500 – Stormwater Management, the Town of Windham Post-Construction Stormwater Management Ordinance, and the Maine Construction General Permit.

1.1 PROJECT DESCRIPTION

Double A Properties LLC, is proposing to construct a 32,500 sf commercial building with associated parking and access infrastructure (the project). The Project is proposed to occupy approximately 4.62 acres on a parcel located off Roosevelt Trail in Windham known as Tax Map 21, Lot 12.

The scope of work includes but is not limited to:

- Tree clearing and grubbing
- Stump and boulder removal
- Construction of a bituminous parking lot
- Construction of a 32,500sf commercial building
- Installation of storm drain system including catch basins, stormdrains, and grassed underdrained soil filters.
- Installation of utilities
- Final site stabilization

1.2 REQUIRED PERMITS

The following is a list of Municipal, State, and Federal permits that are required for the Project:

Municipal
Town Windham Site Plan Approval

State of Maine
Maine DEP Individual Stormwater Permit

Federal
None

1.3 REFERENCES

This plan has been developed in accordance with the following:

- Stormwater Management Law 38 M.R.S. §420-C and §420-D
  http://legislature.maine.gov/statutes/38/title38sec420-C.html
  http://legislature.maine.gov/statutes/38/title38sec420-D.html

- 06-096 Chapter 500 – Stormwater Management
  http://www.maine.gov/sos/cec/rules/06/096/096c500.docx

- General Permit – Construction Activity
  Maine Pollutant Discharge Elimination System (MPDES)
  https://www.maine.gov/dep/land/stormwater/construction.html

- Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers
  https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_engineers.pdf

- Maine Erosion and Sediment Control Practices Field Guide for Contractors
  https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_field.pdf

- MaineDOT Best Management Practices for Erosion and Sedimentation Control
  https://www.maine.gov/mdot/env/documents/bmp/BMP2008full.pdf

1.4 RESPONSIBLE PARTIES

Preparer/Design Engineer:	Andrew S. Morrell, PE BH2M 380B Main Street Gorham, Maine 04038 (207) 839-2771
Developer/Applicant:	Double A Properties, LLC 968 Roosevelt Trail Windham, ME 04062
Site Contractor:	_____ _____ _____
Owner:	Double A Properties, LLC 968 Roosevelt Trail Windham, ME 04062
Post Construction Stormwater Inspector*:	Andrew S. Morrell, PE BH2M 380B Main Street Gorham, Maine 04038 (207) 839-2771
Stormwater Maintenance**:	
During Construction:	Double A Properties, LLC 968 Roosevelt Trail Windham, ME 04062
Post Construction:	_____ _____ _____

** During construction, the Developer/Applicant or their representatives will be responsible for implementing the erosion and sediment control BMP's as well routine inspections and maintenance of the BMP's. Post-construction stormwater BMP inspection, maintenance, reporting, and required recertifications will be the responsibility of the Owner or their representatives.

1.5 INSPECTION AND MAINTENANCE – DURING CONSTRUCTION

Anyone who conducts or directs an activity that involves exposing, filling or displacing soil or other earthen materials should take appropriate measures to prevent erosion and the loss of sediment beyond the project site or into a sensitive resource. Erosion and sediment control measures should be in place before the activity begins and should remain functional until the site is permanently stabilized. All measures should remain effective until all areas are permanently stabilized. Any disturbed area should be regularly inspected until the site is fully stabilized with either 90% grass cover or a permanent impervious surface such as pavement. A person who has knowledge of erosion and sediment control measures and of stormwater management practices should inspect the site at a minimum once a week, and before and after a storm event. Any failing measure should be repaired or modified to adequately stabilize the site prior to the next storm event or no later than 7 calendar days. The inspection frequency table found in Appendix D shall be used as a guide for inspecting each specific BMP. The inspection form found in Appendix B shall be used to record the inspection, its outcome, and the required maintenance.

Refer to the Plans found in Appendix A for additional erosion and sediment control details and narratives.

General Inspection, Maintenance, and Documentation Requirements

1. Inspection and corrective action: Inspect disturbed and impervious areas, erosion control measures, and material storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and within 24 hours 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: If BMP's 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 additional BMPs or significant repair of BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event. All measures must be maintained in effective operating condition until areas are permanently stabilized.

3. Documentation: Maintain a binder with construction inspection forms summarizing the inspections and any corrective action taken. The forms must include the name and qualifications of the person making the inspections, the date of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Refer to Appendix B for the construction inspection form. Major observations must include BMP's that need maintenance, BMP's that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the inspection form what corrective action should be taken and when it was taken. The Owner shall retain a copy of the inspection forms for a period of at least five years from the completion of permanent stabilization.

Site-Specific BMP's

Refer to Appendix D for inspection and maintenance requirements and frequencies of site-specific BMP's. Refer to the Plans found in Appendix A for narratives and details of the site-specific BMP's. The following is a list of the site-specific BMP's that will require routine inspection and maintenance:

- Sedimentation Barriers (Silt Fence or Erosions Control Mix Berm)
- Stabilized Construction Entrance
- Construction Limit Barrier Fence
- Temporary Sediment Trap
- Pipe Inlet/Outlet Protection
- Temporary Grass/Stone Lined Swale
- Parking Lot and Sidewalks
- Snow Storage Areas
- Catch Basins and Storm Drain Manholes
- Storm Drains and Culverts
- Grassed Underdrained Soil Filters

Winter Construction

Winter construction is any construction activity performed during the period from November 1 through April 15. If disturbed areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

Site Stabilization: For winter stabilization, hay mulch is applied at twice the standard temporary stabilization rate. At the end of each construction day, areas that have been brought to final grade must be stabilized. Mulch may not be spread on top of snow.

1. Sediment Barriers: All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barriers.

2. Ditches: All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by Maine DEP.

3. Slopes: Mulch netting must be used to anchor mulch on all slopes greater than 8% unless erosion control blankets or erosion control mix is being used on these slopes.

Refer to the Plans contained in Appendix A for additional winter construction erosion and sediment control requirements.

1.6 INSPECTION AND MAINTENANCE – POST-CONSTRUCTION

The long-term operation and maintenance of a stormwater management system is as critical to its performance as its design and construction. Proper operation and maintenance practices ensure that stormwater BMP's continue to improve water quality by removing pollutants effectively over the long-term and decreasing the risk of re-suspending sediment. Without proper maintenance, BMPs are likely to fail and will no longer provide treatment of stormwater. The following includes a summary of the inspection, maintenance, and documentation requirements for post-construction stormwater BMP's.

Refer to the Plans contained in Appendix A for details and locations of site-specific post-construction BMP's.

General Inspection, Maintenance, and Documentation Requirements

1. Inspection and maintenance: All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections. Wet weather inspections shall be triggered by 1-inch of rain in a 24-hour period. 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) Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after significant rainfall events (1 inch in 24-hour period) to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion 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) Inspect catch basins and drain manholes annually and clean out either when the sump is half full or when sediment is within one foot of the invert of the outlet pipe. Clean-out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil absorptive pads).

c) Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after significant rainfall events (1 inch in 24-hour period) to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to 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.

d) Inspect culverts in the spring, in 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.

e) Inspect at least once per year, each underdrained soil filter, including the filter embankments, vegetation, underdrain piping, and overflow spillway. Remove and dispose of accumulated sediments in the filter. If needed, rehabilitate any clogged surface linings, and flush underdrain piping.

f) Inspect level spreaders in the spring, in late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, and outlet, and repair any erosion damage at the inlet and outlet.

2. Regular maintenance

    a) Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads, or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder. If water bars or open-top culverts are used to divert runoff from road surfaces, clean-out any sediments within or at the outlet of these structures to restore their function.

3. Documentation: Maintain a binder of inspection forms summarizing inspection, maintenance, and any corrective actions taken. The inspection forms 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. Refer to Appendix C for inspection forms. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed of after removal. The log must be made accessible to Department staff and a copy provided to the Department upon request. The Owner shall retain a copy of the logs for a period of at least five years from the completion of permanent stabilization.

4. The site-specific post-construction BMP's for the A-Plus Auto Service & Showroom include the following:

    - Underdrained Soil Filters
    - Parking Lot and Sidewalks
    - Storm Drain System (including culverts, storm drains, catch basins, drain manholes, and vegetated and reinforced ditches/swales).
    - Snow storage areas
    - Rip rap inlet and outlet aprons
    - Sediment forebay

1.7 RECERTIFICATION OF STORMWATER MANAGEMENT SYSTEMS

The parcel is located within the Town of Windham's designated MS4 area, and subject to the requirements of the Post-Construction Stormwater Ordinance, Chapter 201 Article II.

A qualified third-party inspector shall, on or by June 1 of each year, provide a completed and signed certification to the enforcement authority certifying that the person has inspected the stormwater management facilities and that they are adequately maintained and functioning as intended by approved post-construction stormwater management plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the stormwater management facilities, and, if the stormwater management facilities require maintenance or repair of deficiencies in order to function as intended by approved post-construction stormwater management plan, the person shall provide a record of the required maintenance or deficiency and corrective action(s) taken based on the timeline outlined in Subsection A(2)(a) of the ordinance.

1.8 SITE-SPECIFIC BMP MAINTENANCE AND ANNUAL REPORTING REQUIREMENTS

Below is a site-specific of list BMP's implemented for the Project as well as their ID, discharge location, and inspection and certification requirements.

Table 1 - Post-Construction BMP Designation Table

Post-Const. BMP ID	Type of Post-Const. BMP	Discharge Location	MS4 (YES/NO)	Inspection Frequency	Post-Const. Certification Requirement	Post-Const. Responsibility
BMP-A	Vegetated Areas	N/A	Yes	Annual	Yes	Owner
BMP-B	Catch Basins	Soil Filter	Yes	Annual	Yes	Owner
BMP-C	Stormdrain Pipes	Soil Filter	Yes	Annual	Yes	Owner
BMP-D	Parking & Sidewalks	Stormdrain System	Yes	Annual	Yes	Owner
BMP-E	Soil Filter	Wooded Area	Yes	Annual	Yes	Owner

1.9 HOUSEKEEPING

The following performance standards shall apply:

1. Spill prevention: Controls must be used to prevent pollutants from construction and waste materials stored 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.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a

day. For more information, visit the Department's website at : http://www.maine.gov/dep/spills/emergspillresp/

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.

   See 06-096 Chapter 500 - Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

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, 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.

NOTE: Take care in sourcing water. Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

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.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post- construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

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.

NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

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;
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;
k) Potable water sources including waterline flushings; and
l) Landscape irrigation.

7. Unauthorized non-stormwater discharges: The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with 06-096 Chapter 500 - Appendix C (6). Specifically, the Department'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.

8. Additional requirements: Additional requirements may be applied on a site-specific basis.

Appendix A
Plans

Appendix B
Construction Inspection Forms

CONSTRUCTION INSPECTION FORM FOR EROSION AND SEDIMENT CONTROL						
General Information:						
Site Name:	Date:			Inspected by:		
Owner:						
Retained 3PI:	Last Rain Date:			Amount:		
Reason for Inspection:	Weekly	Winter	Final	Rain Event	Complaint	
Description of disturbed area:						
Photos:						
	YES/NO/NA	**COMMENTS**				
1. Is an Erosion and Sediment Control Plan available?						
ESC plan on-site and followed						
Other:						
2. Are all erosion control practices installed properly, maintained and functioning?						
Disturbed areas stable						
Concentrated flow inlet/outlet protection						
All areas at final grade						
Disturbed dormant areas stabilized						
Access roads and parking						
Hillsides and stockpiles						
Other:						
3. Are all sedimentation control practices installed properly, maintained and functioning?						
Construction entrance						
Sedimentation basins/traps/diversions						
Perimeter controls						
Check dams						
Other:						
4. Is maintenance of ESC measures, construction activities and housekeeping kept-up?						
Sedimentation/erosion in ditches						
Tracked Sediment or dust at exits						
Hazardous material storage and spill control practices						
Waste management (concrete, hazardous material, etc.)						
Other:						
5. Violation, Corrective Actions, Recommendations						
Sediment discharged from site?						
Corrective action required?						
Site compliant with all permits?						
Notice of violation or stop work order issued?						
Comments/Corrective Actions (complete corrective actions before the next rain event and within 7 day)						

Appendix C
Post-Construction Inspection Forms

A-Plus Auto **Post-Construction Inspection Form (Buffers/Level Spreaders)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Erosion or concentrated flows evident?		
Downgradient of level spreaders stable?		
Level spreaders built along contour?		
Evidence of accumulated sediment in level spreader trough?		
Number of level spreaders adequate for flow distribution?		
Buffer monumentation visible?		
Evidence of buffer vegetation removal or frequent mowing?		
Temporary or permanent structures within the buffer?		
Evidence of motorized vehicles operating in buffer?		
Trash, debris, or waste within buffer area?		
Additional Comments:		

A-Plus Auto **Post-Construction Inspection Form (Detention Ponds)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Embankment showing signs of settlement, slope erosion, piping, or slumping?		
Woody vegetation growing in embankment?		
Debris accumulated at trash racks?		
Outlet control structure operating as intended? Orifice clear of debris?		
Accumulated sediment in forebay?		
Emergency spillway stable? Dislodged rip rap?		
Internal outlet control structure free of debris?		
Sediment accumulating in basin bottom? Dredging needed?		
Additional Comments:		

A-Plus Auto **Post-Construction Inspection Form (Ditches, Swales and Open Stormwater Channels)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Obstructions, sediment or debris noticeable in ditch line?		
Mowing required?		
Woody vegetation apparent in ditches?		
Side slopes stable? Signs of slumping?		
Rip rap stable? Underlying filter fabric visible?		

Additional Comments:

A-Plus Auto **Post-Construction Inspection Form (Roadway and Parking Areas)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Winter sand accumulation apparent?		
Pavement Sweeping required?		
Gravel shoulders graded appropriately?		
Gravel road grading required?		
Low spots causing puddling?		

Additional Comments:

A-Plus Auto **Post-Construction Inspection Form (Storm Drain System including catch basins and culverts)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Accumulated debris or sediment at inlet, outlet, or within culvert/storm drain?		
Flow obstructions present?		
Erosion apparent at culvert inlet/outlet?		
Accumulated debris around catch basin grate?		
Accumulated debris in catch basin sump?		
Floating debris or oils found in catch basins?		

Additional Comments:

A-Plus Auto **Post-Construction Inspection Form (Underdrain Filter)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
Debris apparent in basin bottom?		
Vegetation established in basin bottom?		
Basin draining within 72 hours?		
Inlet forebay rip rap stable and free of debris?		
Embankment and side slopes stable? Sloughs or unvegetated areas apparent?		
Outlet free of debris? Rip rap stable?		
Valve in operating condition?		
Outlet control structure operational free of debris?		
Orifice free of debris and operational?		

Additional Comments:

A-Plus Auto **Post-Construction Inspection Form (Vegetated Area)**					
Project name:	Date:		Inspected by:		
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent maintenance performed:					
Photos: (Attach)					

Inspection Details	**Comments**	**Maintenance Required**
All slopes and embankments well vegetated? Signs of sparse growth?		
Rill erosion apparent in vegetated areas?		
Downs slope of level spreaders/ditch turnouts stable?		
Mowing of vegetated areas appropriate?		

Additional Comments:

Appendix D

Inspection Frequency Checklist and Long-Term Inspection & Maintenance Plan

EROSION AND SEDIMENT CONTROL MEASURES AND ACTIVITY	INSPECTION FREQUENCY		
	Weekly	Before and After a Storm	After Construction
SEDIMENT BARRIERS			
Sediment barriers are installed prior to soil disturbances	X	X	
Silt fences are keyed in and tight	X	X	
Barriers are repaired and replaced as necessary	X	X	
Barriers are removed when the site is stabilized - Silt fence should be cut at the ground surface			X
TEMPORARY STABILIZATION			
Areas are stabilized if idle for 14 days or more	X	X	
Daily stabilization within 100 ft of a natural resource	X	X	
MULCH			
Seed and mulch within 7 days of final grading. Ground is not visible	X	X	
Erosion control mix is 4-6 inch thick	X	X	
Erosion control blankets or hay mulch are anchored	X	X	
VEGETATION			
Vegetation provides 90% soil cover	X		X
Loam or soil amendment were provided	X		X
New seeded areas are mulched and protected from vehicle, foot traffic and runoff	X	X	X
Areas that will remain unworked for more than 1 year are vegetated with grass	X		
SLOPES AND EMBANKMENTS			
Final graded slopes and embankments are stabilized	X	X	X
Diversions are provided for areas with rill erosion	X	X	X
Areas steeper than 2:1 are riprapped	X		
Stones are angular, durable and various in size	X		
Riprap is underlain with a gravel layer or filter fabric	X		
STORMWATER CHANNELS AND CULVERTS			
Ditches and swales are permanently stabilized–channels that will be riprapped have been over-excavated	X	X	X
Ditches are clear of obstructions, accumulated sediments or debris	X	X	X
Ditch lining/bottoms are free of erosion	X	X	X
Check dams are spaced correctly to slow flow velocity	X		
Underlying filter fabric or gravel is not visible	X	X	X
Culvert aprons and plunge pools are sized for expected flows volume and velocity	X		
Stones are angular, durable and various in size	X		
Culverts are sized to avoid upgradient flooding	X	X	
Culvert protection extends to the maximum flow elevation within the ditch	X	X	X
Culvert is embedded, not hanging	X	X	X

CATCH BASIN SYSTEMS			
Catch basins are built properly	X		
Accumulated sediments and debris are removed from sump, grate and collection area		X	X
Floating debris and floating oils are removed from trap			X
ROADWAYS AND PARKING SURFACES			
The gravel pad at the construction entrance is clear from sediments	X	X	
Roads are crowned		X	X
Cross drainage (culvert) is provided	X		
False ditches (from winter sand) are graded		X	X
BUFFERS			
Buffers are free of erosion or concentrated flows		X	X
The downgradient of spreaders and turnouts is stable		X	X
Level spreaders are on the contour			X
The number of spreaders and ditch turnouts is adequate for flow distribution		X	X
Any sediment accumulation is removed from within spreader or turnouts		X	X
STORMWATER BASINS AND TRAPS			
Embankments are free of settlement, slope erosion, internal piping, and downstream swamping		X	X
All flow control structure or orifices are operational and clear of debris or sediments		X	X
Any pre-treatment structure that collects sediment or hydrocarbons is clean or maintained		X	X
Vegetated filters and infiltration basins have adequate grass growth			X
Any impoundment or forebay is free of sediment		X	X
WINTER CONSTRUCTION (November 1st-April15th)			
Final graded areas are mulched daily at twice the normal rate with hay, and anchor (not on snow)	Daily		
A double row of sediment barrier is provided for all areas within 100 ft of a sensitive resource (use erosion control mix on frozen ground)	Daily		
Newly constructed ditches are riprapped	Daily		
Slopes greater than 8% are covered with an erosion control blanket or a 4-inch layer of erosion control mix	Daily		
HOUSEKEEPING PUNCH LIST			
All disturbed areas are permanently stabilized, and plantings are established (grass seeds have germinated with 90% vegetative cover)			X
All trash, sediments, debris or any solid waste have been removed from stormwater channels, catch basins, detention structures, discharge points, etc.			X
All ESC devices have been removed: (silt fence and posts, diversions and sediment structures, etc.)			X
All deliverables (certifications, survey information, as-built plans, reports, notice of termination (NOT), etc.) in accordance with all permit requirements have been submitted to town, Maine DEP, association, owner, etc.			X

INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)

	INSPECTION SCHEDULE	CORRECTIVE ACTIONS
VEGETATED AREAS	Annually early spring and after heavy rains	Inspect all slopes and embankments and replant areas of bare soil or with sparse growth
		Armor rill erosion areas with riprap or divert the runoff to a stable area
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Mow vegetation as specified for the area
DITCHES, SWALES AND OPEN STORMWATER CHANNELS	Annually spring and late fall and after heavy rains	Remove obstructions, sediments or debris from ditches, swales and other open channels
		Repair any erosion of the ditch lining
		Mow vegetated ditches
		Remove woody vegetation growing through riprap
		Repair any slumping side slopes
		Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodge
CULVERTS	Spring and late fall and after heavy rains	Remove accumulated sediments and debris at the inlet, outlet, or within the conduit
		Remove any obstruction to flow
		Repair any erosion damage at the culvert's inlet and outlet
CATCH BASINS	Annually in the spring	Remove sediments and debris from the bottom of the basin and inlet grates
		Remove floating debris and oils (using oil absorptive pads) from any trap
ROADWAYS AND PARKING AREAS	Annually in the spring or as needed	Clear and remove accumulated winter sand in parking lots and along roadways
		Sweep pavement to remove sediment
		Grade road shoulders and remove accumulated winter sand
		Grade gravel roads and gravel shoulders
		Clean out the sediment within water bars or open-top culverts
		Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder
RESOURCE AND TREATMENT BUFFERS	Annually in the spring	Inspect buffers for evidence of erosion, concentrated flow, or encroachment by development
		Manage the buffer's vegetation with the requirements in any deed restrictions
		Repair any sign of erosion within a buffer
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Install more level spreaders, or ditch turn-outs if needed for a better distribution of flow
		Clean out any accumulation of sediment within the spreader bays or turnout pools
		Mow non-wooded buffers no shorter than six inches and less than three times per year
WETPONDS AND DETENTION BASINS	Annually in fall and after heavy rains	Inspect the embankments for settlement, slope erosion, piping, and slumping
		Mow the embankment to control woody vegetation
		Inspect the outlet structure for broken seals, obstructed orifices, and plugged trash racks
		Remove and dispose of sediments and debris within the control structure
		Repair any damage to trash racks or debris guards
		Replace any dislodged stone in riprap spillways
		Remove and dispose of accumulated sediments within the impoundment and forebay
FILTRATION AND INFILTRATION BASINS	Annually in the spring and late fall	Clean the basin of debris, sediment and hydrocarbons
		Provide for the removal and disposal of accumulated sediments within the basin
		Renew the basin media if it fails to drain within 72 hours after a one inch rainfall event
		Till, seed and mulch the basin if vegetation is sparse
		Repair riprap where underlying filter fabric or gravel is showing or where stones have dislodged
PROPRIETARY DEVICES	As specified by manufacturer	Contract with a third-party for inspection and maintenance
		Follow the manufacturer's plan for cleaning of devices
OTHER PRACTICES	As specified for devices	Contact the department for appropriate inspection and maintenance requirements for other drainage control and runoff treatment measures.

Appendix E

Five-Year Recertification for Long-Term Maintenance of Stormwater Management Systems

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Land Resources
17 State House Station
Augusta, Maine 04333

FIVE-YEAR RECERTIFICATION FOR LONG-TERM MAINTENANCE OF STORMWATER MANAGEMENT SYSTEMS

For Site Location & Stormwater Projects

This form complies with the condition that requires reporting every 5 years on the long-term maintenance of stormwater management structures of projects permitted under the Stormwater Management Law since 2005. Complete the following sections, include inspection photos, and use additional paper if needed. A copy of the report if the inspection was performed by a professional experienced in BMP maintenance should be included. Electronic copy of this form and information about the five-year recertication are available on the Maine DEP website at: http://www.maine.gov/dep/land/stormwater/stormwaterbmps/

Please type or print in black ink only

Owner/Licensee		**3rd Party Inspection Company** (if applicable)	
Name of Representative:		**Name of Inspector or preparer of report:**	
Company:		**Company:**	
Mailing Address:		**Mailing Address:**	
Daytime Phone #:		**Daytime Phone #:**	
E-mail Address:		**E-mail Address:**	

LOCATION OF DEVELOPMENT			
Name of Project:			
Address and Town:			
DEP Permit Number:		**Year of Permit:**	

PROJECT SPECIFICS	
If the project is unfinished, please describe its current status and your plans for the future. The filing of this report of on-site long-term maintenance activities is still required.	
If the project is within a MPDES Regulated Town, the maintenance report prepared for the town should be submitted with this form.	
If the project is a subdivision with a Homeowner's association, identify the responsible party.	
Confirm that the required recording of deed restrictions for the protection of buffers or conservation land has been done, and that the buffers are maintained according to the restrictions.	
Identify the contractor for the required renewal of a 5-year maintenance contract for the inspection, cleaning and maintenance of manufactured proprietary structures.	
Is a maintenance log available for review?	

LONG-TERM MAINTENANCE (please comment on the following):
All areas of the development have been inspected for erosion, and appropriate steps have been taken to permanently stabilize these areas.
All stormwater control structures have been inspected for damage, wear, malfunction, and appropriate steps have been taken to repair or replace the failing systems.
The erosion control and stormwater maintenance plan for the site is being implemented as written, and a maintenance log has been created and is being maintained.

CERTIFICATIONS/SIGNATURES
By signing below. the owner (or authorized agent) certifies that all stormwater management structures at the project described above are stable and operational as designed.
Signed:_____ **Title**_____**Date:**_____
This completed form and all supporting documents summarized above shall be sent to the following address. An emailed report is appropriate and should be sent to Recert-DEP@maine.gov Five-year Recertification Bureau of Land Resources 17 State House Station Augusta, ME 04333 Tel: (207) 287-2624 or (207) 287-2602

Appendix F
Permit Orders

Attachment 2

VHB Memo Dated June 19, 2026 re: Sight Distance & Turning Lane Warrants

Memorandum

To: Mark Arienti, PE
Town Engineer
185 Windham Center Road
Windham, ME 04062

Date: June 19, 2026

Project #: R176527.000

From: Jason Ready, PE, PTOE, PTP
Michael Cristiani

Re: Sight Distance Evaluation
A Plus Auto – 1027 Roosevelt Trail, Windham, Maine

Introduction

Vanasse Hangen Brustlin, Inc. (VHB) has prepared this technical memorandum to document the results of a field-based sight distance evaluation for the proposed driveway A Plus Auto Driveway on U.S. Route 302 in Windham, Maine and evaluate the need for a right turn lane on U.S. Route 302 entering the site.

Jason Ready (VHB) and Mark Arienti (Town of Windham) conducted a field review to assess available sight distance at the proposed driveway location on Wednesday June 17, 2026. The intent of the review was to confirm whether the previously selected driveway location (directly opposite Mineral Spring Road) provides sufficient sight distance to meet the minimum standards accepted by MaineDOT for this project.

Sight Distance Evaluation

Sight distance was measured from the centerline of the proposed driveway, located 10 feet back from the edge of the traveled way along Route 302. Measurements were taken in both directions along U.S. Route 302 to evaluate available sight distance for vehicles exiting the proposed driveway.

U.S. Route 302 is designated by MaineDOT as a mobility corridor. As such, MaineDOT typically applies more stringent sight distance criteria for new or modified access points along this roadway. However, for this development, MaineDOT has granted a sight distance waiver, allowing the typical minimum allowable sight distance for a 50 mph roadway to be used as the applicable design criterion at this driveway location (495 feet).

Field observations indicate that the minimum allowable sight distance of 495 feet is achievable in both directions from the proposed driveway location.

Looking to the right (for a vehicle exiting the proposed driveway), the field review confirmed that sight lines are clear to approximately 545 feet along Route 302. No fixed objects, vegetation, roadway features, or vertical or horizontal curvature were observed that would restrict the sight line within this distance. Any available vegetation trimming within the right-of-way or on the project property would enhance sight distance beyond 545 feet if desired.

Looking to the left, the available sight distance was similarly observed to greatly exceed the 495 foot minimum. Updated sight line figures and photos from the field review are provided attached.

Auxiliary Lane Warrant Analysis

In order to determine if a right-turn lane is warranted on U.S. Route 302 entering the site in the north westbound direction, a right-turn lane warrant analysis has been completed using the *Report 457: Evaluating Intersection Improvements: An Engineering Study Guide.* Guidelines are based on the following traffic data:

› Number of lanes,

- Design speed,
- Right-turn volumes, and
- Major road (one direction) traffic volumes.

The right-turn lane warrant analysis used Figure 2-6 from NCHRP Report 457, "Guideline for determining the need for a major road right-turn bay at a two way stop controlled intersection." Based on the projected PM peak hour traffic volumes, the posted speed (50 mph) on U.S. Route 302, and the major road through volumes in the westbound direction, the guideline indicates that a right-turn lane entering the site would be warranted during the PM peak hour.

The warrant is met primarily because the projected westbound through volumes on U.S. Route 302 are sufficiently high that a modest right-turn volume can satisfy the guideline criteria when combined with the 50 mph design speed. The forecast right-turn demand from westbound U.S. Route 302 into the site is relatively low, with only 25 right turns projected during the PM peak hour. Given this low turning volume and the very good operating conditions on U.S. Route 302 (LOS A, negligible queues), the operational benefit of constructing a separate right-turn lane is minimal.

Findings and Conclusions

Based on the field review and analysis summarized above, the proposed A Plus Auto driveway location on U.S. Route 302 opposite Mineral Spring Road provides sight distance that meets or exceeds the MaineDOT approved minimum stopping sight distance of 495 feet in both directions, consistent with the granted sight distance waiver for this 50 mph corridor.

The auxiliary lane warrant analysis using NCHRP Report 457 indicates that a westbound right-turn lane is technically warranted during the PM peak hour, primarily due to the combination of high major-road through volumes and the 50 mph operating speed, rather than due to high turning demand. However, with only approximately 25 westbound right turns projected in the PM peak hour and Route 302 expected to operate at LOS A in both directions, a separate right-turn lane is not considered operationally necessary at this time. Accordingly, the proposed driveway location and access configuration are expected to operate safely and efficiently under projected traffic conditions without the provision of a dedicated westbound right-turn lane.


545'
SITE
850.00
545' unobstructed sight distance
Standing at proposed driveway location looking right onto Route 302
Nearmap

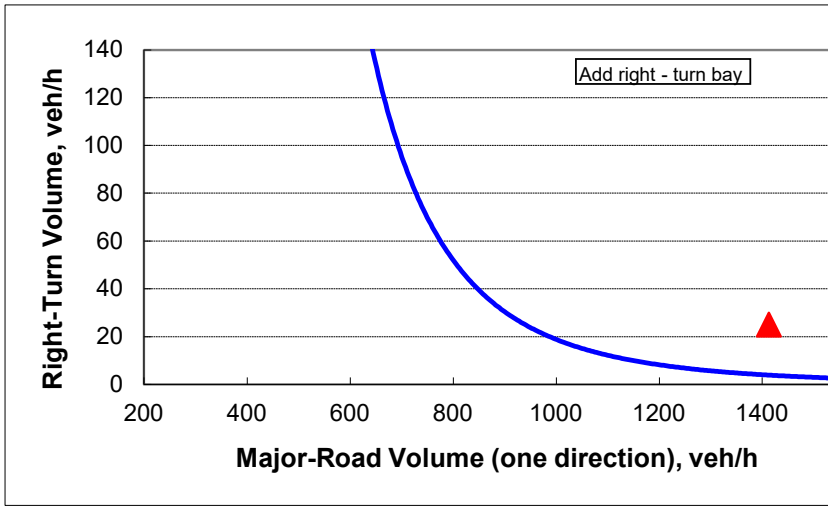
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, km/h:	50
Major-road volume (one direction), veh/h:	1413
Right-turn volume, veh/h:	25

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	4
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Attachment 3
Revised Commercial District Design Standards Checklist

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

APPLICANT/PLANNER'S CHECKLIST FOR MAJOR SITE PLAN REVIEW
COMMERCIAL DISTRICT DESIGN STANDARDS SECTION 120-813

The following checklist includes Design Standards for nonresidential developments within Windham's Commercial* 1, Commercial 1 North, Commercial 2, Commercial 3, Village Commercial, and Windham Center Districts.** ***Where there is a conflict between provision of the Design Standards and any other ordinance provision, the more restrictive provision shall apply. In addition to meeting all Design Standards required in the applicable zoning districts, development must comply with he minimum of eight (8) other Design Standards.

For purposed of this section ,"development" shall mean that portion of the project that:

a. Is subject to the site plan review under Article 8 Site Plan Review; or

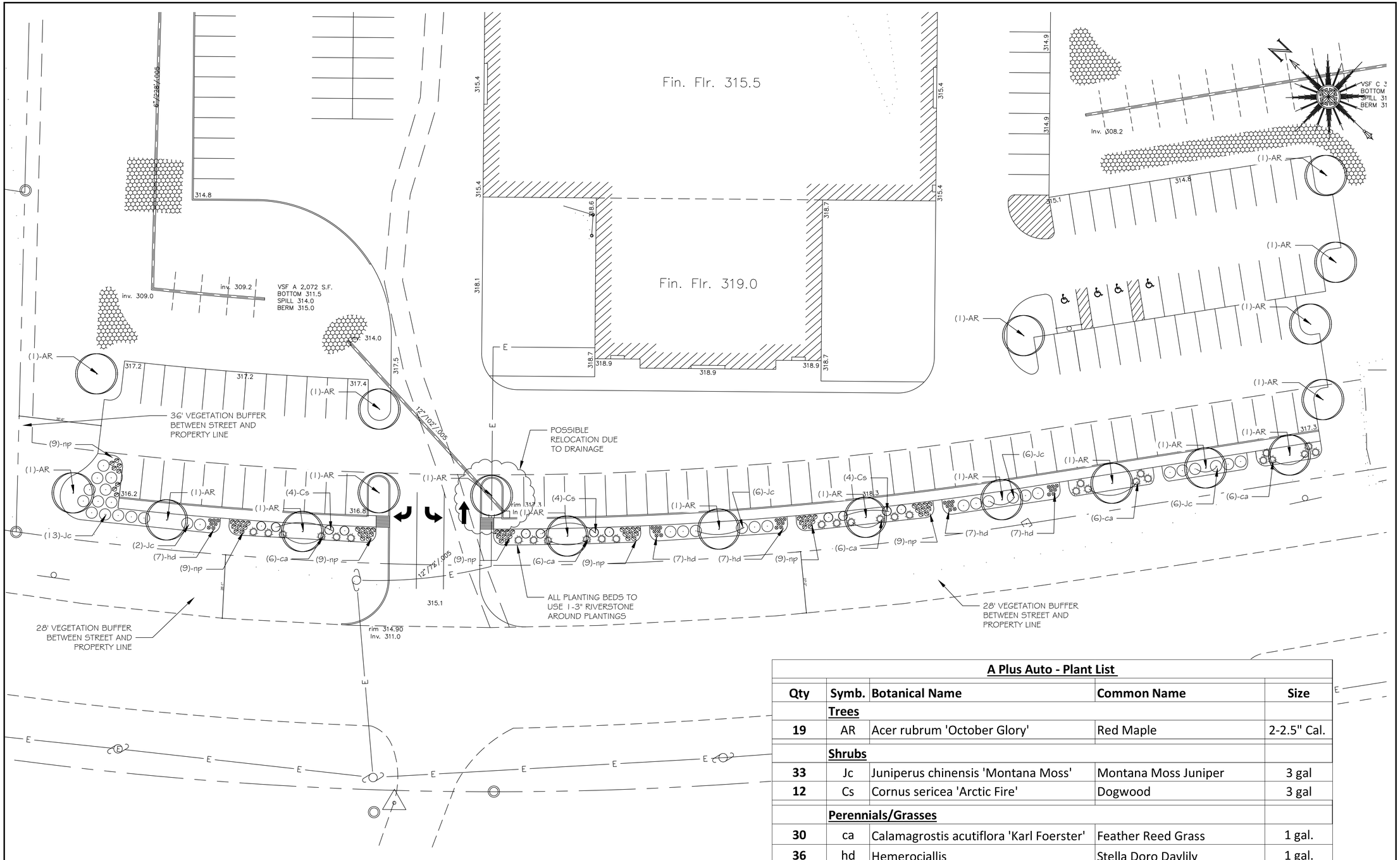
b. Will renovate twenty percent (20%) or more of the entire wall area of a structure on the site. (For this type of renovation, the renovation will be subject to the required Design Standards in Section A. but will not be subject to other required Design Standards.)

Design Standards Framework

			C-1	C-1N	C-2	C-3	VC	WC	Checklist	
A.	**Architecture/Building**								**Applicant**	**Staff**
	1	Building Style	R[1]	R	R	R	R	R	☑	☐
	2	Materials	R	R	R	R	R	R	☑	☐
	3	Color	R	R	R	R	R	R	☑	☐
	4	Roofline	R	R	R	R	R	R	☑	☐
	5	Façade	R	R	R	R	R	R	☑	☐
	6	Building style coordination (multi-building)	R	R	R	R	R	R	☑	☐
	7	Entrance	R	R	R	R	R	R	☑	☐
	8	Architectural Details	R	R	R	R	R	R	☑	☐
	9	LEED certification							☐	☐
B	**Site/Parking**									
	1	Parking location							☐	☐
	2	Internal traffic flow							☑	☐
	3	Interconnected Parking lots							☐	☐
	4	Orientation of Building							☐	☐
	5	Screening, Parking			R			R	☑	☐
	6	Screening, utilities and service areas/structures	R	R	R		R	R	☑	☐
	7	Parking Lot Landscaping							☐	☐
	8	Low-Impact Design Stormwater							☑	☐
	9	Shared Stormwater Treatment							☐	☐
C	**Landscaping/Lighting**									
	1	Lighting/Photometric Plan	R	R			R		☑	☐
	2	Lighting coordinated with architecture	R	R			R		☑	☐
	3	Light coordinated with landscaping	R	R			R		☑	☐
	4	Existing trees preserved				R		R	☑	☐
	5	Snow area designated	R	R	R	R	R	R	☑	☐
	6	Planting variety							☑	☐
	7	Planting suitability							☑	☐
	8	Mass plantings							☑	☐
	9	Illumination levels							☑	☐
D.	**Bike/Ped**									
	1	Internal walkways	R	R					☑	☐
	2	Links to community	R	R	R		R	R	☑	☐
	3	Outdoor activity area							☐	☐
	4	Sidewalk	R	R				R	☑	☐
	5	Crosswalk	R	R					☑	☐
	6	Bike parking/racks	R	R	R		R	R	☑	☐

1. Any item with an **R** in the Table is a required Design Standards in that zoning district.

Attachment 4
Revised Landscape Plan – Mainely Outdoor Living



A Plus Auto - Plant List				
Qty	**Symb.**	**Botanical Name**	**Common Name**	**Size**
	Trees			
19	AR	Acer rubrum 'October Glory'	Red Maple	2-2.5" Cal.
	Shrubs			
33	Jc	Juniperus chinensis 'Montana Moss'	Montana Moss Juniper	3 gal
12	Cs	Cornus sericea 'Arctic Fire'	Dogwood	3 gal
	Perennials/Grasses			
30	ca	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal.
36	hd	Hemerociallis	Stella Doro Daylily	1 gal.
64	np	Nepeta	Catmint	1 gal.

1 PLANTING PLAN
SCALE: 1" = 20'

PREPARED FOR:

A Plus Auto
Windham, ME

MAINELY OUTDOOR LIVING

5		
4		
3		
2	3/12/26	REVISION
1	10/24/25	REVISION
0	5/12/25	INITIAL DESIGN CONCEPTS
RELEASE DATE		DESCRIPTION

BS	BS	BS	BS
DES	DWN	CHK'D	APP'D

PROJECT:

LANDSCAPE DESIGN

SCALE: 1" = 20'

PLANTING PLAN

JOB NO. 0001.00
FILE NO. 0001.00
DWG NO. 0001.01

SUBMISSION SHEET 1 OF 2

P-1

Attachment 5
Revised Plan Set – BH2M

Town of Windham

Town Offices
8 School Road
Windham, Maine

Cover Sheet

File Number: PB 26-039

Agenda Date: 7/13/2026

Version: 1

Status: Agenda Ready

In Control: Planning Board

File Type: Planning Board Document

Agenda Number:

300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | LJBInc.com

SKETCH PLAN REVIEW
PROPOSED CARWASH DEVELOPMENT

Table of Contents

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III. ANTICIPATED PERMITS 3
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VI. CONTACT INFORMATION OF CONSULTANTS 4
VI. RIGHT, TITLE, OR INTEREST 4
VII. PAYMENT 5
VIII. ANTICIPATED WAIVERS 5

ATTACHMENTS

1. SKETCH PLAN APPLICATION FORM
2. PSA AGREEMENT
3. AGENT AUTHORIZATION LETTERS
4. CONCEPT PLAN

I. SKETCH PLAN APPLICATION FORM

On behalf of **GR Development, LLC,** LJB Engineering is pleased to make this sketch plan submission for their proposed carwash development located on Tandberg & Roosevelt Trail, in Windham, Maine. The Applicant is seeking a Sketch Plan Review for this proposed development. Please refer to Attachment 1 for the completed application form.

II. NARRATIVE

Proposed Use:

GR Development, LLC is proposing the permitting and development of a new car wash facility on an approximately 4.2-acre parcel located in Windham, Maine. The project is currently being presented for Sketch Plan Review as an initial introduction to the proposed use, site layout, and overall development concept.

The current conceptual plan includes a single, approximately 5,970-square-foot car wash building designed to accommodate modern, high-efficiency car wash operations. The site layout incorporates internal access drives and vehicle queuing areas intended to safely and efficiently manage traffic flow while minimizing impacts to adjacent properties and public roadways.

In addition to the car wash building, the project proposes twenty-two on-site parking spaces equipped with vacuum stations for customer use. These spaces are arranged to promote clear circulation, ease of access, and user convenience while maintaining flexibility for future refinement as the project advances through the review process.

Existing Conditions:

The project site consists of approximately 4.2 acres and is comprised of five parcels identified as Map 67, Lots 37, 38, 40, 42, and 43A on the Town of Windham Tax Maps, with direct frontage along Roosevelt Trail (Route 302) to the east and Tandberg Trail (Route 35) to the south. Existing development on the site includes a restaurant and a small retail building, with abutting properties consisting of an Irving Gas Station to the southeast and a TD Bank to the north; the abutting properties will remain as separate lots, while the existing restaurant and retail buildings on the project site are proposed to be demolished as part of the redevelopment. The property is located within the Town of Windham Commercial District 1 (C-1) zoning district.

Traffic:

Based on the anticipated trip generation for the proposed development, the project is expected to exceed the MaineDOT threshold of 100 peak-hour trip ends and will therefore require a Traffic Movement Permit (TMP) from the Maine Department of Transportation. The Applicant will prepare and submit the required TMP application to Maine Department of Transportation for review and approval. As part of that process, the Town will be kept informed of the submission, and copies of the TMP application materials and related correspondence will be provided to the Town for coordination and reference.

Utilities:

- **Water:** Public water service is available within Roosevelt Trail (Route 302) and is anticipated to serve the proposed development.
- **Sewer:** Public sewer service is available via the Shaw's access road located along the westerly property boundary.
- **Natural Gas:** Natural gas service, owned and operated by Maine Natural Gas, is available within Tandberg Trail.
- **Electrical:** Electrical service requirements have not been finalized at this stage of design. If three-phase power is required, service appears to be available within either Tandberg Trail or Roosevelt Trail (Route 302).
- **Lighting:** Site lighting will be designed in accordance with applicable Town standards. A photometric plan demonstrating compliance will be submitted with the formal Site Plan application.

Environmental Considerations:

From a site planning and design perspective, protection of natural resources and environmental features is a primary consideration. The proposed development is located within the Presumpscot River watershed. Based on a review of the March 2023 Maine Department of Environmental Protection Nonpoint Source Priority Watersheds List, no listed streams are present on or encroaching upon the project site.

Based on a review of the National Wetlands Inventory Mapper, no mapped wetlands are shown to be present within the project site.

Based on a review of the Federal Emergency Management Agency Flood Insurance Rate Maps, the project site is not located within a mapped FEMA floodplain.

III. ANTICIPATED PERMITS

The following approvals are anticipated to be required prior to commencement of construction:

AGENCY	REQUIRED APPROVAL
Town of Windham	Major Site Plan Review
Town of Windham	Stormwater Law
MaineDOT	Traffic Movement Permit

Based on Article 8 – Site Plan Review, Section 120-805.(2), the proposed concept plan includes a cumulative construction or addition of 5,000 square feet or more of gross nonresidential floor area on the lot; therefore, a Major Site Plan Review is required.

The project creates more than one acre of new impervious area; however, the Town of Windham maintains the delegated authority to review Stormwater Law–level projects. Therefore, the project will meet the Chapter 500 Basic and General Standards of the Maine Department of Environmental Protection (DEP) Stormwater Management Rules and the Town's flood control requirements.

As discussed above, the project is forecast to generate more than 100 trip ends. Therefore, a Maine Department of Transportation Traffic Movement Permit (TMP) will be required as part of the project approvals.

IV. CONTACT INFORMATION OF RECORD OWNER

Please see the following table for the Record Owner's contact information:

RECORD OWNER OF PROPERTY	
Owner:	Deering Investments Inc.
Representative:	Jeffrey Peters
Mailing Address:	85259 Napeague Drive, Fernandina Beach, FL 32034
Telephone:	
Email:	frank.dougherty@washvillecarwash.com

V. CONTACT INFORMATION OF APPLICANT

Please see the following table for the Applicant's contact information.

APPLICANT	
Owner:	GR Development, LLC
Representative:	Frank Dougherty
Mailing Address:	164 Mason St, #201, Greenwich, CT 06830
Telephone:	
Email:	frank.dougherty@washvillecarwash.com

VI. CONTACT INFORMATION OF CONSULTANTS

GR Development, LLC has retained a highly qualified team of professionals to undertake planning, permitting, and design tasks on this project. Services will be provided by the following firms:

Firm	Services	Contact
LJB Engineering 300 Southborough Drive - Suite 200 South Portland, ME 04106 207.772.2515	Civil Site & Traffic Engineering	Doug Reynolds, P.E. dreynolds@LJBInc.com Randy Dunton, PTOE rdunton@LJBInc.com

VII. RIGHT, TITLE, OR INTEREST

Please see Attachment 2 for a copy of the Purchase and Sale agreement.

VIII. PAYMENT

The total payment required for a Sketch Plan is $600. The breakdown is as follows: $200 site plan fee and the $400 review escrow. A check is included with this application.

IX. ANTICIPATED WAIVERS

At this time, no specific waivers are being requested. However, the Applicant reserves the right to request waivers, if determined necessary, during the Site Plan Review application process.

CLOSURE

As discussed with the Planning & Development Office, this package has been submitted digitally for your consideration and distribution, hard copies can be provided upon request. We have provided the following attachments and supplemental materials to assist in your review:

The Applicant respectfully requests Planning Board feedback regarding site access, circulation, buffering, utilities, and any other matters the Board would like addressed as part of the forthcoming Major Site Plan Review application. We look forward to reviewing this project with you and the Planning Board at the next available Planning Board meeting. If you have any questions about the information being submitted, please contact our office.

Sincerely,

LJB Engineering



Doug Reynolds, PE
Project Manager
Phone 207-329-5584
DReynolds@LJBInc.com

ATTACHMENT 1

SKETCH PLAN APPLICATION FORM

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

SKETCH PLAN - MAJOR SITE PLAN REVIEW APPLICATION

FEES FOR SKETCH PLAN REVIEW		**APPLICATION FEE:** ☑ **$200.00** **REVIEW ESCROW:** ☑ **$400.00**		**AMOUNT PAID:** **$_____** **DATE: _____** *Office Use:*		*Office Stamp:*	
PROPERTY DESCRIPTION	**Parcel ID**	**Map(s) #** 67	**Lot(s) #**	**Zoning District(s)**		**Total Land Area SF**	182,952
	Total Disturbance. >1Ac ☑ **Y** ☐ **N**	**Est. Building SF:** 5,968		**No Building; Est. SF of Total Development:**			
	Physical Address:	**750 Roosevelt Trail**		**Watershed:**	**Presumpscot River Watershed**		
PROPERTY OWNER'S INFORMATION	**Name:**	**Jeffrey Peters**		**Name of Business:**	**Deering Investments Inc.**		
	Phone:			**Mailing Address:**	**85259 Napeague Drive, Fernandina Beach, FL 32034**		
	Fax or Cell:						
	Email:	**frank.dougherty@washvillecarwash.com**					
APPLICANT'S INFORMATION (*IF DIFFERENT FROM OWNER*)	**Name:**	**Frank Dougherty**		**Name of Business:**	**GR Development, LLC**		
	Phone:			**Mailing Address:**	**164 Mason St, #201, Greenwich, CT 06830**		
	Fax or Cell:						
	Email:	**frank.dougherty@washvillecarwash.com**					
APPLICANT'S AGENT INFORMATION	**Name:**	**Doug Reynolds**		**Name of Business:**	**Gorrill Palmer**		
	Phone:	**207-772-2515**		**Mailing Address:**	**300 Southborough Drive, Suite 200 South Portland, ME 04106**		
	Fax or Cell:						
	Email:	**DReynolds@gorrillpalmer.com**					

PROJECT INFORMATION

Existing Land Use *(Use extra paper, if necessary)*:

The project site consists of approximately 4.2 acres and is comprised of five parcels identified as Map 67, Lots 37, 38, 40, 42, and 43A on the Town of Windham Tax Maps, with direct frontage along Roosevelt Trail (Route 302) to the east and Tanberg Trail (Route 35) to the south. Existing development on the site includes a restaurant and a small retail building, with abutting properties consisting of an Irving Gas Station to the southeast and a TD Bank to the north.

Provide a narrative description of the Proposed Project *(Use extra paper, if necessary)*:

The proposed development includes a single, approximately 5,970-square-foot car wash building designed to accommodate modern, high-efficiency car wash operations. The site layout incorporates internal access drives and vehicle queuing areas intended to safely and efficiently manage traffic flow while minimizing impacts to adjacent properties and public roadways. In addition to the car wash building, the project proposes twenty-two on-site parking spaces equipped with vacuum stations for customer use. These spaces are arranged to promote clear circulation, ease of access, and user convenience while maintaining flexibility for future refinement as the project advances through the review process.

Provide a narrative description of construction constraints (wetlands, shoreland zone, flood plain, non-conformance, etc.):

From a site planning and design perspective, protection of natural resources and environmental features is a primary consideration. The proposed development is located within the Presumpscot River watershed. Based on a review of the March 2023 Maine Department of Environmental Protection Nonpoint Source Priority Watersheds List, no listed streams are present on or encroaching upon the project site.

Based on a review of the National Wetlands Inventory Mapper, no mapped wetlands are shown to be present within the project site.

Based on a review of the Federal Emergency Management Agency Flood Insurance Rate Maps, the project site is not located within a mapped FEMA floodplain.

SKETCH PLAN REVIEW REQUIREMENTS FOR A MAJOR SITE PLAN APPLICATION

Section 120-811 of the Land Use Ordinance

The submission shall contain five (5) copies of the following information, including full plan sets. Along with one (1) electronic version of the entire submission unless a waiver of a submission requirement is granted.

The Sketch Plan document/map:

A) Plan size: 24" X 36"
B) Plan Scale: No greater 1":100'
C) Title block: Applicant's name and address

- Name of preparer of plans with professional information
- Parcel's tax map identification (map and lot) and street address, if available.
- Complete application submission deadline: three (3) weeks prior to the desired Planning Board or Staff Review Committee meeting.
  - Five copies of application and plans
  - Application Payment and Review Escrow
- Pre-submission meeting with the Town staff is required.
- Contact information:

Windham Planning Department (207) 894-5960, ext. 2
Steve Puleo, Town Planner sjpuleo@windhammaine.us
Amanda Lessard, Planning Director allessard@windhammaine.us

APPLICANT/PLANNER'S CHECKLIST FOR SKETCH PLAN REVIEW REQUIREMENTS

SUBMITTALS THAT THE TOWN PLANNER DEEMS INCOMPELTE IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

The following checklist includes items generally required for development by the Town of Windham's LAND USE ORDINANCE, Sections 811, 812, & 813. Due to projects specifics, are required to provide a complete and accurate set of plans, reports and supporting documentation (as listed in the checklist below)..

IT IS THE RESPONSIBILITY OF THE APPLICANT TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

NOTE TO APPLICANT: PRIOR TO THE SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO READILY LOCATE AND APPRAISE THE LAYOUT OF DEVELOPMENT (SEE RULES OF PLANNING BOARD FOR MORE SPECFICS, PER SECTION 120-807D(2)).

Submission Requirements:	Applicant	Staff
a) Completed Sketch Plan Application form	☑	☐
b) Proposed Project Conditions:		
- Condition of the site	☑	☐
- Proposed use	☑	☐
- Constraints/opportunities of site	☑	☐
Outline any of the follow		
- Traffic Study	☑	☐
- Utility Study	☐	☐
- Market Study	☐	☐
c) Name, address, phone for record owner and applicant	☑	☐
d) Names and addresses of all consultants working on the project.	☑	☐
e) Evidence of right, title, or interest in the property	☑	☐
f) Evidence of payment of Sketch Plan fees and escrow deposit	☑	☐
g) Any anticipated waiver requests (Section 120-808)		
Waivers from Submission Criteria. Will the applicant be requesting waivers from the "Submission information for which a Waiver May be Granted"?	☐	☐
- If yes, submit letter with waivers being requested, along with a completed "Performance & design Standards Waiver Request Form.	☐	☐
Waivers from Subdivision Performance Standards in Section 120-812 of the Land Use Ordinance.	☐	☐

Submission Requirements (continued)	Applicant	Staff
-If yes, submit letter with the waivers being requested, along with a completed "Performance and Design Standards Waiver Request" form.	☐	☐
Plan Requirements		
Please note: the Sketch Plan does not need to be surveyed. However, if it is surveyed, please refer to the GIS requirements for Final Plan review. It may be in the applicant's interest to obtain the required GIS data while the surveyor is on site		
1] The name of the development, North arrow, date, and scale.	☑	☐
2] The boundaries of the parcel.	☑	☐
3] The relationship of the site to the surrounding area.	☑	☐
4] The topography of the site at an appropriate contour interval depending on the nature of the use and character of the site (in many instances, submittal of the applicable USGS ten-foot contour map will be adequate).	☑	☐
5] The approximate size and location of major natural features of the site, including wetlands, streams, ponds, floodplains, groundwater aquifers, significant wildlife habitats and fisheries or other important natural features (if none, so state).	☑	☐
6] Existing buildings, structure, or other improvements on the site (if none, so state).	☑	☐
7] Existing restrictions or easements on the site (if none, so state).	☑	☐
8] Approximate location and size of existing utilities on and adjacent to the tract, including utility poles and hydrants (if none, so state)	☑	☐
9] A Class D medium-intensity soil survey (information from the most current soil survey for Cumberland County, Maine, is acceptable).	☑	☐
10] The location and size of proposed buildings, structures, access drives, parking areas, and other development features (if applicable).	☑	☐
PDF Electronic Submission	☑	☐

The undersigned hereby makes application to the Town of Windham for approval of the proposed project and declares the foregoing to be true and accurate to the best of his/her knowledge.

APPLICANT OR AGENT'S SIGNATURE	DATE	PLEASE TYPE OR PRINT NAME
	05/06/2026	Doug Reynolds, P.E.

ATTACHMENT 2

PSA AGREEMENT

Docusign Envelope ID: DCA9EB19-4651-45C5-A7AC-A5AF9B797136

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "**Agreement**") is entered into as of March 4, 2026 (the "**Effective Date**") by and between **GARNETT REYNOLDS DEVELOPMENT, LLC**, a Delaware limited liability company ("**Purchaser**"), and **DEERING ASSOCIATES, LLC**, a Maine limited liability company and **DEERING INVESTMENTS, INC.**, a Maine corporation (jointly and severally, the "**Seller**"). Purchaser and Seller may be referred to herein individually as a "**Party**" or collectively as the "**Parties**".

1. **Purchase of Property**.

1.1 **Agreement to Purchase**. Subject to the terms and conditions of this Agreement, at the Closing, Purchaser agrees to purchase from Seller, and Seller agrees to sell to Purchaser, in accordance with the terms and conditions set forth in this Agreement (the "**Transaction**"), all of the following property (collectively, the "**Property**") free and clear of all Liens other than Permitted Encumbrances:

1.1.1 the land situated in Windham, Cumberland County, Maine, described on Exhibit A attached hereto (the "**Land**"), containing approximately 4.2 acres, together with all buildings, structures, betterments, improvements and fixtures located thereon or appurtenant thereto, if any (the "**Improvements**"), and all rights, interests, benefits, privileges, easements, tenements, hereditaments and appurtenances pertaining to the Land or Improvements, and all, right, title and interest of Seller in and to all strips and gores and any land lying in the bed of any street, right-of-way, road or alley, open or proposed, adjoining the Land (collectively, the "**Real Property**");

1.1.2 the interest of the landlord in and to the TD Bank Lease and any security deposits, letters of credit and guaranties held by Seller thereunder;

1.1.3 all of Seller's right, title and interest in and to the Assumed Contracts; and

1.1.4 all of the personal property related to or useful in connection with the Real Property (excluding furniture, trade fixtures, equipment and other personal property of TD Bank), including all (a) plans and specifications and all other architectural, topographical, geotechnical and engineering drawings; (b) warranties, operating manuals, books, records, ledgers, logs, documentation, guaranties, indemnities and claims of architects, contractors, suppliers and others (to the extent assignable); (c) surveys, engineering, soil, topographical, geotechnical, electrical and utility availability reports and other technical information (to the extent in Seller's possession); (d) water, sewer and other utility rights, including all utility service commitments, rights, allocations, taps and connections; (e) detention and drainage rights; (f) contract rights (but not obligations) related to the construction, operation, ownership, maintenance, use, service, or management of the Real Property; (g) governmental permits, approvals, licenses, or similar documents (to the extent assignable); (h) causes of action related to the Real Property (to the extent assignable); and (i) other property owned or held by Seller relating to the design, construction, ownership, use, maintenance, service (collectively, the "**Personal Property**").

1.2 **Purchase Price**. The purchase price to be paid by Purchaser to Seller for the Property shall be [redacted] (the "**Purchase Price**"), subject to adjustment as provided herein. The Purchase Price, as adjusted pursuant to requirements of this Agreement, shall be deposited by Purchaser with the Title Company in cash or other immediately available federal funds on or prior to the Closing Date.

1.3 **Earnest Money**. Within two Business Days after the Effective Date, Purchaser shall deliver an earnest money deposit of [redacted] (the "**Earnest Money**") to the Title Company. The Title Company shall not commingle the Earnest Money with any other funds. If this Agreement is terminated for any reason and Purchaser is entitled to receive a return of the Earnest Money pursuant to the terms of this Agreement, the Title Company shall first disburse to Seller $100 as independent consideration (the "**Independent Consideration**") for Seller's performance under this Agreement, which shall be retained by Seller in all instances. The Earnest Money shall be applied as a credit to the Purchase Price at Closing. If Purchaser terminates this Agreement pursuant to Section 2.1, Section 2.2 or due to non-satisfaction of a condition to Closing or a Seller default, the Title Company shall pay the entire Earnest Money (less the Independent Consideration) to Purchaser within two Business Days following written request therefor from Purchaser and no notice or consent from Seller shall be required. In the event of a termination

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of this Agreement by either Seller or Purchaser for any reason other than pursuant to Section 2.1, Section 2.2 or non-satisfaction of a condition to Closing or a Seller default, the Title Company shall deliver the Earnest Money to the Party entitled to same pursuant to the terms hereof on or before the fifth Business Day following receipt by the Title Company and the non-terminating Party of written notice of such termination, unless the same is disputed by a Party. In the event of such a dispute, the Title Company may interplead the Earnest Money into a court of competent jurisdiction in the county in which the Earnest Money has been deposited. Promptly following execution of this Agreement, the Parties shall execute the Title Company's standard form of escrow agreement with respect to the Earnest Money.

1.4 **Prorations**. All Taxes, assessments, rents and charges under the TD Bank Lease and any licenses and all utility charges shall be prorated between Seller and Purchaser as of the Closing Date, with Purchaser being deemed to be the owner of the Property on the Closing Date. There shall be no prorations for delinquent rent. If any Taxes or other amounts subject to proration under this Section cannot be determined on the Closing Date, such Taxes or other amounts shall be estimated in good faith by the Title Company and such other amounts shall be estimated in good faith by Seller based on the most recent available figures and a post-Closing adjustment shall be made once the final amounts are known. In any event, and notwithstanding anything in this Agreement to the contrary, Seller shall be responsible for all costs and liabilities relating to the Property that arise out of or are attributable to the period prior to the Closing Date (including costs and liabilities that arise due to any environmental condition existing prior to the Closing Date), and shall indemnify, defend and hold harmless Purchaser, its Affiliates and their respective owners, directors, officers, members, partners, employees, agents and representatives (the "**Purchaser Parties**") from such costs and liabilities and from all reasonable attorneys' fees expended in connection therewith. Seller shall be responsible for all rollback Taxes. The provisions contained in this Section 1.4 shall survive the Closing.

1.5 **Transaction Costs; Liabilities**. At the Closing, (a) Seller shall pay (i) one-half of the Title Company's escrow fee, (ii) the costs of removing all Liens, and (iii) all recording fees associated therewith; and (b) Purchaser shall pay (i) the fee for the title policy for the Property with such extended coverages and endorsements (the "**Title Policy**"), (ii) any transfer taxes required to be paid in connection with the sale of the Property to Purchaser, (iii) the costs of obtaining Purchaser's due diligence reports, and (iv) one-half of the Title Company's escrow fee. Except as otherwise provided herein, all other fees or charges shall be paid as is customary in the jurisdictions in which the Property is located. Seller and Purchaser shall each be responsible for payment of the fees and expenses of their respective legal counsel, accountants and other professional advisers. At Closing, Seller shall credit Purchaser for all Leasing Costs associated with the TD Bank Lease. Purchaser shall be responsible for its survey expenses. As used herein, the term "**Leasing Costs**" includes, without limitation, all leasing costs, allowances, commissions, free or abated rent, costs of completing tenant improvements and all other associated costs with respect thereto. The provisions of this Section 1.5 shall survive Closing.

2. **Diligence Period, Permitting Period, Title, Survey, Access and Tenant Estoppel**.

2.1 **Diligence Period**. During the period commencing on the Effective Date and ending on [redacted] (the "**Diligence Period**"), Purchaser may terminate this Agreement for any reason or for no reason at all, by providing written notice thereof to Seller.

2.2 **Permitting Period**. Purchaser shall have the right to apply for all approvals, permits (including building and use permits) and licenses required by any Governmental Authority having jurisdiction over the Property in order to develop, construct and operate on the Property a car wash facility (collectively, the "**Permits**") and Seller shall cooperate in connection therewith. If Purchaser is unable to obtain the Permits in form and substance acceptable to Purchaser (as determined by Purchaser, in Purchaser's sole discretion) within [redacted] days following expiration of the Diligence Period (such period of time, as may extended as provided below, the "**Permitting Period**"), Purchaser may terminate this Agreement upon written notice thereof to Seller. Purchaser may, upon written notice thereof to Seller, extend the Permitting Period for [redacted]. Within two Business Days after exercise of any such extension of the Permitting Period, Purchaser shall deliver to the Title Company an additional deposit in the amount of [redacted] (each, a "**Permit Period Extension Deposit**"), which shall be non-refundable. Each Permit Period Extension Deposit shall be added to, and be deemed a part of, the Earnest Money once it is made by Purchaser to the Title Company. If, in the sole opinion of Purchaser, Purchaser is unable to obtain the Permits in form and substance acceptable to Purchaser (as determined by Purchaser, in Purchaser's sole and absolute

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discretion), Purchaser may terminate this Agreement at any time prior to the expiration of the Permitting Period and all Earnest Money shall be returned to Purchaser.

2.3 **Title Matters**.

2.3.1 **Title Company**. The Title Company is hereby engaged by the Parties to act as escrow closing agent in connection with this Transaction. The Title Company is authorized to pay at Closing from any funds held by it for each Party's respective credit, all amounts necessary to procure the delivery of any documents and to pay, on behalf of Purchaser and Seller, all charges and obligations payable by them hereunder, respectively. Seller and Purchaser will pay all charges payable by them to the Title Company. The Title Company shall not cause the Transaction to close unless and until it has received written instructions from Purchaser and Seller to do so. The Title Company is authorized, in the event any conflicting demand is made upon it concerning these instructions, at its election, to hold any documents and/or funds deposited hereunder until an action shall be brought in a court of competent jurisdiction or arbitrator to determine the rights of Seller and Purchaser or to interplead such documents and/or funds in an action brought in any such court.

2.3.2 **Title Commitment**. Purchaser shall order a current commitment for title insurance (the "**Title Commitment**") issued by the Title Company, in the amount of the Purchase Price and on an ALTA 2021 Commitment for Title Insurance. At or prior to Closing, Seller shall deliver to the Title Company such resolutions, copies or organizational documents, good standing certificates and affidavits (including the Title Affidavit) related to the ownership or operation of the Property and reasonably requested by the Title Company for purposes of insuring title to the Property in the amount of the Purchase Price allocated thereto in accordance with this Agreement, as and when requested by the Title Company.

2.3.3 **Title Objections**. On or before the expiration of the Diligence Period, Purchaser shall furnish to Seller a written list of any objections to matters shown on the Title Commitment or the survey, along with a copy of the Title Commitment issued by the Title Company and survey, as applicable, together with copies of the applicable Title documents objected to by Purchaser, stating the items to which Purchaser objects. All such matters to which Purchaser so objects shall be "**Title Objections**". Seller shall then have five (5) days after the date of receiving the notice of Title Objections to advise Purchaser that either: (i) Seller will, at Seller's sole cost and expense, cause the Title Objections to be removed; or (ii) Seller will not cause the Title Objections to be removed. If Seller fails to respond to Purchaser's notice of Title Objections within said five (5) day period, Seller shall be deemed to have elected to cure all Title Objections at or before Closing. As used herein, the term "**Non-Permitted Encumbrances**" means all (i) Title Objections that Seller has elected (or is deemed to have elected) to cure, (ii) the Mandatory Cure Items, and (iii) new Liens or other matters that are not reflected by the initial Title Commitment or a survey reviewed by Purchaser but are reflected by an updated Title Commitment or survey, except to the extent any such new matters are caused or created by, through or under Purchaser. Notwithstanding anything in this Agreement to the contrary, in no event shall (i) any mortgage, deed of trust, financing statement, judgment lien, bankruptcy lien, mechanic's or materialman's lien, *lis pendens*, third party purchase right, right of first refusal (whether applicable to the Transaction or any future transaction affecting the Property), property use restriction interfering with the operation of a car wash business, lease, license or occupancy agreement, mineral lease or other Lien securing indebtedness or removable by payment of a liquidated sum of money or (ii) any new Lien or other matter created or caused by, through or under Seller that is not reflected by the initial Title Commitment or survey reviewed by Purchaser but is reflected by an updated Title Commitment or survey (collectively, the "**Mandatory Cure Items**") be a Permitted Encumbrance, regardless of whether or not Purchaser objects to any such Mandatory Cure Item. Seller shall, in all instances, be obligated to remove or cure all Non-Permitted Encumbrances at or prior to Closing, and Seller's failure to remove or cure any Non-Permitted Encumbrances as of Closing shall be an immediate default by Seller under this Agreement.

2.4 **Development Matters**. If requested by Purchaser, Seller shall promptly request estoppel certificates ("**Association Estoppels**") from any owners' associations, architectural control or review committees, declarants or other similar Persons under any restrictive covenants encumbering the Property in form and substance reasonably acceptable to Purchaser and thereafter use commercially reasonable efforts to cause such Persons to execute the same. Upon execution thereof (if executed), Seller shall promptly deliver any Association Estoppel to Purchaser. To the extent Seller's approval for Purchaser's development is required under a matter of record or restrictive covenant, such approval shall be deemed unconditionally given upon expiration of the Diligence Period.

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Seller shall deliver written confirmation of such approvals to Purchaser in form and substance reasonably acceptable to Purchaser at or prior to Closing. This Section 2.4 shall survive Closing.

2.5 **Due Diligence.** Within five Business Days after the Effective Date, Seller shall deliver or cause to be delivered to Purchaser all items set forth on Schedule 1Exhibit D attached hereto (collectively, the "**Due Diligence Materials**"). Until the Closing, the Purchaser and its agents shall have access to the Property at all reasonable times during normal business hours, for the purpose of conducting inspections and tests, including surveys and architectural, engineering, utility, geotechnical and environmental inspections and tests. While accessing the Property, Purchaser shall not materially interfere with the operations of the current user(s) of the Property. Seller and its agents and representatives shall cooperate with the Purchaser and its agents in supplying such historical and operational information as they may reasonably request, including notices, permits, or other written communications pertaining to the environmental or physical condition of the Property. Seller hereby authorizes the Purchaser and its agents to enter upon the Property for the purpose of conducting inspections and tests, at all times subject to the rights of TD Bank as tenant, and agrees that such parties may take such samples as may be necessary to conduct such inspections and tests. There shall be no subsurface investigation of the Property without the prior written consent of Seller, which shall not be unreasonably withheld, conditioned or delayed. Purchaser agrees to indemnify Seller against and to hold Seller harmless from any claim for liabilities, costs, expenses (including reasonable attorneys' fees), damages or injuries to the extent resulting from the inspection of the Property by Purchaser or its agents notwithstanding anything to the contrary in this Agreement; provided however, such indemnity shall not apply to any claims or obligations related to the discovery of any pre-existing conditions at the Property, or any damages caused by negligence or willful misconduct of Seller, its agents, representatives, contractors or tenants.

2.6 **Tenant Estoppel**. Seller shall obtain and deliver to Purchaser, no later than five Business Days prior to the Closing Date, a tenant estoppel certificate (dated not earlier than 30 days prior to the Closing Date) from TD Bank in the form of Exhibit F attached hereto and complying with the terms of this Section 2.6. Prior to distributing the estoppel certificate to TD Bank, Seller shall deliver to Purchaser for Purchaser's review and approval a draft of the completed estoppel certificate. Notwithstanding anything herein to the contrary, an estoppel certificate from TD Bank shall not be acceptable or satisfy the requirements of this Section if: (a) TD Bank modifies any of the statements to disclose adverse matters, or (b) TD Bank indicates that Seller is in default under the TD Bank Lease, that TD Bank has a claim or offset right, or that there is a dispute.

3. **Closing**.

3.1 **Closing Date**. Subject to the terms and conditions of this Agreement, the closing of the Transaction (the "**Closing**") shall take place on the date that is [redacted] following the expiration of the Permitting Period. Purchaser shall have the right to extend the Closing Date by up to [redacted] by delivering written notice thereof to Seller. The date on which the Closing occurs is referred to herein as the "**Closing Date**", and the Closing shall be effective as of the Closing Date. On or before the Closing Date, or as otherwise mutually agreed upon by the Parties, the Parties shall deposit with the Title Company all documents (including the executed Transaction Documents) as necessary to comply with the Parties' respective obligations hereunder and all funds required hereunder with the Title Company on or before the Closing Date; provided that none of such documents or funds shall be deemed released or otherwise effective unless and until the Closing occurs.

3.2 **Funding**. Notwithstanding any provision contained in this Agreement, the Closing of the Transaction by Purchaser shall be contingent upon the delivery by Seller of the executed Transaction Documents, satisfaction of the conditions precedent set forth herein and in the other Transaction Documents, and confirmation by Purchaser's counsel that it or the Title Company has possession of all Transaction Documents required by Purchaser.

3.3 **Possession**. Seller shall, at Seller's sole cost and expense, cause all leases, licenses and occupancy agreements (other than the TD Bank Lease) to be terminated within five days after expiration of the Permitting Period and provide Purchaser with evidence thereof. At Closing, Seller shall deliver the Property to Purchaser, free and clear of all Liens (other than Permitted Encumbrances) and all tenants or other parties in possession (except for TD Bank pursuant to the TD Bank Lease).

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4. **Representations and Warranties**.

4.1 **Seller's Representations and Warranties**. Seller represents and warrants to Purchaser as follows as of the Effective Date and as of the Closing Date:

4.1.1 **Organization and Authority**. Seller is duly organized or formed, validly existing and in good standing under the laws of its state of formation and is qualified to do business in the jurisdictions in which the Property is located. Seller has all requisite power and authority to own and operate the Property, to execute, deliver and perform its obligations under this Agreement and the other Transaction Documents, and to carry out the Transaction. Each Person who has executed this Agreement on behalf of Seller has been duly authorized to do so.

4.1.2 **Enforceability of Documents**. The execution and delivery by Seller of this Agreement and the other Transaction Documents to which it is party, and the performance of this Agreement and such Transaction Documents by Seller, have been duly authorized by Seller; upon execution by Seller, this Agreement and the other Transaction Documents to which it is a party shall constitute the legal, valid and binding obligations of Seller, enforceable against Seller in accordance with its terms, except as such enforcement may be limited by bankruptcy, insolvency, reorganization, arrangement, moratorium, or other similar laws relating to or affecting the rights of creditors generally, or by general equitable principles. Seller is, and after giving effect to the Transaction will remain, solvent and able to satisfy its obligations as they come due.

4.1.3 **No Other Agreements**. There exists no contract, operation arrangement, management agreement, listing agreement, lease, license, occupancy agreements or other agreement relating to the Property that will remain in effect after the Closing other than the TD Bank Lease. Seller is not in default or breach under any of the foregoing and no other party is in default or breach under any of the foregoing or would be in breach or default with the giving of notice or passage of time, and Seller has not given or received any notice alleging any such default or breach.

4.1.4 **No Violations; No Successor Liability**. The authorization, execution, delivery and performance of this Agreement and the other Transaction Documents by Seller will not: (a) violate any provisions of the organizational documents of Seller; (b) result in a violation of or a conflict with, or constitute a default (or an event which, with or without due notice or lapse of time, or both, would constitute a default) under, or give rise to any acceleration, termination or change in any obligation or liability or right under (or any right to any such acceleration, termination or change), any other document, instrument or agreement to which Seller is a party or by which Seller or the Property are subject or bound; (c) result in the creation or imposition of any Lien upon Seller or the Property; (d) violate any Law applicable to Seller or the Property; (e) require that Seller give any notice to, or obtain any consent, release or approval from, any third party that has not been given or obtained; or (f) transfer to Purchaser any tax liability owed by a Seller Party pursuant to any applicable successor liability laws.

4.1.5 **Compliance**. To the best of its knowledge, Seller has owned, used, held and operated the Property in compliance with all Laws, agreements, contracts and other obligations. Seller has not received written notice, and is not in receipt of written materials, stating that the Property or the use thereof is not in compliance therewith.

4.1.6 **Compliance with Anti-Terrorism, Embargo, Sanctions and Anti-Money Laundering Laws**. Without in any way limiting the provisions of Section 4.1.5, Seller is not, and to Seller's knowledge, no Seller Party is, currently identified on the OFAC List or is a Person with whom a citizen of the United States is prohibited from engaging in transactions by any trade embargo, economic sanction, or other prohibition of United States law, regulation, or executive order of the President of the United States.

4.1.7 **Claims**. There is no legal, administrative, arbitration or other proceeding, claim or action of any nature or investigation pending by or against, or involving, or to Seller's knowledge, threatened against Seller or the Property, or that Seller intends to initiate against any third party relating to the Property. Following Closing, Seller shall remain responsible for all such claims made or arising on or before the Closing.

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4.1.8 **Due Diligence Materials**. The Due Diligence Materials are true, correct, complete and not misleading in any way.

4.1.9 **Intended Use**. There are no Laws (including zoning laws), restrictions or conditions affecting the Property that interfere with the ability to conduct car wash businesses thereon. The Property is served by, and contains connections to, public electrical, gas, water, sewer, irrigation, stormwater, and telecommunication utilities. The Property has direct access to public rights-of-way.

4.1.10 **Condemnation**. There is no condemnation or eminent domain proceedings affecting the Property. Seller has not received notice of condemnation, eminent domain or zoning proceedings affecting the Property and to Seller's knowledge no such proceedings are contemplated.

4.1.11 **Environmental**. Seller has not released or disposed of any Hazardous Materials, waste or other substance and the Property is not affected by any condition, that may result in a material liability or obligation under Hazardous Materials Laws. Seller has not received any written notice or other communication from any Person (including a Governmental Authority) relating to Hazardous Materials, Regulated Substances or USTs, or remediation thereof, or possible liability of any Person pursuant to any Hazardous Materials law or other environmental conditions in connection with the Real Property, or any actual or potential administrative or judicial proceedings in connection with any of the foregoing. To the best of Seller's knowledge, there are no USTs on or beneath the Property. Seller has received final, unconditional "no further action" letters with respect to all known USTs previously located on or beneath the Property. There are no obligations owed to or required by any Governmental Authority with respect to USTs or the environmental condition of the Property.

4.1.12 **Title**. Seller is the owner in fee simple of the Real Property and no parties other than Seller hold any ownership interests in the Property. Seller has good, marketable and valid title to all of the other Property, in each case free and clear of all Liens (other than Permitted Encumbrances). No Person (other than Purchaser) has any rights of first refusal, option, rights of first offer, and/or any other right to purchase, lease, or acquire any interest in the Property and, except for mortgages or other interest to be paid by Seller at Closing, there exists no matter that would prevent delivery of marketable title to the Property to Purchaser at Closing in accordance with the terms of this Agreement.

4.1.13 **Taxes**. For all periods prior to Closing, Seller has paid (or will pay, to the extent payment is not yet due) all state and local income, franchise, and other Taxes (and any applicable interest or penalties) imposed upon, or payable by, Seller or relating to the Property in respect of the periods prior to Closing.

4.1.14 **Leases**. The only lease affecting the Property is the TD Bank Lease, a true and complete copy of which has been provided to Purchaser, along with all extension/renewal notices, estoppel certificates, SNDAs, lease memoranda, letters of credit and material notices. No licenses or occupancy agreements (other than the TD Bank Lease) (collectively, "**Licenses**") affect the Property. The TD Bank Lease is in full force and effect. Seller has performed all of its obligations under the TD Bank Lease and is not in default thereunder and no matter exists that, with the passage of time or giving of notice, would constitute a default by Seller under the TD Bank Lease. TD Bank is not in default under the TD Bank Lease and no matter exists that, with the passage of time or giving of notice, would constitute a default by TD Bank. Seller has completed reconciliations of operating costs and taxes for all years through 2025 and made all required refunds in connection therewith. The only agreements for the payment of leasing commissions due on or after the Effective Date in connection with the TD Bank Lease are those listed on Exhibit G annexed hereto and made a part hereof (together with all amendments, modifications and assignments, the "**Brokerage Agreements**"). Seller has provided Purchaser with true and correct copies of all Brokerage Agreements. The list of outstanding leasing commissions set forth in such Exhibit G is true and complete. Seller has performed all tenant improvement work required to be performed by Seller in accordance with the terms of the TD Bank Lease, in the manner and timeframe required thereunder.

4.1.15 **Contracts**. All Service Contracts (including all amendments, modifications and assignments) are set forth on Exhibit I. Other than the Assumed Contracts, there are no Service Contracts relating to the Property which will be binding upon Purchaser after the Closing. The only agreements for tenant improvement or other work as to which Seller is a party (including those entered into in connection with the TD Bank Lease) are those listed on Schedule 1Exhibit H annexed hereto (together with all amendments, modifications and change orders, the

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"**Construction Agreements**"). Seller has provided Purchaser with true and correct copies of all Service Contracts and Construction Agreements (collectively, "**Property Agreements**"). All Property Agreements are in full force and effect. Seller has performed all of its obligations under the Property Agreements and is not in default thereunder and no matter exists that, with the passage of time or giving of notice, would constitute a default by Seller under any Property Agreements. Except as set forth in Schedule 1Exhibit H, no counterparty is default under any Property Agreement and no matter exists that, with the passage of time or giving of notice, would constitute a default by a counterparty under any Property Agreement.

4.2 **Purchaser's Representations and Warranties**. Purchaser represents and warrants to Seller as follows as of the Effective Date and as of the Closing Date:

4.2.1 **Organization and Authority**. Purchaser is duly organized, validly existing and in good standing under the laws of its state of formation. Purchaser has all requisite power and authority to execute, deliver and perform its obligations under this Agreement and all of the other Transaction Documents to which it is a party and to carry out the Transaction. The Person who has executed this Agreement on behalf of Purchaser has been duly authorized to do so.

4.2.2 **Enforceability of Documents**. The execution and delivery by Purchaser of this Agreement and the other Transaction Documents to which it is party, and the performance of this Agreement and such Transaction Documents by Purchaser, have been duly authorized by Purchaser; upon execution by Purchaser, this Agreement and the other Transaction Documents to which it is a party shall constitute the legal, valid and binding obligations of Purchaser, enforceable against Purchaser in accordance with their respective terms, except as such enforcement may be limited by bankruptcy, insolvency, reorganization, arrangement, moratorium, or other similar laws relating to or affecting the rights of creditors generally, or by general equitable principles.

4.2.3 **No Violations**. The authorization, execution, delivery and performance of this Agreement and the other Transaction Documents by Purchaser will not: (a) violate any provisions of the organizational documents of Purchaser; (b) result in a violation of or a conflict with, or constitute a default (or an event which, with or without due notice or lapse of time, or both, would constitute a default) under, or give rise to any acceleration, termination or change in any obligation or liability or right under (or any right to any such acceleration, termination or change), any other document, instrument or agreement to which Purchaser is a party or by which Purchaser are subject or bound; (c) violate any Law applicable to Purchaser; or (d) require that Purchaser give any notice to, or obtain any consent or approval from, any third party that has not been given or obtained.

4.2.4 **Compliance with Anti-Terrorism, Embargo, Sanctions and Anti-Money Laundering Laws**. Purchaser is not currently identified on the OFAC List or is a Person with whom a citizen of the United States is prohibited from engaging in transactions by any trade embargo, economic sanction, or other prohibition of United States law, regulation, or executive order of the President of the United States.

4.2.5 **Litigation**. There are no actions or proceedings pending against or involving Purchaser before any Governmental Authority which in any way may materially adversely affect Purchaser's ability to perform under this Agreement and the other Transaction Documents to which it is a party.

4.3 **Survival**. All representations and warranties made in this Section 4 shall survive Closing for two years following the Closing Date.

5. **Conditions Precedent to Closing**

5.1 **Purchaser's Conditions to Closing**. Purchaser shall not be obligated to effect the Closing or close and fund the Transaction unless and until all of the following conditions have been fulfilled (or waived in writing by Purchaser):

5.1.1 Seller shall have delivered to Purchaser or the Title Company, as applicable, the following items at least one Business Day prior to the Closing Date (unless an earlier delivery is required as set forth below):

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(a) The Deed;

(b) Such documents evidencing the legal status and good standing of Seller that may be reasonably required by the Title Company for issuance of the Title Policy, including certificates of good standing and organizational or trust documents;

(c) A bill of sale and assignment and assumption agreement, in form attached hereto as Exhibit B ("**Assignment**");

(d) A Notice to Tenant executed by Seller in form attached hereto as Exhibit E and made part hereof ("**Notice to Tenant**");

(e) A tenant estoppel certificate executed by TD Bank complying with the terms of Section 2.6 above;

(f) The Title Affidavit, in form and substance reasonably acceptable to Purchaser;

(g) Final bulk sales, utility and tax clearance letters from all Governmental Authorities and utility providers, to the extent applicable;

(h) Releases and payoff letters with respect to all monetary Liens to be paid or released at Closing in form and substance acceptable to Purchaser;

(i) All of the other Transaction Documents;

(j) A certificate of an officer, member or manager, as applicable, of Seller, together with copies of Seller's (i) articles of organization or certificate of formation, as applicable, amended to date; (ii) resolutions authorizing the Transaction and the execution of this Agreement and the other Transaction Documents, and identifying the Person(s) authorized to execute this Agreement and the other Transaction Documents; and (iii) certificates of good standing or similar documents from the state in which Seller was organized or formed;

(k) A duly executed "non-foreign" tax affidavit from Seller, in form reasonably acceptable to Purchaser (the "**Non-Foreign Seller Certificate**");

(l) Closing settlement statements reasonably approved by Seller and Purchaser and prepared by the Title Company reflecting the credits, prorations, and adjustments contemplated by or specifically provided for in this Agreement;

(m) Evidence reasonably satisfactory to Purchaser that no portion of the Property is subject to any lease (other than the TD Bank Lease), license or occupancy agreement, right of first refusal or right of first offer and that all third party claims to the Property have been fully waived and released;

(n) All other documents required to be delivered at the Closing by this Agreement and the other Transaction Documents; and

(o) Such further documents as reasonably may be required in order to fully and legally close the Transaction.

5.1.2 Purchaser shall have received the Title Policy (or proforma Title Policy), which shall: (a) show fee simple ownership of the Real Property by Purchaser or its designee; (b) be in an amount equal to the Purchase Price; (c) unconditionally commit to insure fee simple ownership in the Real Property to Purchaser or its

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designee, free and clear of all Liens other than Permitted Encumbrances; and (d) contain such endorsements and extended coverages as requested by Purchaser.

5.1.3 Purchaser shall have obtained final Permits, each in form and substance acceptable to Purchaser (in Purchaser's sole and absolute discretion).

5.1.4 All (a) representations and warranties of Seller set forth herein shall have been true and correct in all respects when made and as of the Closing as if made as of the Closing, and (b) covenants, agreements and conditions required to be performed or complied with by Seller prior to or at the time of Closing pursuant to this Agreement shall have been duly performed or complied with by Seller prior to or at such time or waived in writing by Purchaser.

5.1.5 Seller shall not be in default of this Agreement beyond applicable notice and cure periods.

5.1.6 There shall not be in effect any order (including bulk sales stop orders) issued by any Governmental Authority that makes the transactions contemplated by this Agreement illegal or otherwise restrains or prohibits the consummation of the transactions contemplated by this Agreement, and there shall not be pending any claim (except claims initiated by Purchaser or its Affiliates) by or before any Governmental Authority challenging this Agreement or seeking to delay, restrain or prohibit the transactions contemplated hereby or that, if adversely determined, would materially and adversely affect Purchaser's development or the Property.

Unless otherwise agreed, all of the documents to be delivered at Closing shall be dated as of the Closing Date.

5.2 **Seller's Conditions Precedent to Closing**. Seller shall not be obligated to effect the Closing or close the Transaction unless and until all of the following conditions have been fulfilled (or waived in writing by Seller):

5.2.1 Purchaser shall have delivered to the Title Company the Purchase Price, as adjusted pursuant to the requirements of this Agreement.

5.2.2 Purchaser shall have caused to be delivered to Seller or the Title Company, as applicable, executed counterparts of all Transaction Documents pursuant to which it is a party.

5.2.3 Purchaser shall have delivered to the Title Company Closing settlement statements reasonably approved by Seller and Purchaser to reflect the credits, prorations, and adjustments contemplated by or specifically provided for in this Agreement.

5.2.4 Purchaser shall have delivered to Seller and/or the Title Company such further documents as may reasonably be required in order to fully and legally close this Transaction.

6. **Miscellaneous**.

6.1 **Transaction Characterization**. The Parties intend that the conveyance of the Property to Purchaser be an absolute conveyance in effect as well as form, and that the instruments of conveyance to be delivered at Closing shall not serve or operate as a mortgage, equitable mortgage, deed of trust, security agreement, trust conveyance or financing or trust arrangement of any kind, nor as a preference or fraudulent conveyance against any creditors of Seller. After the execution and delivery of the Deed, except as otherwise provided herein, Seller will have no legal or equitable interest or any other claim or interest in any Property. No Party shall contest the validity, enforceability or characterization of the sale and purchase of the Property by Purchaser pursuant to this Agreement as an absolute conveyance, and the Parties shall support the intent expressed herein that the purchase of the Property by Purchaser pursuant to this Agreement provides for an absolute conveyance and does not create a joint venture, partnership, equitable mortgage, trust, financing device or arrangement, security interest or the like, if, and to the extent that, any challenge occurs. The Parties intend that all components of the Transaction shall be considered a

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single integrated transaction and shall not be severable except as expressly provided herein. Each Party agrees that it will not, nor will it permit any Affiliate to, at any time, take any action or fail to take any action with respect to the preparation or filing of any statement or disclosure to a Governmental Authority, including any income tax return (including an amended income tax return), to the extent that such action or such failure to take action would be inconsistent with the intention of the Parties expressed in this Section 6.1.

6.2 **Ongoing Operations; Covenants; and Leasing**.

6.2.1 Seller will not enter into any contract or agreement that could be an obligation affecting the Property subsequent to the Closing, unless Seller obtains Purchaser's prior written approval (which approval may be withheld in Purchaser's sole and absolute discretion). Seller shall maintain the Property substantially in its present condition and in a manner consistent with Seller's maintenance of the Property during Seller's period of ownership. Seller shall manage (or cause to be managed) the Property in accordance with all applicable Laws affecting the Property. Seller shall not remove from the Property any Personal Property unless such item is replaced with a similar item of comparable utility and value. Seller shall maintain insurance on the Property in the full amount of the replacement cost thereof. Seller will promptly notify Purchaser in writing of any adverse change in the condition of the Property. Seller shall not apply for or consent to any change or modification with respect to the zoning, development or use of any portion of the Property without Purchaser's prior written consent (which consent may be withheld in Purchaser's sole and absolute discretion). Seller shall not, without the prior written consent of Purchaser (which consent may be withheld in Purchaser's sole and absolute discretion), grant, permit or otherwise create or consent to the creation of any Lien, easement, subdivision, plat, lot split, restriction, restrictive covenant, assessment, or encumbrance affecting any portion of the Property.

6.2.2 Seller shall not amend, modify, or terminate the TD Bank Lease without the prior written approval of Purchaser, in its sole discretion, such approval not to be unreasonably withheld, conditioned, or delayed and Seller shall use commercially reasonable efforts to ensure that TD Bank performs its obligations thereunder (however, Seller may not deliver any default notices without Purchaser's prior written consent, which may be given or withheld in Purchaser's sole and absolute discretion). Further, between the Effective Date and Closing, Seller will not consent to any request by TD Bank for permission to assign the TD Bank Lease or sublet the premises under the TD Bank Lease or any portion thereof, without obtaining Purchaser's prior written consent thereto, except to the extent Seller is obligated to consent to such assignment or subletting under the express terms of the TD Bank Lease. Seller shall provide Purchaser with prompt written notice of any request made by TD Bank to amend, modify, terminate, or assign the TD Bank Lease or to sublet the premises under the TD Bank Lease or any portion thereof.

6.2.3 Seller shall terminate all Service Contracts as of the Closing Date which do not constitute Assumed Contracts, at no cost to Purchaser.

6.2.4 Within one Business Day following written request from Purchaser, Seller shall deliver to TD Bank any subordination, non-disturbance and attornment agreement ("**SNDA**") requested by Purchaser. Seller shall promptly deliver any executed SNDA to Purchaser; however, it shall not be a condition to Closing that TD Bank executes any SNDA. Within one Business Day following Seller's or Seller's agent's receipt thereof, Seller shall deliver to Purchaser any executed SNDA and any comments to any SNDA.

6.2.5 Seller shall, within one Business Day after the delivery or receipt thereof, deliver to Purchaser copies of all notices concerning Seller or the Property which relate to the Service Contracts, the TD Bank Lease, damage or repairs at the Property, Hazardous Materials affecting the Property or any actual or threatened condemnation or zoning change of the Property or any portion thereof given by or on behalf of any Federal, state or local agency or owners' association, and copies of all other correspondence sent, filed, served on or received by Seller from any federal, state or local agency or owners' association affecting the Property from and after the Effective Date.

6.3 **Risk of Loss**.

6.3.1 **Condemnation**. If, prior to Closing, action is initiated to take the Property, or any portion thereof, by eminent domain proceedings or by deed in lieu thereof, Seller shall give Purchaser prompt written notice of the commencement of such action and Purchaser may elect, no later than the first to occur of (a) the date that is ten days following such written notice, or (b) the scheduled Closing Date (and the Closing Date shall be

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extended as needed to provide for such ten-day period) to: (i) terminate this Agreement (provided that no such termination shall relieve any Party for liability for breach prior to such termination); or (ii) proceed to Closing, in which event all of Seller's assignable right, title and interest in and to the award of the condemning authority shall be assigned to Purchaser at the Closing and there shall be no reduction in the Purchase Price.

6.3.2 **Casualty**. Seller shall give Purchaser prompt written notice of any damage, destruction, injury, release of hazardous materials, casualty or loss to or affecting the Property ("**Casualty**"). Seller assumes all risks and liability for damage to or injury occurring to the Property by fire, storm, accident, or any other Casualty until the Closing has been consummated. If the Property, or any part thereof, suffers any Casualty prior to the Closing, Purchaser may elect no later than the first to occur of (a) the date that is ten days following such written notice, or (b) the scheduled Closing Date (and the Closing Date shall be extended as needed to provide for such ten-day period), to: (i) terminate this Agreement (provided that no such termination shall relieve any Party for liability for breach prior to such termination); or (ii) proceed to Closing, in which event all of Seller's right, title and interest in and to the proceeds of any insurance covering such damage shall be assigned to Purchaser at Closing, and Purchaser shall be entitled to a credit in the amount of Seller's deductible at Closing.

6.4 **Notices**. All notices required or permitted hereunder shall be in writing and shall be served on the parties at the addresses set forth below. Any such notices shall, unless otherwise provided herein, be given or served (a) by depositing the same in the United States mail, postage paid, certified and addressed to the party to be notified, with return receipt requested, (b) by overnight delivery using a nationally recognized overnight courier, (c) by personal delivery, or (d) by electronic mail addressed to the electronic mail address set forth below for the party to be notified with a confirmation copy sent by another method permitted under this Section 6.4. Notice given in accordance herewith for all permitted forms of notice other than by electronic mail, shall be effective upon the earlier to occur of actual delivery to the address of the addressee or refusal of receipt by the addressee (even if such addressee refuses delivery thereof). Notice given by electronic mail in accordance herewith shall be effective upon the entrance of such electronic mail into the information processing system designated by the recipient's electronic mail address. Except for electronic mail notices as described above, no notice hereunder shall be effective if sent or delivered by electronic means. A party's address may be changed by written notice to the other party; provided, however, that no notice of a change of address shall be effective until actual receipt of such notice. Notices given by counsel to Purchaser shall be deemed given by Purchaser and notices given by counsel to Seller shall be deemed given by Seller. Any notice given to either Deering Associates, LLC or Deering Investments, Inc. in accordance with this Section 6.4 shall be deemed notice to both Seller entities.

Seller:
Deering Investments, Inc.
85259 Napeague Dr
Fernandina Beach, FL 32034
Attention: Jeffrey Peters
Email: jeffpeters85@me.com

With a copy to:
Monaghan Leahy, LLP
Two Monument Square, Suite 401
Portland, ME 04101
Attention: Michael H. Hill
Email: mhill@mleahy.com

Purchaser:
Garnett Reynolds Development, LLC
164 Mason Street, Suite 201
Greenwich, CT 06830
Attention: James Canning
Email: james.canning@grholdingsllc.com

With a copy to:
Vinson & Elkins L.L.P.
2001 Ross Avenue, Suite 3900
Dallas, TX 75201
Attention: Ken Adler; Antonia Darosa
Email: kadler@velaw.com; adarosa@velaw.com

6.5 **Assignment**. Except as set forth below, neither this Agreement nor any of the rights, interests or obligations hereunder shall be transferred or assigned (by operation of law or otherwise) by a Party without the prior written consent of the other Parties. Notwithstanding the foregoing, Purchaser may assign, in its sole discretion, (a) any or all of its rights, interests and obligations under this Agreement to one or more of any of its Affiliates and (b) any or all of its rights, interests and obligations under this Agreement related to the purchase of the Property to one or more unaffiliated, unrelated third parties, in each case without the consent of Seller. Additionally, Purchaser may designate, in its sole discretion, which Person will take title to the Property, without the consent of Seller. This Agreement will be binding upon, inure to the benefit of and be enforceable by the Parties to this

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Agreement and their respective successors and permitted assigns. Any transfer or assignment of any of the rights, interests or obligations hereunder in violation of the terms hereof shall be void and of no force or effect.

6.6 **Brokerage Commission**. Each Party warrants to the other that it has not dealt with any broker in connection with the negotiation or execution of this Agreement other than WRE Commercial Brokers (representing Purchaser), whose commission shall be paid by Seller pursuant to a separate written agreement. Each Party shall indemnify and hold the others harmless against and from any and all claims, commissions, or other compensation, damages, liabilities and expenses (including reasonable attorney fees and disbursements) arising out of any and all claims made by any broker, finder or agent with whom the indemnifying Party has dealt or has allegedly employed. The provisions of this Section shall survive Closing or termination of this Agreement.

6.7 **Reporting Requirements**. The Parties agree to comply with any and all reporting requirements applicable to the Transaction which are set forth in any Law of any Governmental Authority, and further agree upon request, to furnish the other Party with evidence of such compliance.

6.8 **Time is of the Essence**. The Parties hereto expressly agree that time is of the essence with respect to this Agreement.

6.9 **Non-Business Days**. If the Closing Date or the date for delivery of a notice or performance of some other obligation of a Party falls on a day other than a Business Day, then the Closing Date or such notice or performance shall be postponed until the next Business Day.

6.10 **Waiver and Amendment**. No provision of this Agreement shall be deemed waived or amended except by a written instrument unambiguously setting forth the matter waived or amended and signed by the Party against which enforcement of such waiver or amendment is sought. Waiver of any matter shall not be deemed a waiver of the same or any other matter on any prior or future occasion.

6.11 **Purchaser's and Seller's Liability; Remedies**.

6.11.1 **Purchaser's Remedies**. Seller shall be in default under this Agreement if Seller defaults or fails to perform under this Agreement and such default or failure continues for three Business Days following written notice thereof from Purchaser (except no notice or cure period shall apply if Seller fails to consummate the sale of the Property hereunder). If Seller is in default under this Agreement, then Purchaser may: (a) terminate this Agreement by notifying Seller thereof, or (b) enforce specific performance of the obligations of Seller hereunder. Purchaser may terminate this Agreement following the failure or non-satisfaction of any condition precedent to Purchaser's obligation to consummate the Closing set forth in this Agreement. If Purchaser terminates this Agreement pursuant to this Section 6.11.1, Seller shall immediately reimburse Purchaser for all costs and expenses incurred by Purchaser in connection with the Transaction, including all costs and expenses incurred in connection with Purchaser's inspections and tests, the pursuit of Permits and all attorneys' fees. After Closing, subject to the terms and conditions of this Agreement, Purchaser shall have such rights and remedies as are available at law or in equity.

6.11.2 **Seller's Remedies**. Purchaser shall be in default under this Agreement if Purchaser defaults or fails to perform under this Agreement and such default or failure continues for three Business Days following written notice thereof from Seller. If Purchaser is in default under this Agreement, then Seller may, as its sole and exclusive remedy, terminate this Agreement by notifying Purchaser thereof, in which event Seller may retain the Earnest Money as liquidated damages, whereupon neither Seller nor Purchaser shall have any further rights or obligations hereunder, except for those which survive the termination of this Agreement. PURCHASER AND SELLER AGREE THAT THE AMOUNT OF LIQUIDATED DAMAGES IS REASONABLE CONSIDERING ALL OF THE CIRCUMSTANCES EXISTING AS OF THE EFFECTIVE DATE, INCLUDING THAT ASCERTAINING THE AMOUNT OF SELLER'S ACTUAL DAMAGES WOULD BE EXTREMELY DIFFICULT, COSTLY AND INCONVENIENT.

6.11.3 **No Personal Liability**. Notwithstanding anything to the contrary provided in this Agreement, it is specifically understood and agreed, such agreement being a primary consideration for the execution

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of this Agreement by Purchaser, that there shall be absolutely no personal liability on the part of any director, officer, manager, partner, member, employee or agent of Purchaser with respect to any of the terms, covenants and conditions of this Agreement. Seller waives and releases all claims, demands and causes of action against Purchaser's directors, officers, managers, members, partners, employees and agents in the event of any breach by Purchaser of any of the terms, covenants and conditions of this Agreement to be performed by Purchaser. Seller shall look solely to the assets of Purchaser for the satisfaction of each and every remedy of Seller in the event of any breach by Purchaser of any of the terms, covenants and conditions of this Agreement to be performed by Purchaser, such exculpation of liability to be absolute and without any exception whatsoever.

6.11.4 **Survival**. This Section 6.11 shall survive termination of this Agreement.

6.12 **Headings; Internal References**. The headings of the various sections and exhibits of this Agreement have been inserted for reference only and shall not to any extent have the effect of modifying the express terms and provisions of this Agreement. Unless stated to the contrary, any references to any section, subsection, exhibit and the like contained herein are to the respective section, subsection, exhibit and the like of this Agreement.

6.13 **Construction Generally**. This is an agreement between parties who are experienced in sophisticated and complex matters similar to the Transaction, and this Agreement and the other Transaction Documents are entered into by both Parties in reliance upon the economic and legal bargains contained herein and therein, and shall be interpreted and construed in a fair and impartial manner without regard to such factors as the Party which prepared the instrument, the relative bargaining powers of the Parties or the domicile of any Party. Seller and Purchaser were each represented by legal counsel competent in advising them of their obligations and liabilities hereunder.

6.14 **Further Assurances**. Each Party agrees, whenever and as often as reasonably requested so to do by the other Party or the Title Company, to execute, acknowledge, and deliver, or cause to be executed, acknowledged, or delivered, any and all such further conveyances, assignments, confirmations, satisfactions, releases, instruments, or other documents as may be reasonably necessary, expedient or proper, in order to complete any and all conveyances, transfers, sales and assignments herein provided and to do any and all other acts and to execute, acknowledge and deliver any and all documents as so requested in order to carry out the intent and purpose of this Agreement. The provisions of this Section shall survive Closing.

6.15 **Attorneys' Fees**. In the event it becomes necessary for either Seller or Purchaser to employ legal counsel or to bring action at law or other proceeding to enforce any of the terms, covenants or conditions of this Agreement, the prevailing Party shall be entitled to recover all of its reasonable attorneys' fees and other costs in addition to any other relief to which it may be entitled. The provisions of this Section shall survive Closing.

6.16 **List of Schedules and Exhibits**. All schedules, exhibits and attachments attached hereto are incorporated herein by this reference.

6.17 **Entire Agreement**. This Agreement and all other Transaction Documents and all other certificates, instruments or agreements to be delivered hereunder and thereunder (including the Transaction Documents) collectively constitute the entire agreement between the Parties with respect to the subject matter hereof, and there are no other representations, warranties or agreements, written or oral, between Seller and Purchaser with respect to the subject matter of this Agreement except as set forth in the Transaction Documents.

6.18 **No Marketing; Exclusivity**. From the Effective Date through the earlier of the Closing or termination of this Agreement, Seller shall not market any portion of the Property for sale or lease, or enter into a letter of intent, letter of understanding, contract of sale, nor accept, invite, or respond to offers or similar agreement with respect to the sale or leasing of any Property or permit any of its agents, representatives or brokers to do the same. No notice or cure periods shall apply to a breach by Seller of this Section.

6.19 **Governing Law**. The validity of this Agreement and its conditions and provisions, as well as the rights and duties of the Parties hereunder, shall be interpreted and construed pursuant to and in accordance with all applicable laws of the state in which the Property is located, without giving effect to principles of conflicts of law.

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The Parties shall have the right to seek and obtain temporary or preliminary injunctive relief or specific performance in any court of competent jurisdiction.

6.20 **Severability; Binding Effect**. Each provision hereof shall be separate and independent, and the breach of any provision by Purchaser shall not discharge or relieve Seller from any of its obligations hereunder. Each provision hereof shall be valid and shall be enforceable to the extent not prohibited by law. If any provision hereof or the application thereof to any Person or circumstance shall to any extent be invalid or unenforceable, the remaining provisions hereof, or the application of such provision to Persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby. Subject to the provisions of Section 6.5, all provisions contained in this Agreement shall be binding upon, inure to the benefit of and be enforceable by the successors and permitted assigns of each Party hereto, including any United States trustee, any debtor-in-possession or any trustee appointed from a private panel, in each case to the same extent as if each successor and assign were named as a Party hereto.

6.21 **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all such counterparts shall be deemed to constitute one and the same instrument. The Parties may deliver their signatures by facsimile transmission or .pdf email delivery, and such transmission shall effect delivery of signatures.

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IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and delivered as of the Effective Date.

SELLER:

DEERING INVESTMENTS, INC., a Maine corporation

By: Jeffrey W Peters
Name:
Title:

DEERING ASSOCIATES, LLC, a Maine limited liability company

By: Jeffrey W Peters
Name:
Title:

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PURCHASER:

GARNETT REYNOLDS DEVELOPMENT, LLC, a Delaware limited liability company

By: DocuSigned by: James Canning F157DDB5533D4D1...

James Canning, Co-CEO

ATTACHMENT 3

AGENT AUTHORIZATION LETTERS

April 29, 2026

To Whom It May Concern:

I, Deering Associates, LLC & Deering Investments, Inc, am the lawful owner of the property located at 750-758 Roosevelt Trail & 62-64 Tanberg Trail, Windham, Maine. Through this letter, I hereby authorize Washville Car Wash, including any of its subsidiaries, affiliates, or authorized representatives, to act on my behalf for the limited purpose of preparing, submitting, and processing permit applications and related documentation with the appropriate municipal, county, and/or state authorities concerning the above-referenced property.

This authorization includes, but is not limited to:

- Filing permit applications
- Communicating with regulatory agencies
- Submitting plans, drawings, and supporting materials
- Responding to requests for additional information

If you have any questions or require further confirmation, please contact me directly at [phone number] or [email address].

Sincerely,

[Owner's Signature]

Jeffrey W. Peters

Secretary, Deering Investments Inc and Deering Associates LLC

Date: 4/29/26

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

AGENT AUTHORIZATION

APPLICANT/ OWNER	**Name**	GR Development, LLC		
PROPERTY DESCRIPTION	**Physical Address**	164 Mason St, #201, Greenwich, CT 06830	**Map**	67
			Lot	37,38,40, 42, 43 A
APPLICANT'S AGENT INFORMATION	**Name**	Douglas Reynolds		
	Phone	(207) 772-2515	**Business Name & Mailing Address**	Gorrill Palmer 300 Southborough Drive, Suite 200 South Portland, ME 04106
	Fax/Cell			
	Email	DReynolds@gorrillpalmer.com		

Said agent(s) may represent me/us before Windham Town officers and the Windham Planning Board to expedite and complete the approval of the proposed development for this parcel.

APPLICANT SIGNATURE — DATE: 5/07/2026

Jim Waterman
PLEASE TYPE OR PRINT NAME HERE

CO-APPLICANT SIGNATURE — DATE

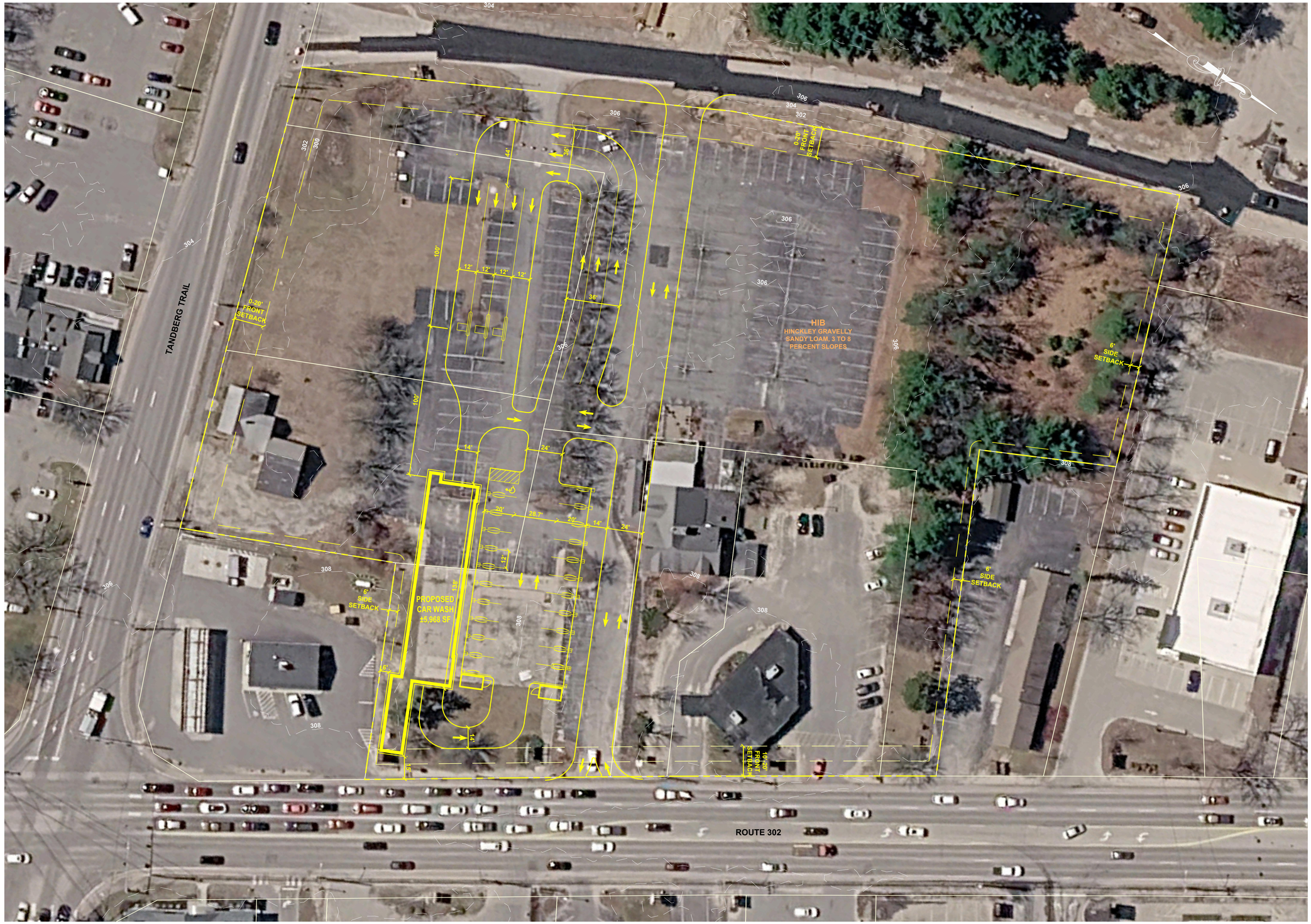
PLEASE TYPE OR PRINT NAME HERE

APPLICANT'S AGENT SIGNATURE — DATE: 05/06/2026

Doug Reynolds
PLEASE TYPE OR PRINT NAME HERE

ATTACHMENT 4

CONCEPT PLAN



SITE DATA

ZONE: COMMERCIAL DISTRICT (C-1)		
SITE AREA 4.2 ACRES		
BUILDING AREA		
CAR WASH	5,968 S.F.	
TOTAL	5,968 S.F.	
PARKING	REQUIRED	PROVIDED
NEW STRUCTURE		
TOTAL PARKING		
NO MIN. REQUIREMENT	0	21
TOTAL	0	21
BARRIER FREE	1	22

SPACE AND BULK STANDARDS

ZONE: C1 (COMMERCIAL 1)	REQUIRED	PROVIDED
MIN. LOT SIZE	NONE	±4.6 ACRES
BUILDING SETBACKS		
FRONT	10–20 FT (ON ROUTE 302) 0–20 FT (ON ALL OTHER STREETS)	15 FT
SIDE	6 FT	6 FT
REAR	6 FT	N/A
MAXIMUM BUILDING HEIGHT	75 FT	<75 FT

PARKING. NO PARKING SHALL BE LOCATED WITHIN A STRUCTURE'S FRONT SETBACK AREA. WHEN PARKING IS LOCATED AT THE SIDE OF A BUILDING, THE PARKING AREA SHALL NOT EXTEND CLOSER TO THE STREET THAN THE FRONT FACADE OF THE BUILDING. THE SPACE BETWEEN THE PARKING LOT AND THE STREET SHALL BE LANDSCAPED ACCORDING TO AN OVERALL PLAN FOR THE PROPERTY.

BUILDING ORIENTATION. THE FACADE OF ALL BUILDINGS MUST BE ORIENTED PARALLEL TO A FRONT LOT LINE. IN CASES WHERE A PROPERTY HAS MORE THAN ONE FRONT LOT LINE, A SINGLE BUILDING DEVELOPMENT WILL ORIENT TO THE FRONT LOT LINE ON THE STREET WITH THE HIGHER TRAFFIC VOLUME. MULTIBUILDING DEVELOPMENT MAY ORIENT INDIVIDUAL BUILDINGS TO DIFFERENT FRONT LOT LINES.

NOTES:

1. PROPERTY LINE INFORMATION AND SITE AREA IS APPROXIMATE AND HAS BEEN PROVIDED BY THE TOWN OF WINDHAM GIS AND TAX MAP INFORMATION

2. CONCEPT PLAN PREPARED BASED ON LIMITED TOPOGRAPHIC AND BOUNDARY INFORMATION WHICH MAY REQUIRE MODIFICATIONS AS ADDITIONAL INFORMATION IS COLLECTED.

3. CONCEPT PLAN PREPARED WITH LIMITED COMMUNICATIONS WITH MUNICIPALITY WHICH MAY REQUIRE MODIFICATIONS AFTER REVIEW.

4. THE PROJECT SITE DOES NOT APPEAR TO BE LOCATED WITHIN A 100-YEAR FLOOD PLAIN.

NOTE: THIS PLAN SET IS ISSUED FOR CONCEPTUAL PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

30 0 15 30 60
1 inch = 30 ft.

STATE OF MAINE
DOUGLAS E. REYNOLDS
No. 9888
05/01/26
LICENSED
PROFESSIONAL ENGINEER

Rev.	Date	Revision
–	–	–

Issued For	Date	By
SKETCH PLAN SUBMISSION	05.01.2026	DER

Design: –	Draft: CG	Date: FEB 2026
Checked: DER	Scale: 1"=30'	Job No.: 0131445A
File Name: WASH-CONCEPT1.dwg		

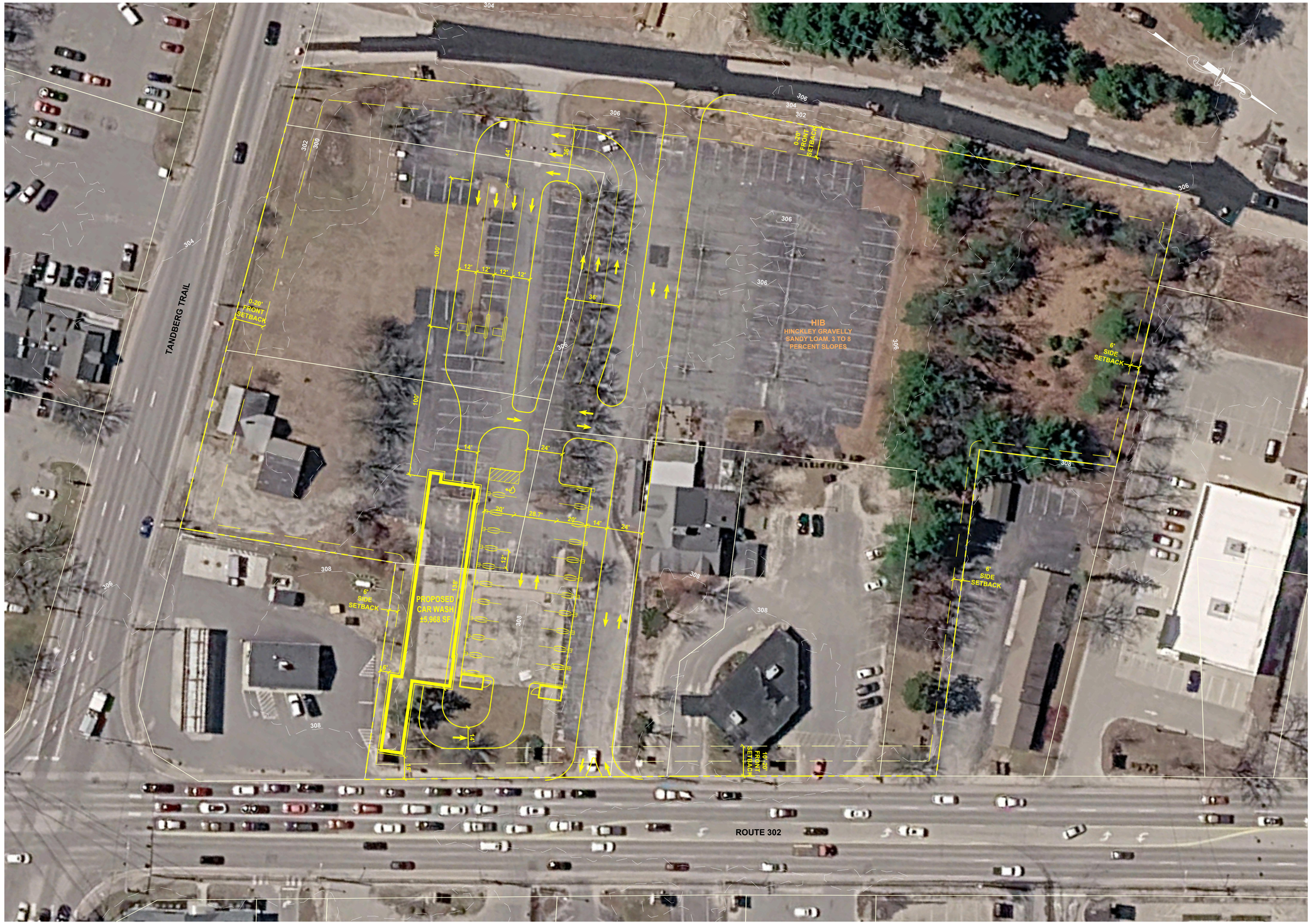
This plan shall not be modified without written permission from Gorrill-Palmer Consulting Engineers, Inc.(GPCEI). Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to GPCEI.

LJB Engineering Building Partnerships
LJB Engineering Company
LJBinc.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name: Concept 1
Project: Car Wash, North Windham, Maine
Client: GR Development, LLC, 164 Mason St, #201, Greenwich, CT 06830

Drawing No. 1

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SITE DATA

ZONE: COMMERCIAL DISTRICT (C-1)		
SITE AREA 4.2 ACRES		
BUILDING AREA		
CAR WASH	5,968 S.F.	
TOTAL	5,968 S.F.	
PARKING	REQUIRED	PROVIDED
NEW STRUCTURE		
TOTAL PARKING		
NO MIN. REQUIREMENT	0	21
TOTAL	0	21
BARRIER FREE	1	22

SPACE AND BULK STANDARDS

ZONE: C1 (COMMERCIAL 1)	REQUIRED	PROVIDED
MIN. LOT SIZE	NONE	±4.6 ACRES
BUILDING SETBACKS		
FRONT	10–20 FT (ON ROUTE 302) 0–20 FT (ON ALL OTHER STREETS)	15 FT
SIDE	6 FT	6 FT
REAR	6 FT	N/A
MAXIMUM BUILDING HEIGHT	75 FT	<75 FT

PARKING. NO PARKING SHALL BE LOCATED WITHIN A STRUCTURE'S FRONT SETBACK AREA. WHEN PARKING IS LOCATED AT THE SIDE OF A BUILDING, THE PARKING AREA SHALL NOT EXTEND CLOSER TO THE STREET THAN THE FRONT FACADE OF THE BUILDING. THE SPACE BETWEEN THE PARKING LOT AND THE STREET SHALL BE LANDSCAPED ACCORDING TO AN OVERALL PLAN FOR THE PROPERTY.

BUILDING ORIENTATION. THE FACADE OF ALL BUILDINGS MUST BE ORIENTED PARALLEL TO A FRONT LOT LINE. IN CASES WHERE A PROPERTY HAS MORE THAN ONE FRONT LOT LINE, A SINGLE BUILDING DEVELOPMENT WILL ORIENT TO THE FRONT LOT LINE ON THE STREET WITH THE HIGHER TRAFFIC VOLUME. MULTIBUILDING DEVELOPMENT MAY ORIENT INDIVIDUAL BUILDINGS TO DIFFERENT FRONT LOT LINES.

NOTES:

1. PROPERTY LINE INFORMATION AND SITE AREA IS APPROXIMATE AND HAS BEEN PROVIDED BY THE TOWN OF WINDHAM GIS AND TAX MAP INFORMATION

2. CONCEPT PLAN PREPARED BASED ON LIMITED TOPOGRAPHIC AND BOUNDARY INFORMATION WHICH MAY REQUIRE MODIFICATIONS AS ADDITIONAL INFORMATION IS COLLECTED.

3. CONCEPT PLAN PREPARED WITH LIMITED COMMUNICATIONS WITH MUNICIPALITY WHICH MAY REQUIRE MODIFICATIONS AFTER REVIEW.

4. THE PROJECT SITE DOES NOT APPEAR TO BE LOCATED WITHIN A 100-YEAR FLOOD PLAIN.

NOTE: THIS PLAN SET IS ISSUED FOR CONCEPTUAL PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

30 0 15 30 60
1 inch = 30 ft.

STATE OF MAINE
DOUGLAS B. REYNOLDS
No 9888
05/01/26
LICENSED
PROFESSIONAL ENGINEER

Rev.	Date	Revision
–	–	–

Issued For	Date	By
SKETCH PLAN SUBMISSION	05.01.2026	DER

Design: –	Draft: CG	Date: FEB 2026
Checked: DER	Scale: 1"=30'	Job No.: 0131445A
File Name: WASH-CONCEPT1.dwg		

This plan shall not be modified without written permission from Gorrill-Palmer Consulting Engineers, Inc.(GPCEI). Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to GPCEI.

LJB Engineering Building Partnerships
LJB Engineering Company
LJBinc.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name: Concept 1
Project: Car Wash
North Windham, Maine
Client: GR Development, LLC
164 Mason St, #201, Greenwich, CT 06830

Drawing No. 1

U:\Westville\Z – CAD\DWG\WASH-CONCEPT1.dwg – 5/1/2026 8:20 AM

Town of Windham

Town Offices
8 School Road
Windham, Maine

Cover Sheet

File Number: PB 26-006

Agenda Date: 3/9/2026 **Version:** 1 **Status:** Agenda Ready

In Control: Planning Board **File Type:** Planning Board Document

Agenda Number:

#25-12 Legacy Village Retirement Community - Major Subdivision & Site Plan - Sketch Plan Review - Webb Road - Robie Holdings, LLC

The application is to divide a 21.43-acre vacant parcel into two lots. Lot 1 (15.31 acres) is proposed to be developed as Legacy Village Retirement Community, a 30-unit detached dwelling retirement condominium served by a new private access drive (Legacy Drive, approximately 1,100 feet), a public 8-inch water main extension along Webb Road, and a shared on-site engineered wastewater disposal system. Lot 2 (6.12 acres) is proposed as a Country Subdivision lot for future single-family residential use served by a private well and septic system. Subject property is identified as Tax Map: 6; Lot: 33-F; Zone: Farm (F) and Retirement Community Care Facility Overlay (RCCFO) in the Black Brook/Presumpscot River watershed.

Preliminary Major Subdivision Application

To the Town of Windham

Legacy Village Retirement Community

Webb Road
Windham, Maine

Applicant:
Robie Holdings LLC
PO Box 1508
Windham, ME 04062

Prepared By:
DM Roma Consulting Engineers
PO Box 1116
Windham, ME 04062

DM ROMA
CONSULTING ENGINEERS

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LEGACY VILLAGE RETIREMENT COMMUNITY

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SECTION 1

APPLICATION FORM & SUBMISSION CHECKLIST

Town of Windham
Planning Department:
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916 -
www.windhammaine.us

MAJOR SUBDIVISION - PRELIMINARY PLAN - REVIEW APPLICATION

FEES FOR MAJOR SUBDIVISION PRELIMINARY PLAN REVIEW	**APPLICATION FEE:** + EACH LOT > 10 = $300/LOT	☐ $1,300.00 ☐ $ 6,300	**AMOUNT PAID:** $ 11,300				
	REVIEW ESCROW: Up to 10 Lots = $2,500 11 – 15 Lots = $3,000 16 – 30 Lots = $4,000 30 + Lots = $5,000	☐ $ 5,000	DATE: _____ *Office Use:*			*Office Stamp:*	

PROPERTY DESCRIPTION	Parcel ID	Map(s) # 6	Lot(s) # 33-F	Zoning District(s)	F RCCF	Total Land Area SF:	933,647 sf
	# Lots/dwelling units:	31	Total Distr. >1Ac. ☒ Y ☐ N			Est. Road Length(ft):	1,100 ft
	Physical Address	Webb Road		Watershed:	Black Brook to Presumpscot River		

PROPERTY OWNER'S INFORMATION	Name		Name of Business	Robie Holdings, LLC
	Phone	(207) 892 - 0650	Mailing Address:	PO Box 1508
	Fax or Cell			Windham, ME 04062
	Email	jarodrobie@hotmail.com		
APPLICANT'S INFORMATION (*IF DIFFERENT FROM OWNER*)	Name	Same as Owner	Name of Business:	
	Phone		Mailing Address	
	Fax or Cell			
	Email			
APPLICANT'S AGENT INFORMATION	Name	Dustin Roma	Name of Business	DM Roma Consulting Engineers
	Phone	(207) 591 - 5055	Mailing Address	PO Box 1116
	Fax or Cell	(207) 310 - 0506		Windham, ME 04062
	Email	dustin@dmroma.com		

PROJECT INFORMATION

Existing Land Use *(Use extra paper, if necessary)*:

Vacant Land

Provide a narrative description of the Proposed Project *(Use extra paper, if necessary)*:

Divide the property into a 6.12-acre parcel for residential use and a 15.31-acre parcel for Retirement Community use. The Retirement Community will be developed with an 1,100 ft private access drive and 30 detached dwelling units. A public water main will be extended down Webb Road to serve the project. The lots will be served by on-site wastewater disposal systems.

Provide a narrative description of construction constraints (wetlands, shoreland zone, flood plain, non-conformance, etc.):

the site contains portions of steep slopes and wetlands.

MAJOR SUBDIVISION - PRELIMINARY PLAN - REVIEW APPLICATION REQUIREMENTS

Section 910 of the Land Use Ordinance

The submission shall contain, five (5) copies of the following information, including full plan sets. Along with one (1) electronic version of the entire submission unless a waiver of a submission requirement is granted.

The Major Plan document/map:

A) Plan size: 24" X 36"
B) Plan Scale: No greater 1":100'
C) Title block: Applicant's name and address

- Name of the preparer of plans with professional information
- Parcel's tax map identification (map and lot) and street address, if available

- Complete application submission deadline: three (3) weeks before the desired Staff Review Committee meeting.
  - Five copies of the application and plans
  - Application Payment and Review Escrow
- A pre-submission meeting with the Town staff is required.
- Contact information:

Windham Planning Department (207) 894-5960, ext. 2
Steve Puleo, Town Planner sipuleo@windhammaine.us
Amanda Lessard, Planning Director allessard@windhammaine.us

APPLICANT/PLANNER'S CHECKLIST FOR MAJOR SUBDIVISION REVIEW

SUBMITTALS THAT THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

The following checklist includes items generally required for development by the Town of Windham's LAND USE ORDINANCE, Sections 907.B., 910.C., & 911. Due to projects specifics, are required to provide a complete and accurate set of plans, reports, and supporting documentation (as listed in the checklist below).

IT IS THE RESPONSIBILITY OF THE APPLICANT TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

Staff recommends the applicant provide a proposed construction schedule, a draft Homeowner's Association (HOA) documentation, public open space to be provided, and written offers of cession to the Town, and/or road maintenance agreement with at the Preliminary Plan application submission.

Major Subdivision Preliminary Plan Submission Requirements:			Major Subdivision Preliminary Plan Submission Requirements (Continued):	Applicant	Staff
A. Mandatory Written Information submitted in a bound format:	**Applicant**	**Staff**	6. Vicinity plan showing the area within 250 feet, to include:	☒	☐
1. A fully executed application form, signed by a person with right, title, or interest in the property or Authorized Agent.	☒	☐	i. approximate location of all property lines and acreage of parcels.	☒	☐
2. Evidence of payment of the application and escrow fees.	☒	☐	ii. locations, widths, and names of existing, filed, or proposed streets, easements, or building footprints.	☒	☐
3. Proposed name of the Subdivision.	☒	☐	iii. location and designations of any public spaces.	☒	☐
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.	☒	☐	iv. outline of the proposed subdivision, together with its street system and an indication of future probably street system, if the proposed subdivision encompasses only part of the applicant's entire property.	☒	☐
5. Copy(ies) of the most recently recorded deed for the parcel, along with a copy(ies) of all existing deed restrictions, easements, rights-of-way, or some other proof of interest.	☒	☐	7. Standard boundary survey of the parcel, including all contiguous land in common ownership within the last 5 years.	☒	☐
6. Copy(ies) of any existing and/or proposed covenants, deed restrictions intended to cover all or part of the lots or dwellings in the subdivision.	☒	☐	8. Existing and proposed street names, pedestrian ways, lot easements, and areas to be reserved or dedicated to public use.	☒	☐
7. Copy(ies) of any existing or proposed easements on the property	☒	☐	9. Contour lines at 2-foot intervals, or intervals required by the Board, showing elevations to the required datum.	☒	☐
8. Name, registration number, and seal of Maine Licensed Professional Land Surveyor who conducted the survey.	☒	☐	10. Typical cross-sections of the proposed grading for roadways, sidewalks, etc., including width, type of pavement, elevations, and grades.	☒	☐
9. Name, registration number, and seal of the licensed professional who prepared the plan (if applicable).	☒	☐			
10. An indication of the type of sewage disposal to be used in the subdivision.			11. Wetland areas shall be delineated on the survey. If none, please note.	☒	☐
i. If connecting to the public sewer, provide a letter from Portland Water District stating the District can collect and treat the wastewater	☐	☐	12. The 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.	☒	☐

Mandatory Written Information submitted in a bound format (continued):	Applicant	Staff			
ii. If using subsurface wastewater 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.	☒	☐	13. Rivers, streams, and brooks within or adjacent to the proposed subdivision. If any portion of the proposed subdivision is in the direct watershed of a great pond, note which great pond.	☒	☐
11. Indicate the type of water supply system(s) to be used in the subdivision.	☒	☐	14. Rivers, streams, and brooks within or adjacent to the proposed subdivision. If any portion of the proposed subdivision is in the direct watershed of a great pond, note which great pond.	☒	☐
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.	☐	☐	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.	☒	☐
13. Names and addresses of the record owner, applicant, and adjoining property owners.	☒	☐	16. Location, names, and present width of existing streets, highways, easements, building lines, parks, and other open spaces on or adjacent to the subdivision.	☒	☐
14. An acceptable title opinion proving the right of access to the proposed subdivision or site for any property proposed for development on or off a private way or private road.	☒	☐	17. Location and widths of any streets, public improvements, or open space within the subdivision (if any) are shown on the official map and the comprehensive plan.	☒	☐
15. The name and contact information for the road association whose private way or road is used to access the subdivision.	☐	☐	18. All parcels of land proposed to be dedicated to public use and the conditions of such dedication.	☐	☐
16. Financial Capacity. Estimated costs of development, and an itemization of major costs.			19. Location of any open space to be preserved or common areas to be created, and general description of proposed ownership, improvement, and management	☒	☐
			20. Approximate location of treeline after development.	☒	☐
i. Estimated costs of development, and an itemization of major costs.	☒	☐	21. Delineate boundaries of any flood hazard areas and the 100-year flood elevation as depicted on the Town's Flood Insurance Rate Map.	☒	☐
			22. Show any areas within or adjacent to the proposed subdivision which has been identified by the Maine Department of Inland Fisheries and Wildlife "Beginning with Habitat project maps or within the Comprehensive Plan.		
ii. Financing - provide one of the following:	☐	☐	23. Show areas within or adjacent to the proposed subdivision which is 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.	☒	☐
a. Letter of commitment to funding from a financial institution, governmental agency, or other funding agency.	☐	☐			
b. Annual corporate report with explanatory material showing the availability of liquid assets to finance development	☐	☐	24. Erosion & Sedimentation control plan, prepared by MDEP Stormwater Law Chapter 500 Basic Standards, and the MDEP Maine Erosion and Sediment Control Best Management Practices, published March 2003.	☒	☐
c. Bank statement showing the availability of funds if personally financing development	☐	☐	25. A stormwater management plan, prepared by a Maine licensed Professional Engineer by the most recent edition of Stormwater Management For Maine: BMPS Technical Design Manual, published by the MDEP 2006.	☒	☐
d. Cash equity commitment.	☐	☐			
e. Financial plan for remaining financing.	☐	☐	26. For Cluster Subdivisions that do not maximize the development potential of the property being subdivided, a conceptual master plan for the remaining land showing future roads, Open Space, and lot layout, consistent with the requirements of 911.K., Custer Developments will be submitted.	☐	☐
f. Letter from financial institution indicating an intention to finance.	☒	☐	**C. Submission information for which a waiver may be granted.**	**Applicant**	**Staff**
iii. If a corporation, Certificate of Good Standing from the Secretary of State	☒	☐	1. High-intensity soil survey by a Certified Soil Scientist	☒	☐
			2. Landscape Plan	☒	☐
2. Technical Capacity:			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 the greater potential of adverse impacts on groundwater quality.	Waiver ☐	☐

i. A statement of the applicant's experience and training related to the nature of the development, including developments receiving permits from the Town.	☒	☐	a) Map showing basic soil types.	☐	☐
			b) Depth to the water table at representative points	☐	☐
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.	☒	☐	c) Drainage conditions throughout the subdivision.	☐	☐
			d) Data on existing groundwater quality.	☐	☐
			e) Analysis and evaluation of the effect of the subdivision on groundwater.	☐	☐
2. Name and contact information for the road association whose private way or road is used to access the subdivision (if applicable).	☒	☐	f) map showing the location of any subsurface wastewater disposal systems and drinking water wells within the subdivision & within 200 feet of the subdivision boundaries.	☐	☐
			4. Estimate the amount and type of vehicular traffic to be generated on a daily basis and at peak hours.	☒	☐
B. Mandatory Preliminary Plan Information	**Applicant**	**Staff**	5. Traffic Impact Analysis for subdivisions involving 28 or more parking spaces or projected to generate more than 140 vehicle trips per day.	☐	☐
1. Name of subdivision, date, and scale.	☒	☐			
2. Stamp of the Maine License Professional Land Surveyor that conducted the survey, including at least one copy of the original stamped seal that is embossed and signed.	☒	☐	6. If any portion of the subdivision is in the direct watershed of a great pond.	☐	☐
			i. phosphorous impact analysis and control plan.	☐	☐
3. Stamp with the date and signature of the Maine Licensed Professional Engineer that prepared the plans.	☒	☐	ii. long term maintenance plan for all phosphorous control measures.	☐	☐
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.	☒	☐	iii. contour lines at an interval of 2 feet.	☐	☐
			iv. delineate areas with sustained slopes greater than 25% covering more than one acre.	☐	☐
5. Location map showing the subdivision within the municipality.	☒	☐	**Electronic Submission**	☒	☐

The undersigned *hereby makes an application to the Town of Windham for approval of the proposed project and declares the foregoing to be true and accurate to the best of his/her knowledge.*

Dustin Roma	5-18-2026	Dustin Roma - Authorized Agent
APPLICANT OR AGENT'S SIGNATURE	DATE	PLEASE TYPE OR PRINT THE NAME

SECTION 2

AGENT AUTHORIZATION

May 19, 2025

Re: Agent Authorization

Robie Holdings, LLC intends to develop the property located at the corner of Webb Road and Read Road in Windham, Maine shown as a portion of Lot 33 on Tax Map 6 . Robie Holdings, LLC has retained the services of DM Roma Consulting Engineers to act as its authorized agent to apply for land use permits associated with the development of this property.

Sincerely,



Jarod Robie
Robie Holdings, LLC

SECTION 3

WAIVER REQUESTS

Section 3 – Waiver Requests

The following waivers are requested:

1. Performance Standard - Section 120-911(B)(1): Public Water System Connection Requirement. The project will include the construction of approximately 1,000 feet of 8" water main in Webb Road that will extend from the existing water main in Gray Road to the point where Legacy Drive will enter the property, with a hydrant installed at the end of the public water main extension. Water services will be installed to provide domestic and fire protection water to all the residences in the Retirement Community. The new hydrant at the intersection of Legacy Drive and Webb Road will also provide fire protection to Lot 2. The waiver request is to allow Lot 2 to have domestic water supplied by an on-site well instead of extending the public water main an additional 600 feet to provie public water service to Lot 2. It is not economically feasible to extend the water main an additional 600 feet just for one house lot, and adequate fire protection will be provided by the new hydrant that will be within 1,000 feet of the development on Lot 2.

2. Submision Requirement - Section 120-910(C)(3)(C): Hydrogeological Assessment. Lot 1 will be developed as a Retirement Community Use and will include the construction of a single engineered wastewater disposal system that will include the installation of FujiClean CEN Advanced Treatment Units that reduce the nitrate concentration to below 10 mg/l before the wastewater enters the leach field, so it is not necessary to calculate the nitrate concentration at the property line. Lot 2 is a 6-acre lot designed to meet the Country Subdivision standards, which intentionally requires large lot area to provide ample space to place on-site wells and leach fields in locations that will not adversely impact groundwater.

TOWN OF WINDHAM
MINOR\MAJORSUBDIVISION APPLICATION

Performance and Design Standards Waiver Request Form

(Section 908 – Minor\Major Subdivision Review, Waivers)

For each waiver request from the Performance and Design Standards detailed in Section 911 of the Town of Windham Land Use Ordinance, please submit separate completed copy of this waiver request form for all waivers requested

---

Subdivision or Project Name: Legacy Village Retirement Community

Tax Map: 6

Lot(s): 33-F

Waivers are requested from the following Performance and Design Standards (Add Forms as necessary):

Ordinance Section	Standard	Mark which waiver this form is for
120-911(B)(1)	Public Water System Connection Requirement	☒
		☐
		☐
		☐
		☐

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.

The project will include the construction of approximately 1,000 feet of 8" water main in Webb Road that will extend from the existing water main in Gray Road to the point where Legacy Drive will enter the property, with a hydrant installed at the end of the public water main extension. Water services will be installed to provide domestic and fire protection water to all the residences in the Retirement Community. The new hydrant at the intersection of Legacy Drive and Webb Road will also provide fire protection to Lot 2. The waiver request is to allow Lot 2 to have domestic water supplied by an on-site well instead of extending the public water main an additional 600 feet to provide a public water service to Lot 2. It is not economically feasible to extend the water main an additional 600 feet just for one house lot, and adequate fire protection will be provided by the new hydrant that will be within 1,000 feet of the development on Lot 2.

(continued next page)

Ordinance Section: 120-911(B)(1)

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

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

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

TOWN OF WINDHAM
MINOR\MAJORSUBDIVISION APPLICATION

Performance and Design Standards Waiver Request Form

(Section 908 – Minor\Major Subdivision Review, Waivers)

For each waiver request from the Performance and Design Standards detailed in Section 911 of the Town of Windham Land Use Ordinance, please submit separate completed copy of this waiver request form for all waivers requested

---

Subdivision or Project Name: Legacy Village Retirement Community

Tax Map: 6

Lot(s): 33-F

Waivers are requested from the following Performance and Design Standards (Add Forms as necessary):

Ordinance Section	Standard	Mark which waiver this form is for
120-910(C)(3)(C)	Hydrogeological Assessment	☒
		☐
		☐
		☐
		☐

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.

Lot 1 will be developed as a Retirement Community Use and will include the construction of a single engineered wastewater disposal system that will include the installation of FujiClean CEN Advanced Treatment Units that reduce the nitrate concentration to below 10 mg/l before the wastewater enters the leach field, so it is not necessary to calculate the nitrate concentration at the property line. Lot 2 is a 6-acre lot designed to meet the Country Subdivision standards, which intentionally requires large lot area to provide ample space to place on-site wells and leach fields in locations that will not adversely impact groundwater.

(continued next page)

Ordinance Section: 120-910(C)(3)(C)

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

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

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

SECTION 4

CERTIFICATE OF CORPORATE GOOD STANDING

MAINE
Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Tue May 19 2026 09:25:33. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
ROBIE HOLDINGS LLC	20152384DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/01/2015	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Principal Home Office Address

Physical	Mailing
14 TANDBERG TRAIL WINDHAM, ME 04062	14 TANDBERG TRAIL WINDHAM, ME 04062

Clerk/Registered Agent

Physical	Mailing
JAROD ROBIE ONE DIAMOND POINT ROAD WINDHAM, ME 04062	JAROD ROBIE PO BOX 1508 WINDHAM, ME 04062

New Search

Click on a link to obtain additional information.

List of Filings	View list of filings	
Obtain additional information:		
Certificate of Existence (Good Standing) (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

Certificate of Legal Existence (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the troubleshooting page.



If you encounter technical difficulties while using these services, please contact the Webmaster. If you are unable to find the information you need through the resources provided on this web site, please contact the Division of Corporations, UCC & Commissions Reporting and Information Section at 207-624-7752 or e-mail.

© Department of the Secretary of State

SECTION 5

PROJECT NARRATIVE

Section 5 – Project Narrative

Zoning:	Farm (F) and Retirement Community + Care Facility Overlay (RCCF)
Acreage:	21.43 Acres
Tax Map/Lot:	Map 6 Lot 33-F
Existing Use:	Vacant Land
Proposed Use:	Retirement Community and Country Subdivision

The proposed project includes dividing the property into two parcels. Lot 1 is 15.31 acres and is proposed to be developed as a Retirement Community with 30 detached dwelling units. Lot 2 is 6.12 acres and is intended for residential use in conformance with the standards of a Country Subdivision lot.

The Legacy Village Retirement Community will consist of 30 units of detached housing on a private access driveway extending approximately 1,100 feet from Webb Road. Each dwelling unit will have dedicated driveway parking for 2 vehicles and an attached garage for an additional vehicle parking space. Six common parking spaces will be provided for temporary overflow parking. Sidewalks will be constructed along the new access drive. A common on-site wastewater disposal system will be constructed for the development that can accommodate a design flow for up to 45 bedrooms. We have designed the Retirement Community to allow for a potential expansion in the future, subject to review and approval by the Town and other agencies having jurisdiction over the development.

The project includes the construction of approximately 1,000 feet of public water main in the Webb Road right-of-way that will connect to the existing water main in Gray Road. The water main extension will be reviewed and approved by the Portland Water District.

SECTION 6

NAMES AND ADDRESSES OF ABUTTING PROPERTY OWNERS

Section 6 – Names and Addresses of Abutting Property Owners

The following is a list of direct abutters to the development parcel

Map/Lot	Owner Name	Mailing Address
6/33	Brandon Nelson Tanya Nelson	15 Read Road Windham, ME 04062
6/33-E	Layne Neubauer Hannah Neubauer	19 Read Road Windham, ME 04062
6/33-D	Aaron Garrard Sierra Marin	11 Read Road Windham, ME 04062
6/33-C	Matthew Cook Christine Cook	7 Read Road Windham, ME 04062
6/35-1	Benjamin Bragdon Jennifer Bragdon	1 Read Road Windham, ME 04062
6/33-B	Central Maine Power Company	One City Center, 5th Floor Portland, ME 04101
9/89	Allison Krzanowski	60 Webb Road Windham, ME 04062

SECTION 7

RIGHT, TITLE OR INTEREST DOCUMENTS

Section 7 – Right, Title or Interest Documents

The applicant is the owner of the property, and we have attached the following deeds that have resulted in the current lot configuration. The first two deeds conveyed Lot 1 and Lot 2 to Robie Holdings, LLC and Robie Contracting, Inc. (respectively) as depicted on the Boundary Survey & Lot Division Plan prepared by Main-Land Development Consultants for Bill Andrew which is included as Sheet 2 in the plan set. The second two deeds swapped land between the two parcels to create Tax Lots 33-E and 33-F as they are currently configured.

- CCRD Book 41401, Page 225 to convey "Lot 2" from Irene T. Andrew to Robie Holdings LLC
- CCRD Book 41401, Page 260 to convey "Lot 1" from Irene T. Andrew to Robie Contracting, Inc.
- CCRD Book 41512, Page 317 to convey a portion of "Lot 2" to Robie Contracting, Inc.
- CCRD Book 41520, Page 17 to convey a portion of "Lot 1" to Robie Holdings, LLC

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED
Statutory Short Form

DLN: 2625807

KNOW ALL BY THESE PRESENTS, That **I, Irene T. Andrew**, whose mailing address is **50 New Portland Road, Gorham, ME 04038**, for consideration paid, grant to **Robie Holdings LLC**, a Maine Limited Liability Company, whose mailing address is **PO Box 1508, Windham, ME 04062,** with Warranty Covenants, the real property in the Town of **Windham**, County of **Cumberland** and State of **Maine**, more particularly described as follows:

A certain lot or parcel of land, situated on the southeasterly side of Read Road, so called, and the southwesterly side of Webb Road, so called, in the Town of Windham, County of Cumberland, and State of Maine, being shown as "Lot 2" on a plan titled "Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew" prepared by Main-Land Development Consultants, Inc., Project No. 24-387 dated April 8, 2024 (revised through April 17, 2025), hereafter referred to as the "2025 Main-Land Plan", and being more particularly described as follows:

Beginning on the assumed southwesterly sideline of Webb Road, so called, at the southeasterly corner of "Lot 1" shown on the 2025 Main-Land Plan, being located N 37°28'56" W, 226.35 feet from a #8 rebar found at the southeasterly corner of land now or formerly of Allison Krzanowski (Book 38971, Page 21);

Thence S 37°28'56" E, 52.58 feet to the northeasterly corner of said Krzanowski, being located S 34°30'29" W, 3.02 feet from a 3/4" iron rod found;

Thence along land now or formerly of said Krzanowski the following courses:

1. S 34°30'29" W, 187.16 feet to a #8 rebar found at the northwesterly corner of said Krzanowski;

2. S 36°43'15" E, 175.61 feet to a #8 rebar found at the southwesterly corner of said Krzanowski;

3. N 34°12'04" E, 189.95 feet to a #8 rebar found on the assumed southwesterly sideline of Webb Road at the southeasterly corner of said Krzanowski;

Thence S 35°34'07" E, 333.05 feet along the assumed southwesterly sideline of said Webb Road to the northwesterly line of a Central Maine Power Company Transmission Corridor (Book 3024, Page 859);

Thence S 34°21'48" W, 1,341.04 feet along the northwesterly line of said Central Maine Power Company to the southeasterly corner of land now or formerly of Benjamin S. & Jennifer L. Bragdon (Book 37214, Page 191) and a stonewall, being further located N 34°21'48" E, 154.96 feet from a capped #5 rebar (PLS #408) at the southwesterly corner of said Bragdon;

Thence N 35°31'46" W, 659.86 feet along the northeasterly line of said Bragdon, following a stonewall, to a capped #5 rebar (PLS #1076) found at the southwesterly corner of land now or formerly of Christine & Matthew Cook (Book 31972, Page 65);

Thence along land now or formerly of said Cook the following courses:

1. N 30°47'44" E, 336.49 feet;

2. N 57°58'42" W, 323.62 feet to a capped #5 rebar (PLS #1076) found on the assumed southeasterly sideline of Read Road, so called, at the northeasterly corner of said Cook;

Thence N 32°01'20" E, 60.00 feet along the assumed southeasterly sideline of said Read Road to a capped #5 rebar (PLS #1076) found at the northwesterly corner of land now or formerly of Micah F. (Jr.) & Bridget Sawyer (Book 35294, Page 20);

Thence along land now or formerly of said Sawyer the following courses:

1. S 57°58'42" E, 396.49 feet;

2. N 32°01'18" E, 220.00 feet;

3. N 57°58'42" W, 146.44 feet to the southwesterly corner of land to be retained by the grantor herein (Book 39341, Page 33), being shown as "Remaining Land of Andrew" on the 2025 Main-Land Plan, being further located S 57°58'42" E, 250.05 feet from a capped #5 rebar (PLS #1076) found at the northeasterly corner of land now or formerly of said Sawyer;

Thence along said retained land of the grantor the following courses:

1. N 33°09'27" E, 325.04 feet to the southeasterly corner of said retained land;

2. N 56°50'33" W, 250.00 feet to the northeasterly corner of said retained land and the assumed southeasterly sideline of Read Road, being further located N 33°09'27" E, 330.00 feet from said capped #5 rebar (PLS #1076) found at the northeasterly corner of said Sawyer;

Thence N 33°09'27" E, 314.40 feet along the assumed sontheasterly sideline of Read Road to the northwesterly corner of "Lot 1" shown on the 2025 Main-Land Plan;

Thence along said Lot 1 the following courses:

1. S 42°29'04" E, 473.03 feet to the southwesterly corner of said Lot 1;

2. N 34°30'29" E, 160.00 feet to the Point of Beginning.

Containing 930,307 ft2 (21.36 Acres), more or less.

Reference is made to MRSA 30-A sec 4402.4.A.(1).

Meaning and intending to convey and conveying a portion of the real property described in a deed to John S. Andrew and Irene T. Andrew, as joint tenants, dated March 25, 2022 and recorded in the Cumberland County Registry of Deeds at Book 39341, Page 33. John S. Andrew passed away on October 16, 2024 leaving Irene T. Andrew as the surviving joint tenant.

DOC :13895 BK:41401 PG:227
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
04/24/2025, 01:21:30P
Register of Deeds Jessica M. Spaulding E-RECORDED

Witness my hand and seal this 23rd day of April, 2025.

Witness:

_____

Irene T. Andrew

STATE OF **MAINE**
COUNTY OF **CUMBERLAND**, ss. April 23, 2025

Personally appeared on the above date, the above-named **Irene T. Andrew** and acknowledged the foregoing instrument to be her free act and deed.

Christopher J. McLain
Notary Public, Maine
My Commission Expires
November 10, 2026

Before me,

_____
Notary Public/Attorney at Law
Print name:
Exp: _____

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED
Statutory Short Form

DLN: 2640143

KNOW ALL BY THESE PRESENTS, That **I, Irene T. Andrew**, whose mailing address is **50 New Portland Road, Gorham, ME 04038**, for consideration paid, grant to **Robie Contracting, Inc.**, a Maine Corporation whose mailing address is **PO Box 1508, Windham, ME 04062,** with Warranty Covenants, the real property in the Town of **Windham**, County of **Cumberland** and State of **Maine**, more particularly described as follows:

A certain lot or parcel of land, situated on the southeasterly side of Read Road, so called, and the southwesterly side of Webb Road, so called, in the Town of Windham, County of Cumberland, and State of Maine, being shown as "Lot 1" on a plan titled "Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew" prepared by Main-Land Development Consultants, Inc., Project No. 24-387 dated April 8, 2024 (revised through April 17, 2025), hereafter referred to as the "2025 Main-Land Plan", and being more particularly described as follows:

Beginning on the assumed southeasterly sideline of Read Road, so called, at the northeasterly corner of "Lot 2" shown on the 2025 Main-Land Plan, being further located N 33°09'27" E, 644.40 feet from a capped #5 rebar (PLS #1076) found at the northeasterly corner of land now or formerly of Micah F. Sawyer, Jr. & Bridget Sawyer (Book 35294, Page 20);

Thence N 33°09'27" E, 205.00 feet along the assumed southeasterly line of said Read Road to its intersection with the assumed southwesterly line of Webb Road, so called;

Thence S 37°28'56" E, 489.72 feet along the assumed southwesterly line of said Webb Road to a corner in said "Lot 2" being located N 37°28'56" W, 52.58 feet from the northeasterly corner of land now or formerly of Allison Krzanowski (Book 38971, Page 21), and further located N 37°28'56" W, 226.35 feet from a #8 rebar found at the southeasterly corner of said Krzanowski;

Thence along said "Lot 2" and through land of the grantor herein (Book 39341, Page 33), the following courses:

1. S 34°30'29" W, 160.00 feet;

2. N 42°29'04" W, 473.03 feet to the Point of Beginning.

Containing 84,230 ft2 (1.93 Acres), more or less.

Reference is made to MRSA 30-A sec 4402.4.A.(1).

Meaning and intending to convey and conveying a portion of the real property described in a deed to John S. Andrew and Irene T. Andrew, as joint tenants, dated March 25, 2022 and recorded in the Cumberland County Registry of Deeds at Book 39341, Page 33. John S. Andrew passed away on October 16, 2024 leaving Irene T. Andrew as the surviving joint tenant.

DOC :13903 BK:41401 PG:261
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
04/24/2025, 01:40:29P
Register of Deeds Jessica M. Spaulding E-RECORDED

Witness my hand and seal this 23rd day of April, 2025.

Witness:

_____

Irene T. Andrew

STATE OF **MAINE**
COUNTY OF **CUMBERLAND**, ss. April 23, 2025

Personally appeared on the above date, the above-named **Irene T. Andrew** and acknowledged the foregoing instrument to be her free act and deed.

Before me,

Christopher J. McLain
Notary Public, Maine
My Commission Expires
November 10, 2026

Notary Public/Attorney at Law
Print name:
Exp: _____

(1)

Warranty Deed
(Maine Statutory Short Form)

DLN: 2918836

KNOW ALL PERSONS BY THESE PRESENTS THAT, Robie Holdings, LLC, a Maine Limited Liability Company, with a mailing address of PO BOX 1508, Windham, Maine 04062, for valuable consideration paid, by **Robie Contracting, Inc.,** a Maine Corporation with a mailing address of PO BOX 1508, Windham, Maine 04062, the receipt and sufficiency whereof is hereby acknowledged, does hereby GRANT, unto the said **Robie Contracting Inc.,** a Maine Corporation, with ***WARRANTY COVENANTS***, a certain lot or parcel of real property, with the buildings thereon, 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 and hereby conveying a portion of the premises conveyed to Robie Holdings LLC dated April 23, 2025 and recorded in Book 41401, Page 225 with the Cumberland County Registry of Deeds.

In Witness Whereof, Jarod Robie the Sole Member of Robie Holdings, LLC has caused this instrument to be signed and sealed this 12 day of June, 2025.

Robie Holdings, LLC

WITNESS

By: Jarod Robie
Its: Sole Member

STATE OF Maine
COUNTY OF CUMBERLAND, ss.

Personally appeared before me on this 12 day of June 2025, the above Jarod Robie, Sole Member of Robie Holdings, LLC and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said Robie Holdings, LLC.

Notary Public/Attorney At Law

Kerry E. Kimball
State of Maine
Attorney At Law
Bar #8577

Print Name

DOC :21080 BK:41512 PG:318
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
06/16/2025, 08:24:28A
Register of Deeds Jessica M. Spaulding E-RECORDED

(1)

EXHIBIT A

A certain lot or parcel of land, situated on the southeasterly side of Read Road, so called, in the Town of Windham, County of Cumberland, and State of Maine, being a portion of "Lot 2" as shown on a plan titled *"Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew"* prepared by Main-Land Development Consultants, Inc., Project No. 24-387 dated April 8, 2024 (revised through April 17, 2025), hereafter referred to as the ***"2025 Main-Land Plan"***, and being more particularly described as follows:

Beginning on the assumed southeasterly sideline of Read Road, so called, at the northeasterly corner of "Remaining Land of Andrew" shown on the ***2025 Main-Land Plan***, now or formerly owned by Irene T. Andrew (Book 39341, Page 33), being also a corner of "Lot 2" shown on said plan, owned by the grantor herein (Book 41401, Page 225), and being further located N 33°09'27" E, 330.00 feet from a capped #5 rebar (PLS #1076) found at the northeasterly corner of land now or formerly of Micah F. Sawyer, Jr. & Bridget Sawyer (Book 35294, Page 20);
Thence N 33°09'27" E, 314.40 feet along said Read Road to the northwesterly corner of "Lot 1" shown on the ***2025 Main-Land Plan***, now or formerly owned by Robie Contracting, Inc. (Book 41401, Page 260), and the northeasterly corner of said Lot 2;
Thence S 42°29'04" E, 167.84 feet along the common boundary between Lot 1 and Lot 2 to a point;
Thence S 29°53'02" W, 273.22 feet, passing through said Lot 2, to a point on the northeasterly line of said Remaining Land of Andrew;
Thence N 56°50'33" W, 178.20 feet along said Remaining Land of Andrew to the **Point of Beginning.**

Containing 49,864 ft^2 (1.15 Acres), more or less.

Being a portion of "Lot 2" shown on the ***2025 Main-Land Plan***, and described in Warranty Deed from Irene T. Andrew to Robie Holdings LLC dated April 23, 2025 and recorded in Book 41401, Page 225.

All Book & Page numbers listed above refer to the Cumberland County Registry of Deeds.

All bearings are oriented to Grid North, U.S. State Plane Coordinate System, Maine West Zone, NAD83 as shown on a plan titled *"Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew"* prepared by Main-Land Development Consultants, Inc., Project No. 24-387 dated April 8, 2024 (revised through April 17, 2025).

Warranty Deed
(Maine Statutory Short Form)

DLN: 2870481

KNOW ALL PERSONS BY THESE PRESENTS THAT, Robie Contracting, Inc., a Maine Corporation, with a mailing address of PO BOX 1508, Windham, Maine 04062, for valuable consideration paid, by **Robie Holdings, LLC,** a Maine Limited Liability Company, with a mailing address of PO BOX 1508, Windham, Maine 04062, the receipt and sufficiency whereof is hereby acknowledged, does hereby GRANT, unto the said **Robie Holdings, LLC,** a Maine Limited Liability Company with ***WARRANTY COVENANTS***, a certain lot or parcel of real property, with the buildings thereon, 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 and hereby conveying a portion of the premises conveyed to Robie Contracting, Inc. by deed dated April 23, 2025 and recorded in Book 41401, Page 260.

In Witness Whereof, Jarod Robie the President of Robie Contracting, Inc. has caused this instrument to be signed and sealed this 12 day of June, 2025.

Robie Contracting, Inc.

WITNESS

By: Jarod Robie
Its: President

STATE OF Maine
COUNTY OF CUMBERLAND, ss.

Personally appeared before me on this 12 day of June, 2025 the above Jarod Robie, President of Robie Contracting, Inc. and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said Robie Contracting, Inc.

Notary Public/Attorney At Law

Kerry E. Kimball
State of Maine
Attorney At Law
Bar #8577

Print Name

DOC :21607 BK:41520 PG:18
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
06/18/2025, 09:21:18A
Register of Deeds Jessica M. Spaulding E-RECORDED

(3)

EXHIBIT A

A certain lot or parcel of land, situated on the southwesterly side of Webb Road, so called, in the Town of Windham, County of Cumberland, and State of Maine, being a portion of "Lot 1" as shown on a plan titled "Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew" prepared by Main-Land Development Consultants, Inc., Project No. 24 387 dated April 8, 2024 (revised through April 17, 2025), hereafter referred to as the "2025 Main-Land Plan", and being more particularly described as follows:

Beginning on the assumed southwesterly sideline of Webb Road, so called, at the southeasterly corner of "Lot 1" shown on the 2025 Main-Land Plan, owned by the grantor herein (Book 41401, Page 260), being also a corner of "Lot 2" shown on said plan, now or formerly owned by Robie Holdings LLC (Book 41401, Page 225);

Thence along the common boundary between said Lot 1 and Lot 2 the following courses:

1. S 34°30'29" W, 160.00 feet to the southwesterly corner of Lot 1;
2. N 42°29'04" W, 305.19 feet to a point;

Thence N 29°53'02" E, 193.69, passing through said Lot 1 and land of the grantor herein, to the southwesterly sideline of said Webb Road;

Thence S 37°28'56" E, 329.10 feet to the Point of Beginning.

Containing 53,206 ft2 (1.22 Acres), more or less.

Being a portion of "Lot 1" shown on the 2025 Main-Land Plan, and described in Warranty Deed from Irene T. Andrew to Robie Contracting, Inc. dated April 23, 2025 and recorded in Book 41401, Page 260.

All Book & Page numbers listed above refer to the Cumberland County Registry of Deeds.

All bearings are oriented to Grid North, U.S. State Plane Coordinate System, Maine West Zone, NAD83 as shown on a plan titled "Plan Showing a Standard Boundary & Proposed Lot Division – Land of Andrew" prepared by Main-Land Development Consultants, Inc., Project No. 24-387 dated April 8, 2024 (revised through April 17, 2025).

SECTION 8

EXISTING OR PROPOSED EASEMENTS OR COVENANTS

Section 8 – Existing or Proposed Easements or Covenants

The Legacy Village Retirement Community is is intended to be developed as a Condominium. A Condominium Declaration will be submitted with the Final Plan Application and will outline the rights and responsibilities of the Condominium Association and each unit owner.

Lot 2 is not intended to have any association with the Legacy Village Condominium.

We are not aware of any existing easements on the property.

SECTION 9

TECHNICAL CAPACITY OF THE APPLICANT

Section 9 – Technical Capacity of the Applicant

Robie Holdings LLC is the developer of the project. Jarod Robie is the principal owner of Robie Holdings LLC, and he has developed many single-family subdivisions and multi-family residential developments in Windham and the surrounding communities that included road construction, utility installation, lot development and building construction. Significant recent projects in Windham include Belvedere Commons, Kettle Estates, Dartmouth Place, Chamberlain Estates, Badger Run, Voyager Lane, Astral Village, Shepherd Lane and others.

DM Roma Consulting Engineers has been retained to perform Civil Engineering design and Land Permitting through the Town and State. The Licensed Professional Engineers at DM Roma have been designing land development projects for over 20 years and have extensive experience with Stormwater Management Design, Roadway and Utility engineering, Site grading, Erosion Control design, Engineering of on-site wastewater disposal systems, and regulatory permitting through local municipalities, the Maine Department of Environmental Protection, the Maine Department of Transportation, US Army Corps of Engineers and other affiliated agencies.

Main-Land Development Consultants has been retained to perform Land Surveying services and Engineered Wastewater Disposal System design and permitting services for the project. Main-Land Development Consultants employs licensed land surveyors, engineers, geologists, site evaluators and other associated design professionals.

Mainely Soils has been retained to perform wetlands delineation and soils analysis. Alex Finamore is experienced in septic system design, wetland delineation, soils analysis and environmental permitting.

Mark Hampton Associates has been retained to perform a Class-A High Intensity Soil Survey on the parcel. Mark is a Certified Soil Scientist and Licensed Site Evaluator in the State of Maine.

SECTION 10

CAPACITY OF EXISTING UTILITIES TO SERVE THE PROJECT

Section 10 – Capacity of Existing Utilities to Serve the Project

Potable Water – The project includes the construction of an 8-inch water main in Webb Road to serve the Retirement Community with public water. A water service will be installed off the new main to serve the 30 dwelling units in the retirement community. The Portland Water District will review our project plans for conformity with their construction standards. Lot 2 will be served by a new on-site private well.

Fire Protection Water – A new hydrant will be installed at the end of the 8" water main extension near the project's driveway entrance, and a private hydrant will be installed within the development to provide additional fire protection. We are not proposing to install sprinkler systems in the homes unless requested by the unit purchaser.

Electrical Service – Existing overhead power is available on Webb Road to serve the proposed development. Primary electrical service will be extended through the project underground and will connect to pad-mounted transformers. Secondary electrical service will be installed underground from the transformers to the dwellings.

Wastewater Disposal – There is no public sewer available to the property, so on-site wastewater disposal systems will be installed. The final design of the wastewater disposal system for the Retirement Community will be reviewed and approved by the Maine Department of Health and Human Services as an engineered system. Lot 2 will require an individual on-site private wastewater that can be approved by the Town.

Natural Gas – We anticipate each unit will require on-site bottled gas.

Storm Drainage – The project site generally drains southerly parallel to Webb Road and we are not proposing to alter the public drainage collection system within the public Right Of Way.

SECTION 11

SOLID WASTE DISPOSAL

Section 11 – Solid Waste Disposal

Tree clearing and stumping will be required. Tree stumps will be hauled off site by the site contractor and disposed in accordance with all applicable regulations, or ground on-site to create erosion control mix. Brush will be burned or chipped.

During construction of the buildings, temporary on-site dumpsters will be placed on the property and emptied by a licensed waste hauling company.

We intend to utilize the Town's curbside trash collection program for the disposal of household waste generated by the dwelling occupants.

We do not anticipate that the project will create any hazardous solid waste that will require special treatment.

SECTION 12

SITE LIGHTING

Section 12 – Site Lighting

Each dwelling will include the installation of exterior lighting that is mounted to the building to provide illumination of the sidewalks and driveways so that on-street lighting will not be required.

SECTION 13

SITE LANDSCAPING

Section 13 – Site Landscaping

The individual buildings will be landscaped with ornamental grasses, shrubs and perennials between the front entry porches adjacent to the foundations. Landscaping preference will be left to the individual unit owners to determine the amount of landscaping that is desired. Street trees are proposed to be installed on both sides of the street as indicated on the Site and Landscaping Plan.

SECTION 14

VEHICLE TRAFFIC

Section 14 – Vehicle Traffic

The Institute of Transportation Engineers(ITE) Trip Generation handbook (10th edition) estimates that single-family detached housing (Land Use Code #210) is expected to generate the following vehicle trips:

Weekday	= 9.44 trips per dwelling unit
AM Peak Hour	= 0.74 trips per dwelling unit
PM Peak Hour	= 0.99 trips per dwelling unit

Accordingly, the proposed lot 2 intended for single-family residential use can be expected to generate a total of 9 trips during a typical weekday, 1 trip in the morning peak hour and 1 trip in the evening peak hour.

The Institute of Transportation Engineers(ITE) Trip Generation handbook (10th edition) estimates that Senior Adult Housing – Single Family (Land Use Code #251) is expected to generate the following vehicle trips:

Weekday	= 4.31 trips per dwelling unit
AM Peak Hour	= 0.34 trips per dwelling unit
PM Peak Hour	= 0.39 trips per dwelling unit

Accordingly, the proposed 30 units of Senior Adult Housing can be expected to generate a total of 129 trips during a typical weekday, 10 trips in the morning peak hour and 12 trips in the evening peak hour.

The ITE Handbook also provides the following directional distribution rates for Senior Adult Housing – Single Family Use:

AM Peak Hour	= 43% enter site and 57% exit site
PM Peak Hour	= 56% enter site and 44% exit site

Based upon the above distribution patterns, 4 trips during the morning peak hour and 7 trips during the evening peak hour will enter the site. Accordingly, 6 trips during the morning peak hour and 5 trips during the evening peak hour will exit the site.

In summary, the combined project to create the single family house lot and 30-unit retirement community will generate 138 total daily vehicle trips, 11 trips in the morning peak hour and 13 trips in the evening peak hour.

SECTION 15

IMPACT TO IMPORTANT OR UNIQUE NATURAL AREAS

Section 15 – Impact to Important or Unique Natural Areas

The attached letter and map provided from the Maine Department of Inland Fisheries and Wildlife indicates that there are no significant wildlife habitats located within the vicinity of the proposed development. The attached letter from the Maine Natural Areas Program indicates that there are no rare or threatened botanical species documented in the project area.

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

July 25, 2025

J.P. Connolly
DM Roma Consulting Engineers
2 Main Street, Suite 18-128
Biddeford, ME 04005

RE: Information Request - 15 Read Road, Development, Windham Project ID 9051-10481

Dear J.P.:

Per your request received on April 3, 2025, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the ***15 Read Road, Development, Windham*** project, pursuant to MDIFW's authority. MDIFW understands the project proposes a residential development of unspecified size with associated road, utilities, and stormwater infrastructure. For the purposes of this review, MDIFW presumes tree clearing and/or trimming would occur. Please note that as project details are lacking, our comments should be considered preliminary.

Our Department has not mapped any Essential Habitats that would be affected by this project.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Bat Species
Of the eight species of bats that occur in Maine, four species are afforded protection under Maine's Endangered Species Act (MESA, 12 M.R.S 12801 et. seq.): little brown bat (State Endangered), northern long-eared bat (State Endangered), eastern small-footed bat (State Threatened), and tri-colored bat (State Threatened). The four remaining bat species are designated as Species of Special Concern: big brown bat, red bat, hoary bat, and silver-haired bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during spring/fall migration, the summer breeding season, and/or for overwintering. However, our Department does not anticipate significant impacts to any of the bat species as a result of this project.

SIGNIFICANT WILDLIFE HABITAT

Significant Vernal Pools
At this time MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on

MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. We recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Department for review well before the submission of any necessary permits. MDIFW will need to review and verify any vernal pool data prior to final determination of significance.

AQUATIC RESOURCES

Fish Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e., natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fisheries and aquatic habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource and regulatory agencies including the Maine Natural Areas Program and the Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

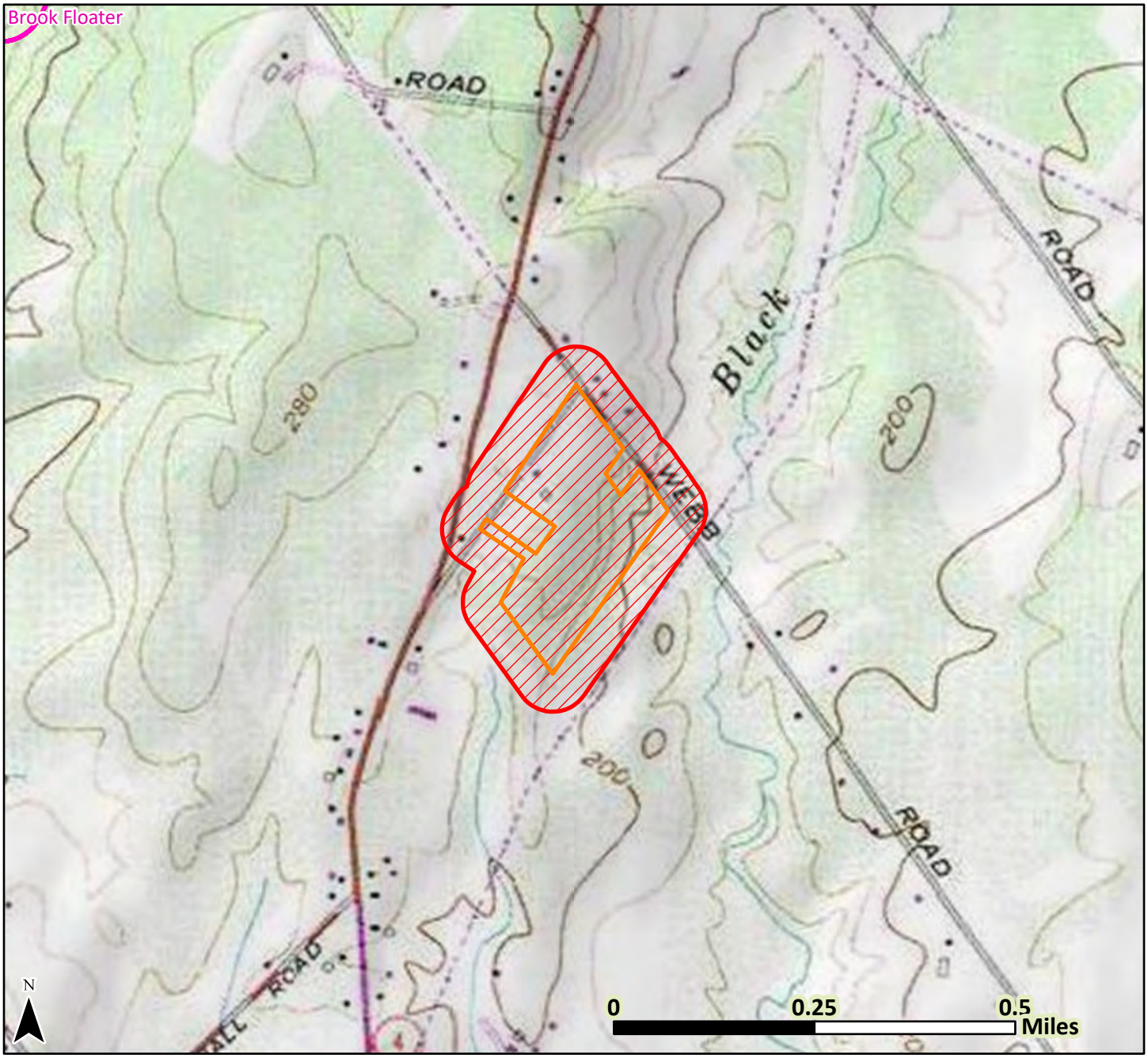


Andrew J. Wood
Environmental Review Coordinator

Maine Department of Inland Fisheries and Wildlife
Project Area Review of Fish and Wildlife Observations and Priority Habitats

15 Read Road, Development, Windham

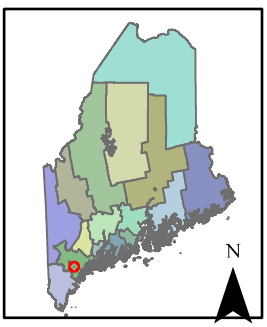
Project ID 9051, Version ID 10481



Legend only lists resources visible in the map; see response letter for all resources that were evaluated.

- County Boundary
- Township Boundary
- Project Footprint
- Search Area
- E, T, & SC Species

Date: 4/8/2025
UTM Zone 19N, NAD83



This map contains sensitive information - do not distribute it beyond the project applicant, consultant, or the permitting agency.

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

April 7, 2025

JP Connolly
DM Roma
PO Box 1116
Windham, ME 04062

Via email: jp@dmroma.com

Re: Rare and exemplary botanical features in proximity to: #25007, Webb Road Subdivision, Map 6 Lot 33, Windham, Maine

Dear JP Connolly:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received April 3, 2025 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Windham, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: #25007, Webb Road Subdivision, Map 6 Lot 33, Windham, ME

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Broad Beech Fern						
	SC	S2	G5	1872-08	15	Hardwood to mixed forest (forest, upland)
Clothed Sedge						
	E	S1	G5	2000-06-06	5	Dry barrens (partly forested, upland)
Columbian Watermeal						
	SC	S2	G5	2016-09-12	11	Open water (non-forested, wetland)
Ebony Spleenwort						
	SC	S2	G5	1910-06-06	10	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Engelmann's Spikerush						
	PE	SH	G4G5	1916-08-31	2	Open wetland, not coastal nor rivershore (non-forested, wetland)
Fern-leaved False Foxglove						
	SC	S3	G5	1902-09-02	13	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Great Blue Lobelia						
	PE	SX	G5	1905-09	3	Forested wetland,Non-tidal rivershore (non-forested, seasonally wet)

Hollow Joe-pye Weed					
SC	S2	G5	2011-10-22	22	Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
Horned Pondweed					
SC	S2	G5	1913-09-13	9	Tidal wetland (non-forested, wetland)
Marsh Milkwort					
PE	SH	G5T4	1903-08-18	1	Dry barrens (partly forested, upland),Open wetland, not coastal nor rivershore (non-forested, wetland)
Missouri Rockcress					
T	S1	G5	1905-06-11	5	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Mountain Honeysuckle					
E	S2	G5	2007-10-05	11	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Pitch Pine Woodland					
	S3	G2	2005-12-08	28	
Scarlet Oak					
E	S1	G5	1916-08	2	Hardwood to mixed forest (forest, upland)
Small Whorled Pogonia					
E	S2	G2G3	2018-06-15	18	Hardwood to mixed forest (forest, upland)

Spicebush					
SC	S3	G5	2006-06-11	11	Forested wetland
Spo ed Pondweed					
T	S1	G5	2016-06-22	3	Open water (non-forested, wetland)
Vasey's Pondweed					
SC	S2	G4	1901-08-04	7	Open water (non-forested, wetland)

Date Exported: 2025-04-07

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 **G1**	**Critically Imperiled** – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 **G2**	**Imperiled** – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 **G3**	**Vulnerable** – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 **G4**	**Apparently Secure** – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 **G5**	**Secure** – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX **GX**	**Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH **GH**	**Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery.
S#S# **G#G#**	**Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU **GU**	**Unrankable** – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR **SNR**	**Unranked** – Global or subnational conservation status not yet assessed.
SNA **GNA**	**Not Applicable** – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems.
Qualifier	**Definition**
S#? **G#?**	**Inexact Numeric Rank** – Denotes inexact numeric rank.
Q	**Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier is only used at a global level.
T#	**Infraspecific Taxon (trinomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	**Endangered** – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	**Threatened** – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	**Special Concern** – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	**Potentially Extirpated** – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	**Excellent** – Excellent estimated viability/ecological integrity.
B	**Good** – Good estimated viability/ecological integrity.
C	**Fair** – Fair estimated viability/ecological integrity.
D	**Poor** – Poor estimated viability/ecological integrity.
E	**Extant** – Verified extant, but viability/ecological integrity not assessed.
H	**Historical** – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	**Extirpated** – Documented loss of population/destruction of habitat.
U	**Unrankable** – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	**Not Ranked** – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
http://www.maine.gov/dacf/mnap

SECTION 16

STORMWATER MANAGEMENT

DM ROMA
CONSULTING ENGINEERS

STORMWATER MANAGEMENT REPORT

LEGACY VILLAGE RETIREMENT COMMUNITY
WINDHAM, MAINE

A. Narrative

Robie Holdings, LLC, the applicant and landowner, is proposing to develop a 15.3-acre parcel on Webb Road in Windham, Maine, better identified as part of Lot 33 on the Town of Windham Assessor's Map 6.

The applicant is proposing a 30 single family unit retirement condominium. The development will also include the construction of approximately 1,080 linear feet of roadway with associated paved driveways and parking area. The units will be served by public water, shared subsurface wastewater disposal fields and underground electric, telephone and cable.

B. Existing Conditions

The project site consists of both undeveloped meadow and woodland. The project site contains a variety of land slopes. The land along the top of the ridge, center and northern portion of the site, is moderately sloped (2% to 6%) with steeper land downhill of the ridge (9% to 20%). A Class A High Intensity Soil Report and Map were prepared by Mark Hampton Associates, Inc. and utilized in the stormwater analysis. Soils data utilized outside the limits of the soils investigation was provided by the Medium Intensity Soils Map for Cumberland County, Maine published by the Natural Resource Conservation Service. The soil type boundaries with associated Hydrologic Soils Groups (HSG) are shown on the watershed maps and the resultant High Intensity Soil Survey Narrative and the Medium Intensity Soils Map have been included as Attachment 1 of this report.

In general, the property drains across the property to the south and the east. Land in the western portion of the site drains easterly across the eastern property boundary in the direction of a utility corridor. Flow generally continues across the utility corridor, eventually discharging into Black Brook. Flow generated by the southern portion of the site drains across the southern property boundary and is collected in an unnamed stream that flows southerly, draining across the same utility corridor and then conveyed beneath Barnes Road. Once the stream exits the neighborhood, it is then collected in Black Brook. Black Brook is then conveyed below River Road and ultimately discharging to the Presumpscot River. The site's downstream waterbodies are not identified by the Maine Department of Environmental Protection (MDEP) as Urban Impaired Streams in Chapter 502.

C. Alterations to Land Cover

Based on the proposed roadway and unit related development, the project will generate approximately 96,525 square feet (2.22 acres) of impervious surfaces. The project will also generate approximately 225,780 square feet (5.18 acres) of lawn, landscaping, and best management practices, resulting in a total project developed area of 322,305 square feet (7.40 acres).

Since the project will result in the construction of over one (1) acre of impervious surface and over five (5) acres of developed area, the project will be required to obtain a Stormwater Permit from the MDEP. In addition, the project will require Subdivision approval from the Town of Windham. As part of the requirements of the regulatory review, the project will need to meet the Basic, General and Fooding Standards of the MDEP Chapter 500 Stormwater Management regulations. The review of both permits will be performed by the Town of Windham as the Town has Municipal Capacity to review the Stormwater Permit on behalf of the MDEP.

D. Methodology and Modeling Assumptions

The proposed stormwater management system has been designed utilizing Best Management Practices to maintain existing drainage patterns while providing stormwater quality improvement measures. The goal of the storm drainage system design is to remove potential stormwater pollutants from runoff generated by the development while providing attenuation of the peak rates of runoff leaving the site. The method utilized to predict the surface water runoff rates in this analysis is a computer program entitled HydroCAD, which is based on the same methods that were originally developed by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, and utilized in the TR-20 modeling program. Peak rates of runoff are forecasted based upon land use, hydrologic soil conditions, vegetative cover, contributing watershed area, time of concentration, rainfall data, storage volumes of detention basins and the hydraulic capacity of structures. The computer model predicts the amount of runoff as a function of time, with the ability to include the attenuation effect due to dams, lakes, large wetlands, floodplains, and constructed stormwater management basins. The input data for rainfalls with statistical recurrence frequencies of 10 years and 25 years was obtained from Appendix H of the MDEP, Chapter 500 Stormwater Management, last revised in 2015. The National Weather Service developed four synthetic storm types to simulate rainfall patterns around the country. For analysis in Cumberland County, Maine, the type III rainfall pattern with a 24-hour duration is appropriate.

E. Basic Standards

The project is required by the Town and MDEP to provide permanent and temporary Erosion Control Best Management Practices. These methods are outlined in detail in the plan set.

F. General Standard

The proposed project is required to meet the General Standard outlined in the MDEP Chapter 500 to provide water quality treatment for portions of the site development. Based on the calculation provided in Section 4C(2)(a) of Chapter 500 related to the amount of the property being developed and its corresponding treatment standards in Table 1 in Chapter 500, the project will require the treatment of more than 90% of the site's impervious area and more than 75% of the total developed area. This calculation is included as Attachment 2 of this report. The General Standard will be met by incorporating the construction of three (3) underdrained filter basins into the project's stormwater infrastructure, in addition to roofline drip edges installed around each of the buildings to provide the required treatment for the rooftops.

As a result of the proposed stormwater infrastructure, treatment is provided for over 98% of the project's impervious surface and over 75% of the site's developed area. Calculations can be found as Attachment 2 in this report.

Included as Attachment 3 of this report are the sizing calculations for the proposed underdrained filter basins. These calculations include:

- Storage Volume and Basin Floor surface area meeting *Chapter 7.1 Grassed Underdrained Soil Filter BMP* sizing criteria included in Volume III. BMP Technical Design Manual prepared by the MDEP.
- Sediment pre-treatment calculations
- Spillway sizing calculations demonstrating one foot of freeboard to the top of berm during the 25-year storm event assuming failure of the other discharge devices.
- Hydrograph tables demonstrating the outlet controls to release the stormwater from the basin between 24 and 48 hours.
- Sizing calculations for the level spreaders located at the outfall of the discharge pipe from the basins meeting the sizing standards identified in *Section G(4) Level Spreaders* in Maine Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers prepared by the MDEP.

The locations and construction detail of the proposed roofline dripedges have been included within the construction details sheets and the sizing calculations to meet *Chapter 7.5 Roof Dripline Filters* sizing criteria included in Volume III. BMP Technical Design Manual prepared by the MDEP have been included as Attachment 4 of this report.

G. Flooding Standard

The project is required to meet the Town of Windham's stormwater design standards indicating the project must detain, retain, or result in the infiltration of stormwater from the 24-hour storms of the 2-year, 10-year and 25-year frequencies such that the peak flows of stormwater generated by the project site do not exceed the peak flows of stormwater prior to undertaking the project. To maintain the existing flow rates, the site design will include three (3) grassed underdrained filter basins integrated into the project's stormwater infrastructure. To demonstrate compliance with the Flooding Standard, three (3) study points were analyzed.

Study Point 1 ("SP1") represents where flow, generated by on and off-site sources, drains easterly, parallel to Webb Road, and crosses the property line toward the single-family house located along Webb Road. This study point was of greatest importance to ensure there is no flooding concerns of the developed abutter's property.

Study Point 2 ("SP2") represents flow that is generated on-site that crosses the eastern property boundary. This flow then continues to the abutting utility corridor.

Study Point 3 ("SP3") represents the location where flow, generated by on and off-site sources, crosses the southerly property boundary. This flow enters an undeveloped woodland.

The results of the stormwater model incorporating the stormwater detention best management practices are summarized in Table 1:

Table 1 – Peak Rates of Stormwater Runoff						
Study Point	2-Year (cfs)		10-Year (cfs)		25-Year (cfs)	
	Pre	Post	Pre	Post	Pre	Post
SP-1	1.26	0.57	2.93	2.45	5.28	4.33
SP-2	4.07	2.74	10.08	9.97	15.61	15.57
SP-3	2.34	1.60	5.66	4.79	8.68	8.65

As illustrated in Table 1, the proposed project's design, including the integration of the proposed BMPs, reduces the peak rates of runoff at all study points in all the modeled storm events. The primary concern of the project's stormwater analysis was at Study Point 1. Due to re-directing the majority of the project's development away from this property and into Underdrained Filter Basin FB-1, there is a significant decrease in each storm event tributary to the existing single-family lot.

The watershed maps showing pre-development and post-development drainage patterns are included in the plan set and the computations performed with the HydroCAD software program are included as Attachment 5 of this report.

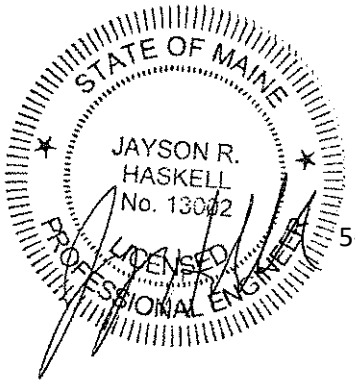
H. Maintenance of common facilities or property

The applicant will be responsible for the maintenance of the stormwater facilities until a condominium association is created. The responsibility will then be conveyed to the association. An Inspection, Maintenance and Housekeeping Plan for the project has been created and has been included as Attachment 6 of this report.

Prepared by:

DM ROMA CONSULTING ENGINEERS

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



5-18-2026

ATTACHMENT 1

CLASS A – HIGH INTENSITY SOIL SURVEY REPORT & MEDIUM INTENSITY SOILS SURVEY MAP

MARK HAMPTON ASSOCIATES, INC.
SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Soil Narrative Report

DATE:	Soil Profiles observed on July 12, 2025
BASE MAP:	Base plan prepared by DM Roma Consulting Engineers. Scale 1-inch equals 60 feet and two-foot contours.
GROUND CONTROL:	Soil survey boundaries located by Mark Hampton Associates, Inc. for Class A Soil Survey

Class A-High Intensity Soil Survey (Minimum Standards)

Mapping units of 1/8 acre or larger.
Scale of 1"= 100 feet or larger.
Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils.
Ground Control – test pits located under direction of professional land surveyor or professional engineer.
Base Map –2 foot contour intervals

Provided:

Mapping units of 1/8 acre or larger
Base map scale of 1"= 60 feet.
Up to 25 percent inclusions in mapping units of which no more than 15 percent is dissimilar soils.
Baseline information and test pits located by pacing and taping from know survey control points.
Ground topographic survey with one-foot contours and ground control provided.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

The accompanying soil profile descriptions, soil map, and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.

C.S.S. #216, L.S.E. #263 January 14, 2025

Mark J. Hampton Date

STATE OF MAINE
MARK J. HAMPTON
#216
CERTIFIED SOIL SCIENTIST

MARK HAMPTON ASSOCIATES, INC.
SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Dixfield
(Aquic Haplorthods)

SETTING

PARENT MATERIAL:	Derived from compact loamy glacial till.
LANDFORM:	Till plains, hills and ridges.
POSITION IN LANDSCAPE:	Plains and middle levels.
SLOPE GRADIENT RANGES:	(A) 0-3%, (B) 3-8%, (C) 8-15%, (D) 15-25%, (E) >25%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Moderately well drained with a perched watertable from 1.0 to 2.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark brown, stony sandy loam, 0-7"
Subsurface Layer:	Brown, sandy loam, 7-20"
Subsoil Layer:	Olive brown, stony sandy loam 16-31"
Substratum:	Olive gray, stony sandy loam, 25-65"

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderately Rapid
PERMEABILITY:	Moderate in solum, slow in substratum
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS

(Within Mapping Unit)

CONTRASTING: Brayton, Colonel, Lamoine, Scantic

USE AND MANAGEMENT

Development: There are few limiting factors for building site development



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SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Colonel
(Aquic Haplorthods)

SETTING

PARENT MATERIAL:	Derived from dense, loamy glacial till
LANDFORM:	Drumlins and Sideslopes of glaciated uplands
POSITION IN LANDSCAPE:	Mid-positions on landform
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Somewhat poorly drained with a perched watertable from 1.0 to 2.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dk gray brown, stony sandy loam 0-3"
Subsurface Layer:	Dark Brown, stony sandy loam, 3-12"
Subsoil Layer:	Olive Brown, stony sandy loam, 12-18"
Substratum:	Olive, stony, sandy loam, 18-65"

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Moderate and moderately slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None



INCLUSIONS

(Within Mapping Unit)

CONTRASTING: Dixfield, Brayton

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Lamoine
(Aeric Haplaquepts)

SETTING

PARENT MATERIAL:	Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM:	Coastal lowlands and river valleys
POSITION IN LANDSCAPE:	Intermediate positions on landform
SLOPE GRADIENT RANGES:	(B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Somewhat poorly drained with a perched watertable from 0.5 to 2.0 feet below the surface at some time from November to June or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark Brown, fine sandy loam 0-7"
Subsurface Layer:	Lt. Olive brown silt loam, 7-14"
Subsoil Layer:	Olive silty clay loam, 14-21"
Substratum:	Olive, silty clay loam, 21-65"

HYDROLOGIC GROUP:	Group D
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None



INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Dixfield, Scantic

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Scantic
(Aquic Haplorthod)

SETTING

PARENT MATERIAL:	Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM:	Coastal lowlands and river valleys
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark grayish brown, silt loam 0-9"
Subsurface Layer:	Olive gray silt loam, 9-16"
Substratum:	Gray silty clay loam, 16"+

HYDROLOGIC GROUP:	Group D
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Lamoine, Dixfield



USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Brayton
(Aeric Epiaquepts)

SETTING

PARENT MATERIAL:	Derived from dense glacial till
LANDFORM:	Toeslopes and depressions in glaciated uplands
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dk gray, fine sandy loam 0-5",
Subsurface Layer:	Gray fine sandy loam, 5-15",
Subsoil Layer:	Grayish brown fine sandy loam, 15-24"
Substratum:	Olive fine sandy loam, 24-65",

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Moderate and moderately slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Dixfield Colonel



USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of an extremely high watertable for a portion of the year. This soil is not suitable for development without alteration, which may require additional permitting.

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name: Webb Road Property | Applicant Name: Robie Holdings LLC | Project Location (municipality): Windham

Exploration Symbol # SS-1 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-2 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/A	Black	Sandy Loam	Weak Angular	Very Friable	
Eg	Gray	Sandy Loam	Sub Ang Blocky	Friable	Common and Distinct
BC	Olive Brown	Sandy Loam	Thin Platy	Firm	
Cd	Olive Gray	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Brayton

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-3 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Colonel

Limiting Factor: 12" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-4 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-5 ☐ Test Pit ☒ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18 " Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-6 ☐ Test Pit ☒ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 15 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-7 ☐ Test Pit ☒ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18 " Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-8 ☐ Test Pit ☒ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ Yes

Hydrologic Soil Group:

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FORM F (SS1) Rev. 7/21

SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name: Webb Road Property

Applicant Name: Robie Holdings LLC

Project Location (municipality): Windham

Exploration Symbol # SS-9

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-10

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Dark Brown	Silt Loam	Weak Angular	Very Friable	
Bw	Brown	Silt Loam	Sub Ang Blocky	Friable	
BC	Olive Brown	Silt Loam	Thin Platy	Firm	Common and Distinct
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Lamoine

Limiting Factor: 13" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☐ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-11

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Fine Grandul	Friable	
Eg	Gray	Silt Loam	Weak Sub Ang Blocky	Friable	Common and Distinct
Bg	Olive Brown	Silty Clay Loam	Thin Platy	Firm	
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-12

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Grand	Friable	
Eg	Gray	Silt Loam	Fine Grandul	Friable	
Bg	Olive Brown	Silty Clay Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Silty Clay Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 5" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MD ☐ SPD ☒ PD ☐ vPD

Slope: >25 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name: Webb Road Property | Applicant Name: Robie Holdings LLC | Project Location (municipality): Windham

Exploration Symbol # SS-13 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 15 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-14 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Weak Angular	Very Friable	
Eg	Gray	Silt Loam	Sub Ang Blocky	Friable	
Bg	Olive Brown	Silty Clay Loam	Thin Platy	Firm	Common and Distinct
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-15 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-16 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Eg	Brown	Sandy Loam	Fine Grandul	Friable	
Bg	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-17

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	18" Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	6 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-18

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16" Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	10 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-19

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16" Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	2 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-20

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Eg	Brown	Sandy Loam	Fine Grandul	Friable	
Bg	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16" Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	4 Percent	☒ No ☐ Yes	Soil Group

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Signature

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-21 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Colonel

Limiting Factor: 14" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-22 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/A	Black	Sandy Loam	Weak Angular	Very Friable	
Eg	Gray	Sandy Loam	Sub Ang Blocky	Friable	Common and Distinct
BC	Olive Brown	Sandy Loam	Thin Platy	Firm	
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Brayton

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-23 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-24 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

SOIL SCIENTIST INFORMATION AND SIGNATURE

Signature

Mark J. Hampton
Name Printed

07/12/2025
Date

216
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MARK J. HAMPTON #216
CERTIFIED SOIL SCIENTIST
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8358

PAGE ____ OF ____

FORM F (SS1) Rev. 7/21

SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-25

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor	Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	20 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-26

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor	Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	>25 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-27

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor	Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	>25 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-28

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor	Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	2[illegible] Percent	☒ No ☐ Yes	Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE

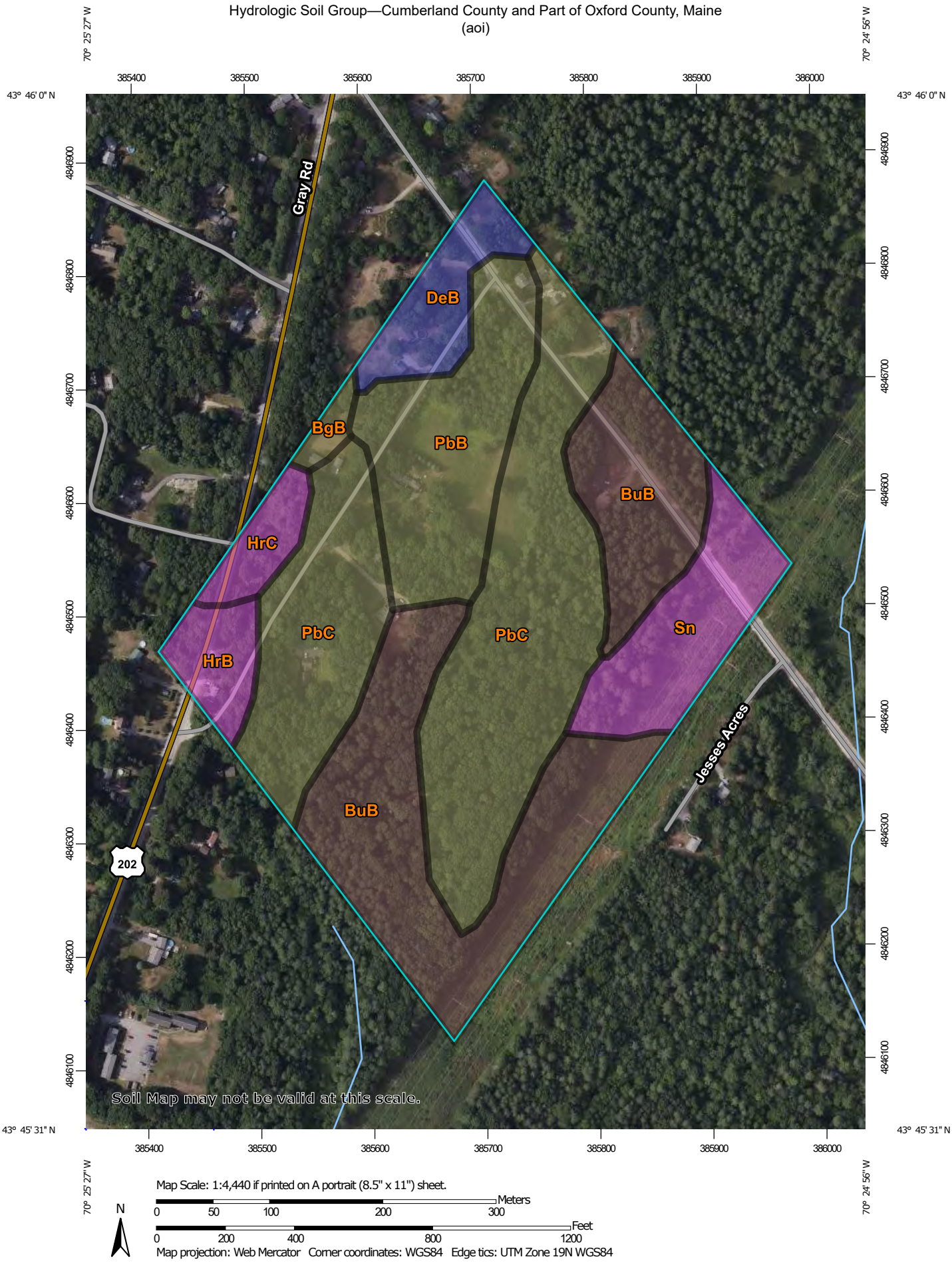
Mark J. Hampton
Signature

Mark J. Hampton
Name Printed

07/12/2025
Date

216
SS License No.

STATE OF MAINE
MARK J. HAMPTON #216
CERTIFIED SOIL SCIENTIST
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Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(aoi)
70° 25' 27" W
70° 24' 56" W
43° 46' 0" N
43° 45' 31" N
385400
385500
385600
385700
385800
385900
386000
4846900
4846800
4846700
4846600
4846500
4846400
4846300
4846200
4846100
Gray Rd
DeB
BgB
PbB
BuB
HrC
HrB
PbC
PbC
Sn
BuB
Jesses Acres
202
Soil Map may not be valid at this scale.
Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") 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 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 1:24,000.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 22, Aug 29, 2025

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

Date(s) aerial images were photographed: Mar 1, 2022—Jul 1, 2022

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
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	C	0.5	1.0%
BuB	Lamoine silt loam, 3 to 8 percent slopes	C/D	15.5	29.6%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	2.7	5.2%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	D	1.8	3.4%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	D	1.5	2.8%
PbB	Paxton fine sandy loam, 3 to 8 percent slopes	C	7.1	13.6%
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	C	18.7	35.6%
Sn	Scantic silt loam, 0 to 3 percent slopes	D	4.6	8.8%
Totals for Area of Interest			**52.5**	**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

ATTACHMENT 2

GENERAL STANDARDS CALCULATIONS

Stormwater Treatment Requirements

Pecentage of Developed Area to Land Available for Development

Total Land Area=	667,173	sf
Deductions		
Area Slopes Steeper than 25%	20,330	sf
Area Protected Natural Resources	14,415	sf
Total Available Land for Development	**632,428**	**sf**
Total Developed Area	**322,305**	**sf**

% of Developed Area to Land Available for Development=	**51%**

From Table 1 Stormwater Treatment Based on Percentage of Parcel Developed of Chapter 500 Stormwater Management Rules for <60% of site developed

Percentage of Total Impervious Area Requiring Treatment=	**90%**
Percentage of Total Developed Area Requiring Treatment=	**75%**

Stormwater Treatment Table

	Total Watershed Area (SF)	New Roof Area (SF) **	New Paved/Gravel Area (SF)	New Landscaped Area (SF)	Existing/Offsite Impervious Area (SF)*	Existing/Offsite Landscaping Area (SF)*	Existing Undeveloped Area (SF)	Treatment Provided	New Impervious Area Treated (SF)	New Landscaped Area Treated (SF)	Treatment Device
WS-10	162,545	8,875	0	26,040	10,935	33,070	83,625	Dripedge	8,875	0	Dripedge Only
WS-11	28,060	0	16,490	11,570	0	0	0	Yes	16,490	11,570	FB-1
WS-12	25,580	0	1,185	3,050	3,190	2,940	15,215	No	0	0	None
WS-20	62,640	11,150	0	51,490	0	0	0	Yes	11,150	51,490	FB-1
WS-30	42,060	5,970	0	15,305	0	1,760	19,025	Yes	5,970	15,305	FB-2
WS-31	35,855	1,820	19,345	14,690	0	0	0	Yes	21,165	14,690	FB-2
WS-32	17,320	1,085	10,800	5,435	0	0	0	Yes	11,885	5,435	FB-2
WS-33	30,940	5,815	0	25,125	0	0	0	Yes	5,815	25,125	FB-2
WS-34	210,895	5,920	0	34,905	0	0	170,070	Dripedge	5,920	0	Dripedge Only
WS-40	73,990	2,960	4,315	22,800	2,595	13,110	28,210	Yes	7,275	22,800	FB-3
WS-41	132,425	795	0	15,370	0	0	116,260	Dripedge	795	0	Dripedge Only
Total		**44,390**	**52,135**	**225,780**					**95,340**	**146,415**	

* The project is not taking credit for the Existing / Offsite impervious and landscaped areas, but are included in the BMP sizing calculations for each treatment device.
** All 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 the wet pond or the underdrained filter basins.

New Impervious Area =	96,525	
New Impervious Area Requiring Treatment (90%)	86,873	
Provided New Impervious Treatment=	95,340	
	99%	New Impervious Area Treated
New Developed Area =	322,305	
New Developed Area Requiring Treatment (75%)=	241,729	
New Developed Area Treated=	241,755	
	75%	New Developed Area Treated

ATTACHMENT 3

UNDERDRAINED FILTER BASIN SIZING CALCULATIONS

Underdrained Filter Basin Sizing Calculations

Filter Basin 1

Tributary Impervious Area=	16,490	sf	(WS-11 & 20 Impervious Area)
Tributary Landscaped Area=	63,060	sf	(WS-11 & 20 Landscaped Area)

Water Quality Volume (WQV) Calculation

WQV (Required) = 1"xImpervious Area + 0.4"xLandscaped Area

WQV (Required) = 3,476 cf

Stage Storage Volume

Elevation	Area (sf)	Storage (cf)
232	2,270	0
233.5	3,345	4,211

Outlet Elevation =	233.50	
Storage Volume Provided=	4,211 cf	> Required

Filter Bottom Calculation

Filter Area (Required) = 5%xImpervious Area + 2%xLandscaped Area

Filter Area Required = 2,086 sf

Filter Area Provided = 2,270 sf > Required

Sediment Collection

Tributary Impervious Area Requiring Sanding: 16,490 sf

Approx. Sediment Volume :

10 storms/year x sanded area (acres) x 500lbs/acre-storm / 90 lbs/cf

Sediment Volume (Required) 21.0 cf

Sediment Volume (Provided): 50.3 cf > Required

Runoff is collected in 2 CB's, and discharged into a relatively flat drainage with riprap channel for further sediment collection.

CB with 2' sump = 25.13 cf of storage

Total storage provided:

(2 x 25.13) = 50.26 cf

Level Spreader Sizing

Maine Erosion and Sedimentation Control BMPs - Section G4 Sizing Calculations

Level Spreader Length = 0.25 cfs per foot of level spreader during 10-year storm event

Discharge flow during 10-year storm	4.40	cfs	(See HydroCAD output)
Required Level Spreader Length =	**18**	**ft**	
Proposed Level Spreader Length =	**20**	**ft**	

Underdrained Filter Basin Sizing Calculations

Filter Basin 2

Tributary Impervious Area=	30,145 sf	(WS-30 thru 33 Impervious Area)
Tributary Landscaped Area=	62,315 sf	(WS-30 thru 33 Landscaped Area)

Water Quality Volume (WQV) Calculation

WQV (Required) = 1"xImpervious Area + 0.4"xLandscaped Area

WQV (Required) = 4,589 cf

Stage Storage Volume

Elevation	Area (sf)	Storage (cf)
232	2,995	0
233.5	4,525	5,640

Outlet Elevation = 233.50

Storage Volume Provided= 5,640 cf > Required

Filter Bottom Calculation

Filter Area (Required) = 5%xImpervious Area + 2%xLandscaped Area

Filter Area Required = 2,754 sf

Filter Area Provided = 2,995 sf > Required

Sediment Collection

Tributary Impervious Area Requiring Sanding: 30,145 sf

Approx. Sediment Volume :

10 storms/year x sanded area (acres) x 500lbs/acre-storm / 90 lbs/cf

Sediment Volume (Required) 38.4 cf

Sediment Volume (Provided): 125.7 cf > Required

Runoff is collected in 5 CB's, and discharged into a relatively flat drainage with riprap channel for further sediment collection.

CB with 2' sump = 25.13 cf of storage

Total storage provided:

(5 x 25.13) = 125.65 cf

Summary for Pond FB1&2: Filter Basin

Inflow Area = 216,805 sf, 33.43% Impervious, Inflow Depth = 3.78" for 25-Year event
Inflow = 17.86 cfs @ 12.12 hrs, Volume= 68,344 cf
Outflow = 7.05 cfs @ 12.46 hrs, Volume= 42,072 cf, Atten= 61%, Lag= 20.7 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 7.05 cfs @ 12.46 hrs, Volume= 42,072 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 235.42' @ 12.46 hrs Surf.Area= 15,223 sf Storage= 32,338 cf

PEAK WS ELEV. = 235.42
TOP OF BERM = 236.40
FREEBOARD = 236.40-235.42
= **0.98' =1.0'+/-**

Plug-Flow detention time= 210.5 min calculated for 42,072 cf (62% of inflow)
Center-of-Mass det. time= 104.6 min (916.1 - 811.6)

Volume	Invert	Avail.Storage	Storage Description
#1	232.00'	41,810 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
232.00	5,260	0	0
234.00	9,500	14,760	14,760
236.00	17,550	27,050	41,810

Device	Routing	Invert	Outlet Devices
#1	Primary	229.73'	**10.0" Round Culvert X 0.00** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.73' / 229.00' S= 0.0243 '/' Cc= 0.900 n= 0.013, Flow Area= 0.55 sf
#2	Device 1	229.83'	**1.7" Vert. 1-3/4" Orifice** C= 0.600
#3	Device 2	232.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	233.50'	**15.0" W x 11.0" H Vert. Orifice/Grate** C= 0.600
#5	Device 1	234.45'	**Neenah R4345 Beehive Grate Light Duty-req. structure** Head (feet) 0.00 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.50 0.60 0.70 0.80 0.90 1.00 Disch. (cfs) 0.000 0.900 1.600 2.500 3.500 4.000 4.600 5.300 6.800 7.500 8.100 8.600 9.100 9.600
#6	Secondary	235.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=232.00' TW=229.00' (Dynamic Tailwater)
- **1=Culvert** (Controls 0.00 cfs)
  - **2=1-3/4" Orifice** (Passes 0.00 cfs of 0.11 cfs potential flow)
    - **3=Exfiltration** (Passes 0.00 cfs of 0.29 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
  - **5=Neenah R4345 Beehive Grate Light Duty-req. structure** (Controls 0.00 cfs)

Secondary OutFlow Max=6.94 cfs @ 12.46 hrs HW=235.42' TW=0.00' (Dynamic Tailwater)
- **6=Broad-Crested Rectangular Weir** (Weir Controls 6.94 cfs @ 1.66 fps)

Hydrograph for Pond FB1&2: Filter Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	232.00	0.00	0.00	**0.00**
2.00	0.00	0	232.00	0.00	0.00	0.00
4.00	0.00	0	232.00	0.00	0.00	0.00
6.00	0.00	0	232.00	0.00	0.00	0.00
8.00	0.00	0	232.00	0.00	0.00	0.00
10.00	0.04	0	232.00	0.04	0.04	0.00
12.00	**2.34**	1,431	232.26	0.12	0.12	0.00
14.00	**0.39**	8,971	233.34	0.14	0.14	0.00
16.00	0.22	**10,107**	**233.48**	**0.14**	**0.14**	0.00
18.00	0.13	**10,312**	**233.50**	**0.15**	**0.15**	0.00
20.00	0.11	10,134	233.48	0.14	0.14	0.00
22.00	0.09	9,813	233.44	0.14	0.14	0.00
24.00	0.07	9,372	233.39	0.14	0.14	0.00
26.00	0.00	8,409	233.27	0.14	0.14	0.00
28.00	0.00	7,416	233.15	0.14	0.14	0.00
30.00	0.00	6,442	233.02	0.13	0.13	0.00
32.00	0.00	5,487	232.89	0.13	0.13	0.00
34.00	0.00	4,554	232.75	0.13	0.13	0.00
36.00	0.00	3,642	232.62	0.13	0.13	0.00
38.00	0.00	2,753	232.48	0.12	0.12	0.00
40.00	0.00	1,888	232.34	0.12	0.12	0.00
42.00	0.00	1,048	232.19	0.11	0.11	0.00
44.00	0.00	235	232.04	0.11	0.11	0.00
46.00	0.00	0	232.00	0.00	0.00	0.00
48.00	0.00	0	232.00	0.00	0.00	0.00
50.00	0.00	0	232.00	0.00	0.00	0.00
52.00	0.00	0	232.00	0.00	0.00	0.00
54.00	0.00	0	232.00	0.00	0.00	0.00
56.00	0.00	0	232.00	0.00	0.00	0.00
58.00	0.00	0	232.00	0.00	0.00	0.00
60.00	0.00	0	232.00	0.00	0.00	0.00
62.00	0.00	0	232.00	0.00	0.00	0.00
64.00	0.00	0	232.00	0.00	0.00	0.00
66.00	0.00	0	232.00	0.00	0.00	0.00
68.00	0.00	0	232.00	0.00	0.00	0.00
70.00	0.00	0	232.00	0.00	0.00	0.00
72.00	0.00	0	232.00	0.00	0.00	0.00

POND AT CPV AT 18 HRS
EMPTY AT 46 HRS
DRAWDOWN TIME = 46-18 = 28 HRS

Underdrained Filter Basin Sizing Calculations

Filter Basin 3

Tributary Impervious Area=	6,910	sf	(WS-40 Impervious Area)
Tributary Landscaped Area=	35,910	sf	(WS-40 Landscaped Area)

Water Quality Volume (WQV) Calculation

WQV (Required) = 1"xImpervious Area + 0.4"xLandscaped Area

WQV (Required) = 1,773 cf

Stage Storage Volume

Elevation	Area (sf)	Storage (cf)
240	1,520	0
242	2,685	4,205
244	4,500	11,390

Outlet Elevation =	241.50	
Storage Volume Provided=	2,935 cf	> Required

Filter Bottom Calculation

Filter Area (Required) = 5%xImpervious Area + 2%xLandscaped Area

Filter Area Required = 1,064 sf

Filter Area Provided = 1,520 sf > Required

Sediment Collection

Tributary Impervious Area Requiring Sanding: 6,910 sf

Approx. Sediment Volume :

10 storms/year x sanded area (acres) x 500lbs/acre-storm / 90 lbs/cf

Sediment Volume (Required) 8.8 cf

Sediment will be collected in a grassed drainage swale before discharging into the basin.

Level Spreader Sizing

Maine Erosion and Sedimentation Control BMPs - Section G4 Sizing Calculations

Level Spreader Length = 0.25 cfs per foot of level spreader during 10-year storm event

Discharge flow during 10-year storm	1.71	cfs	(See HydroCAD output)
Required Level Spreader Length =	**7**	**ft**	
Proposed Level Spreader Length =	**20**	**ft**	

Summary for Pond FB3: Filter Basin

Inflow Area = 73,990 sf, 13.34% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 4.01 cfs @ 12.33 hrs, Volume= 19,781 cf
Outflow = 3.41 cfs @ 12.54 hrs, Volume= 13,474 cf, Atten= 15%, Lag= 12.6 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 3.41 cfs @ 12.54 hrs, Volume= 13,474 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 242.97' @ 12.54 hrs Surf.Area= 3,564 sf Storage= 7,231 cf

PEAK WS ELEV. = 242.97
TOP OF BERM = 244.00
FREEBOARD = 244.00-242.97
= **1.03' >1.0'**

Plug-Flow detention time= 168.6 min calculated for 13,456 cf (68% of inflow)
Center-of-Mass det. time= 70.2 min (911.9 - 841.7)

Volume	Invert	Avail.Storage	Storage Description
#1	240.00'	11,390 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
240.00	1,520	0	0
242.00	2,685	4,205	4,205
244.00	4,500	7,185	11,390

Device	Routing	Invert	Outlet Devices
#1	Primary	237.73'	**10.0" Round Culvert X 0.00** L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 237.73' / 237.30' S= 0.0093 '/' Cc= 0.900 n= 0.013, Flow Area= 0.55 sf
#2	Device 1	237.80'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 2	240.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	241.50'	**15.0" W x 9.0" H Vert. Orifice/Grate** C= 0.600
#5	Device 1	242.25'	**Neenah R4345 Beehive Grate Light Duty-req. structure** Head (feet) 0.00 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.50 0.60 0.70 0.80 0.90 1.00 Disch. (cfs) 0.000 0.900 1.600 2.500 3.500 4.000 4.600 5.300 6.800 7.500 8.100 8.600 9.100 9.600
#6	Secondary	242.70'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=240.00' TW=237.00' (Dynamic Tailwater)
- **1=Culvert** (Controls 0.00 cfs)
  - **2=Orifice/Grate** (Passes 0.00 cfs of 0.04 cfs potential flow)
    - **3=Exfiltration** (Passes 0.00 cfs of 0.08 cfs potential flow)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
  - **5=Neenah R4345 Beehive Grate Light Duty-req. structure** (Controls 0.00 cfs)

Secondary OutFlow Max=3.07 cfs @ 12.54 hrs HW=242.95' TW=237.06' (Dynamic Tailwater)
- **6=Broad-Crested Rectangular Weir** (Weir Controls 3.07 cfs @ 1.24 fps)

Hydrograph for Pond FB3: Filter Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	240.00	0.00	0.00	**0.00**
2.00	0.00	0	240.00	0.00	0.00	0.00
4.00	0.00	0	240.00	0.00	0.00	0.00
6.00	0.00	0	240.00	0.00	0.00	0.00
8.00	0.00	0	240.00	0.00	0.00	0.00
10.00	0.00	0	240.00	0.00	0.00	0.00
12.00	**0.20**	64	240.04	0.04	0.04	0.00
14.00	**0.14**	2,463	241.30	0.05	0.05	0.00
16.00	0.08	**2,871**	**241.47**	**0.05**	**0.05**	0.00
18.00	0.05	**2,947**	**241.50**	**0.05**	**0.05**	0.00
20.00	0.04	2,883	241.48	0.05	0.05	0.00
22.00	0.03	2,771	241.43	0.05	0.05	0.00
24.00	0.03	2,618	241.37	0.05	0.05	0.00
26.00	0.00	2,299	241.22	0.05	0.05	0.00
28.00	0.00	1,955	241.07	0.05	0.05	0.00
30.00	0.00	1,620	240.91	0.05	0.05	0.00
32.00	0.00	1,293	240.74	0.04	0.04	0.00
34.00	0.00	976	240.58	0.04	0.04	0.00
36.00	0.00	668	240.41	0.04	0.04	0.00
38.00	0.00	370	240.23	0.04	0.04	0.00
40.00	0.00	83	240.05	0.04	0.04	0.00
42.00	0.00	0	240.00	0.00	0.00	0.00
44.00	0.00	0	240.00	0.00	0.00	0.00
46.00	0.00	0	240.00	0.00	0.00	0.00
48.00	0.00	0	240.00	0.00	0.00	0.00
50.00	0.00	0	240.00	0.00	0.00	0.00
52.00	0.00	0	240.00	0.00	0.00	0.00
54.00	0.00	0	240.00	0.00	0.00	0.00
56.00	0.00	0	240.00	0.00	0.00	0.00
58.00	0.00	0	240.00	0.00	0.00	0.00
60.00	0.00	0	240.00	0.00	0.00	0.00
62.00	0.00	0	240.00	0.00	0.00	0.00
64.00	0.00	0	240.00	0.00	0.00	0.00
66.00	0.00	0	240.00	0.00	0.00	0.00
68.00	0.00	0	240.00	0.00	0.00	0.00
70.00	0.00	0	240.00	0.00	0.00	0.00
72.00	0.00	0	240.00	0.00	0.00	0.00

POND AT CPV AT 18 HRS
EMPTY AT 42 HRS
DRAWDOWN TIME = 42-18 = 24 HRS

ATTACHMENT 4

ROOFLINE DRIPEDGE SIZING CALCULATIONS

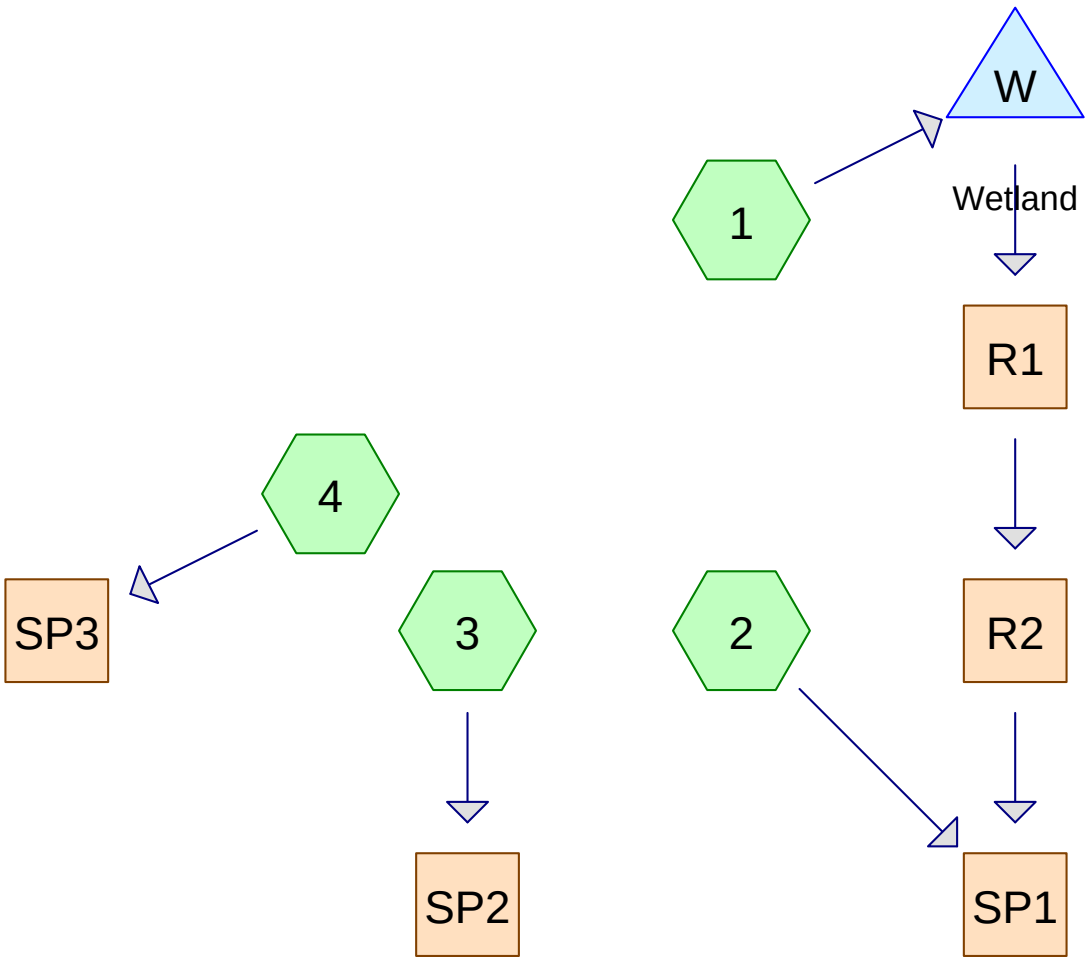
Drip Edge Sizing Calculations

WQV (Required) = 1.0"xImpervious Area + 0.4"xLandscaped Area
Void Ratio of Reservoir Layer 40%
Void Ratio of Filter Layer 30%

Tributary Roof Area (sf)	WQV (Required)	Dripedge Surface Area (sf)	Reservoir Layer Depth (ft)	Filter Layer Depth (ft)	WQV (Provided)
1,480	123.33	292.00	1.00	0.33	145.71

ATTACHMENT 5

STORMWATER MODEL OUTPUT



Subcat Reach Pond Link

Routing Diagram for 25007 - PRE
Prepared by DM Roma Consulting Engineers, Printed 5/15/2026
HydroCAD® 10.00-26 s/n 09237 © 2020 HydroCAD Software Solutions LLC

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=160,940 sf 2.46% Impervious Runoff Depth=2.92"
Flow Length=409' Tc=28.7 min CN=73 Runoff=7.24 cfs 39,209 cf

Subcatchment 2: Runoff Area=86,110 sf 5.31% Impervious Runoff Depth=2.83"
Flow Length=291' Tc=18.2 min CN=72 Runoff=4.45 cfs 20,311 cf

Subcatchment 3: Runoff Area=363,960 sf 0.00% Impervious Runoff Depth=2.65"
Flow Length=584' Tc=24.7 min CN=70 Runoff=15.61 cfs 80,296 cf

Subcatchment 4: Runoff Area=211,220 sf 1.23% Impervious Runoff Depth=2.74"
Flow Length=654' Tc=30.2 min CN=71 Runoff=8.68 cfs 48,201 cf

Reach R1: Avg. Flow Depth=0.09' Max Vel=2.65 fps Inflow=3.53 cfs 34,237 cf
n=0.022 L=67.0' S=0.0537 '/' Capacity=120.49 cfs Outflow=3.53 cfs 34,237 cf

Reach R2: Avg. Flow Depth=0.28' Max Vel=6.93 fps Inflow=3.53 cfs 34,237 cf
n=0.022 L=239.0' S=0.1004 '/' Capacity=57.20 cfs Outflow=3.53 cfs 34,237 cf

Reach SP1: Inflow=5.28 cfs 54,548 cf
Outflow=5.28 cfs 54,548 cf

Reach SP2: Inflow=15.61 cfs 80,296 cf
Outflow=15.61 cfs 80,296 cf

Reach SP3: Inflow=8.68 cfs 48,201 cf
Outflow=8.68 cfs 48,201 cf

Pond W: Wetland Peak Elev=250.18' Storage=14,009 cf Inflow=7.24 cfs 39,209 cf
Outflow=3.53 cfs 34,237 cf

Summary for Subcatchment 1:

Runoff = 7.24 cfs @ 12.41 hrs, Volume= 39,209 cf, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,885	98	Buildingq
*	2,070	98	Pavement
*	5,525	96	Gravel Road
	30,435	74	>75% Grass cover, Good, HSG C
	60,540	71	Meadow, non-grazed, HSG C
	60,485	70	Woods, Good, HSG C
	160,940	73	Weighted Average
	156,985		97.54% Pervious Area
	3,955		2.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.8	150	0.0270	0.09		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.8	39	0.0270	0.82		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
1.1	220	0.0100	3.42	23.94	**Trap/Vee/Rect Channel Flow, C to D** Bot.W=2.00' D=1.00' Z= 5.0 '/' Top.W=12.00' n= 0.030 Earth, grassed & winding
28.7	409	Total			

Summary for Subcatchment 2:

Runoff = 4.45 cfs @ 12.27 hrs, Volume= 20,311 cf, Depth= 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	4,570	98	Pavement
	7,970	74	>75% Grass cover, Good, HSG C
	3,860	71	Meadow, non-grazed, HSG C
	69,710	70	Woods, Good, HSG C
	86,110	72	Weighted Average
	81,540		94.69% Pervious Area
	4,570		5.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.9	150	0.0850	0.15		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.3	141	0.1300	1.80		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
18.2	291	Total			

Summary for Subcatchment 3:

Runoff = 15.61 cfs @ 12.36 hrs, Volume= 80,296 cf, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
1,760	74	>75% Grass cover, Good, HSG C
33,970	71	Meadow, non-grazed, HSG C
328,230	70	Woods, Good, HSG C
363,960	70	Weighted Average
363,960		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.8	150	0.0650	0.13		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
2.7	98	0.0150	0.61		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
1.1	85	0.0700	1.32		**Shallow Concentrated Flow, D to E** Woodland Kv= 5.0 fps
2.1	251	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.7	584	Total			

Summary for Subcatchment 4:

Runoff = 8.68 cfs @ 12.43 hrs, Volume= 48,201 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,465	98	Buildingq
*	130	98	Pavement
	13,110	74	>75% Grass cover, Good, HSG C
	180,530	70	Woods, Good, HSG C
	14,985	77	Woods, Good, HSG D
	211,220	71	Weighted Average
	208,625		98.77% Pervious Area
	2,595		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	150	0.0470	0.12		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
5.0	260	0.0300	0.87		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
1.0	96	0.1000	1.58		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
2.8	148	0.0300	0.87		**Shallow Concentrated Flow, D to E** Woodland Kv= 5.0 fps
30.2	654	Total			

Summary for Reach R1:

Inflow Area = 160,940 sf, 2.46% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 3.53 cfs @ 12.84 hrs, Volume= 34,237 cf
Outflow = 3.53 cfs @ 12.84 hrs, Volume= 34,237 cf, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 2.65 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 0.68 fps, Avg. Travel Time= 1.6 min

Peak Storage= 89 cf @ 12.84 hrs
Average Depth at Peak Storage= 0.09'
Bank-Full Depth= 0.50' Flow Area= 17.5 sf, Capacity= 120.49 cfs

10.00' x 0.50' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 50.0 '/' Top Width= 60.00'
Length= 67.0' Slope= 0.0537 '/'
Inlet Invert= 249.60', Outlet Invert= 246.00'



‡

Summary for Reach R2:

Inflow Area = 160,940 sf, 2.46% Impervious, Inflow Depth = 2.55" for 25-Year event
Inflow = 3.53 cfs @ 12.84 hrs, Volume= 34,237 cf
Outflow = 3.53 cfs @ 12.85 hrs, Volume= 34,237 cf, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 6.93 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.86 fps, Avg. Travel Time= 2.1 min

Peak Storage= 122 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 57.20 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 239.0' Slope= 0.1004 '/'
Inlet Invert= 246.00', Outlet Invert= 222.00'



Summary for Reach SP1:

Inflow Area = 247,050 sf, 3.45% Impervious, Inflow Depth = 2.65" for 25-Year event
Inflow = 5.28 cfs @ 12.52 hrs, Volume= 54,548 cf
Outflow = 5.28 cfs @ 12.52 hrs, Volume= 54,548 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Reach SP2:

Inflow Area = 363,960 sf, 0.00% Impervious, Inflow Depth = 2.65" for 25-Year event
Inflow = 15.61 cfs @ 12.36 hrs, Volume= 80,296 cf
Outflow = 15.61 cfs @ 12.36 hrs, Volume= 80,296 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Reach SP3:

Inflow Area = 211,220 sf, 1.23% Impervious, Inflow Depth = 2.74" for 25-Year event
Inflow = 8.68 cfs @ 12.43 hrs, Volume= 48,201 cf
Outflow = 8.68 cfs @ 12.43 hrs, Volume= 48,201 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Pond W: Wetland

Inflow Area = 160,940 sf, 2.46% Impervious, Inflow Depth = 2.92" for 25-Year event
Inflow = 7.24 cfs @ 12.41 hrs, Volume= 39,209 cf
Outflow = 3.53 cfs @ 12.84 hrs, Volume= 34,237 cf, Atten= 51%, Lag= 25.6 min
Primary = 3.53 cfs @ 12.84 hrs, Volume= 34,237 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 250.18' @ 12.84 hrs Surf.Area= 20,369 sf Storage= 14,009 cf

Plug-Flow detention time= 139.1 min calculated for 34,190 cf (87% of inflow)
Center-of-Mass det. time= 82.8 min (936.6 - 853.8)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	85,978 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	4,775	0	0
250.00	16,460	10,618	10,618
252.00	58,900	75,360	85,978

Device	Routing	Invert	Outlet Devices
#1	Primary	249.60'	**3.0' long x 80.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.51 cfs @ 12.84 hrs HW=250.18' TW=249.69' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 3.51 cfs @ 2.01 fps)

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=160,940 sf 2.46% Impervious Runoff Depth=0.92"
Flow Length=409' Tc=28.7 min CN=73 Runoff=2.12 cfs 12,331 cf

Subcatchment 2: Runoff Area=86,110 sf 5.31% Impervious Runoff Depth=0.87"
Flow Length=291' Tc=18.2 min CN=72 Runoff=1.26 cfs 6,230 cf

Subcatchment 3: Runoff Area=363,960 sf 0.00% Impervious Runoff Depth=0.77"
Flow Length=584' Tc=24.7 min CN=70 Runoff=4.07 cfs 23,370 cf

Subcatchment 4: Runoff Area=211,220 sf 1.23% Impervious Runoff Depth=0.82"
Flow Length=654' Tc=30.2 min CN=71 Runoff=2.34 cfs 14,409 cf

Reach R1: Avg. Flow Depth=0.02' Max Vel=1.20 fps Inflow=0.31 cfs 7,360 cf
n=0.022 L=67.0' S=0.0537 '/' Capacity=120.49 cfs Outflow=0.31 cfs 7,360 cf

Reach R2: Avg. Flow Depth=0.08' Max Vel=3.39 fps Inflow=0.31 cfs 7,360 cf
n=0.022 L=239.0' S=0.1004 '/' Capacity=57.20 cfs Outflow=0.31 cfs 7,360 cf

Reach SP1: Inflow=1.26 cfs 13,590 cf
Outflow=1.26 cfs 13,590 cf

Reach SP2: Inflow=4.07 cfs 23,370 cf
Outflow=4.07 cfs 23,370 cf

Reach SP3: Inflow=2.34 cfs 14,409 cf
Outflow=2.34 cfs 14,409 cf

Pond W: Wetland Peak Elev=249.72' Storage=6,441 cf Inflow=2.12 cfs 12,331 cf
Outflow=0.31 cfs 7,360 cf

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=160,940 sf 2.46% Impervious Runoff Depth=1.97"
Flow Length=409' Tc=28.7 min CN=73 Runoff=4.83 cfs 26,440 cf

Subcatchment 2: Runoff Area=86,110 sf 5.31% Impervious Runoff Depth=1.89"
Flow Length=291' Tc=18.2 min CN=72 Runoff=2.94 cfs 13,595 cf

Subcatchment 3: Runoff Area=363,960 sf 0.00% Impervious Runoff Depth=1.74"
Flow Length=584' Tc=24.7 min CN=70 Runoff=10.08 cfs 52,923 cf

Subcatchment 4: Runoff Area=211,220 sf 1.23% Impervious Runoff Depth=1.82"
Flow Length=654' Tc=30.2 min CN=71 Runoff=5.66 cfs 32,019 cf

Reach R1: Avg. Flow Depth=0.06' Max Vel=2.18 fps Inflow=1.86 cfs 21,469 cf
n=0.022 L=67.0' S=0.0537 '/' Capacity=120.49 cfs Outflow=1.86 cfs 21,469 cf

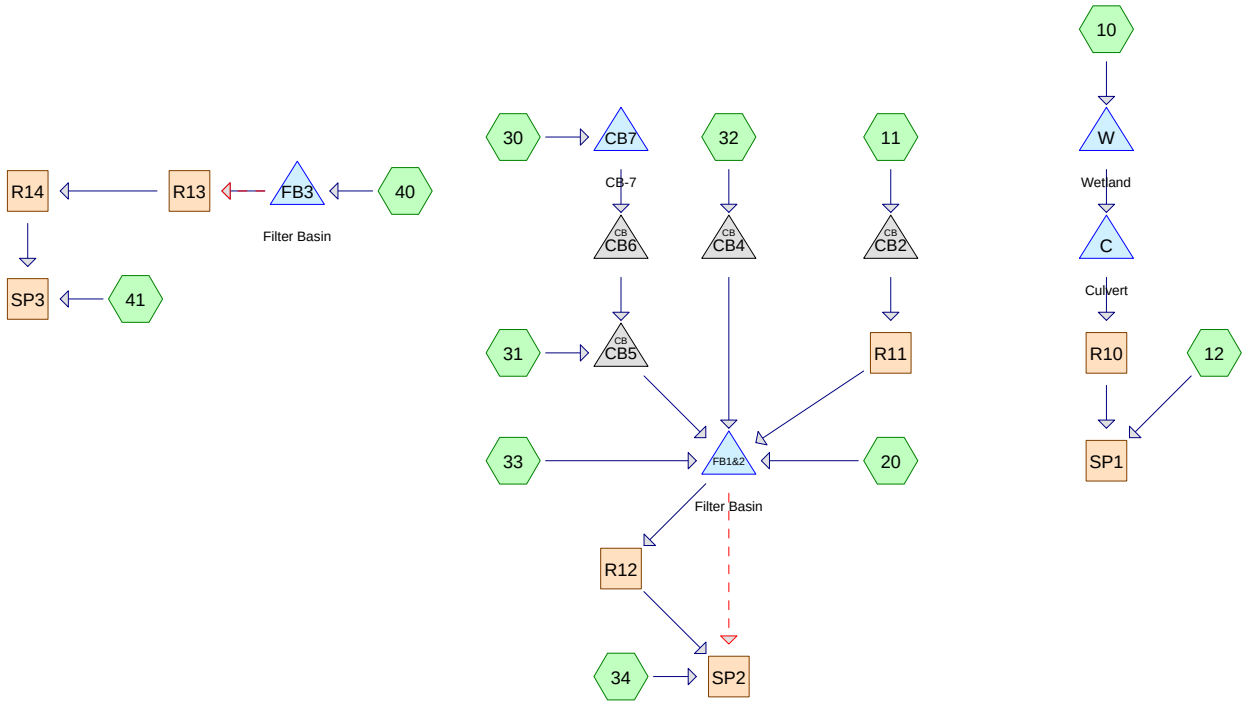
Reach R2: Avg. Flow Depth=0.20' Max Vel=5.81 fps Inflow=1.86 cfs 21,469 cf
n=0.022 L=239.0' S=0.1004 '/' Capacity=57.20 cfs Outflow=1.87 cfs 21,469 cf

Reach SP1: Inflow=2.93 cfs 35,064 cf
Outflow=2.93 cfs 35,064 cf

Reach SP2: Inflow=10.08 cfs 52,923 cf
Outflow=10.08 cfs 52,923 cf

Reach SP3: Inflow=5.66 cfs 32,019 cf
Outflow=5.66 cfs 32,019 cf

Pond W: Wetland Peak Elev=249.98' Storage=10,328 cf Inflow=4.83 cfs 26,440 cf
Outflow=1.86 cfs 21,469 cf



Subcat Reach Pond Link

Routing Diagram for 25007 - POST
Prepared by DM Roma Consulting Engineers, Printed 5/15/2026
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Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=162,545 sf 8.79% Impervious Runoff Depth=3.11"
Flow Length=409' Tc=28.7 min CN=75 Runoff=7.81 cfs 42,158 cf

Subcatchment11: Runoff Area=28,060 sf 58.77% Impervious Runoff Depth=4.43"
Tc=6.0 min CN=88 Runoff=3.03 cfs 10,367 cf

Subcatchment12: Runoff Area=25,580 sf 17.10% Impervious Runoff Depth=3.21"
Flow Length=106' Slope=0.1100 '/' Tc=11.6 min CN=76 Runoff=1.73 cfs 6,839 cf

Subcatchment20: Runoff Area=62,640 sf 17.80% Impervious Runoff Depth=3.40"
Flow Length=410' Tc=7.0 min CN=78 Runoff=5.26 cfs 17,763 cf

Subcatchment30: Runoff Area=41,990 sf 14.22% Impervious Runoff Depth=3.21"
Flow Length=221' Tc=17.8 min CN=76 Runoff=2.48 cfs 11,226 cf

Subcatchment31: Runoff Area=35,855 sf 59.03% Impervious Runoff Depth=4.43"
Tc=6.0 min CN=88 Runoff=3.87 cfs 13,247 cf

Subcatchment32: Runoff Area=17,320 sf 68.62% Impervious Runoff Depth=4.65"
Tc=6.0 min CN=90 Runoff=1.93 cfs 6,713 cf

Subcatchment33: Runoff Area=30,940 sf 18.79% Impervious Runoff Depth=3.50"
Flow Length=113' Tc=8.5 min CN=79 Runoff=2.53 cfs 9,028 cf

Subcatchment34: Runoff Area=210,895 sf 2.81% Impervious Runoff Depth=2.74"
Flow Length=283' Tc=23.4 min CN=71 Runoff=9.68 cfs 48,127 cf

Subcatchment40: Runoff Area=73,990 sf 13.34% Impervious Runoff Depth=3.21"
Flow Length=409' Tc=23.4 min CN=76 Runoff=4.01 cfs 19,781 cf

Subcatchment41: Runoff Area=132,425 sf 0.60% Impervious Runoff Depth=2.74"
Flow Length=394' Tc=26.7 min CN=71 Runoff=5.73 cfs 30,220 cf

Reach R10: Avg. Flow Depth=0.30' Max Vel=7.22 fps Inflow=4.03 cfs 37,176 cf
n=0.022 L=197.0' S=0.1015 '/' Capacity=57.52 cfs Outflow=4.03 cfs 37,176 cf

Reach R11: Avg. Flow Depth=0.49' Max Vel=1.51 fps Inflow=3.03 cfs 10,367 cf
n=0.069 L=365.0' S=0.0216 '/' Capacity=11.28 cfs Outflow=2.62 cfs 10,367 cf

Reach R12: Avg. Flow Depth=0.11' Max Vel=1.79 fps Inflow=5.81 cfs 68,277 cf
n=0.070 L=128.0' S=0.1719 '/' Capacity=105.77 cfs Outflow=5.87 cfs 68,277 cf

Reach R13: Avg. Flow Depth=0.07' Max Vel=2.45 fps Inflow=3.44 cfs 19,783 cf
n=0.030 L=96.0' S=0.0938 '/' Capacity=105.64 cfs Outflow=3.39 cfs 19,783 cf

Reach R14: Avg. Flow Depth=0.16' Max Vel=2.32 fps Inflow=3.39 cfs 19,783 cf
n=0.030 L=110.0' S=0.0291 '/' Capacity=389.46 cfs Outflow=3.36 cfs 19,783 cf

Reach SP1: Inflow=4.33 cfs 44,015 cf
Outflow=4.33 cfs 44,015 cf

Reach SP2: Inflow=15.57 cfs 116,480 cf
Outflow=15.57 cfs 116,480 cf

Reach SP3: Inflow=8.65 cfs 50,003 cf
Outflow=8.65 cfs 50,003 cf

Pond C: Culvert Peak Elev=246.00' Storage=0 cf Inflow=4.03 cfs 37,176 cf
15.0" Round Culvert n=0.013 L=86.0' S=0.0070 '/' Outflow=4.03 cfs 37,176 cf

Pond CB2: Peak Elev=243.35' Inflow=3.03 cfs 10,367 cf
15.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=3.03 cfs 10,367 cf

Pond CB4: Peak Elev=251.24' Inflow=1.93 cfs 6,713 cf
15.0" Round Culvert n=0.013 L=108.0' S=0.0782 '/' Outflow=1.93 cfs 6,713 cf

Pond CB5: Peak Elev=242.58' Inflow=5.60 cfs 24,473 cf
18.0" Round Culvert n=0.013 L=120.0' S=0.0596 '/' Outflow=5.60 cfs 24,473 cf

Pond CB6: Peak Elev=242.86' Inflow=2.48 cfs 11,226 cf
15.0" Round Culvert n=0.013 L=18.0' S=0.0111 '/' Outflow=2.48 cfs 11,226 cf

Pond CB7: CB-7 Peak Elev=248.05' Storage=3 cf Inflow=2.48 cfs 11,226 cf
Outflow=2.48 cfs 11,226 cf

Pond FB1&2: Filter Basin Peak Elev=235.04' Storage=26,758 cf Inflow=17.86 cfs 68,344 cf
Primary=5.81 cfs 68,277 cf Secondary=0.17 cfs 76 cf Outflow=5.97 cfs 68,353 cf

Pond FB3: Filter Basin Peak Elev=242.31' Storage=5,076 cf Inflow=4.01 cfs 19,781 cf
Primary=3.44 cfs 19,783 cf Secondary=0.00 cfs 0 cf Outflow=3.44 cfs 19,783 cf

Pond W: Wetland Peak Elev=250.23' Storage=14,839 cf Inflow=7.81 cfs 42,158 cf
Outflow=4.03 cfs 37,176 cf

Summary for Subcatchment 10:

Runoff = 7.81 cfs @ 12.41 hrs, Volume= 42,158 cf, Depth= 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	8,875	98	New Building
*	26,040	74	New Lawn C
*	3,525	98	Existing Pavement
*	5,525	96	Existing Gravel Road
*	1,885	98	Existing Building
	31,880	71	Meadow, non-grazed, HSG C
	51,745	70	Woods, Good, HSG C
*	33,070	74	Existing Lawn C
	162,545	75	Weighted Average
	148,260		91.21% Pervious Area
	14,285		8.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.8	150	0.0270	0.09		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.8	39	0.0270	0.82		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
1.1	220	0.0100	3.42	23.94	**Trap/Vee/Rect Channel Flow, C to D** Bot.W=2.00' D=1.00' Z= 5.0 '/' Top.W=12.00' n= 0.030 Earth, grassed & winding
28.7	409	Total			

Summary for Subcatchment 11:

Runoff = 3.03 cfs @ 12.10 hrs, Volume= 10,367 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	16,490	98	New Pavement
*	11,570	74	New Lawn C
	28,060	88	Weighted Average
	11,570		41.23% Pervious Area
	16,490		58.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, 6 Minute Min. Tc**

Summary for Subcatchment 12:

Runoff = 1.73 cfs @ 12.18 hrs, Volume= 6,839 cf, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,185	98	New Pavement
*	3,050	74	New Lawn C
*	3,190	98	Existing Pavement
*	2,940	74	Existing Lawn C
	15,215	70	Woods, Good, HSG C
	25,580	76	Weighted Average
	21,205		82.90% Pervious Area
	4,375		17.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	106	0.1100	0.15		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"

Summary for Subcatchment 20:

Runoff = 5.26 cfs @ 12.11 hrs, Volume= 17,763 cf, Depth= 3.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	11,150	98	New Building
*	51,490	74	New Lawn C
	62,640	78	Weighted Average
	51,490		82.20% Pervious Area
	11,150		17.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	23	0.0200	0.12		**Sheet Flow, A to B** Grass: Short n= 0.150 P2= 3.10"
1.0	22	0.3300	0.38		**Sheet Flow, B to C** Grass: Short n= 0.150 P2= 3.10"
2.9	365	0.0190	2.11	10.57	**Trap/Vee/Rect Channel Flow, C to D** Bot.W=2.00' D=1.00' Z= 3.0 '/' Top.W=8.00' n= 0.069 Riprap, 6-inch
7.0	410	Total			

Summary for Subcatchment 30:

Runoff = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,970	98	New Building
*	15,235	74	New Lawn C
	19,025	70	Woods, Good, HSG C
*	1,760	74	Existing Lawn C
	41,990	76	Weighted Average
	36,020		85.78% Pervious Area
	5,970		14.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	120	0.0500	0.11		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	101	0.0150	5.53	22.11	**Trap/Vee/Rect Channel Flow, B to C** Bot.W=1.00' D=1.00' Z= 3.0 '/' Top.W=7.00' n= 0.022 Earth, clean & straight
17.8	221	Total			

Summary for Subcatchment 31:

Runoff = 3.87 cfs @ 12.10 hrs, Volume= 13,247 cf, Depth= 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,820	98	New Building
*	19,345	98	New Pavement
*	14,690	74	New Lawn C
	35,855	88	Weighted Average
	14,690		40.97% Pervious Area
	21,165		59.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, 6 Minute Min. Tc**

Summary for Subcatchment 32:

Runoff = 1.93 cfs @ 12.10 hrs, Volume= 6,713 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,085	98	New Building
*	10,800	98	New Pavement
*	5,435	74	New Lawn C
	17,320	90	Weighted Average
	5,435		31.38% Pervious Area
	11,885		68.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, 6 Minute Min. Tc**

Summary for Subcatchment 33:

Runoff = 2.53 cfs @ 12.12 hrs, Volume= 9,028 cf, Depth= 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,815	98	New Building
*	25,125	74	New Lawn C
	30,940	79	Weighted Average
	25,125		81.21% Pervious Area
	5,815		18.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	22	0.0200	0.12		**Sheet Flow, A to B** Grass: Short n= 0.150 P2= 3.10"
1.0	19	0.2000	0.30		**Sheet Flow, B to C** Grass: Short n= 0.150 P2= 3.10"
1.4	20	0.1000	0.23		**Sheet Flow, C to D** Grass: Short n= 0.150 P2= 3.10"
1.1	25	0.3000	0.37		**Sheet Flow, D to E** Grass: Short n= 0.150 P2= 3.10"
2.0	27	0.0800	0.22		**Sheet Flow, E to F** Grass: Short n= 0.150 P2= 3.10"
8.5	113	Total			

Summary for Subcatchment 34:

Runoff = 9.68 cfs @ 12.34 hrs, Volume= 48,127 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,920	98	New Building
*	34,905	74	New Lawn C
	170,070	70	Woods, Good, HSG C
	210,895	71	Weighted Average
	204,975		97.19% Pervious Area
	5,920		2.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	49	0.0180	0.06		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
9.3	100	0.1700	0.18		**Sheet Flow, C to D** Woods: Light underbrush n= 0.400 P2= 3.10"
1.2	134	0.1500	1.94		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
23.4	283	Total			

Summary for Subcatchment 40:

Runoff = 4.01 cfs @ 12.33 hrs, Volume= 19,781 cf, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,960	98	New Building
*	4,315	98	New Pavement
*	22,800	74	New Lawn C
*	2,465	98	Existing Building
*	130	98	Existing Pavement
*	13,110	74	Existing Lawn C
	28,210	70	Woods, Good, HSG C
	73,990	76	Weighted Average
	64,120		86.66% Pervious Area
	9,870		13.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	150	0.0500	0.12		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
2.0	138	0.0550	1.17		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
0.5	121	0.0170	4.31	17.26	**Trap/Vee/Rect Channel Flow, C to D** Bot.W=1.00' D=1.00' Z= 3.0 '/' Top.W=7.00' n= 0.030 Earth, grassed & winding
23.4	409	Total			

Summary for Subcatchment 41:

Runoff = 5.73 cfs @ 12.39 hrs, Volume= 30,220 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	795	98	New Building
*	15,370	74	New Lawn C
	101,275	70	Woods, Good, HSG C
	14,985	77	Woods, Good, HSG D
	132,425	71	Weighted Average
	131,630		99.40% Pervious Area
	795		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.9	150	0.0400	0.11		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.0	96	0.1000	1.58		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
2.8	148	0.0300	0.87		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
26.7	394	Total			

Summary for Reach R10:

Inflow Area = 162,545 sf, 8.79% Impervious, Inflow Depth = 2.74" for 25-Year event
Inflow = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf
Outflow = 4.03 cfs @ 12.82 hrs, Volume= 37,176 cf, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 7.22 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.89 fps, Avg. Travel Time= 1.7 min

Peak Storage= 110 cf @ 12.82 hrs
Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 57.52 cfs

1.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 197.0' Slope= 0.1015 '/'
Inlet Invert= 242.00', Outlet Invert= 222.00'



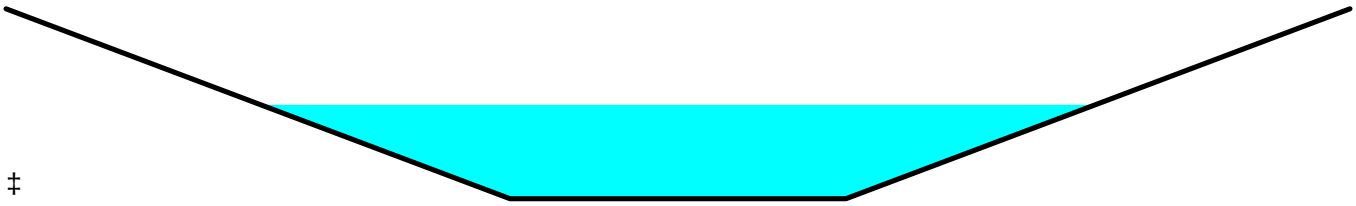
Summary for Reach R11:

Inflow Area = 28,060 sf, 58.77% Impervious, Inflow Depth = 4.43" for 25-Year event
Inflow = 3.03 cfs @ 12.10 hrs, Volume= 10,367 cf
Outflow = 2.62 cfs @ 12.14 hrs, Volume= 10,367 cf, Atten= 13%, Lag= 2.8 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 1.51 fps, Min. Travel Time= 4.0 min
Avg. Velocity = 0.44 fps, Avg. Travel Time= 13.8 min

Peak Storage= 627 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.49'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 11.28 cfs

2.00' x 1.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 365.0' Slope= 0.0216 '/'
Inlet Invert= 241.90', Outlet Invert= 234.00'



‡

Summary for Reach R12:

Inflow Area = 216,805 sf, 33.43% Impervious, Inflow Depth = 3.78" for 25-Year event
Inflow = 5.81 cfs @ 12.51 hrs, Volume= 68,277 cf
Outflow = 5.87 cfs @ 12.30 hrs, Volume= 68,277 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 1.79 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 0.55 fps, Avg. Travel Time= 3.8 min

Peak Storage= 420 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.11'
Bank-Full Depth= 0.50' Flow Area= 25.0 sf, Capacity= 105.77 cfs

25.00' x 0.50' deep channel, n= 0.070 Medium-dense brush, winter
Side Slope Z-value= 50.0 '/' Top Width= 75.00'
Length= 128.0' Slope= 0.1719 '/'
Inlet Invert= 229.00', Outlet Invert= 207.00'



‡

Summary for Reach R13:

Inflow Area = 73,990 sf, 13.34% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 3.44 cfs @ 12.51 hrs, Volume= 19,783 cf
Outflow = 3.39 cfs @ 12.51 hrs, Volume= 19,783 cf, Atten= 1%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 2.45 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 0.60 fps, Avg. Travel Time= 2.6 min

Peak Storage= 133 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.07'
Bank-Full Depth= 0.50' Flow Area= 12.5 sf, Capacity= 105.64 cfs

20.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 10.0 '/' Top Width= 30.00'
Length= 96.0' Slope= 0.0938 '/'
Inlet Invert= 237.00', Outlet Invert= 228.00'



‡

Summary for Reach R14:

Inflow Area = 73,990 sf, 13.34% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 3.39 cfs @ 12.51 hrs, Volume= 19,783 cf
Outflow = 3.36 cfs @ 12.53 hrs, Volume= 19,783 cf, Atten= 1%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Max. Velocity= 2.32 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 0.71 fps, Avg. Travel Time= 2.6 min

Peak Storage= 159 cf @ 12.53 hrs
Average Depth at Peak Storage= 0.16'
Bank-Full Depth= 2.00' Flow Area= 40.0 sf, Capacity= 389.46 cfs

8.00' x 2.00' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 6.0 '/' Top Width= 32.00'
Length= 110.0' Slope= 0.0291 '/'
Inlet Invert= 228.00', Outlet Invert= 224.80'



‡

Summary for Reach SP1:

Inflow Area = 188,125 sf, 9.92% Impervious, Inflow Depth = 2.81" for 25-Year event
Inflow = 4.33 cfs @ 12.78 hrs, Volume= 44,015 cf
Outflow = 4.33 cfs @ 12.78 hrs, Volume= 44,015 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Reach SP2:

Inflow Area = 427,700 sf, 18.33% Impervious, Inflow Depth = 3.27" for 25-Year event
Inflow = 15.57 cfs @ 12.33 hrs, Volume= 116,480 cf
Outflow = 15.57 cfs @ 12.33 hrs, Volume= 116,480 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Reach SP3:

Inflow Area = 206,415 sf, 5.17% Impervious, Inflow Depth = 2.91" for 25-Year event
Inflow = 8.65 cfs @ 12.46 hrs, Volume= 50,003 cf
Outflow = 8.65 cfs @ 12.46 hrs, Volume= 50,003 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Summary for Pond C: Culvert

Inflow Area = 162,545 sf, 8.79% Impervious, Inflow Depth = 2.74" for 25-Year event
Inflow = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf
Outflow = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 246.00' @ 12.81 hrs Surf.Area= 575 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 37,176 cf (100% of inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	246.00'	37,225 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
246.00	575	0	0
248.00	4,310	4,885	4,885
250.00	7,690	12,000	16,885
252.00	12,650	20,340	37,225

Device	Routing	Invert	Outlet Devices
#1	Primary	242.60'	**15.0" Round Culvert** L= 86.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 242.60' / 242.00' S= 0.0070 '/' Cc= 0.900

n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=7.77 cfs @ 12.81 hrs HW=246.00' TW=242.30' (Dynamic Tailwater)
1=Culvert (Inlet Controls 7.77 cfs @ 6.33 fps)

Summary for Pond CB2:

Inflow Area = 28,060 sf, 58.77% Impervious, Inflow Depth = 4.43" for 25-Year event
Inflow = 3.03 cfs @ 12.10 hrs, Volume= 10,367 cf
Outflow = 3.03 cfs @ 12.10 hrs, Volume= 10,367 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.10 hrs, Volume= 10,367 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 243.35' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	242.30'	**15.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 242.30' / 241.90' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.99 cfs @ 12.10 hrs HW=243.34' TW=242.38' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.99 cfs @ 2.74 fps)

Summary for Pond CB4:

Inflow Area = 17,320 sf, 68.62% Impervious, Inflow Depth = 4.65" for 25-Year event
Inflow = 1.93 cfs @ 12.10 hrs, Volume= 6,713 cf
Outflow = 1.93 cfs @ 12.10 hrs, Volume= 6,713 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.93 cfs @ 12.10 hrs, Volume= 6,713 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 251.24' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	250.45'	**15.0" Round Culvert** L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 250.45' / 242.00' S= 0.0782 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.90 cfs @ 12.10 hrs HW=251.23' TW=234.34' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.90 cfs @ 2.37 fps)

Summary for Pond CB5:

Inflow Area = 77,845 sf, 34.86% Impervious, Inflow Depth = 3.77" for 25-Year event
Inflow = 5.60 cfs @ 12.12 hrs, Volume= 24,473 cf
Outflow = 5.60 cfs @ 12.12 hrs, Volume= 24,473 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.60 cfs @ 12.12 hrs, Volume= 24,473 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs

Peak Elev= 242.58' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	241.15'	**18.0" Round Culvert** L= 120.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 241.15' / 234.00' S= 0.0596 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.38 cfs @ 12.12 hrs HW=242.53' TW=234.44' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 5.38 cfs @ 3.16 fps)

Summary for Pond CB6:

Inflow Area = 41,990 sf, 14.22% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf
Outflow = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 242.86' @ 12.23 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	241.60'	**15.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 241.60' / 241.40' S= 0.0111 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.97 cfs @ 12.25 hrs HW=242.78' TW=242.35' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 2.97 cfs @ 2.48 fps)

Summary for Pond CB7: CB-7

Inflow Area = 41,990 sf, 14.22% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf
Outflow = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf, Atten= 0%, Lag= 0.1 min
Primary = 2.48 cfs @ 12.25 hrs, Volume= 11,226 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 248.05' @ 12.25 hrs Surf.Area= 48 sf Storage= 3 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (836.5 - 836.5)

Volume	Invert	Avail.Storage	Storage Description
#1	247.85'	1,357 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
247.85	5	0	0
248.00	15	2	2
250.00	1,340	1,355	1,357

Device	Routing	Invert	Outlet Devices
#1	Primary	243.65'	**12.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 243.65' / 243.40' S= 0.0060 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	247.85'	**Neenah R4345 Beehive Grate Light Duty-req. structure** Head (feet) 0.00 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.50 0.60 0.70 0.80 0.90 1.00 Disch. (cfs) 0.000 0.900 1.600 2.500 3.500 4.000 4.600 5.300 6.800 7.500 8.100 8.600 9.100 9.600

Primary OutFlow Max=2.43 cfs @ 12.25 hrs HW=248.05' TW=242.78' (Dynamic Tailwater)
↑**1=Culvert** (Passes 2.43 cfs of 5.89 cfs potential flow)
↑**2=Neenah R4345 Beehive Grate Light Duty-req. structure** (Custom Controls 2.43 cfs)

Summary for Pond FB1&2: Filter Basin

Inflow Area = 216,805 sf, 33.43% Impervious, Inflow Depth = 3.78" for 25-Year event
Inflow = 17.86 cfs @ 12.12 hrs, Volume= 68,344 cf
Outflow = 5.97 cfs @ 12.51 hrs, Volume= 68,353 cf, Atten= 67%, Lag= 23.4 min
Primary = 5.81 cfs @ 12.51 hrs, Volume= 68,277 cf
Secondary = 0.17 cfs @ 12.51 hrs, Volume= 76 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 235.04' @ 12.51 hrs Surf.Area= 13,669 sf Storage= 26,758 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 263.0 min (1,074.6 - 811.6)

Volume	Invert	Avail.Storage	Storage Description
#1	232.00'	41,810 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
232.00	5,260	0	0
234.00	9,500	14,760	14,760
236.00	17,550	27,050	41,810

Device	Routing	Invert	Outlet Devices
#1	Primary	229.73'	**10.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 229.73' / 229.00' S= 0.0243 '/' Cc= 0.900 n= 0.013, Flow Area= 0.55 sf
#2	Device 1	229.83'	**1.7" Vert. 1-3/4" Orifice** C= 0.600
#3	Device 2	232.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	233.50'	**15.0" W x 11.0" H Vert. Orifice/Grate** C= 0.600
#5	Device 1	234.45'	**Neenah R4345 Beehive Grate Light Duty-req. structure** Head (feet) 0.00 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.50 0.60 0.70 0.80 0.90 1.00 Disch. (cfs) 0.000 0.900 1.600 2.500 3.500 4.000 4.600 5.300 6.800 7.500 8.100 8.600 9.100 9.600

#6	Secondary	235.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.81 cfs @ 12.51 hrs HW=235.03' TW=229.11' (Dynamic Tailwater)
- **1=Culvert** (Inlet Controls 5.81 cfs @ 10.64 fps)
  - **2=1-3/4" Orifice** (Passes < 0.17 cfs potential flow)
    - **3=Exfiltration** (Passes < 0.76 cfs potential flow)
  - **4=Orifice/Grate** (Passes < 5.68 cfs potential flow)
  - **5=Neenah R4345 Beehive Grate Light Duty-req. structure** (Passes < 7.38 cfs potential flow)

Secondary OutFlow Max=0.16 cfs @ 12.51 hrs HW=235.03' TW=0.00' (Dynamic Tailwater)
- **6=Broad-Crested Rectangular Weir** (Weir Controls 0.16 cfs @ 0.46 fps)

Summary for Pond FB3: Filter Basin

Inflow Area = 73,990 sf, 13.34% Impervious, Inflow Depth = 3.21" for 25-Year event
Inflow = 4.01 cfs @ 12.33 hrs, Volume= 19,781 cf
Outflow = 3.44 cfs @ 12.51 hrs, Volume= 19,783 cf, Atten= 14%, Lag= 10.5 min
Primary = 3.44 cfs @ 12.51 hrs, Volume= 19,783 cf
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 242.31' @ 12.51 hrs Surf.Area= 2,965 sf Storage= 5,076 cf

Plug-Flow detention time= 207.2 min calculated for 19,756 cf (100% of inflow)
Center-of-Mass det. time= 208.5 min (1,050.1 - 841.7)

Volume	Invert	Avail.Storage	Storage Description
#1	240.00'	11,390 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
240.00	1,520	0	0
242.00	2,685	4,205	4,205
244.00	4,500	7,185	11,390

Device	Routing	Invert	Outlet Devices
#1	Primary	237.73'	**10.0" Round Culvert** L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 237.73' / 237.30' S= 0.0093 '/' Cc= 0.900 n= 0.013, Flow Area= 0.55 sf
#2	Device 1	237.80'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 2	240.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	241.50'	**15.0" W x 9.0" H Vert. Orifice/Grate** C= 0.600
#5	Device 1	242.25'	**Neenah R4345 Beehive Grate Light Duty-req. structure** Head (feet) 0.00 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.50 0.60 0.70 0.80 0.90 1.00 Disch. (cfs) 0.000 0.900 1.600 2.500 3.500 4.000 4.600 5.300 6.800 7.500 8.100 8.600 9.100 9.600
#6	Secondary	242.70'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.41 cfs @ 12.51 hrs HW=242.31' TW=237.07' (Dynamic Tailwater)
- **1=Culvert** (Passes 3.41 cfs of 4.89 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.06 cfs @ 10.17 fps)
    - **3=Exfiltration** (Passes 0.06 cfs of 0.17 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 2.85 cfs @ 3.04 fps)
  - **5=Neenah R4345 Beehive Grate Light Duty-req. structure** (Custom Controls 0.50 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=240.00' TW=237.00' (Dynamic Tailwater)
- **6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond W: Wetland

Inflow Area = 162,545 sf, 8.79% Impervious, Inflow Depth = 3.11" for 25-Year event
Inflow = 7.81 cfs @ 12.41 hrs, Volume= 42,158 cf
Outflow = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf, Atten= 48%, Lag= 24.2 min
Primary = 4.03 cfs @ 12.81 hrs, Volume= 37,176 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs
Peak Elev= 250.23' @ 12.81 hrs Surf.Area= 20,013 sf Storage= 14,839 cf

Plug-Flow detention time= 135.2 min calculated for 37,176 cf (88% of inflow)
Center-of-Mass det. time= 79.2 min (928.2 - 849.0)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	74,128 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	4,775	0	0
250.00	16,520	10,648	10,648
252.00	46,960	63,480	74,128

Device	Routing	Invert	Outlet Devices
#1	Primary	249.60'	**3.0' long x 80.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.02 cfs @ 12.81 hrs HW=250.23' TW=246.00' (Dynamic Tailwater)
- **1=Broad-Crested Rectangular Weir** (Weir Controls 4.02 cfs @ 2.13 fps)

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=162,545 sf 8.79% Impervious Runoff Depth=1.03"
Flow Length=409' Tc=28.7 min CN=75 Runoff=2.45 cfs 13,908 cf

Subcatchment11: Runoff Area=28,060 sf 58.77% Impervious Runoff Depth=1.91"
Tc=6.0 min CN=88 Runoff=1.35 cfs 4,460 cf

Subcatchment12: Runoff Area=25,580 sf 17.10% Impervious Runoff Depth=1.08"
Flow Length=106' Slope=0.1100 '/' Tc=11.6 min CN=76 Runoff=0.57 cfs 2,309 cf

Subcatchment20: Runoff Area=62,640 sf 17.80% Impervious Runoff Depth=1.20"
Flow Length=410' Tc=7.0 min CN=78 Runoff=1.81 cfs 6,267 cf

Subcatchment30: Runoff Area=41,990 sf 14.22% Impervious Runoff Depth=1.08"
Flow Length=221' Tc=17.8 min CN=76 Runoff=0.80 cfs 3,789 cf

Subcatchment31: Runoff Area=35,855 sf 59.03% Impervious Runoff Depth=1.91"
Tc=6.0 min CN=88 Runoff=1.72 cfs 5,699 cf

Subcatchment32: Runoff Area=17,320 sf 68.62% Impervious Runoff Depth=2.08"
Tc=6.0 min CN=90 Runoff=0.90 cfs 2,997 cf

Subcatchment33: Runoff Area=30,940 sf 18.79% Impervious Runoff Depth=1.26"
Flow Length=113' Tc=8.5 min CN=79 Runoff=0.89 cfs 3,254 cf

Subcatchment34: Runoff Area=210,895 sf 2.81% Impervious Runoff Depth=0.82"
Flow Length=283' Tc=23.4 min CN=71 Runoff=2.59 cfs 14,387 cf

Subcatchment40: Runoff Area=73,990 sf 13.34% Impervious Runoff Depth=1.08"
Flow Length=409' Tc=23.4 min CN=76 Runoff=1.28 cfs 6,677 cf

Subcatchment41: Runoff Area=132,425 sf 0.60% Impervious Runoff Depth=0.82"
Flow Length=394' Tc=26.7 min CN=71 Runoff=1.56 cfs 9,034 cf

Reach R10: Avg. Flow Depth=0.09' Max Vel=3.77 fps Inflow=0.43 cfs 8,926 cf
n=0.022 L=197.0' S=0.1015 '/' Capacity=57.52 cfs Outflow=0.43 cfs 8,926 cf

Reach R11: Avg. Flow Depth=0.32' Max Vel=1.19 fps Inflow=1.35 cfs 4,460 cf
n=0.069 L=365.0' S=0.0216 '/' Capacity=11.28 cfs Outflow=1.13 cfs 4,460 cf

Reach R12: Avg. Flow Depth=0.03' Max Vel=0.89 fps Inflow=0.81 cfs 26,479 cf
n=0.070 L=128.0' S=0.1719 '/' Capacity=105.77 cfs Outflow=0.81 cfs 26,479 cf

Reach R13: Avg. Flow Depth=0.01' Max Vel=0.82 fps Inflow=0.20 cfs 6,684 cf
n=0.030 L=96.0' S=0.0938 '/' Capacity=105.64 cfs Outflow=0.20 cfs 6,684 cf

Reach R14: Avg. Flow Depth=0.03' Max Vel=0.84 fps Inflow=0.20 cfs 6,684 cf
n=0.030 L=110.0' S=0.0291 '/' Capacity=389.46 cfs Outflow=0.20 cfs 6,684 cf

Reach SP1: Inflow=0.57 cfs 11,235 cf
Outflow=0.57 cfs 11,235 cf

Reach SP2: Inflow=2.74 cfs 40,865 cf
Outflow=2.74 cfs 40,865 cf

Reach SP3: Inflow=1.60 cfs 15,717 cf
Outflow=1.60 cfs 15,717 cf

Pond C: Culvert Peak Elev=246.00' Storage=0 cf Inflow=0.43 cfs 8,926 cf
15.0" Round Culvert n=0.013 L=86.0' S=0.0070 '/' Outflow=0.43 cfs 8,926 cf

Pond CB2: Peak Elev=242.94' Inflow=1.35 cfs 4,460 cf
15.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=1.35 cfs 4,460 cf

Pond CB4: Peak Elev=250.96' Inflow=0.90 cfs 2,997 cf
15.0" Round Culvert n=0.013 L=108.0' S=0.0782 '/' Outflow=0.90 cfs 2,997 cf

Pond CB5: Peak Elev=241.93' Inflow=2.22 cfs 9,488 cf
18.0" Round Culvert n=0.013 L=120.0' S=0.0596 '/' Outflow=2.22 cfs 9,488 cf

Pond CB6: Peak Elev=242.14' Inflow=0.81 cfs 3,789 cf
15.0" Round Culvert n=0.013 L=18.0' S=0.0111 '/' Outflow=0.81 cfs 3,789 cf

Pond CB7: CB-7 Peak Elev=247.94' Storage=1 cf Inflow=0.80 cfs 3,789 cf
Outflow=0.81 cfs 3,789 cf

Pond FB1&2: Filter Basin Peak Elev=233.80' Storage=12,905 cf Inflow=6.90 cfs 26,466 cf
Primary=0.81 cfs 26,479 cf Secondary=0.00 cfs 0 cf Outflow=0.81 cfs 26,479 cf

Pond FB3: Filter Basin Peak Elev=241.61' Storage=3,209 cf Inflow=1.28 cfs 6,677 cf
Primary=0.20 cfs 6,684 cf Secondary=0.00 cfs 0 cf Outflow=0.20 cfs 6,684 cf

Pond W: Wetland Peak Elev=249.74' Storage=6,790 cf Inflow=2.45 cfs 13,908 cf
Outflow=0.43 cfs 8,926 cf

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=162,545 sf 8.79% Impervious Runoff Depth=2.13"
Flow Length=409' Tc=28.7 min CN=75 Runoff=5.30 cfs 28,839 cf

Subcatchment11: Runoff Area=28,060 sf 58.77% Impervious Runoff Depth=3.29"
Tc=6.0 min CN=88 Runoff=2.28 cfs 7,694 cf

Subcatchment12: Runoff Area=25,580 sf 17.10% Impervious Runoff Depth=2.21"
Flow Length=106' Slope=0.1100 '/' Tc=11.6 min CN=76 Runoff=1.19 cfs 4,711 cf

Subcatchment20: Runoff Area=62,640 sf 17.80% Impervious Runoff Depth=2.38"
Flow Length=410' Tc=7.0 min CN=78 Runoff=3.67 cfs 12,401 cf

Subcatchment30: Runoff Area=41,990 sf 14.22% Impervious Runoff Depth=2.21"
Flow Length=221' Tc=17.8 min CN=76 Runoff=1.70 cfs 7,733 cf

Subcatchment31: Runoff Area=35,855 sf 59.03% Impervious Runoff Depth=3.29"
Tc=6.0 min CN=88 Runoff=2.91 cfs 9,831 cf

Subcatchment32: Runoff Area=17,320 sf 68.62% Impervious Runoff Depth=3.49"
Tc=6.0 min CN=90 Runoff=1.47 cfs 5,040 cf

Subcatchment33: Runoff Area=30,940 sf 18.79% Impervious Runoff Depth=2.46"
Flow Length=113' Tc=8.5 min CN=79 Runoff=1.78 cfs 6,344 cf

Subcatchment34: Runoff Area=210,895 sf 2.81% Impervious Runoff Depth=1.82"
Flow Length=283' Tc=23.4 min CN=71 Runoff=6.31 cfs 31,970 cf

Subcatchment40: Runoff Area=73,990 sf 13.34% Impervious Runoff Depth=2.21"
Flow Length=409' Tc=23.4 min CN=76 Runoff=2.74 cfs 13,626 cf

Subcatchment41: Runoff Area=132,425 sf 0.60% Impervious Runoff Depth=1.82"
Flow Length=394' Tc=26.7 min CN=71 Runoff=3.74 cfs 20,074 cf

Reach R10: Avg. Flow Depth=0.22' Max Vel=6.16 fps Inflow=2.25 cfs 23,857 cf
n=0.022 L=197.0' S=0.1015 '/' Capacity=57.52 cfs Outflow=2.26 cfs 23,857 cf

Reach R11: Avg. Flow Depth=0.43' Max Vel=1.39 fps Inflow=2.28 cfs 7,694 cf
n=0.069 L=365.0' S=0.0216 '/' Capacity=11.28 cfs Outflow=1.95 cfs 7,694 cf

Reach R12: Avg. Flow Depth=0.09' Max Vel=1.62 fps Inflow=4.40 cfs 49,053 cf
n=0.070 L=128.0' S=0.1719 '/' Capacity=105.77 cfs Outflow=4.38 cfs 49,053 cf

Reach R13: Avg. Flow Depth=0.04' Max Vel=1.87 fps Inflow=1.71 cfs 13,628 cf
n=0.030 L=96.0' S=0.0938 '/' Capacity=105.64 cfs Outflow=1.70 cfs 13,628 cf

Reach R14: Avg. Flow Depth=0.11' Max Vel=1.81 fps Inflow=1.70 cfs 13,628 cf
n=0.030 L=110.0' S=0.0291 '/' Capacity=389.46 cfs Outflow=1.72 cfs 13,628 cf

Reach SP1: Inflow=2.45 cfs 28,567 cf
Outflow=2.45 cfs 28,567 cf

Reach SP2: Inflow=9.97 cfs 81,023 cf
Outflow=9.97 cfs 81,023 cf

Reach SP3: Inflow=4.79 cfs 33,702 cf
Outflow=4.79 cfs 33,702 cf

Pond C: Culvert Peak Elev=246.00' Storage=0 cf Inflow=2.25 cfs 23,857 cf
15.0" Round Culvert n=0.013 L=86.0' S=0.0070 '/' Outflow=2.25 cfs 23,857 cf

Pond CB2: Peak Elev=243.17' Inflow=2.28 cfs 7,694 cf
15.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=2.28 cfs 7,694 cf

Pond CB4: Peak Elev=251.12' Inflow=1.47 cfs 5,040 cf
15.0" Round Culvert n=0.013 L=108.0' S=0.0782 '/' Outflow=1.47 cfs 5,040 cf

Pond CB5: Peak Elev=242.28' Inflow=4.07 cfs 17,564 cf
18.0" Round Culvert n=0.013 L=120.0' S=0.0596 '/' Outflow=4.07 cfs 17,564 cf

Pond CB6: Peak Elev=242.50' Inflow=1.70 cfs 7,733 cf
15.0" Round Culvert n=0.013 L=18.0' S=0.0111 '/' Outflow=1.70 cfs 7,733 cf

Pond CB7: CB-7 Peak Elev=248.01' Storage=2 cf Inflow=1.70 cfs 7,733 cf
Outflow=1.70 cfs 7,733 cf

Pond FB1&2: Filter Basin Peak Elev=234.49' Storage=19,905 cf Inflow=12.87 cfs 49,043 cf
Primary=4.40 cfs 49,053 cf Secondary=0.00 cfs 0 cf Outflow=4.40 cfs 49,053 cf

Pond FB3: Filter Basin Peak Elev=242.05' Storage=4,354 cf Inflow=2.74 cfs 13,626 cf
Primary=1.71 cfs 13,628 cf Secondary=0.00 cfs 0 cf Outflow=1.71 cfs 13,628 cf

Pond W: Wetland Peak Elev=250.03' Storage=11,079 cf Inflow=5.30 cfs 28,839 cf
Outflow=2.25 cfs 23,857 cf

ATTACHMENT 6

INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN

DM ROMA
CONSULTING ENGINEERS

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

(Prepared by Jayson Haskell, PE #13002)

LEGACY VILLAGE RETIREMENT COMMUNITY
WINDHAM, MAINE

Responsible Party

Owner: Robie Holdings, LLC
P.O. Box 1508
Windham, ME 04062

The owner/applicant is 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. Once the association is established, maintenance will be the responsibility of the association. The applicant is responsible for contacting the Town when this occurs for their records.

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 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 Maine Department of Environmental Protection (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, including winter work, at least once a week as well as 24 hours before and after a storm event generating more than 0.5 inch of rainfall over a 24-hour period 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. **Construction vehicles and equipment:** Construction vehicles and equipment shall not be driven or stored within any proposed stormwater treatment ponds.

4. **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 Town 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.

Housekeeping

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:** It is the contractor's responsibility to 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 Town 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 Town'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 Post-Construction Stormwater Inspector hired by the owner shall at least annually inspect the stormwater management facilities. This person should have knowledge of erosion and stormwater control, including the standards and conditions of the site's approvals. 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. **Vegetated Swales:** Inspect swales 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. Grass to be mowed to a minimum height of six inches. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. 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 riprap inlet, at

the riprap outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.

D. **Catch Basins and Outlet Control Structures:** Inspect and, if required, clean out catch basins at least once a year, preferably in early spring. Clean out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).

E. **Underdrained Filter Basin:** The filter basins are not intended to function as snow storage areas. Inspector to verify that winter plowing operations are not dumping or pushing snow into the basins. The basins shall also not be used for vehicle or heavy equipment storage. Basins should be inspected after several major storm events (0.5 inches rainfall over 24 hours) to determine drawdown time during the first year. The basins to be inspected every six months thereafter with at least one inspection after a major storm event.

   The basins should drain dry within 24 to 48 hours following a one-inch storm. 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 forebays and basins and remove as needed. Mowing of the basins can only occur semi-annually to a height of no less than 6 inches utilizing a hand-held string trimmer or push-mower. Any bare areas or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. The basins should also be inspected annually for destabilization of side slopes, embankment settling and other signs of structural failure.

F. **Level Spreader:** Level spreader should be inspected semi-annually and following major storm events for the first year and every six months thereafter to remove any obstructions to flow. Stormwater runoff should discharge from the level spreader as sheet flow, and any observed channelization of flows or erosion should be corrected immediately. Any woody vegetation growing through riprap must be removed. Replace riprap on areas where any underlying soil or sediment buildup is showing through the stone or where stones have been dislodged.

G. **Emergency Spillway:** Spillways should be inspected semi-annually and following major storm events for the first year and every six months thereafter to remove any obstructions to flow. Any woody vegetation growing through riprap lining must be removed. Replace riprap on areas where any underlying filter fabric is showing through the stone or where stones have been dislodged.

H. **Roofline Drip edges:** The drip edges 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 24 to 48 hours following a major storm event. 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 drip edges are part of the stormwater management plan and cannot be paved over or altered in anyway.

I. **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.

J. **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.

Duration of Maintenance

Perform maintenance as described.

MAINTENANCE LOG

LEGACY VILLAGE RETIREMENT COMMUNITY
WINDHAM, MAINE

(GENERAL INSPECTION FORM PAGE 1 OF 2)

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.			
Vegetated Swales	Inspect after major rainfall event			
	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 within inlet and outlet aprons.			
	Clean accumulated sediment in culverts when >20% full.			
Catch Basins	Inspect to ensure that structure is properly draining.			
	Remove accumulated sediment semiannually.			
	Inspect grates/inlets and remove debris as needed.			

MAINTENANCE LOG

LEGACY VILLAGE RETIREMENT COMMUNITY
WINDHAM, MAINE

(GENERAL INSPECTION FORM PAGE 2 OF 2)

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
Roofline Dripedges	Check after each rainfall event to ensure that the stone reservoir drains within 24-48 hours.			
	Replace top several inches of filter if reservoir does not drain within 72 hours.			
	Inspect and remove sediment or debris build up on the surface of the stone			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
Regular Maintenance	Clear accumulation of winter sand in paved areas annually.			

MAINTENANCE LOG

LEGACY VILLAGE RETIREMENT COMMUNITY
WINDHAM, MAINE

(UNDERDRAINED FILTER BASIN FB-_____)

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Underdrained Filter Basin	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.			
	Mow grass no more than twice a year to no less than 6 inches in height.			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
	Inspector to verify basin not utilized for snow storage			
	Inspector to verify basin not utilized for vehicle or heavy equipment storage.			
Outlet Control Structure	Inspect to ensure that structure is properly draining.			
	Remove accumulated sediment semiannually.			
	Inspect grates/inlets and remove debris as needed.			
Emergency Spillway	Inspect and remove obstructions as necessary.			
	Remove woody vegetation.			
	Replace riprap as necessary.			

SECTION 17

SOILS INFORMATION

MARK HAMPTON ASSOCIATES, INC.
SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Soil Narrative Report

DATE:	Soil Profiles observed on July 12, 2025
BASE MAP:	Base plan prepared by DM Roma Consulting Engineers. Scale 1-inch equals 60 feet and two-foot contours.
GROUND CONTROL:	Soil survey boundaries located by Mark Hampton Associates, Inc. for Class A Soil Survey

Class A-High Intensity Soil Survey (Minimum Standards)

Mapping units of 1/8 acre or larger.
Scale of 1"= 100 feet or larger.
Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils.
Ground Control – test pits located under direction of professional land surveyor or professional engineer.
Base Map –2 foot contour intervals

Provided:

Mapping units of 1/8 acre or larger
Base map scale of 1"= 60 feet.
Up to 25 percent inclusions in mapping units of which no more than 15 percent is dissimilar soils.
Baseline information and test pits located by pacing and taping from know survey control points.
Ground topographic survey with one-foot contours and ground control provided.

The accompanying soil profile descriptions, soil map, and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.

Mark J. Hampton C.S.S. #216, L.S.E. #263 January 14, 2025

Mark J. Hampton Date



MARK HAMPTON ASSOCIATES, INC.
SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Dixfield
(Aquic Haplorthods)

SETTING

PARENT MATERIAL:	Derived from compact loamy glacial till.
LANDFORM:	Till plains, hills and ridges.
POSITION IN LANDSCAPE:	Plains and middle levels.
SLOPE GRADIENT RANGES:	(A) 0-3%, (B) 3-8%, (C) 8-15%, (D) 15-25%, (E) >25%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Moderately well drained with a perched watertable from 1.0 to 2.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark brown, stony sandy loam, 0-7"
Subsurface Layer:	Brown, sandy loam, 7-20"
Subsoil Layer:	Olive brown, stony sandy loam 16-31"
Substratum:	Olive gray, stony sandy loam, 25-65"

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderately Rapid
PERMEABILITY:	Moderate in solum, slow in substratum
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS

(Within Mapping Unit)

CONTRASTING: Brayton, Colonel, Lamoine, Scantic

USE AND MANAGEMENT

Development: There are few limiting factors for building site development



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8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Colonel
(Aquic Haplorthods)

SETTING

PARENT MATERIAL:	Derived from dense, loamy glacial till
LANDFORM:	Drumlins and Sideslopes of glaciated uplands
POSITION IN LANDSCAPE:	Mid-positions on landform
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Somewhat poorly drained with a perched watertable from 1.0 to 2.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dk gray brown, stony sandy loam 0-3"
Subsurface Layer:	Dark Brown, stony sandy loam, 3-12"
Subsoil Layer:	Olive Brown, stony sandy loam, 12-18"
Substratum:	Olive, stony, sandy loam, 18-65"

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Moderate and moderately slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None



INCLUSIONS

(Within Mapping Unit)

CONTRASTING: Dixfield, Brayton

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Lamoine
(Aeric Haplaquepts)

SETTING

PARENT MATERIAL:	Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM:	Coastal lowlands and river valleys
POSITION IN LANDSCAPE:	Intermediate positions on landform
SLOPE GRADIENT RANGES:	(B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Somewhat poorly drained with a perched watertable from 0.5 to 2.0 feet below the surface at some time from November to June or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark Brown, fine sandy loam 0-7"
Subsurface Layer:	Lt. Olive brown silt loam, 7-14"
Subsoil Layer:	Olive silty clay loam, 14-21"
Substratum:	Olive, silty clay loam, 21-65"

HYDROLOGIC GROUP:	Group D
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None



INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Dixfield, Scantic

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Scantic
(Aquic Haplorthod)

SETTING

PARENT MATERIAL:	Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM:	Coastal lowlands and river valleys
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dark grayish brown, silt loam 0-9"
Subsurface Layer:	Olive gray silt loam, 9-16"
Substratum:	Gray silty clay loam, 16"+

HYDROLOGIC GROUP:	Group D
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Lamoine, Dixfield



USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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8358

Webb Road Property
Robie Holdings LLC
Webb Road
Windham, ME

Brayton
(Aeric Epiaquepts)

SETTING

PARENT MATERIAL:	Derived from dense glacial till
LANDFORM:	Toeslopes and depressions in glaciated uplands
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

TYPICAL PROFILE:

Surface Layer:	Dk gray, fine sandy loam 0-5",
Subsurface Layer:	Gray fine sandy loam, 5-15",
Subsoil Layer:	Grayish brown fine sandy loam, 15-24"
Substratum:	Olive fine sandy loam, 24-65",

HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Moderate and moderately slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Dixfield Colonel



USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of an extremely high watertable for a portion of the year. This soil is not suitable for development without alteration, which may require additional permitting.

9358

PAGE ____ OF ____ FORM F (SS1) Rev. 7/21

SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name: Webb Road Property | Applicant Name: Robie Holdings LLC | Project Location (municipality): Windham

Exploration Symbol # SS-1 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-2 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/A	Black	Sandy Loam	Weak Angular	Very Friable	
Eg	Gray	Sandy Loam	Sub Ang Blocky	Friable	Common and Distinct
BC	Olive Brown	Sandy Loam	Thin Platy	Firm	
Cd	Olive Gray	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Brayton

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-3 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Colonel

Limiting Factor: 12" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-4 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-5 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Depth below mineral soil horizon (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-6 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Depth below mineral soil horizon (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 15 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-7 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Depth below mineral soil horizon (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 18" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-8 ☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Depth below mineral soil horizon (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name: Webb Road Property

Applicant Name: Robie Holdings LLC

Project Location (municipality): Windham

Exploration Symbol # SS-9

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15" Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-10

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Dark Brown	Silt Loam	Weak Angular	Very Friable	
Bw	Brown	Silt Loam	Sub Ang Blocky	Friable	
BC	Olive Brown	Silt Loam	Thin Platy	Firm	Common and Distinct
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Lamoine

Limiting Factor: 13" Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☐ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-11

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Fine Grandul	Friable	
Eg	Gray	Silt Loam	Weak Sub Ang Blocky	Friable	Common and Distinct
Bg	Olive Brown	Silty Clay Loam	Thin Platy	Firm	
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 6" Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-12

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon (inches)

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Grand	Friable	
Eg	Gray	Silt Loam	Fine Grandul	Friable	
Bg	Olive Brown	Silty Clay Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Silty Clay Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 5" Depth — ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MD ☐ SPD ☒ PD ☐ vPD

Slope: >25 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-13 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 15 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-14 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
Ap	Black	Silt Loam	Weak Angular	Very Friable	
Eg	Gray	Silt Loam	Sub Ang Blocky	Friable	
Bg	Olive Brown	Silty Clay Loam	Thin Platy	Firm	Common and Distinct
Cg	Olive	Silty Clay Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Scantic

Limiting Factor: 6 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-15 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-16 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Eg	Brown	Sandy Loam	Fine Grandul	Friable	
Bg	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-17

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	18 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	6 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-18

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	10 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-19

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	2 Percent	☒ No ☐ Yes	Soil Group

Exploration Symbol # SS-20

☐ Test Pit ☒ Boring ☐ Probe

____" Organic horizon thickness Ground surface elev. ____

____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Eg	Brown	Sandy Loam	Fine Grandul	Friable	
Bg	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cg	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name:	Limiting Factor		Drainage Class	Slope	Hydric Soil	Hydrologic
Dixfield	16 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock	☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD	4 Percent	☒ No ☐ Yes	Soil Group

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-21 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Colonel

Limiting Factor: 14" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☒ SPD ☐ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-22 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/A	Black	Sandy Loam	Weak Angular	Very Friable	
Eg	Gray	Sandy Loam	Sub Ang Blocky	Friable	Common and Distinct
BC	Olive Brown	Sandy Loam	Thin Platy	Firm	
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Brayton

Limiting Factor: 6" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD

Slope: 2 Percent

Hydric Soil: ☐ No ☒ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-23 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 15" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-24 ☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details ▶▶

Soil Series/Phase Name: Dixfield

Limiting Factor: 16" Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 4 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
Webb Road Property	Robie Holdings LLC	Windham

Exploration Symbol # SS-25

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandu	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 20 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-26

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-27

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☒ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Fine Grandul	Friable	
Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	
Bs	Olive Brown	Sandy Loam	Thin Platy	Firm	Common and Distinct
Cd	Olive	Sandy Loam	Medium Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 15 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: >25 Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

Exploration Symbol # SS-28

☐ Test Pit ☒ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth: ☐ of exploration, or ☐ to refusal

Depth below mineral soil horizon *(inches)*

Horizon	Color	Texture	Structure	Consistence	Redox
O/E	Dark Brown	Sandy Loam	Grand	Friable	
Bhs	Brown	Sandy Loam	Fine Grandul	Friable	
Bs	Olive Brown	Sandy Loam	Fine Grandul	Firm	Common and Distinct
Cd	Olive Gray	Sandy Loam	Platy	Very Firm	

Soil Details

Soil Series/Phase Name: Dixfield

Limiting Factor: 16 " Depth ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Drainage Class: ☐ ED ☐ SED ☐ WD ☒ MWD ☐ SPD ☐ PD ☐ VPD

Slope: 2[illegible] Percent

Hydric Soil: ☒ No ☐ Yes

Hydrologic Soil Group:

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To: DM Roma Consulting Engineers
PO Box 1116
Windham, ME 04062

Date: April 5, 2025

From: Alexander A. Finamore, LSE
Mainely Soils, LLC

Re: 15 Read Road, Windham, ME – Wetland Delineation Memorandum

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At the request of DM Roma Consulting Engineers (the "Client"), Mainely Soils conducted on-site wetland and waterbody delineations on a parcel, approximately 27.97 acres in size located on Read Road in Windham, Maine. These field investigations were performed to provide baseline environmental data to inform the client of potential development/use of the site. The natural resources assessments described in this memorandum were completed in April of 2025. In addition to describing the identified resources this report describes the existing conditions within the study area, and the methodologies employed for the assessments.

PROJECT DESCRIPTION

The project site is located within the Farm District along the Gray Road corridor in the Town of Windham. The site is currently occupied by a single family home, open field and forested land. Surrounding land use of the site is residential to the north, east and west and an overhead electric utility corridor to the south. Access to the site is currently from both Read Road to the north and Webb Road to the east. In total, the wetland and waterbody delineation and vernal pool survey area encompassed approximately 27.97 acres, identified by the Town of Windham as Tax Map 6, Lot 33.

SITE DESCRIPTION

The Study Area occurs in the Sebago-Ossipee Hills & Plains biophysical region of Maine (Schlawin & Cutko, 2014). The Sebago-Ossipee Hills & Plains biophysical region is characterized by variable topography, ranging from plains to low hills of low relief along the Atlantic coast. Interior areas are high hills to semi-mountainous, parts of which were glaciated. Vegetation is characterized by tall, cold-deciduous broadleaf forests that have a high proportion of mesophytic species. Bedrock geology is varied and complex, consisting of sedimentary, igneous, and metamorphic rocks. Forest vegetation includes oak-hickory, white-red-jack pine, maple-beech-birch, and aspen-birch cover types. The survey area is located within the Presumpscot River watershed (Hydrologic Unit Classification (HUC) 8 identification 01060001).

The Natural Resource Conservation Service soil survey mapping identifies native soils within the upland areas at the site as being formed in lodgment till on hills, drumlins, till plains, and ground moraines (Paxton series). (Web Soil Survey, 2025). Wetlands within the wetland areas are shown as being formed within glaciolacustrine or glaciomarine deposits on coastal lowlands and river valleys (Lamoine series)

Study Methodology

Mainely Soils conducted wetland delineation field work within the survey area on April 2nd, 2025. The boundary of wetlands were delineated in accordance with the Army Corps of Engineers 1987 Wetland Delineation Manual (1987 Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (Regional Supplement, 2012). All wetland delineations were conducted using the Routine Determination Methods, which requires that a wetland contain a dominance of hydrophytic vegetation, hydric soils, and evidence of hydrology in order to be considered a wetland. Wetland boundaries were located and recorded in the field using a Trimble® GPS unit capable of sub meter accuracy, post processed, and transferred and incorporated onto project mapping.

Five distinct wetland areas were delineated throughout the study area. Additional field notes were also taken to record the classification of each wetland in accordance with the Classification of Wetlands and Deepwater Habitats of the United States, general site characteristics, unique qualities observed during the site assessment, and other considerations relevant to investigation findings and the future completion of a wetlands functions and values assessment in accordance with the Highway Methodology Workbook: Supplement. Representative photographs of each wetland were taken, field sketches were labeled of the wetland boundary on an aerial photograph-based map, and notes were recorded on the flagging sequence for each wetland.

Mainely Soils also surveyed the site for streams, in accordance with the State of Maine Natural Resources Protection Act stream criteria and definitions. No streams were observed onsite

Study Results

Using the methodologies described above, a wetland delineation was performed on April 2nd, 2025. A description of the identified resources follows. Supporting attachments include Representative Photographs (Attachment 1). Wetland Delineation Data Forms can be provided upon request.

Wetlands at the project site consisted of five distinct features. All five wetlands were located within a forested setting within a depressions in the surrounding landscape Wetlands were characterized as a seasonally saturated palustrine forested wetland (PFO1E) dominated by deciduous trees. Wetland vegetation in this area was dominated by red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), balsam fir (*Abies balsamea*), yellow birch (*Betula alleghaniensis*), black ash (*Fraxinus nigra*), speckled alder (*Alnus incana*), highbush blueberry (*Vaccinium corymbosum*), cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), royal fern (*Osmunda regalis*), and common horsetail (*Equisetum arvense*). Soils within this wetland consisted of a thin dark muck over a depleted sand substratum meeting the definition of hydric soil criteria A11: Depleted Below Dark Surface. Evidence of wetland hydrology included small pockets of standing water, water stained leaves, and saturation to the soil surface at the time of field investigations.

No juisdictional streams were observed within the Study Area.

Summary

The information contained in this memorandum was collected in order to provide detailed, on-site information regarding wetland and waterbody resources. This information is intended to be used for project planning purposes and to support permitting needs. Five wetlands were delineated on the site and were identified as Wetlands A,B, C, D, and E. The wetland features were located within sandy glacial till soils in depressional features. The wetlands generally exhibited seasonally saturated/flooded hydroperiods, and provided groundwater discharge, floodflow alteration, wildlife habitat, and stormwater/water quality maintenance functions. One perennial stream was observed.

Wetlands are regulated by the U.S. Army Corps of Engineers under the federal Clean Water Act, and by the Maine Department of Environmental Protection under the Maine Natural Resources Protection Act (NRPA). The State of Maine further differentiates wetlands under NRPA by regulating certain wetlands as “wetlands of special significance” (WOSS). Wetlands delineated onsite did not meet the criteria of a WOSS . Impacts to wetlands resulting from proposed project development require that permits first be obtained from the MDEP and the USACE before proceeding with construction, and where applicable, municipal governing bodies. Consultation with these agencies early in the project design process is encouraged.

Wetlands within the survey area may be further regulated under municipal ordinances, such as Shoreland Zone, Site Plan Review, or other local ordinances.

References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe.1979. Classification of Wetlands and Deepwater Habitat in the United States. U.S. Fish and Wildlife Service. FWS/OBD-79/31 103pp.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

U.S. Army Corps of Engineers (USACE). 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. ERDC/EL TR-12-01. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Schlawin, J. Cutko, A. Maine Natural Areas Program. 2014. A Conservation Vision for Maine Using Ecological Systems.

Web Soil Survey. 2025. U.S. Department of Agriculture – Natural Resources Conservation Service. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Attachments:

1. Representative Site Photographs

Attachment 1

Representative Site Photographs



Photo 1: View looking northwesterly at Wetland A from flag !



Photo 2: View looking southerly at Wetland A from flag 10



Photo 3: View looking westerly at Wetland B from flag 5



Photo 4: View looking northwesterly at Wetland B from flag 10



Photo 5: View looking northerly at Wetland C from flag 3



Photo 6: View looking southeasterly at Wetland D from flag 3



Photo 7: View looking northeasterly at Wetland E from flag 1



Photo 8: View looking westerly at Wetland E from flag 5



Photo 9: Typical forested upland view onsite



Photo 10: View of upland field area in the northern portion of the site

SECTION 18

WATER SUPPLY FOR DOMESTIC AND FIRE PROTECTION USE

Section 18 – Water Supply for Domestic and Fire Protection Use

The project plans will be reviewed by the Portland Water District for approval. Once an Ability to Serve Approval Letter has been issued by the PWD, we will provide a copy of the letter to the Town.

SECTION 19

PROVISIONS FOR WASTEWATER DISPOSAL

Section 19 – Provisions for Wastewater Disposal

The retirement community on Lot 1 has a total wastewater design flow of 4,050 gallons per day based on 15 dwelling units having 3 bedrooms and 15 units having 2 bedrooms for a total of 45 bedrooms. The wastewater disposal will be treated utilizing Fuji Clean CEN Advanced Treatment Tanks and pumped to a concrete chamber leach field. The Fuji Clean CEN Advanced Treatment Units are designed to reduce Nitrate-Nitrogen concentration to below 10 mg/l before the wastewater enters the disposal field.

Septic systems with a design flow in excess of 2,000 GPD require review and approval from the Maine Department of Health and Human Services as an "Engineered System". We are currently in the process of coordinating the design and approval of the leach field with the State and will provide a copy of the final approved design and approval documentation upon receipt.

Lot 2 will require the installation of a separate on-site wastewater disposal system based on the number of bedrooms that will be served. An HHE-200 will be required to be prepared and submitted with the Building Permit application.

We have included copies of test pit logs in Section 17 to demonstrate that the soils are suitable for the installation of a leach field on Lots 1 and 2.

SECTION 20

PROJECT COST ESTIMATE AND FINANCIAL CAPACITY

Section 20 – Project Cost Estimate and Financial Capacity

The project sitework costs are estimated to be the following:

1.	Site Preparation & Clearing	$50,000
2.	Aggregates for Access Drive	$120,000
3.	Bituminous Pavement	$70,000
4.	Electrical Conduit and Risers	$60,000
5.	Stormwater BMPs	$40,000
6.	Storm Drain Collection	$40,000
7.	Water main & services	$150,000
8.	Wastewater collection & disposal	$150,000
9.	Landscaping & Lawns	$100,000
	Total Sitework Estimate:	$780,000

The 30 units of building cost is estimated at $8,000,000.

The applicant previously purchased the land so there is no additional land acquisition cost.

Enclosed is a letter from Maine Community Bank indicating that the applicant has the financial capacity to complete the project.

MAINE COMMUNITY BANK

May 19, 2026

Town of Windham

RE: Robie Contracting, Jarod Robie, et al.

To Whom It May Concern,

I work with Jarod Robie as his Commercial Lender. He has the financial capacity to complete the .Legacy Village Retirement Community on Webb Road.

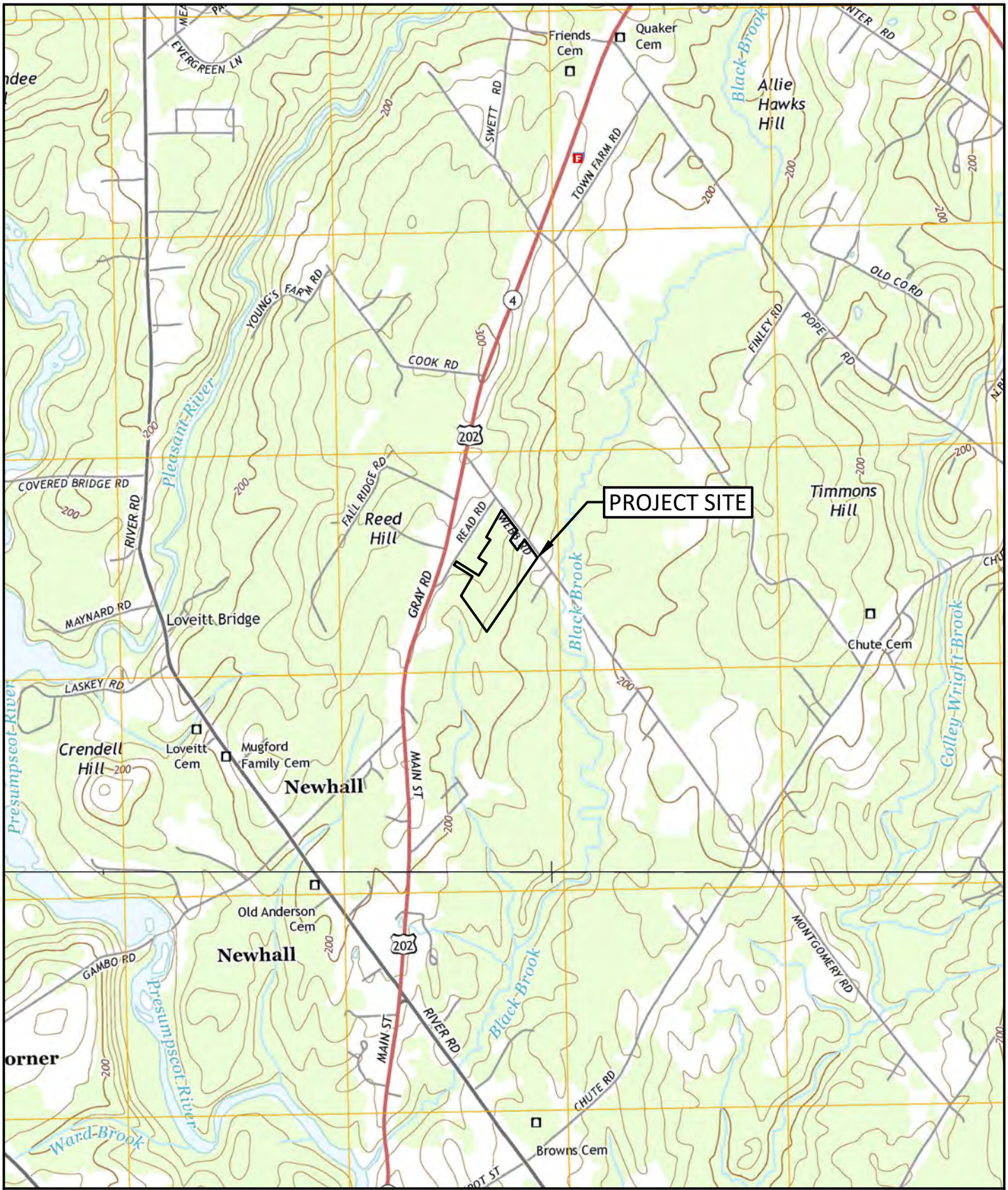
If you have any further questions, I can be reached at (207) 749-1903

Sincerely,

Jason Straetz
Vice President

SECTION 21

SITE VICINITY MAP – USGS QUADRANGLE



SITE LOCATION MAP

WEBB ROAD PROPERTY
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
P.O. BOX 1508
WINDHAM, MAINE 04062

USGS QUADRANGLES:
GORHAM
NORTH WINDHAM

SCALE: 1"=2,000'
DATE: 12-12-2025
JOB NUMBER: 25007

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

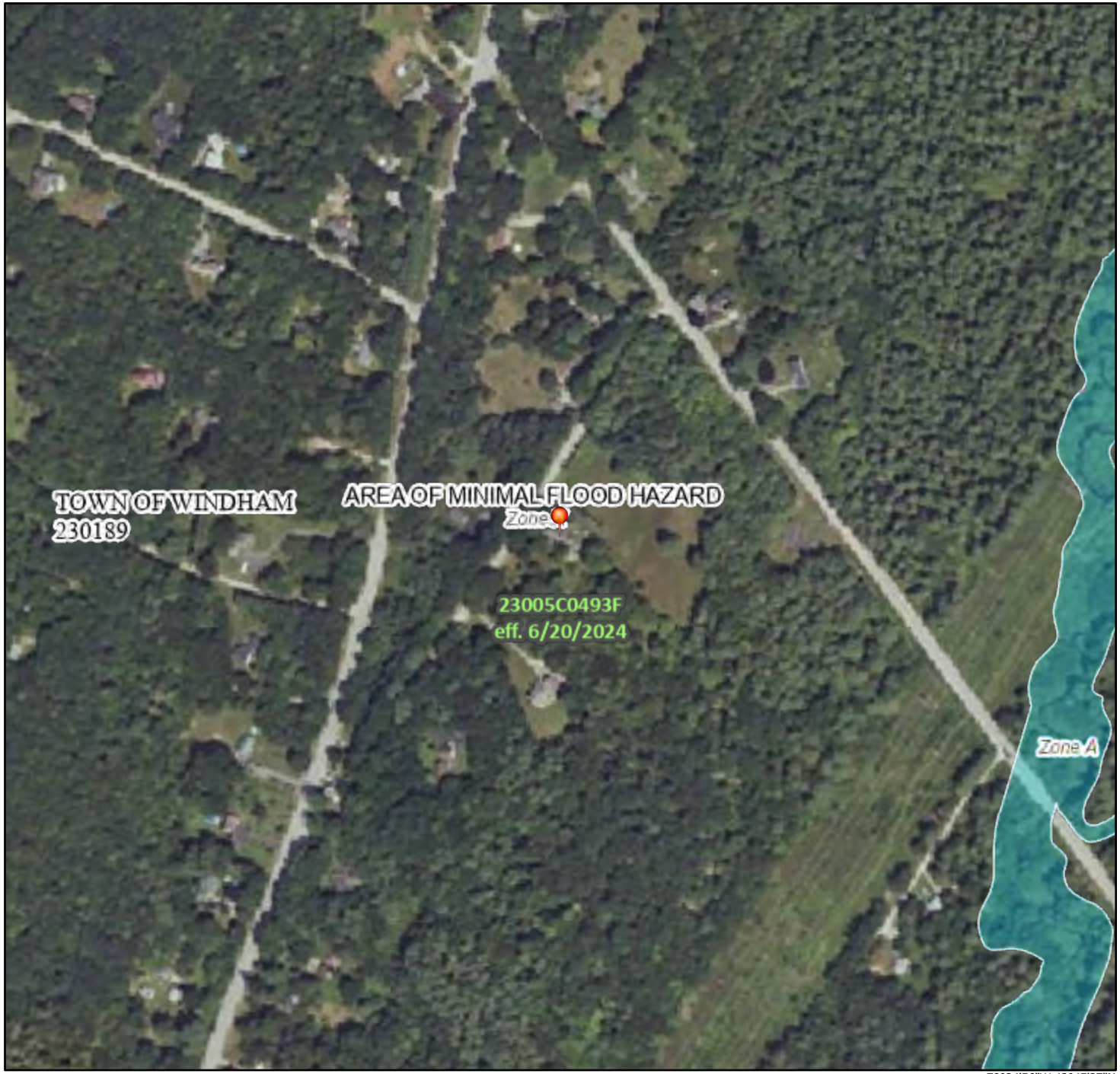
SECTION 22

FLOOD ZONES

National Flood Hazard Layer FIRMette

FEMA

70°25'34"W 43°46'3"N



70°24'56"W 43°45'37"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/19/2026 at 3:07 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

SECTION 23

IMPACT TO SITES OF HISTORICAL SIGNIFICANCE

Section 23 – Impact to Sites of Historical Significance

Enclosed is a letter from the Maine Historic Preservation Commission indicating that the project will not impact any properties of historic significance.

DM ROMA
CONSULTING ENGINEERS

RECEIVED
APR 03 2025
By 0626-25

April 2, 2025

Mr. Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333-0065

Re: Review of Project Area
Residential Subdivision, Webb Road, Windham
Robie Holdings, LLC, Applicant

Dear Mr. Mohney:

On behalf of our client Robie Holdings, LLC, DM Roma Consulting Engineers is submitting a request to have a proposed residential development off Webb Road in Windham be reviewed by the Maine Historic Preservation Commission for potential impacts to resources of historical significance.

The 28± acre property is identified as being Lot 33 on the Town of Windham Assessors Map 6 and is located in the Farm (F) zoning district. The applicant intends to develop a residential subdivision and will also include a roadway, private and public utility connections and stormwater infrastructure. The property is generally bounded by residential properties, utility corridor (CMP), and undeveloped woodland.

Based on available property information, there appears to be 4 houses in the vicinity of the project site that are over 50 years old. Photographs of each of the properties with structures older than 50 years and a map indicating locations of these structures have been included for review.

Enclosed is a vicinity map depicting the subject parcel and photographs and a location map for each abutting property over 50 years old. Upon your review of the material, please provide a letter indicating the findings of your initial screening and do not hesitate to contact us with any questions.

Sincerely,

DM Roma Consulting Engineers

J.P. Connolly
Senior Project Engineer

Cc: Robie Holdings, LLC, Applicant
Town of Windham
Maine Department of Environmental Protection
US Army Corps of Engineers

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney 4/23/25
State Historic Preservation Officer Date
Maine Historic Preservation Commission

SECTION 24

MDEP STORMWATER PERMIT

Section 24 – MDEP Stormwater Permit

The project requires a Stormwater Permit from the Maine Department of Environmental Protection (MDEP) and we request that the Town of Windham perform the review and issue the permit under its delegated review authority. The Stormwater Management Report attached in Section 16 outlines how the project has been designed to meet the applicable sections of Chapter 500 of the MDEP Rules including Basic Standards and General Standards. Erosion Control measures have been detailed in the plan set. The design specifications of the proposed Stormwater Best Management Practices are included in the plan set, and design calculations are contained in the Stormwater Management Report. Watershed Maps are attached to the plan set.

Attached to this section is the Public Notice Certification along with a list of the property owners within 1,000 feet of the proposed development parcel who have received a Notice of Intent to File, and we have also published a Notice of Intent to File with the Windham Eagle newspaper.

PUBLIC NOTICE:
NOTICE OF INTENT TO FILE

Please take notice that Robie Holdings, LLC, with a mailing address of PO Box 1508, Windham, Maine 04062, intends to file a Stormwater Management Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S. § 420-D on or about May 18, 2026. The application is for the development of a retirement community with approximately 30 dwelling units located on Webb Road in Windham, Maine, as shown on Town of Windham Assessor Map 6 Lot 33-F, and the creation of an additional 6-acre lot.

A request for a public hearing must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. Public comment on the application will be accepted throughout the application processing period. The application will be filed for public inspection on the DEP's website at: https://www.maine.gov/mels/hub.html. Written public comments may be sent through the website. A copy of the application may also be seen at the municipal offices in Windham, Maine. For more information on how to submit public comment with the DEP, please go to the DEP's website: Public Participation in the Licensing Process (Information Sheet) Maine DEP.

PUBLIC NOTICE

NOTICE OF INTENT TO FILE

Please take notice that Robie Holdings, LLC, with a mailing address of PO Box 1508, Windham, Maine 04062, intends to file a Stormwater Management Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S. § 420-D on or about May 18, 2026.

The application is for the development of a retirement community with approximately 30 dwelling units located on Webb Road in Windham, Maine, as shown on Town of Windham Assessor Map 6 Lot 33-F, and the creation of an additional 6-acre lot.

A request for a public hearing must be received by the Department in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection.

Public comment on the application will be accepted throughout the application processing period. The application will be filed for public inspection on the DEP's website at: https://www.maine.gov/mels/hub.html. Written public comments may be sent through the website.

A copy of the application may also be seen at the municipal offices in Windham, Maine. For more information on how to submit public comment with the DEP, please go to the DEP's website: Public Participation i
Licensing Process (Information Sheet) Maine DEP.

PUBLIC NOTICE INSTRUCTIONS AND CERTIFICATION

The Department's Chapter 2 rules, *Processing of Applications and Other Administrative Matters*, require an applicant to provide public notice within 30 days prior to filing a license application for most projects or activities requiring a permit from the Department (see Chapter 2, §13). In the notice, the applicant must provide the information included in the Department's Notice of Intent to File form. "Abutter" for the purposes of public notice means any person who owns property that is contiguous with the property on which the project requiring a license from the Department is proposed.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication.

2. **Abutters and Others Owning Land Within 1,000 Feet:** You must mail a copy of the Notice of Intent to File to abutters and all persons owning land within 1,000 feet of the proposed project. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.

3. **Municipal Office or County Commissioner(s):** You must mail a copy of the Notice of Intent to File and a duplicate of the entire application to the Municipal Office or, if the proposed project is located in an unorganized or deorganized area of the State, to the county commissioner(s). The Municipal Office or county commissioner(s) must receive notice within 30 days prior to the filing of the application with the Department.

ATTACH a copy of the published notice and a list of persons to whom notice was provided.

CERTIFICATION

By signing below, the applicant or authorized agent certifies that:

1. A Notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;

2. A mailing of the Notice of Intent to File was sent to all abutters and all other persons owning land within 1,000 feet of the proposed project within 30 days prior to filing of the application;

3. A mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to the town office of the municipality in which the project is located or, if applicable, to the county commissioner(s); and

4. Provided notice of and held a public informational meeting, if required, in accordance with the Department's Chapter 2 rules, §12, prior to filing the application. Notice of the meeting was sent to abutters and all other persons owning land within 1,000 feet of the proposed project and to the town office of the municipality in which the project is located or to the county commissioner(s), as applicable, at least at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on _____.
(Date)

Approximately _____ members of the public attended the Public Informational Meeting.

Dustin Roma
Signature of Applicant or Authorized Agent

5-19-2026
Date

1000 feet Abutters List Report

Windham, ME
May 19, 2026

Subject Property:

Parcel Number:	006033000000	Mailing Address:	NELSON BRANDON & NELSON TANYA
CAMA Number:	006-033-000-000		15 READ RD
Property Address:	15 READ RD		WINDHAM, ME 04062

Abutters:

Parcel Number:	006032B00000	Mailing Address:	BICKFORD THERON J
CAMA Number:	006-032-B00-000		67 BARNES ROAD
Property Address:	46 WEBB RD		WINDHAM, ME 04062
Parcel Number:	006032C00000	Mailing Address:	MARSTON BRADLEY L & MARSTON
CAMA Number:	006-032-C00-000		SUZANNE M
Property Address:	WEBB RD		40 WEBB ROAD
			WINDHAM, ME 04062
Parcel Number:	006032F00000	Mailing Address:	MCMANUS MAEGEN & MCMANUS
CAMA Number:	006-032-F00-000		TRAVIS
Property Address:	44 WEBB RD		44 WEBB RD
			WINDHAM, ME 04062
Parcel Number:	006033A00000	Mailing Address:	BICKFORD THERON J
CAMA Number:	006-033-A00-000		67 BARNES ROAD
Property Address:	6 JESSE'S ACRES RD		WINDHAM, ME 04062
Parcel Number:	006033A01000	Mailing Address:	DEHETRE DONALD A II & DEHETRE
CAMA Number:	006-033-A01-000		TRINA L
Property Address:	14 JESSE'S ACRES RD		14 JESSE'S ACRES ROAD
			WINDHAM, ME 04062
Parcel Number:	006033B00000	Mailing Address:	CENTRAL MAINE POWER COMPANY
CAMA Number:	006-033-B00-000		C/O AVANGRID MGMT CO-LOCAL TAXES
Property Address:	54 WEBB RD		ONE CITY CENTER, 5TH FL
			PORTLAND, ME 04101
Parcel Number:	006033C00000	Mailing Address:	COOK MATTHEW & COOK CHRISTINE
CAMA Number:	006-033-C00-000		7 READ ROAD
Property Address:	7 READ RD		WINDHAM, ME 04062
Parcel Number:	006033D00000	Mailing Address:	GARRARD AARON DREW &
CAMA Number:	006-033-D00-000		SIERRAALTA YBETH V MARIN
Property Address:	11 READ RD		11 READ ROAD
			WINDHAM, ME 04062
Parcel Number:	006035001000	Mailing Address:	BRAGDON BENJAMIN SCOTT
CAMA Number:	006-035-001-000		BRAGDON JENNIFER LYNN
Property Address:	1 READ RD		1 READ RD
			WINDHAM, ME 04062
Parcel Number:	006035002000	Mailing Address:	STEVENS BRENDA
CAMA Number:	006-035-002-000		257 GRAY RD
Property Address:	257 GRAY RD		WINDHAM, ME 04062

Parcel Number:	006035003000	Mailing Address:	DENNISON ARNOLD G & DENNISON CAROLINE S (MOWBRAY) 255 GRAY ROAD WINDHAM, ME 04062
CAMA Number:	006-035-003-000		
Property Address:	255 GRAY RD		
Parcel Number:	006035004000	Mailing Address:	SANPEDRO STEVEN & SANPEDRO DEIRDRE 251 GRAY RD WINDHAM, ME 04062
CAMA Number:	006-035-004-000		
Property Address:	251 GRAY RD		
Parcel Number:	006035005000	Mailing Address:	MILLER PETER M 243 GRAY ROAD WINDHAM, ME 04062
CAMA Number:	006-035-005-000		
Property Address:	243 GRAY RD		
Parcel Number:	006035006000	Mailing Address:	STUBBS HATTIE O TRUSTEE EDWARD F & HATTIE O STUBBS TRUST 241 GRAY RD WINDHAM, ME 04062
CAMA Number:	006-035-006-000		
Property Address:	241 GRAY RD		
Parcel Number:	006035A00000	Mailing Address:	BICKFORD THERON J 67 BARNES ROAD WINDHAM, ME 04062
CAMA Number:	006-035-A00-000		
Property Address:	JESSE'S ACRES RD		
Parcel Number:	006035B00000	Mailing Address:	DONRAL LLC PO BOX 99 SO WINDHAM, ME 04082
CAMA Number:	006-035-B00-000		
Property Address:	245 GRAY RD		
Parcel Number:	006035C00000	Mailing Address:	DONRAL LLC PO BOX 99 SO WINDHAM, ME 04082
CAMA Number:	006-035-C00-000		
Property Address:	249 GRAY RD		
Parcel Number:	006044000000	Mailing Address:	PLUMMER GARY E 248 GRAY RD WINDHAM, ME 04062
CAMA Number:	006-044-000-000		
Property Address:	248 GRAY RD		
Parcel Number:	006049000000	Mailing Address:	DELAWARE REBECCA A 100 MANSON LIBBY ROAD SCARBOROUGH, ME 04074
CAMA Number:	006-049-000-000		
Property Address:	256 GRAY RD		
Parcel Number:	006050000000	Mailing Address:	HASKELL MICHAEL A & HASKELL TAMMY 264 GRAY ROAD WINDHAM, ME 04062
CAMA Number:	006-050-000-000		
Property Address:	264 GRAY RD		
Parcel Number:	006050A00000	Mailing Address:	AMITY JAMES PROPERTY MANAGEMENT LLC 33 WEBSTER ROAD LISBON, ME 04250
CAMA Number:	006-050-A00-000		
Property Address:	258 GRAY RD		
Parcel Number:	006050B00000	Mailing Address:	CLARK RUDY ALBERT HENRY & CLARK ERYNN LYNN 260 GRAY RD WINDHAM, ME 04062
CAMA Number:	006-050-B00-000		
Property Address:	260 GRAY RD		

Parcel Number:	006050C00000	Mailing Address:	COCO AUSTIN HELFER LACIE
CAMA Number:	006-050-C00-000		266 GRAY RD
Property Address:	266 GRAY RD		WINDHAM, ME 04062
Parcel Number:	006050D00000	Mailing Address:	ANDERSON DENNIS M
CAMA Number:	006-050-D00-000		PO BOX 124
Property Address:	262 GRAY RD		SOUTH WINDHAM, ME 04082
Parcel Number:	006051000000	Mailing Address:	DOUGLAS EDWARD B & LORD AMANDA H
CAMA Number:	006-051-000-000		29 WEBB ROAD
Property Address:	29 WEBB RD		WINDHAM, ME 04062
Parcel Number:	006051005000	Mailing Address:	MACDONALD CHRISTOPHER C W & CASSERLY LAURA F
CAMA Number:	006-051-005-000		44 SWETT ROAD
Property Address:	44 SWETT RD		WINDHAM, ME 04062
Parcel Number:	006051A00000	Mailing Address:	PRESSEY KATHERINE L
CAMA Number:	006-051-A00-000		43 WEBB ROAD
Property Address:	43 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009001000000	Mailing Address:	FERRANTE DEBORA M
CAMA Number:	009-001-000-000		268 GRAY ROAD
Property Address:	268 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009002000000	Mailing Address:	VEILLETTE DAVID PAUL
CAMA Number:	009-002-000-000		272 GRAY ROAD
Property Address:	272 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009003000000	Mailing Address:	GOOD PHYLLIS A
CAMA Number:	009-003-000-000		276 GRAY RD
Property Address:	276 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009004000000	Mailing Address:	HANNAFORD JESSE D & RICKER CODY J
CAMA Number:	009-004-000-000		290 GRAY RD
Property Address:	290 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009004006000	Mailing Address:	NICHOLS JENNIFER C
CAMA Number:	009-004-006-000		11 FORSYTHIA LANE
Property Address:	GRAY RD		WINDHAM, ME 04062
Parcel Number:	009004A00000	Mailing Address:	FICKETT RICHARD A
CAMA Number:	009-004-A00-000		7 FALL RIDGE ROAD
Property Address:	7 FALL RIDGE RD		WINDHAM, ME 04062
Parcel Number:	009005B01000	Mailing Address:	MERRILL ASHLEY & MERRILL JEDIDIAH
CAMA Number:	009-005-B01-000		296 GRAY ROAD
Property Address:	296 GRAY RD		WINDHAM, ME 04062

Parcel Number:	009022A01000	Mailing Address:	POPOV PETER G & POPOV NADEZHDA I
CAMA Number:	009-022-A01-000		19 FALL RIDGE ROAD
Property Address:	19 FALL RIDGE RD		WINDHAM, ME 04062
Parcel Number:	009022A03000	Mailing Address:	SWENSON CAROLE A & BURNELL IRENE
CAMA Number:	009-022-A03-000		286 GRAY ROAD
Property Address:	286 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009077B00000	Mailing Address:	CENTRAL MAINE POWER COMPANY
CAMA Number:	009-077-B00-000		C/O AVANGRID MGMT CO-LOCAL TAXES
Property Address:	64 SWETT RD		ONE CITY CENTER, 5TH FL
			PORTLAND, ME 04101
Parcel Number:	009083000000	Mailing Address:	CABANA JASON R
CAMA Number:	009-083-000-000		69 WASHBURN AVE
Property Address:	289 GRAY RD		PORTLAND, ME 04102
Parcel Number:	009083B00000	Mailing Address:	GROVER JONATHAN D & GROVER JENNIFER D
CAMA Number:	009-083-B00-000		293 GRAY ROAD
Property Address:	293 GRAY RD		WINDHAM, ME 04062
Parcel Number:	009083D00000	Mailing Address:	RIDEOUT KAELIN F
CAMA Number:	009-083-D00-000		71 WEBB ROAD
Property Address:	71 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009084000000	Mailing Address:	ANDREWS BLAIR CHRISTINE & ANDREWS GABRIEL DAVID
CAMA Number:	009-084-000-000		69 WEBB RD
Property Address:	69 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009085000000	Mailing Address:	PERRIN FAMILY REAL EST TRUST
CAMA Number:	009-085-000-000		PERRIN & HILL TRUSTEES
Property Address:	WEBB RD		514 STONE POND ROAD
			MARLBOROUGH, NH 03455
Parcel Number:	009085001000	Mailing Address:	VALIQUET JOSHUA & VALIQUET AMANDA
CAMA Number:	009-085-001-000		67 WEBB ROAD
Property Address:	67 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009086000000	Mailing Address:	PARMELEE JEFFREY & PARMELEE LINDSEY
CAMA Number:	009-086-000-000		63 WEBB RD
Property Address:	63 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009087000000	Mailing Address:	MAURICE DENISE DEBRA
CAMA Number:	009-087-000-000		72 WEBB RD
Property Address:	72 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009088000000	Mailing Address:	SIRES LELAND RAY JR & SIRES TERRI
CAMA Number:	009-088-000-000		267 GRAY RD
Property Address:	267 GRAY RD		WINDHAM, ME 04062

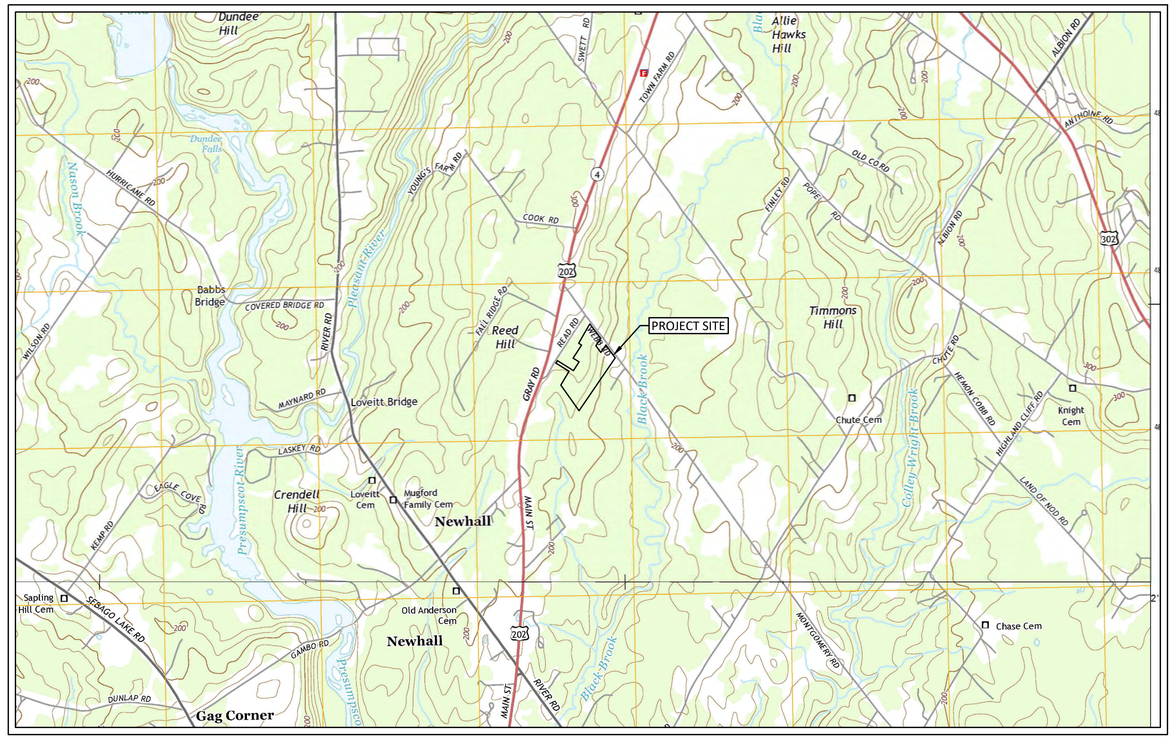
Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

Parcel Number:	009088B00000	Mailing Address:	GRALLA JOHN G
CAMA Number:	009-088-B00-000		PO BOX 145
Property Address:	14 READ RD		SOUTH WINDHAM, ME 04082
Parcel Number:	009088C00000	Mailing Address:	ORNE JANE C & GODDARD-WRIGHT ROBERT W
CAMA Number:	009-088-C00-000		24 READ RD
Property Address:	24 READ RD		WINDHAM, ME 04062
Parcel Number:	009088D00000	Mailing Address:	LACY CALEB
CAMA Number:	009-088-D00-000		28 READ RD
Property Address:	28 READ RD		WINDHAM, ME 04062
Parcel Number:	009088E00000	Mailing Address:	MCELROY JEREMY A
CAMA Number:	009-088-E00-000		70 WEBB ROAD
Property Address:	70 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009089000000	Mailing Address:	KRZANOWSKI ALLISON
CAMA Number:	009-089-000-000		60 WEBB ROAD
Property Address:	60 WEBB RD		WINDHAM, ME 04062
Parcel Number:	009091000000	Mailing Address:	BECKWITH BENJAMIN RICKETT CARRIE ANNE
CAMA Number:	009-091-000-000		8 FALL RIDGE RD
Property Address:	8 FALL RIDGE RD		WINDHAM, ME 04062
Parcel Number:	009092000000	Mailing Address:	MATTSON MICHAEL & MATTSON REBECCA
CAMA Number:	009-092-000-000		25 ROGERS DRIVE
Property Address:	25 ROGERS DR		WINDHAM, ME 04062
Parcel Number:	009092A00000	Mailing Address:	BROWN JAMES & BROWN DEBRA
CAMA Number:	009-092-A00-000		17 ROGERS DRIVE
Property Address:	17 ROGERS DR		WINDHAM, ME 04062
Parcel Number:	009093000000	Mailing Address:	COFFIN WAYNE E & COFFIN VIVIAN
CAMA Number:	009-093-000-000		31 ROGERS DRIVE
Property Address:	31 ROGERS DR		WINDHAM, ME 04062
Parcel Number:	009093001000	Mailing Address:	BAILEY CHERYL L TRUSTEE CHERYL L BAILEY LIVING TRUST
CAMA Number:	009-093-001-000		16 FALL RIDGE RD
Property Address:	16 FALL RIDGE RD		WINDHAM, ME 04062
Parcel Number:	009094000000	Mailing Address:	NELSON RYAN R & WIDGER DANIELLE
CAMA Number:	009-094-000-000		288 GRAY RD
Property Address:	288 GRAY RD		WINDHAM, ME 04062

LEGACY VILLAGE
RETIREMENT COMMUNITY

WEBB ROAD & LEGACY DRIVE
WINDHAM, MAINE

CONSULTANTS	
CIVIL ENGINEER	DM ROMA CONSULTING ENGINEERS
LAND SURVEYOR & GEOLOGIST	MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
SITE EVALUATOR & WETLAND SCIENTIST	MAINELY SOILS, LLC
SOILS SCIENTIST	MARK HAMPTON ASSOCIATES



PROJECT VICINITY MAP

ISSUED FOR PRELIMINARY REVIEW - NOT FOR CONSTRUCTION

MAY 18, 2026

PREPARED BY:

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

APPLICANT:

ROBIE HOLDINGS, LLC
P.O. BOX 1508
WINDHAM, MAINE 04062

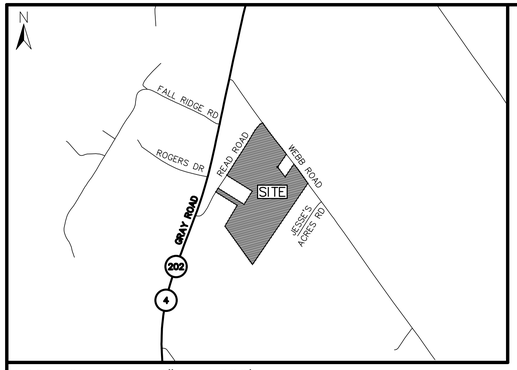
LEGACY VILLAGE RETIREMENT COMMUNITY

DRAWING SHEET INDEX

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY & LOT DIVISION PLAN
3	SUBDIVISION PLAN
4	SITE PLAN
5	SITE PLAN
6	ROADWAY PLAN AND PROFILE: WEBB ROAD
7	ROADWAY PLAN AND PROFILE: WEBB ROAD
8	ROADWAY PLAN AND PROFILE: ROAD A
9	ROADWAY PLAN AND PROFILE: ROAD A
10	STORMWATER POND PLAN
11	DETAILS
12	DETAILS
13	DETAILS

PERMITTING PLAN ATTACHMENTS

HIGH INTENSITY SOILS SURVEY
WASTEWATER DISPOSAL DESIGN
WATERSHED MAP: EXISTING CONDITION
WATERSHED MAP: DEVELOPED CONDITION



LOCATION MAP 1" = 1,000'

NOTES

1. ALL BEARINGS ARE REFERENCED TO MAINE STATE GRID, WEST ZONE, NAD83 BASED UPON GPS OBSERVATIONS NEAR THE SURVEYED PROPERTY.
2. TOWN OF WINDHAM, MAINE: TAX MAP 6, LOT 33.
3. OWNER OF RECORD AT TIME OF SURVEY: JOHN S. & IRENE T. ANDREW: BOOK 39341, PAGE 33. *NOTE: JOHN S. ANDREW PASSED AWAY IN OCTOBER 2024. IRENE T. ANDREW IS PRESUMED TO HAVE INHERITED HIS ESTATE AS NO PROBATE DOCUMENTS HAVE BEEN PROVIDED AS OF THE DATE OF THIS SURVEY.*
4. THE TOTAL AREA OF THE SURVEYED PROPERTY IS APPROXIMATELY 25.17 ACRES, MORE OR LESS.

4.1. AREAS RESULTING FROM THE PROPOSED DIVISIONS SHOWN HEREON ARE AS FOLLOWS:

LOT 1:	±84,230 SQ. FT. (±1.93 ACRES)
LOT 2:	±930,307 SQ. FT. (±21.36 ACRES)
REMAINING LAND:	±81,880 SQ. FT. (±1.88 ACRES)

5. ALL BOOK AND PAGES REFER TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
6. TREELINES SHOWN HEREON ARE APPROXIMATE AND WERE DIGITIZED FROM GOOGLE EARTH AERIAL PHOTOGRAPHY.
7. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK COMPLETED IN DECEMBER 2024. MAIN-LAND MAY ADJUST PLAN AND FINDINGS IF ADDITIONAL EVIDENCE BECOMES APPARENT.
8. NO APPARENT ENCROACHMENTS WERE OBSERVED AT TIME OF SURVEY.
9. SUMMARY OF APPARENT ENCROACHMENTS:
   A. NONE OBSERVED.
10. ROAD NOTES:

10.1. WEBB ROAD:
THE LOCATION OF THE WEBB ROAD R/W SHOWN HEREON IS ASSUMED ASSUMED BASED UPON THE CENTER OF THE EXISTING TRAVELED WAY AND MONUMENTATION RECOVERED ALONG THE APPARENT SIDELINE, HOLDING AN ASSUMED WIDTH OF 66' (4 RODS).

10.2. READ ROAD:
THE LOCATION OF THE READ ROAD R/W SHOWN HEREON IS ASSUMED BASED UPON THE CENTER OF THE EXISTING TRAVELED WAY AND MONUMENTATION RECOVERED ALONG THE APPARENT SIDELINE, HOLDING AN ASSUMED WIDTH OF 49.5' (3 RODS).

11. DIVISION NOTES:

11.1. PURSUANT TO MRS TITLE 30-A, §4401.4.A(1), THE CREATION OF LOTS 1 & 2 DOES NOT CONSTITUTE A SUBDIVISION, AS BOTH DIVIDINGS ARE ACCOMPLISHED BY A SUBDIVIDER WHO HAS RETAINED ONE OF THE LOTS FOR THE SUBDIVIDER'S OWN USE AS A SINGLE-FAMILY RESIDENCE THAT HAS BEEN THE SUBDIVIDER'S PRINCIPAL RESIDENCE FOR A PERIOD OF AT LEAST 5 YEARS PRECEDING THE 2ND DIVISION.

PLAN REFERENCES

1. "FINAL PLAN – BEECH GROVE ESTATES" PREPARED FOR CUSTOM BUILT HOMES OF MAINE, SURVEYED BY BH2M, JOB NO. 85-199, DATED DECEMBER 1985 AND RECORDED IN PLAN BOOK 158, PAGE 64.
2. "PLAN OF LAND MADE FOR F.S. PLUMMER CO., INC." SURVEYED BY JAMES C. LAUZIER LAND SURVEYING, JOB NO. 05-0482, DATED JULY 2, 1982 AND RECORDED IN PLAN BOOK 135, PAGE 39.
3. "FINAL MINOR SUBDIVISION PLAN OF CLARK FARM II" PREPARED FOR LAURENCE A. CLARK & KATHRYN S. CLARK, SURVEYED BY MAINE BOUNDARY CONSULTANTS, DATED MAY 1, 2017 AND RECORDED IN PLAN BOOK217, PAGE 208.

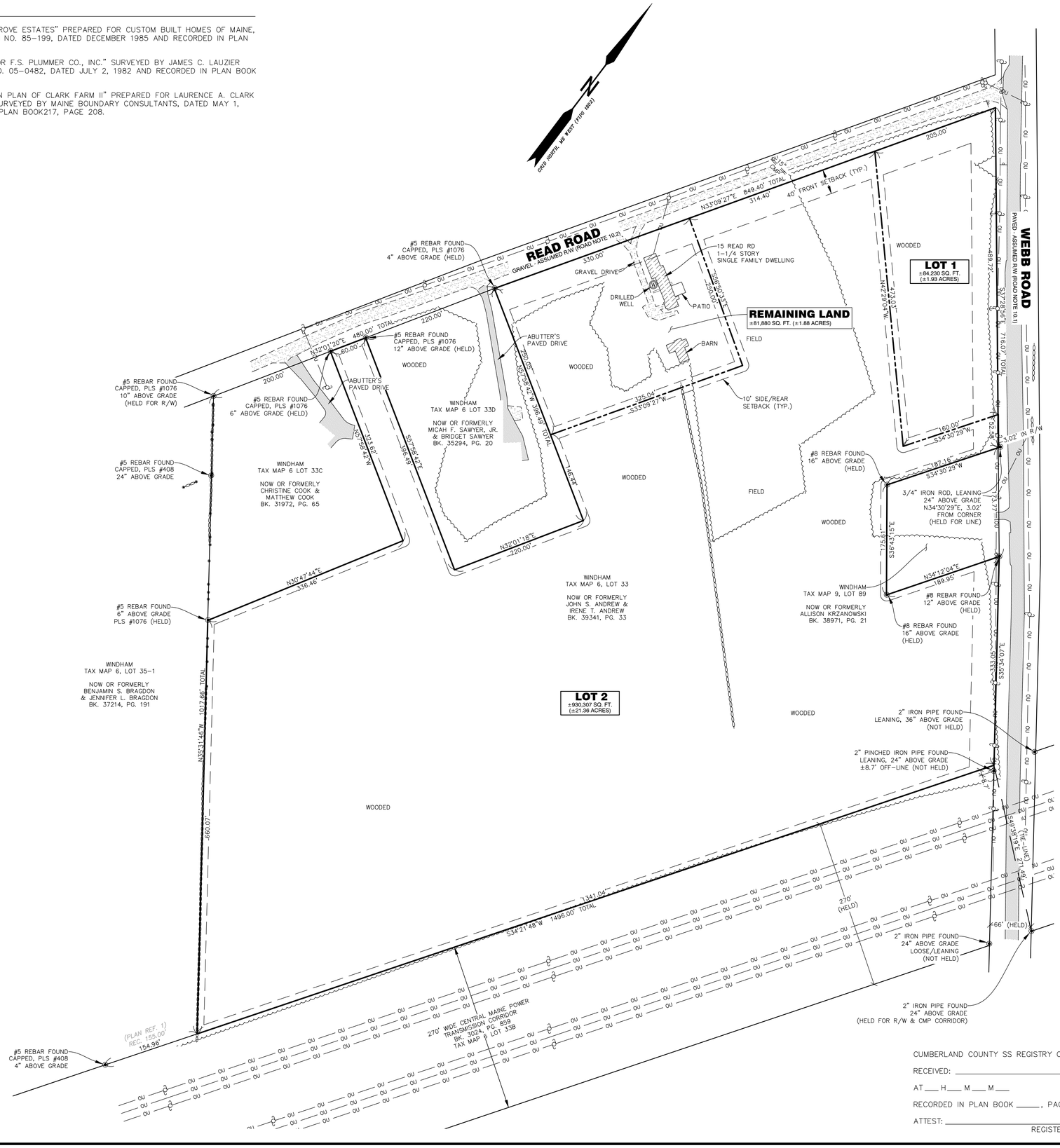
LAND USE STANDARDS:

THE SURVEYED PROPERTY IS LOCATED IN THE FARM (F) DISTRICT. DIMENSIONAL STANDARDS PURSUANT TO THE TOWN OF WINDHAM LAND USE CODE §120-406E ARE AS FOLLOWS:

MINIMUM LOT SIZE:	80,000 SQ. FT.
MINIMUM NET RESIDENTIAL DENSITY:	60,000 SQ. FT.
MINIMUM FRONTAGE:	200 FEET
MINIMUM FRONT SETBACK:	40 FEET
MINIMUM SIDE SETBACK:	10 FEET
MINIMUM REAR SETBACK:	10 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET
MAXIMUM BUILDING COVERAGE:	25%

LEGEND

- IRON ROD/PIPE FOUND, AS NOTED
- OLD FENCE POST FOUND
- HOLE IN ROCK FROM OLD FENCE POST
- 5/8" IRON ROD, CAPPED, "PLS #2584" SET, AS NOTED
- UTILITY POLE
- GUY WIRE
- EXISTING BOUNDARY LINE (SURVEYED)
- PROPOSED BOUNDARY LINE
- ABUTTING BOUNDARY LINES (APPROX.)
- BUILDING SETBACK LINE
- STONEWALL
- OVERHEAD UTILITIES
- TREELINE (APPROX.)
- PAVEMENT
- GRAVEL
- SIGN



CUMBERLAND COUNTY SS REGISTRY OF DEEDS

RECEIVED: _____

AT ___ H ___ M ___ M ___

RECORDED IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTER

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
59 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
182A MOOSEHEAD TRAIL, NEWPORT, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PLAN SHOWING A STANDARD BOUNDARY SURVEY & PROPOSED LOT DIVISION

LAND OF ANDREW

15 READ RD, TOWN OF WINDHAM, COUNTY OF CUMBERLAND, STATE OF MAINE

OWNER OF RECORD

JOHN S. & IRENE T. ANDREW

P.O. BOX 178
SOUTH WINDHAM, ME 04082

MADE FOR

BILL ANDREW

17 ALPINE DRIVE
WINDHAM, ME 04062

DRAWING SCALE:

80 0 40 80

(IN FEET)

1 INCH = 80 FT

REVISION NOTES:

PROJ. MGR:	DJH
DRAWN BY:	DJH
CHECKED BY:	CLB
REVISION NO.	N/A
SURVEY DATE:	2024-12-03
SUBMISSION DATE:	2024-04-08
SUBMITTED FOR:	FINAL

BOUNDARY SURVEY & LOT DIVISION

SEAL:

STATE OF MAINE
DEVON J. HURLEY
2584
PROFESSIONAL LAND SURVEYOR

DEVON J. HURLEY PLS #2584

DRAWING NO.

S1.1

MLDC NO. 24-387 1 OF 1

GENERAL NOTES:

1. THE OWNER OF RECORD OF THE PROPERTY IS ROBIE HOLDINGS LLC, BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 41401 PAGE 225 & BOOK 41520 PAGE 17
2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 21.43 ACRES.
3. PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 6, LOT 33-F.
4. PLAN REFERENCES:
   A) "BOUNDARY SURVEY & LOT DIVISION", PREPARED FOR JOHN S. & IRENE T. ANDREW, PREPARED BY MAIN-LAND DEVELOPMENT CONSULTANTS, INC. DATED APRIL 8, 2024.
5. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
6. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE 4A.
8. TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON 2-FOOT LIDAR OBTAINED FROM THE MAINE OFFICE OF GIS.
9. THE PROPERTY IS LOCATED IN THE FARM (F) DISTRICT.
10. SPACE AND BULK REQUIREMENTS FOR RETIREMENT COMMUNITY USE IN FARM ZONE:

	RETIREMENT COMMUNITY	COUNTRY SUBDIVISION
MIN LOT SIZE:	200,000 SF	6 ACRES
MIN STREET FRONTAGE:	200 FT	200 FT
MIN FRONT YARD:	40 FT	75 FT
MIN SIDE/REAR YARD:	10 FT	75 FT
MAX BUILDING COVERAGE:	25%	25%
MIN PROPERTY LINE BUFFER STRIP:		50 FT

12. WETLAND DELINEATION PERFORMED BY ALEX FINAMORE IN MARCH 2025.
13. SIGHT DISTANCE AT THE PROPOSED LEGACY DRIVE INTERSECTION WITH WEBB ROAD MEASURES MORE THAN 305 FEET IN BOTH DIRECTIONS. SIGHT DISTANCE ALONG THE ENTIRE ROAD FRONTAGE FOR LOT 2 MEASURES MORE THAN 305 FEET IN BOTH DIRECTIONS.
14. LEGACY DRIVE IS CONSIDERED A CONDOMINIUM ACCESS DRIVE AND SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE DEVELOPER OR CONDOMINIUM ASSOCIATION AND SHALL NOT BE OFFERED FOR ACCEPTANCE, OR MAINTAINED, BY THE TOWN OF WINDHAM UNLESS IT MEETS ALL MUNICIPAL STREET DESIGN AND CONSTRUCTION STANDARDS AT THE TIME OF OFFERING.
15. THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE MAINTAINED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF PLANNING BOARD APPROVAL, AND IN ACCORDANCE WITH SECTION 911.E.1.A OF THE LAND USE ORDINANCE. THE PLANNING BOARD MAY APPROVE REVISIONS OR EXPANSIONS TO THE CLEARING LIMITS AS A PLAN AMENDMENT BEFORE THE 5 YEAR PERIOD HAS PASSED.
16. PRIOR TO THE START OF CONSTRUCTION, A MAINE CONSTRUCTION GENERAL PERMIT NOI MUST BE FILED BY THE APPLICANT WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER PROPERTY LINE	
SETBACK	
EASEMENT LINE	
GRANITE MONUMENT	
IRON PIN/DRILL HOLE	
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
200 201 CONTOUR LINE	
EDGE OF WETLANDS	
CULVERT/STORMDRAIN	
SEWER MANHOLE	
UTILITY POLE	
OHU OVERHEAD UTILITIES	

NET RESIDENTIAL DENSITY CALCULATIONS
COUNTRY SUBDIVISION STANDARDS:

GROSS LAND AREA:	933,647 S.F. (21.43 ACRES)
DEDUCTIONS:	
1. RIGHT-OF-WAY	0 S.F.
2. STEEP SLOPES (OVER 25%)	40,227 S.F.
3. 100-YEAR FLOOD PLAIN	0 S.F.
4. RESOURCE PROTECTION DISTRICT	0 S.F.
5. VERY POORLY DRAINED SOILS	36,254 S.F.
6. SURFACE WATERBODIES	0 S.F.
7. SIGNIFICANT WILDLIFE HABITAT	0 S.F.
8. ENDANGERED BOTANICAL RESOURCES	0 S.F.
TOTAL NET AREA:	857,166 S.F.
REQUIRED NET AREA PER LOT:	250,000 S.F.
MAXIMUM ALLOWABLE LOTS:	3

NET RESIDENTIAL DENSITY CALCULATIONS
RETIREMENT COMMUNITY USE:

RETIREMENT COMMUNITY LOT (LOT 1):	667,173 S.F. (15.31 ACRES)
DEDUCTIONS:	
1. RIGHT-OF-WAY	0 S.F.
2. STEEP SLOPES (OVER 25%)	20,330 S.F.
3. 100-YEAR FLOOD PLAIN	0 S.F.
4. RESOURCE PROTECTION DISTRICT	0 S.F.
5. VERY POORLY DRAINED SOILS	14,417 S.F.
6. SURFACE WATERBODIES	0 S.F.
7. SIGNIFICANT WILDLIFE HABITAT	0 S.F.
8. ENDANGERED BOTANICAL RESOURCES	0 S.F.
TOTAL NET AREA:	632,425 S.F.
REQUIRED NET AREA PER DWELLING UNIT:	5,000 S.F.
MAXIMUM ALLOWABLE DWELLING UNITS:	126

READ ROAD

WEBB ROAD

LEGACY DRIVE

N/F DAVID NEUBAUER HANNAH NEUBAUER 41936/38 MAP 6 LOT 33-E

N/F BRANDON NELSON TANYA NELSON 42073/161 MAP 6 LOT 33

N/F AARON GARRARD SIERRA MARIN 41741/233 MAP 6 LOT 33-D

N/F MATTHEW & CHRISTINE COOK 31972/65 MAP 6 LOT 33-C

N/F BENJAMIN S. & JENNIFER L. BRAGDON 37214/191 MAP 6 LOT 35-1

N/F ALLISON KRZANOWSKI 38971/21 MAP 9 LOT 89

N/F CENTRAL MAINE POWER COMPANY MAP 6 LOT 33-B

N32°01'20"E 60.00'

N57°58'42"E 396.49'

N57°58'42"W 323.62'

S57°58'42"E 146.44'

N30°47'44"E 336.46'

N32°01'18"E 220.00'

N35°31'46"W 660.07'

S29°53'02"W 466.91'

S56°50'33"E 71.80'

N33°09'27"E 325.04'

S37°28'56"E 329.10'

S52°58'36"E 179.61'

S36°43'15"E 176.61'

S34°30'29"W 187.16'

N34°12'04"E 189.95'

S35°24'07"E 333.08'

382.07' S26°49'03"W

914.55' S17°59'37"W

S34°21'48"W 1341.04'

LOT 1 667,173 SF 15.31 ACRES

LOT 2 266,474 SF 6.12 ACRES

UNIT 1 UNIT 2 UNIT 3 UNIT 4 UNIT 5 UNIT 6 UNIT 7 UNIT 8 UNIT 9 UNIT 10 UNIT 11 UNIT 12 UNIT 13 UNIT 14 UNIT 15 UNIT 16 UNIT 17 UNIT 18 UNIT 19 UNIT 20 UNIT 21 UNIT 22 UNIT 23 UNIT 24 UNIT 25 UNIT 26 UNIT 27 UNIT 28 UNIT 29 UNIT 30

LEACH FIELD BED 1

LEACH FIELD BED 2

TOTAL DESIGN FLOW 9,810 GPD 109 BEDROOMS

TREE CLEARING LIMITS, SEE NOTE 15

STEEP SLOPES OVER 25%, TYP.

VEGETATED BUFFER, TYP. 50'

STRUCTURE SETBACK, TYP. 75'

VEGETATED BUFFER, TYP. 50'

SEE GENERAL NOTE 13 REGARDING SIGHT DISTANCE

SEE GENERAL NOTE 13 REGARDING SIGHT DISTANCE

GRAPHIC SCALE 1" = 60'

APPROVED - WINDHAM PLANNING BOARD:

CHAIRPERSON DATE

STATE OF MAINE
_____ COUNTY SS. REGISTRY OF DEEDS
RECEIVED _____, 20____
AT ____h ____m ____M AND RECORDED IN
PLAN BOOK _____ PAGE _____
ATTEST: _____ REGISTER

NOT FOR CONSTRUCTION

STATE OF MAINE DUSTIN M. ROMA 12631 REGISTERED PROFESSIONAL ENGINEER 5-18-2026

DM ROMA CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 593-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

SUBDIVISION PLAN

LEGACY VILLAGE RETIREMENT COMMUNITY

WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 60'	SCALE:
5-18-2026	DATE:
SHEET 3 OF 13	
SB-1	

GENERAL NOTES:

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MIN PROPERTY LINE BUFFER STRIP:		50 FT

12. WETLAND DELINEATION PERFORMED BY ALEX FINAMORE IN MARCH 2025.
13. LEGACY DRIVE IS CONSIDERED A CONDOMINIUM ACCESS DRIVE AND SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE DEVELOPER OR CONDOMINIUM ASSOCIATION AND SHALL NOT BE OFFERED FOR ACCEPTANCE, OR MAINTAINED, BY THE TOWN OF WINDHAM UNLESS IT MEETS ALL MUNICIPAL STREET DESIGN AND CONSTRUCTION STANDARDS AT THE TIME OF OFFERING.
14. THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE MAINTAINED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF PLANNING BOARD APPROVAL, AND IN ACCORDANCE WITH SECTION 911.E.1.A OF THE LAND USE ORDINANCE. THE PLANNING BOARD MAY APPROVE REVISIONS OR EXPANSIONS TO THE CLEARING LIMITS AS A PLAN AMENDMENT BEFORE THE 5 YEAR PERIOD HAS PASSED.
15. STREET TREES SHALL BE PLANTED IN THE QUANTITY AND GENERAL LOCATION AS SHOWN ON THIS PLAN. MINOR DEVIATION FROM THE DEPICTED LOCATIONS IS PERMITTED UP TO 15 FEET TO AVOID CONFLICTS WITH UTILITIES OR AT THE OWNER'S DISCRETION.

LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER PROPERTY LINE	
TIE LINE	
SETBACK	
EASEMENT LINE	
GRANITE MONUMENT	
IRON PIN/DRILL HOLE	
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
EDGE OF GRAVEL	
EDGE OF CONCRETE	
SIGN	
EDGE OF WETLANDS	
EDGE OF WATER	
CENTERLINE OF STREAM	
FLOODPLAIN	
200 201 CONTOUR LINE	200 201
TREELINE	
STONE WALL	
RETAINING WALL	
TP–1 TEST PIT	
CATCHBASIN	
D DRAINAGE MANHOLE	
CULVERT/STORMDRAIN	
UNDERDRAIN	UD
S SEWER MANHOLE	
S SANITARY SEWER PIPE	S
FM FORCE MAIN	FM
W WATER MAIN	W
WATER METER PIT	
WV WATER VALVE	
HYDRANT	
AIR RELEASE	
W WELL	W
UTILITY POLE	
LIGHT POLE	
OHU OVERHEAD UTILITIES	OHU
UGU UNDERGROUND UTILITIES	UGU
TRANSFORMER PAD	T
G GAS MAIN	G
GAS VALVE	
RIPRAP	
SILT FENCE	SF



GRAPHIC SCALE
0 15 30 60
1" = 30'

NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — REG. NO. 12131 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

SITE & LANDSCAPING PLAN

LEGACY VILLAGE RETIREMENT COMMUNITY
WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1308
WINDHAM, ME 04062

JOB NUMBER:	25007
SCALE:	1" = 30'
DATE:	5-18-2026
	SHEET 4 OF 13
	S-1

GENERAL NOTES:

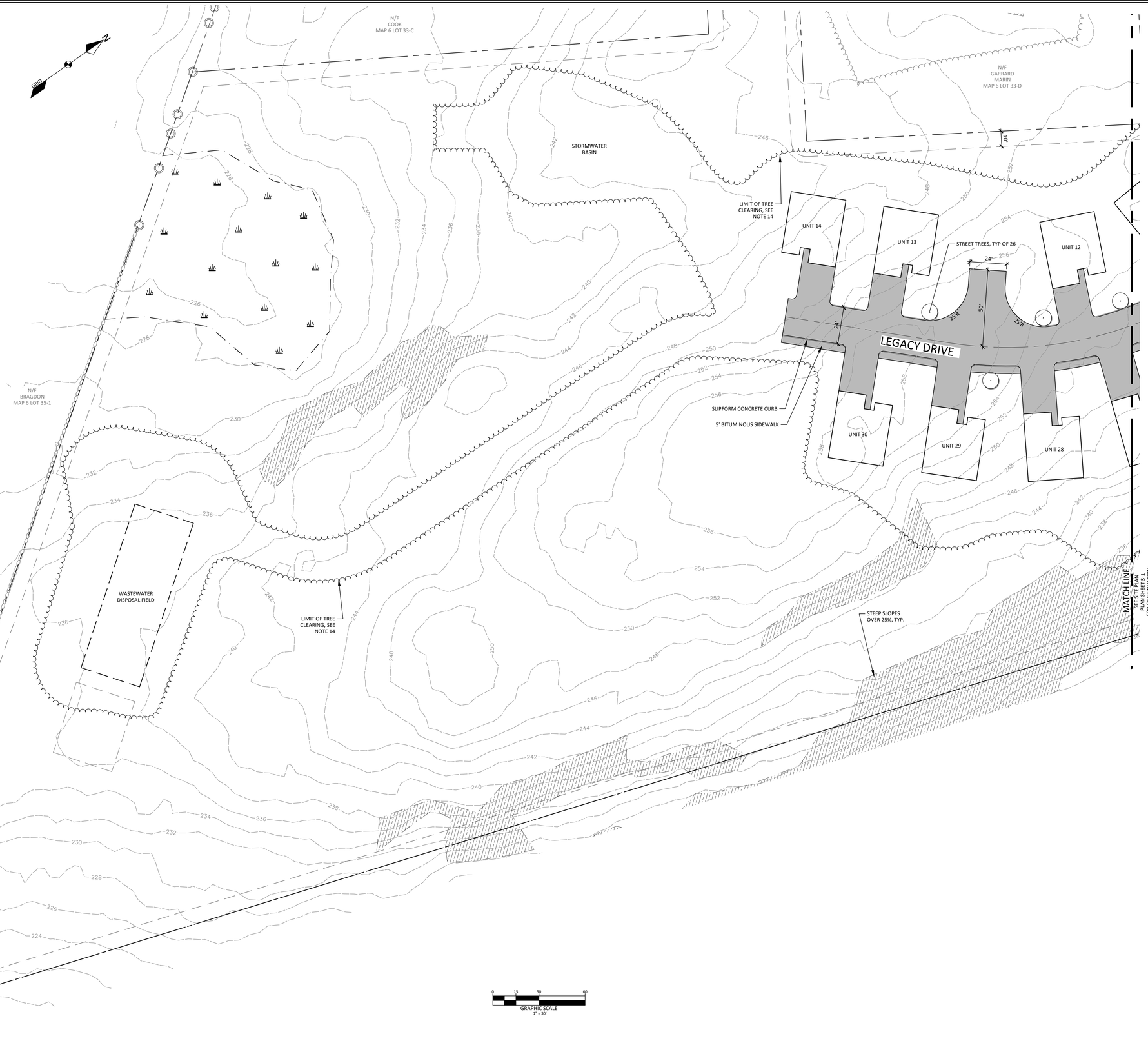
1. THE OWNER OF RECORD OF THE PROPERTY IS ROBIE HOLDINGS LLC, BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 41401 PAGE 225 & BOOK 41520 PAGE 17
2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 21.43 ACRES.
3. PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 6, LOT 33-F.
4. PLAN REFERENCES:
   A) "BOUNDARY SURVEY & LOT DIVISION", PREPARED FOR JOHN S. & IRENE T. ANDREW, PREPARED BY MAIN-LAND DEVELOPMENT CONSULTANTS, INC. DATED APRIL 8, 2024.
5. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
6. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE 4A.
8. TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON 2-FOOT LIDAR OBTAINED FROM THE MAINE OFFICE OF GIS.
9. THE PROPERTY IS LOCATED IN THE FARM (F) DISTRICT.
10. SPACE AND BULK REQUIREMENTS FOR RETIREMENT COMMUNITY USE IN FARM ZONE:

	RETIREMENT COMMUNITY	COUNTRY SUBDIVISION
MIN LOT SIZE:	200,000 SF	6 ACRES
MIN STREET FRONTAGE:	200 FT	200 FT
MIN FRONT YARD:	40 FT	75 FT
MIN SIDE/REAR YARD:	10 FT	75 FT
MAX BUILDING COVERAGE:	25%	25%
MIN PROPERTY LINE BUFFER STRIP:		50 FT

12. WETLAND DELINEATION PERFORMED BY ALEX FINAMORE IN MARCH 2025.
13. LEGACY DRIVE IS CONSIDERED A CONDOMINIUM ACCESS DRIVE AND SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE DEVELOPER OR CONDOMINIUM ASSOCIATION AND SHALL NOT BE OFFERED FOR ACCEPTANCE, OR MAINTAINED, BY THE TOWN OF WINDHAM UNLESS IT MEETS ALL MUNICIPAL STREET DESIGN AND CONSTRUCTION STANDARDS AT THE TIME OF OFFERING.
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SETBACK	
EASEMENT LINE	
GRANITE MONUMENT	
IRON PIN/DRILL HOLE	
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
EDGE OF GRAVEL	
EDGE OF CONCRETE	
SIGN	
EDGE OF WETLANDS	
EDGE OF WATER	
CENTERLINE OF STREAM	
FLOODPLAIN	
CONTOUR LINE	200 — 201
TREELINE	
STONE WALL	
RETAINING WALL	
TEST PIT	
CATCHBASIN	
DRAINAGE MANHOLE	
CULVERT/STORMDRAIN	
UNDERDRAIN	UD
SEWER MANHOLE	
SANITARY SEWER PIPE	S
FORCE MAIN	FM
WATER MAIN	W
WATER METER PIT	
WATER VALVE	
HYDRANT	
AIR RELEASE	
WELL	
UTILITY POLE	
LIGHT POLE	
OVERHEAD UTILITIES	OHU
UNDERGROUND UTILITIES	UGU
TRANSFORMER PAD	T
GAS MAIN	G
GAS VALVE	
RIPRAP	
SILT FENCE	SF



NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — REG. NO. 12131 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

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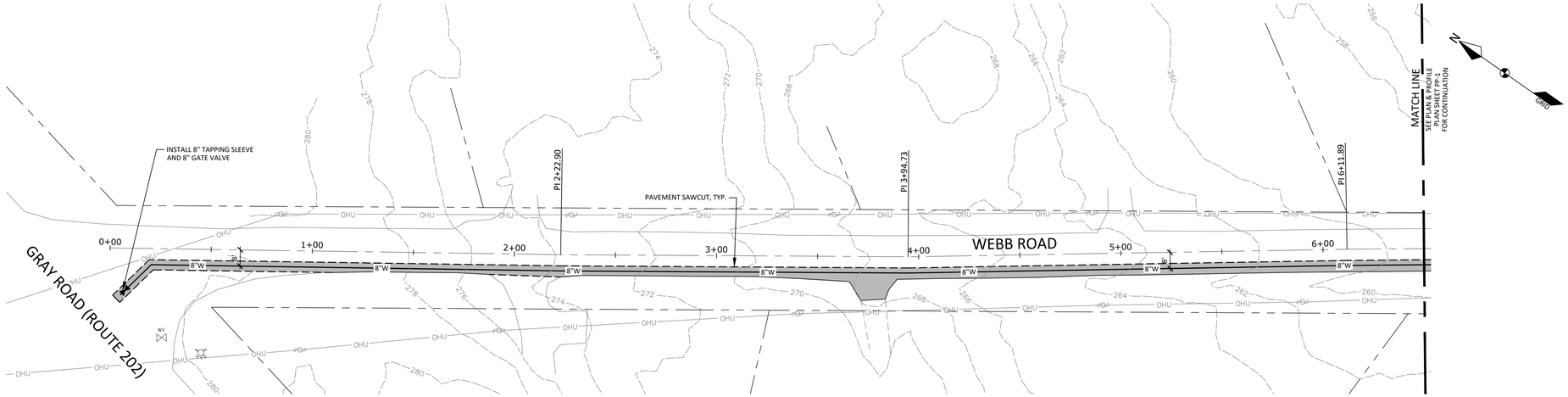
SITE & LANDSCAPING PLAN

LEGACY VILLAGE RETIREMENT COMMUNITY

WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 30'	SCALE:
5-18-2026	DATE:
SHEET 5 OF 13	
S-2	







LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER PROPERTY LINE	
EASEMENT LINE	
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
EDGE OF GRAVEL	
SIGN	
EDGE OF WETLANDS	
200 201 CONTOUR LINE	200 201
TREELINE	
TP-1 TEST PIT	
CATCHBASIN	
DRAINAGE MANHOLE	
CULVERT/STORMDRAIN	
UNDERDRAIN	UD
SEWER MANHOLE	
S SANITARY SEWER PIPE	S
FM FORCE MAIN	FM
W WATER MAIN	W
WATER VALVE	
HYDRANT	
AIR RELEASE	
UTILITY POLE	
OHU OVERHEAD UTILITIES	OHU
UGU UNDERGROUND UTILITIES	UGU
TRANSFORMER PAD	T
RIPRAP	
SILT FENCE	SF

NOT FOR CONSTRUCTION

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P.O. BOX 1116
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(207) 591-5055

REV	DATE	BY	DESCRIPTION
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ROADWAY PLAN AND PROFILE: WEBB ROAD

LEGACY VILLAGE RETIREMENT COMMUNITY
WEBB ROAD
WINDHAM, MAINE
FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

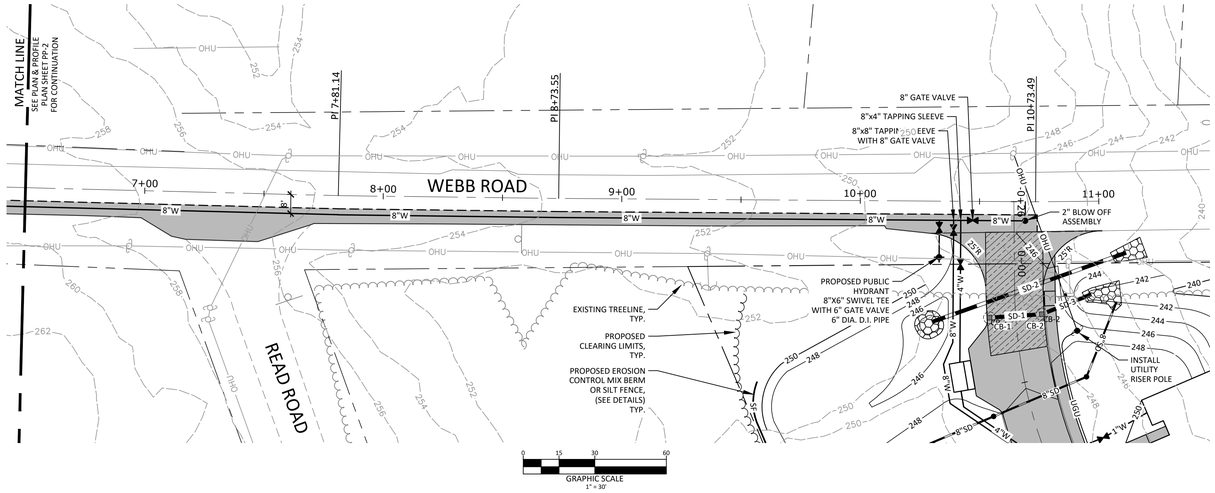
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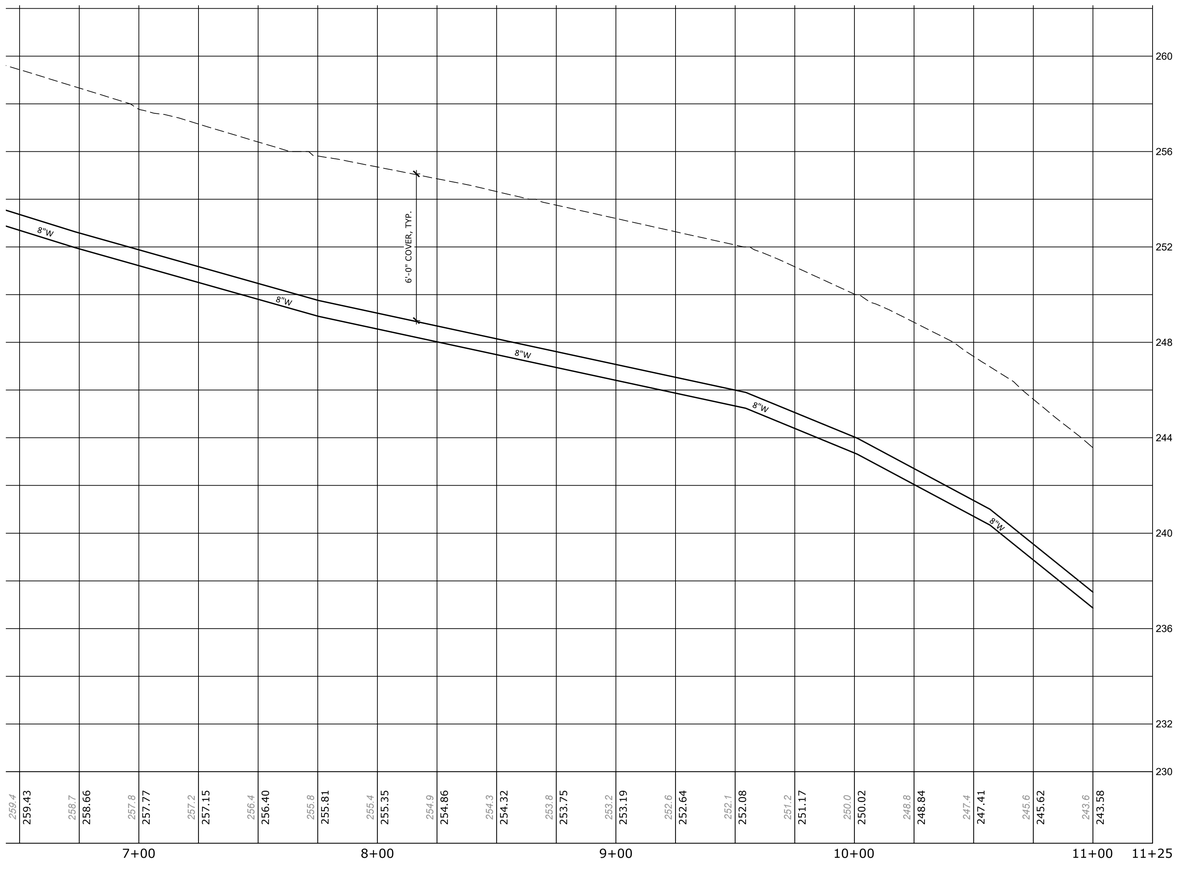
1" = 30'
SCALE:

5-18-2026
DATE:

SHEET 6 OF 13

PP-1





LEGEND

EXISTING		PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER PROPERTY LINE	
	EASEMENT LINE	
	CENTERLINE	
	BUILDING	
	EDGE OF PAVEMENT/CURB	
	EDGE OF GRAVEL	
	SIGN	
	EDGE OF WETLANDS	
200 201	CONTOUR LINE	200 201
	TREELINE	
TP-1	TEST PIT	
	CATCHBASIN	
D	DRAINAGE MANHOLE	
	CULVERT/STORMDRAIN	
	UNDERDRAIN	UD
S	SEWER MANHOLE	S
S	SANITARY SEWER PIPE	S
FM	FORCE MAIN	FM
W	WATER MAIN	W
	WATER VALVE	
	HYDRANT	
	AIR RELEASE	
	UTILITY POLE	
OHU	OVERHEAD UTILITIES	OHU
UGU	UNDERGROUND UTILITIES	UGU
	TRANSFORMER PAD	T
	RIPRAP	
	SILT FENCE	SF

NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — No. 12131 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

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ROADWAY PLAN AND PROFILE: WEBB ROAD

WEBB ROAD SUBDIVISION
WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 30'	SCALE:
5-18-2026	DATE:
SHEET 7 OF 13	
PP-2	

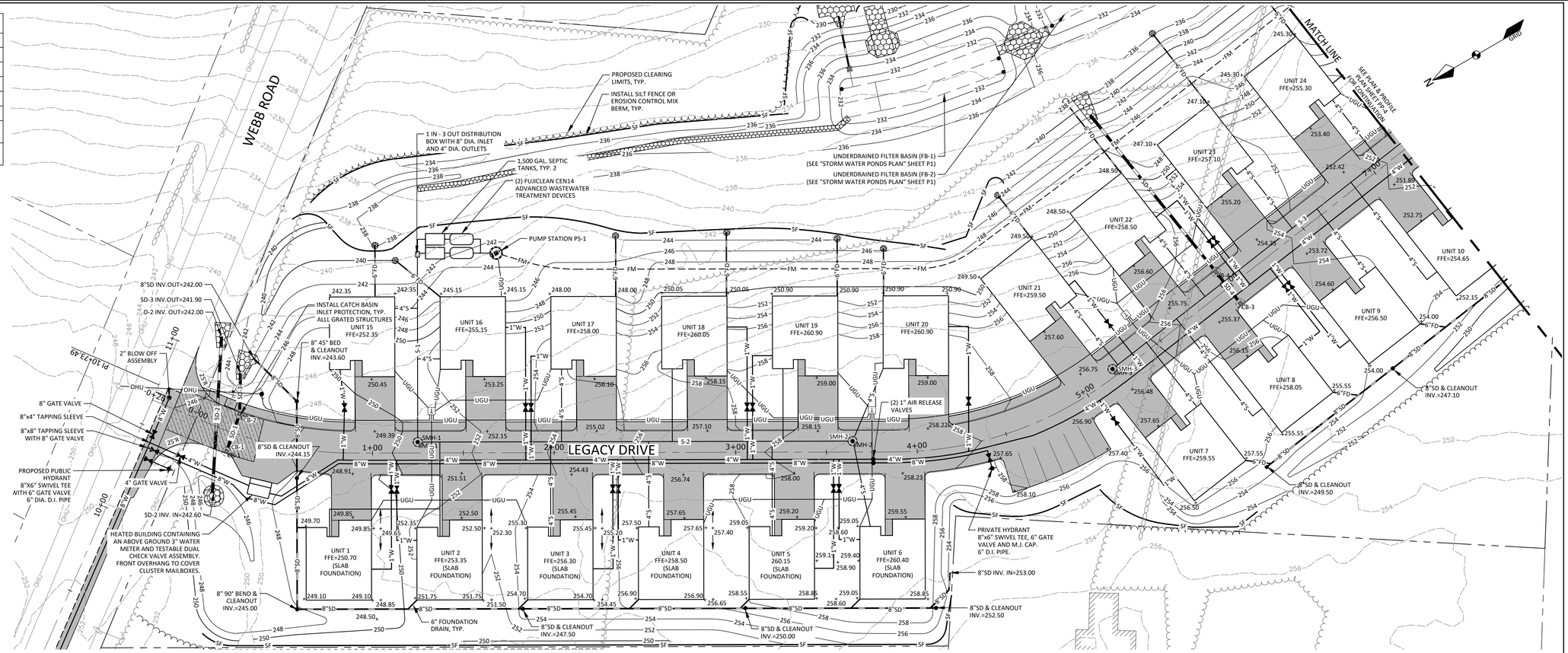
STORM DRAIN STRUCTURE TABLE			
STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	246.86		242.60 (SD-1)
CB-2	246.86	242.40 (SD-1)	242.30 (SD-3)
CB-3	255.03		250.75 (SD-4)
CB-4	255.03	250.55 (SD-4)	250.45 (SD-5)
CB-5	250.46	241.40 (SD-6)	241.15 (SD-7)
CB-6	250.46	243.40 (SD-8) 242.85 (FD-2)	241.60 (SD-6)
CB-7	247.85	243.75 (SD-9) 244.50 (FD-1)	243.65 (SD-8)

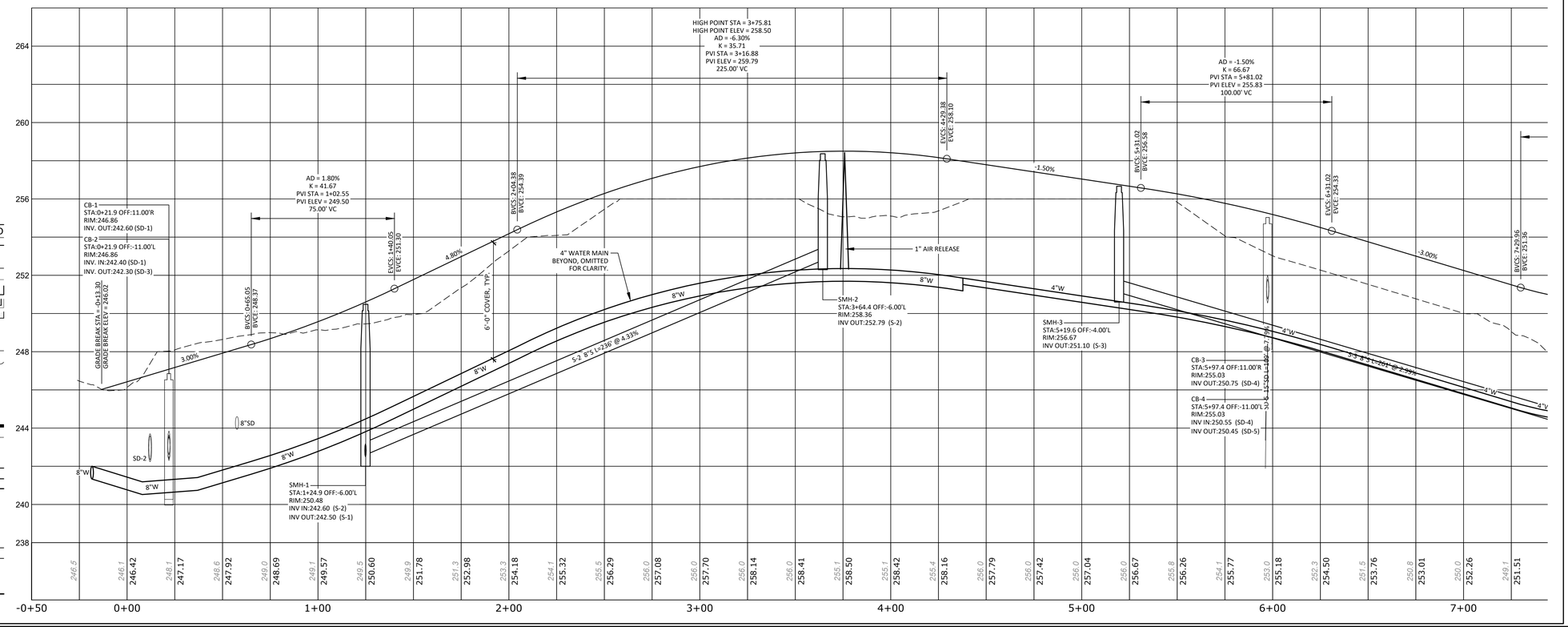
STORM DRAIN PIPE TABLE			
NAME	SIZE	LENGTH	SLOPE
FD-1	6"	11'	1.33%
FD-2	6"	30'	0.83%
SD-1	15"	18'	1.11%
SD-2	15"	86'	0.70%
SD-3	15"	20'	1.97%
SD-4	15"	18'	1.11%
SD-5	15"	109'	7.79%
SD-6	15"	18'	1.11%
SD-7	18"	122'	5.85%
SD-8	12"	42'	0.60%
SD-9	8"	30'	1.98%

SEWER STRUCTURE TABLE			
STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	250.48	242.60 (S-2)	242.50 (S-1)
SMH-2	258.36		252.79 (S-2)
SMH-3	256.67		251.10 (S-3)
SMH-4	250.56	243.30 (S-3) 243.30 (S-4)	243.20 (S-6)
SMH-5	255.22	249.20 (S-5)	249.10 (S-4)
SMH-6	256.46		251.25 (S-5)

SEWER PIPE TABLE			
NAME	SIZE	LENGTH	SLOPE
S-1	8"	100'	7.01%
S-2	8"	236'	4.33%
S-3	8"	261'	2.99%
S-4	8"	105'	5.52%
S-5	8"	151'	1.35%
S-6	8"	99'	6.76%

0 15 30 60
GRAPHIC SCALE
1" = 30'





LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER PROPERTY LINE	
EASEMENT LINE	
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
EDGE OF GRAVEL	
SIGN	
EDGE OF WETLANDS	
CONTOUR LINE	200 — 201
TREELINE	
TEST PIT	
CATCHBASIN	
DRAINAGE MANHOLE	
CULVERT/STORMDRAIN	
UNDERDRAIN	UD
SEWER MANHOLE	
SANITARY SEWER PIPE	S
FORCE MAIN	FM
WATER MAIN	W
WATER VALVE	
HYDRANT	
AIR RELEASE	
UTILITY POLE	
OVERHEAD UTILITIES	OHU
UNDERGROUND UTILITIES	UGU
TRANSFORMER PAD	T
RIPRAP	
SILT FENCE	SF

NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — REG. NO. 12631 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA
CONSULTING ENGINEERS
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REV	DATE	BY	DESCRIPTION
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ROADWAY PLAN AND PROFILE: ROAD A

LEGACY VILLAGE RETIREMENT COMMUNITY

WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007 JOB NUMBER:
1" = 30' SCALE:
5-18-2026 DATE:
SHEET 8 OF 13
PP-3

(3) FUJICLEAN CEN14 ADVANCED WASTEWATER TREATMENT DEVICES

PUMP STATION PS-2

4,000 GAL. SEPTIC TANK

(2) SEPARATE FORCE MAINS

UNIT 25 FFE=253.45

UNIT 26 FFE=253.60

UNIT 27 FFE=255.65

UNIT 28 FFE=258.65

UNIT 39 FFE=260.15

UNIT 30 FFE=260.05

UNIT 11 FFE=253.65

UNIT 12 FFE=256.60

UNIT 13 FFE=260.00

UNIT 14 FFE=258.75

UNIT 10 FFE=254.65

ROAD A

SMH-4 STA 8+00

SMH-5 STA 9+00

SMH-6 STA 10+00

CB-5

CB-6

CB-7

1" AIR RELEASE VALVE

4" GATE VALVE

2" BLOW OFF ASSEMBLY

6"FOUNDATION DRAIN (6"FD) INV.=246.6±

8"45° BEND & CLEANOUT INV.=244.90

8"x6" REDUCER

8"x8"WYE & CLEANOUT INV.=244.35

8" 45° BEND & CLEANOUT INV.=244.80

MATCH LINE SEE PLAN & PROFILE FOR CONTINUATION

FUTURE WASTEWATER DISPOSAL FIELD

SINGLE FORCE MAIN TO DISTRIBUTION BOX

PROPOSED WASTEWATER DISPOSAL FIELD (SEE PLAN E1.1)

UNDERDRAINED FILTER BASIN (FB-3) (SEE "STORM WATER PONDS PLAN" SHEET P1)

GRAPHIC SCALE 1" = 30'

LOW POINT STA = 7+74.96
LOW POINT ELEV = 250.68
AD = 10.00%
K = 15.00
PVI STA = 8+04.96
PVI ELEV = 249.11
150.00' VC

HIGH POINT STA = 9+79.59
HIGH POINT ELEV = 257.89
AD = -13.53%
K = 14.04
PVI STA = 9+76.30
PVI ELEV = 261.10
190.00' VC

CB-5
STA:7+75.0 OFF:-11.00'L
RIM:250.46
INV. IN:241.40 (SD-6)
INV. OUT:241.15 (SD-7)

CB-6
STA:7+75.0 OFF:11.00'R
RIM:250.46
INV. IN:243.40 (SD-8)
INV. IN:242.85 (FD-2)
INV. OUT:241.60 (SD-6)

SMH-5
STA:8+88.2 OFF:-14.85'L
RIM:255.22
INV. IN:249.20 (S-5)
INV. OUT:249.10 (S-4)

SMH-6
STA:10+40.2 OFF:-6.00'L
RIM:256.46
INV OUT:251.25 (S-5)

SMH-4
STA:7+83.4 OFF:-7.29'L
RIM:250.56
INV IN:243.30 (S-3)
INV IN:243.30 (S-4)
INV OUT:243.20 (S-6)

BVCS: 7+29.96
BVCE: 253.06

EVCS: 8+79.96
EVCE: 254.36

EVCS: 10+71.30
GRADE BREAK STA = 10+79.32
GRADE BREAK ELEV: 254.67

END OF PAVEMENT STA = 10+96.56
EP ELEV: 255.17

1" AIR RELEASE VALVE

4" GATE VALVE

2" BLOW OFF ASSEMBLY

6'-0" COVER, TYP.

S-4 8'S L=105' @ 5.52%

S-5 8'S L=151' @ 1.35%

4"W

8"W

249.1	248.0	248.6	249.2	249.6	250.3	250.8	252.7	255.8	257.1	258.0	258.0	255.7	251.0	249.4	247.9
251.51	250.89	250.68	250.89	251.52	252.56	254.02	255.64	256.83	257.58	257.88	257.74	257.16	256.13	254.65	

8+00 9+00 10+00 11+00 11+25

STORM DRAIN STRUCTURE TABLE

STRUCTURE	RIM	INV. IN	INV. OUT
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CB-7	247.85	243.75 (SD-9) 244.50 (FD-1)	243.65 (SD-8)

SEWER STRUCTURE TABLE

STRUCTURE	RIM	INV. IN	INV. OUT
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SMH-5	255.22	249.20 (S-5)	249.10 (S-4)
SMH-6	256.46		251.25 (S-5)

STORM DRAIN PIPE TABLE

NAME	SIZE	LENGTH	SLOPE
FD-1	6"	11'	1.33%
FD-2	6"	30'	0.83%
SD-1	15"	18'	1.11%
SD-2	15"	86'	0.70%
SD-3	15"	20'	1.97%
SD-4	15"	18'	1.11%
SD-5	15"	109'	7.79%
SD-6	15"	18'	1.11%
SD-7	18"	122'	5.85%
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LEGEND

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CENTERLINE	
BUILDING	
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EDGE OF GRAVEL	
SIGN	
EDGE OF WETLANDS	
CONTOUR LINE	200 — 201
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DRAINAGE MANHOLE	
CULVERT/STORMDRAIN	
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SEWER MANHOLE	
SANITARY SEWER PIPE	S
FORCE MAIN	FM
WATER MAIN	W
WATER VALVE	
HYDRANT	
AIR RELEASE	
UTILITY POLE	
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UNDERGROUND UTILITIES	UGU
TRANSFORMER PAD	T
RIPRAP	
SILT FENCE	SF

NOT FOR CONSTRUCTION

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LEGACY VILLAGE RETIREMENT COMMUNITY

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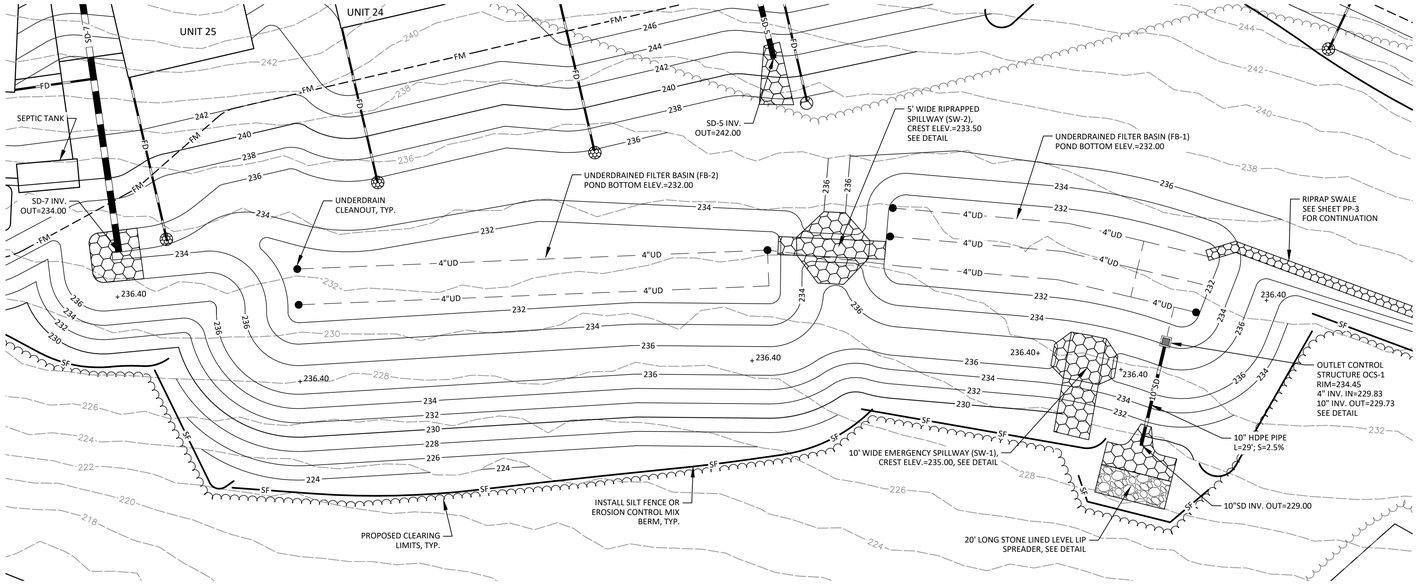
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DATE:

SHEET 9 OF 13

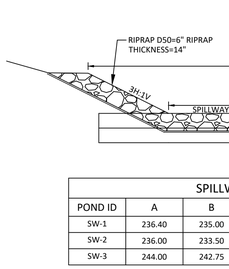
PP-4



UNDERDRAINED FILTER BASINS FB-1 & FB-2

SCALE: 1"=20'

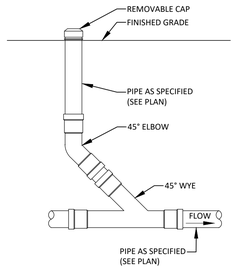
GRAPHIC SCALE 1" = 20'



SPILLWAY DATA					
POND ID	A	B	C	D	E
SW-1	236.40	235.00	10'	1.40'	18.4'
SW-2	236.00	233.50	5'	2.50'	20.0'
SW-3	244.00	242.75	10'	1.30'	17.8'

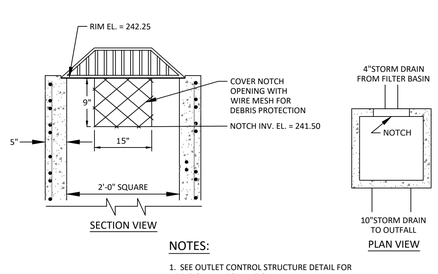
RIPRAPPED SPILLWAY CROSS-SECTION

NOT TO SCALE



UNDERDRAIN CLEANOUT DETAIL

NOT TO SCALE

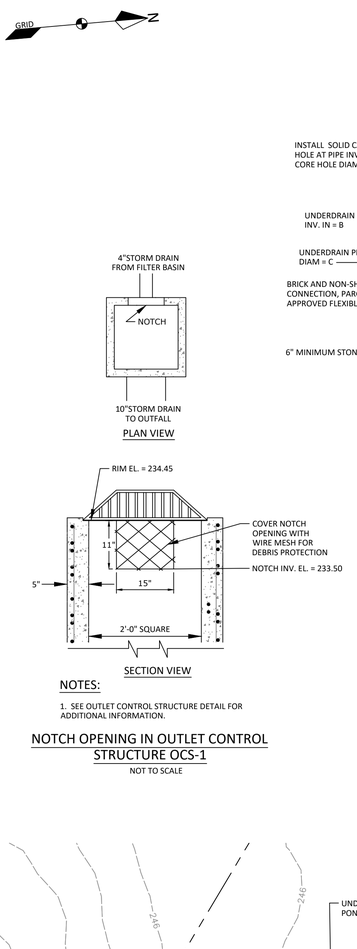


NOTES:

1. SEE OUTLET CONTROL STRUCTURE DETAIL FOR ADDITIONAL INFORMATION.

NOTCH OPENING IN OUTLET CONTROL STRUCTURE OCS-2

NOT TO SCALE

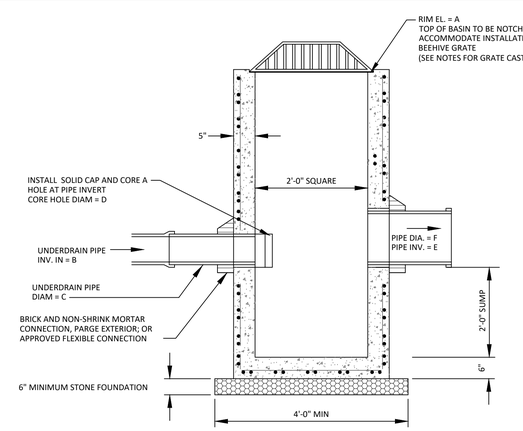


NOTES:

1. SEE OUTLET CONTROL STRUCTURE DETAIL FOR ADDITIONAL INFORMATION.

NOTCH OPENING IN OUTLET CONTROL STRUCTURE OCS-1

NOT TO SCALE



STRUCTURE DATA						
STRUCTURE ID	A	B	C	D	E	F
OCS-1	234.45	229.83	4"	1-3/4"	229.73	10"
OCS-2	242.25	237.83	4"	1"	237.73	10"

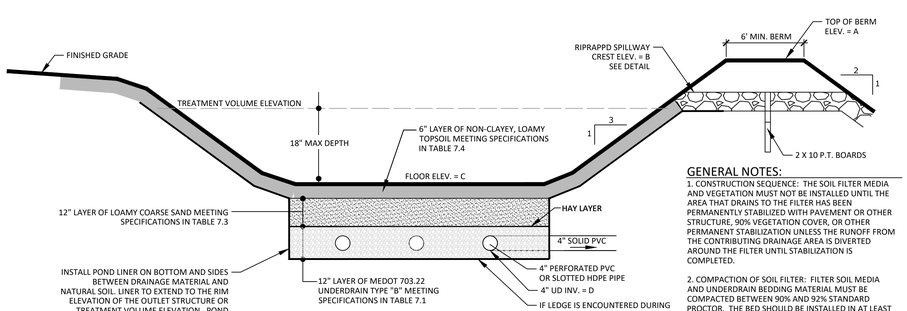
*OCS-1 & OCS-2 ARE TO BE INSTALLED WITH A NOTCH ON THE SIDE OF THE STRUCTURE. SEE "NOTCH OPENING IN OUTLET CONTROL STRUCTURES OCS-1 & OCS-2" DETAIL BELOW.

NOTES:

1. OUTLET CONTROL STRUCTURE SHALL BE CONSTRUCTED UTILIZING A PRECAST CATCH BASIN (24"x 24" ~ TYPE F).
2. CAST IRON GRATE SHALL BE EQUAL TO NEENAH FOUNDRY, PRODUCT NO. R-4345, BEEHIVE LIGHT DUTY GRATE, OR APPROVED EQUIVALENT.
3. SUBMIT SHOP DRAWINGS AND CASTING SPECIFICATIONS TO ENGINEER FOR APPROVAL.

OUTLET CONTROL STRUCTURE

NOT TO SCALE



GRASSED UNDERDRAINED SOIL FILTER BASIN SECTION

NOT TO SCALE

FILTER BASIN DATA				
POND ID	A	B	C	D
FB-1	236.40	235.00	232.00	229.83
FB-3	236.40	235.00	232.00	229.83
FB-3	244.00	242.75	240.00	237.83

GENERAL NOTES:

1. CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.
2. COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST TWO LIFTS TO PREVENT POCKETS OF LOOSE MEDIA.

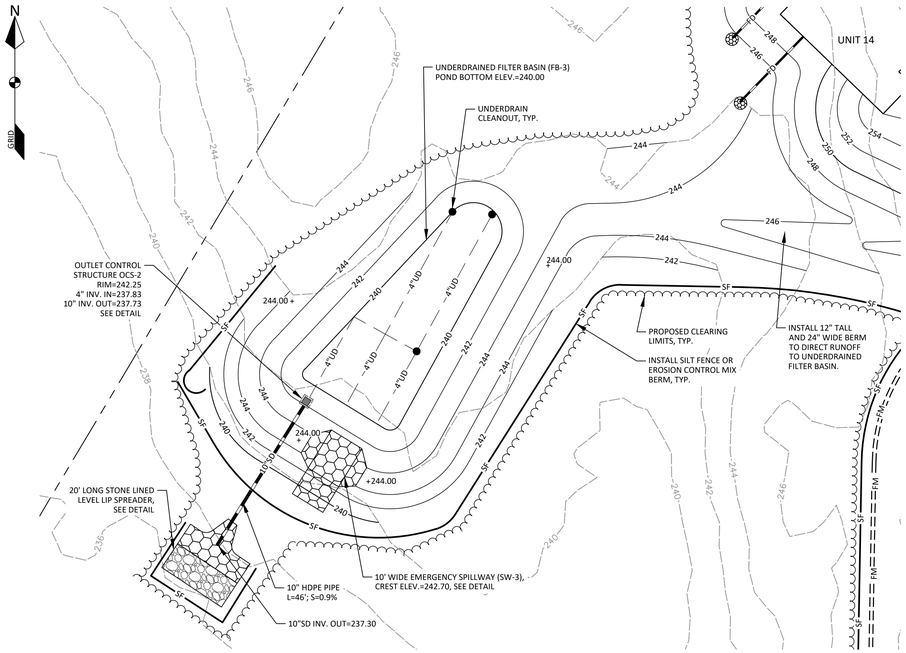
FILTRATION BMPs CONSTRUCTION OVERSIGHT NOTES:

1. INSPECTION BY THE DESIGN ENGINEER OR SUITABLE THIRD PARTY WILL OCCUR AT A MINIMUM:
   A) AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
   B) AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
   C) AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.
   D) AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
   E)ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING MDEP SPECIFICATIONS.
2. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
   A) SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
   B) PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
   C) PERFORM A PERMIABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698
3. WITHIN 30 DAYS OF COMPLETION OF THE FILTRATION BMP, THE APPLICANT SHALL SUBMIT A LOG OF INSPECTION REPORTS DETAILING THE ITEMS INSPECTED, PHOTOS TAKEN, AND THE DATES OF EACH INSPECTION TO THE MAINE DEP BUREAU OF LAND RESOURCES FOR REVIEW.

TABLE 7.1 UNDERDRAIN 703.22 TYPE "B"	
SIEVE SIZE	% PASSING BY WEIGHT
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

TABLE 7.4 SANDY LOAM	
SIEVE SIZE	% PASSING BY WEIGHT
#4	75-95
#10	60-90
#40	35-85
#200	20-70
200 CLAY	<2.0

TABLE 7.3 LOAMY COARSE SAND	
SIEVE SIZE	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15
200 CLAY	<2.0



UNDERDRAINED FILTER BASIN FB-3

SCALE: 1"=20'

GRAPHIC SCALE 1" = 20'

NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — No. 12631 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV.	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

STORMWATER PONDS PLAN

LEGACY VILLAGE RETIREMENT COMMUNITY

WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1308
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 20'	SCALE:
5-18-2026	DATE:
SHEET 10 OF 13	
P-1	

EROSION AND SEDIMENTATION CONTROL NOTES:

EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY.

IN ORDER TO EFFECTIVELY PREVENT AND CONTROL EROSION RELATED TO SOIL DISTURBANCE, THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) SHALL BE EMPLOYED:

1. POLLUTION PREVENTION

MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE.

WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

2. TEMPORARY SOIL STABILIZATION BMPS

TEMPORARY MULCHING SHALL BE APPLIED IMMEDIATELY TO ANY AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED. ANY DISTURBED SOIL WITHIN 75' OF A STREAM, WATER BODY OR WETLAND MUST RECEIVE TEMPORARY MULCH WITHIN 48 HOURS FOLLOWING DISTURBANCE AND BEFORE ANY STORM EVENT. ALL OTHER AREAS SHALL RECEIVE TEMPORARY MULCH WITHIN 7 DAYS OF DISTURBANCE. AREAS WHICH CANNOT BE SEEDED DURING THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION. THE FOLLOWING ARE ACCEPTABLE TEMPORARY MULCHING METHODS:

HAY OR STRAW MULCHES NEED TO BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS. APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75-90% OF THE GROUND SURFACE. HAY OR STRAW CAN BE DRIVEN INTO THE GROUND WITH TRACKED EQUIPMENT IF SLOPES ARE LESS THAN 3%, OR CAN BE ANCHORED WITH JUTE, WOOD FIBER OR PLASTIC NETTING ON STEEPER SLOPES.

EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND WILL INCLUDE ANY OF THE FOLLOWING: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK OR OTHER ACCEPTABLE PRODUCTS BASED ON A SIMILAR RAW SOURCE. WOOD OR BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE. EROSION CONTROL MIX CAN BE USED AS A STAND-ALONE REINFORCEMENT ON SLOPES OF 2 HORIZONTAL TO 1 VERTICAL OR LESS AND DRAINING IN SHEET FLOW. IT CAN BE PLACED WITH A HYDRAULIC BUCKET, WITH A PNEUMATIC BLOWER OR BY HAND, AND MUST PROVIDE 100% SOIL COVERAGE.

EROSION CONTROL MIX SHALL MEET THE FOLLOWING SPECIFICATIONS:
-ORGANIC MATTER CONTENT SHALL BE BETWEEN 80-100%, DRY WEIGHT BASIS.
-PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6 IN. SCREEN AND BETWEEN 70-85% PASSING 0.75 IN. SCREEN
-ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
-LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX

WHEN USED AS MULCH, THE THICKNESS OF THE ERISION CONTROL MIX IS BASED UPON THE FOLLOWING:

LENGTH OF SLOPE	3:1 SLOPE OR LESS	BETWEEN 2:1 AND 3:1 SLOPE
LESS THAN 20 FT	2.0 IN.	4.0 IN.
BETWEEN 20 - 60 FT	3.0 IN.	5.0 IN.
BETWEEN 60 - 100 FT	4.0 IN.	6.0 IN.

CHEMICAL MULCHES AND SOIL BINDERS MAY BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL CONSULT WITH THE MANUFACTURER TO DETERMINE ADEQUATE APPLICATION RATES AND METHODS.

TEMPORARY MULCH SHALL BE INSPECTED FOLLOWING ANY SIGNIFICANT RAINFALL EVENT. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. ERISION CONTROL MATS AND MULCH ANCHORING MUST BE INSPECTED AFTER RAINFALL EVENTS FOR DISLOCATION OR FAILURE, AND REPAIRED IMMEDIATELY. INSPECTIONS SHALL TAKE PLACE UNTIL 95% OF THE SOIL SURFACE IS COVERED WITH PERMANENT VEGETATION. WHERE MULCH IS USED WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE, AND REPAIR AS NEEDED.

TEMPORARY VEGETATION SHALL BE ESTABLISHED ON SOILS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. IF TEMPORARY VEGETATION CANNOT BE ESTABLISHED PRIOR TO OCTOBER 15, TEMPORARY MULCH SHALL BE APPLIED THROUGH THE WINTER AND TEMPORARY VEGETATION SHALL BE PLANTED AT THE BEGINNING OF THE GROWING SEASON THE FOLLOWING YEAR. TO PREPARE THE SEEDBED, THE CONTRACTOR SHALL APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OF 10-10-10 (N-P2O5-K20) OR EQUIVALENT AND LIMESTONE AT A RATE OF 3 TONS PER ACRE, IF NECESSARY. LOOSEN SOIL TO A DEPTH OF 2 INCHES IN AREAS THAT HAVE BEEN COMPACTED BY CONSTRUCTION ACTIVITIES. GRASS SEED SHALL BE SELECTED BASED UPON THE TIME OF YEAR THE PLANTING WILL TAKE PLACE AS SUMMARIZED IN THE FOLLOWING TABLE:

SEED	LB. PER ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	112	8/15 - 10/1
OATS	80	4/1 - 7/1 8/15 - 9/15
ANNUAL RYEGRASS	40	4/1 - 7/1

TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED TO MAINTAIN AT LEAST 95% VEGETATIVE COVER OF SOIL SURFACE. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES SHALL BE USED IN THE INTERIM SUCH AS TEMPORARY MULCH, FILTER BARRIERS, ETC.

3. SEDIMENT BARRIER BMPS

PRIOR TO CONSTRUCTION TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA . SEDIMENT BARRIERS INCLUDE ANY OF THE FOLLOWING:

FILTER BARRIER FENCE, ALSO CALLED SILT FENCE, SHALL BE INSTALLED WHERE SHOWN ON THE PLANS AND IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL PROVIDE A MINIMUM OF 6 MONTHS USABLE CONSTRUCTION LIFE INCLUDING PROTECTION AGAINST ULTRA-VIOLET LIGHT. THE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES INSTALLED AND POST SPACING SHALL NOT EXCEED 6 FEET. JOINTS IN THE FENCE SHALL BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NECESSARY SHALL BE SPLICED TOGETHER AT A SUPPORT POST WITH A MINIMUM 6 INCH OVERLAP. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP, AND THE BOTTOM 6-8 INCHES OF FABRIC SHALL BE "TOED-IN" TO THE TRENCH AND COMPACTED. THE TRENCH SHOULD BE UPHILL OF THE FABRIC PRIOR TO BURIAL.

EROSION CONTROL MIX BERMS ARE LINEAR BARRIERS COMPOSED OF EROSION CONTROL MIX AS SPECIFIED ABOVE. THE BERM MUST BE A MINIMUM OF 12 INCHES TALL AND 24 INCHES WIDE AT THE BASE IF UPHILL SLOPES ARE LESS THAN 5%. STEEPER SLOPES OR SLOPES GREATER THAN 20 FEET LONG MAY REQUIRE A LARGER WIDTH BERM. EROSION CONTROL MIX BERMS SHALL BE PROHIBITED AT THE BASE OF A LONG OR STEEP SLOPE (8% OR GREATER) WITHOUT THE ADDITIONAL SUPPORT OF A FILTER FENCE INSTALLED ON THE DOWNHILL SIDE OF THE BERM.

SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED RUNNING ONTO THE STOCKPILE. SEDIMENT BARRIERS SHALL BE INSPECTED AFTER ANY SIGNIFICANT RAINFALL EVENT AND REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE BARRIERS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR EDGES OF THE BARRIER, OR IF LARGE VOLUMES OF WATER ARE IMPOUNDED BEHIND THE BARRIER, IT MAY BE NECESSARY TO INSTALL A SEDIMENT BASIN UPGRADIENT OF THE SEDIMENT BARRIER. SEDIMENT SHALL BE REMOVED ONCE IT REACHES HALF THE BARRIER HEIGHT. AFTER THE BARRIER IS REMOVED, ANY REMAINING SILT SHALL EITHER BE REMOVED OR GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

TEMPORARY EROSION CONTROL MEASURES ARE REMOVED ONCE THE SITE IS PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

4. STORM DRAIN INLET PROTECTION

STORM DRAIN INLETS THAT ARE MADE OPERATIONAL BEFORE THEIR DRAINAGE AREA IS STABILIZED SHALL BE PROTECTED WITH A FILTER UNTIL THE DRAINAGE AREA IS EITHER PAVED OR STABILIZED WITH 95% VEGETATIVE GROWTH. THE FOLLOWING ARE ACCEPTABLE BMPS ASSOCIATED WITH STORM DRAIN INLET PROTECTION:

MANUFACTURED SEDIMENT FILTERS ARE THE PREFERRED METHOD FOR PROTECTING CATCH BASIN INLETS IN PAVED OR GRAVEL ROADWAYS. THE FILTERS TYPICALLY CONSIST OF A FABRIC OR OTHER PERVIOUS MATERIAL THAT IS PLACED ABOVE OR BELOW THE GRATE THAT TRAPS SEDIMENT ON THE SURFACE AND ALLOWS WATER TO FLOW THROUGH THE GRATE. CONSIDERATIONS SUCH AS WEATHER CONDITIONS, SLOPES, TRIBUTARY WATERSHED AREA AND EXPECTED SEDIMENT ACCUMULATION SHOULD BE FACTORED INTO MAKING A DECISION ON ANY PARTICULAR PRODUCT, AND THE MANUFACTURER'S RECOMMENDATIONS ON INSTALLATION AND MAINTENANCE SHALL BE STRICTLY ADHERED TO.

5. STABILIZED CONSTRUCTION ENTRANCE/EXIT

TO REDUCE THE TRACKING OF SEDIMENT ONTO ROADWAYS, A STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED AT ALL POINTS OF EGRESS WHERE VEHICLES MAY TRAVEL FROM THE PROJECT SITE TO A PUBLIC ROAD OR OTHER PAVED AREA. THE STONE PAD SHALL CONSIST OF A MINIMUM 6-INCH DEPTH OF 3 INCH CRUSHED STONE, AND SHALL BE PLACED ON A GEOTEXTILE FABRIC. THE PAD SHALL EXTEND AT LEAST 50 FEET INTO THE PROJECT SITE AND BE A MINIMUM OF 50 FEET WIDE. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, AND THE CONTRACTOR SHALL SWEEP PAVEMENT AT EXITS THAT HAVE EXPERIENCED ANY MUD-TRACKING PRIOR TO THE NEXT STORM EVENT. MAINTAIN THE PAD UNTIL ALL DISTURBED AREAS ARE STABILIZED.

6. DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST ON THE PROJECT SITE AND ON ADJACENT ROADWAYS. EXPOSED SOIL SURFACES SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST. GRAVEL SURFACES SHALL EITHER BE TREATED WITH AN APPLICATION OF CALCIUM CHLORIDE OR COVERED WITH CRUSHED STONE IF DUST CONTROL BECOMES DIFFICULT WITH NORMAL WATER APPLICATIONS.

7. LAND GRADING AND SLOPE PREPARATION

GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE NEXT PHASE. ANY EXPOSED AREA THAT WILL NOT BE FINISH GRADED WITHIN 7 DAYS SHALL BE TREATED WITH MULCH OR PLANTED WITH TEMPORARY VEGETATION. PROVISIONS SHALL BE MADE TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASS SHALL NOT BE STEEPER THAN 2:1. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS. FILL MATERIAL SHALL BE FREE OF STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

8. TOPSOIL

IF POSSIBLE, TOPSOIL SHALL BE STOCKPILED ON THE PROJECT SITE AND REUSED. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM), AND SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEKS. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING WITH SUBSOIL. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT UNDUE COMPACTION IS TO BE AVOIDED.

9. PERMANENT SOIL STABILIZATION

IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC. EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

SEEDED AREAS: TO PREPARE THE SEEDBED, APPLY 10-20-20 FERTILIZER AT A RATE OF 800 POUNDS PER ACRE AND GROUND LIMESTONE AT A RATE OF 3 TONS PER ACRE. WORK THE FERTILIZER AND LIMESTONE INTO THE TOPSOIL TO A DEPTH OF 4 INCHES AND REMOVE ANY STONES, ROOTS OR OTHER VISIBLE DEBRIS. SELECT A SEED MIXTURE THAT IS APPROPRIATE FOR THE SOIL TYPE AND MOISTURE CONTENT AS FOUND AT THE SITE, AND FOR THE AMOUNT OF SUN EXPOSURE AND FOR LEVEL OF USE. REFER TO THE USDA SOIL CONSERVATION SERVICE OR THE LOCAL SOIL AND WATER CONSERVATION DISTRICT FOR APPROPRIATE SEED MIXTURES. APPLY SEED UNIFORMLY IN ACCORDANCE WITH SUPPLIER RECOMMENDATIONS AND IMMEDIATELY COVER WITH MULCH AS DESCRIBED IN THE TEMPORARY MULCHING SECTION OF THIS PLAN.

HYDROSEEDING SHALL BE DONE IN ACCORDANCE WITH SUPPLIERS RECOMMENDATIONS. FOR SEEDED AREAS TO BE PERMANENTLY STABILIZED, 90% OF THE DISTURBED SOIL SHALL BE COVERED WITH MATURE HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

SOD STRIPS SHALL BE LAID AT RIGHT ANGLES TO DIRECTION OF SLOPE OR FLOW OF WATER STARTING AT LOWEST ELEVATION. JOINTS SHALL BE STAGGERED, AND ALL STRIPS SHALL BE ROLLED OR TAMPED INTO PLACE. ON SLOPES, SOD SHALL BE ANCHORED WITH STAPLES, WIRE OR PINS. IRRIGATE SODDED AREA IMMEDIATELY AFTER INSTALLATION. FOR SODDED AREAS TO BE PERMANENTLY STABILIZED, THE ROOTS OF THE SOD MUST BE COMPLETELY BOUND INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

PERMANENT MULCH IS A LONG TERM COVER THAT PROVIDES A GOOD BUFFER AROUND DISTURBED AREAS. THE EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS OR COMPOSTED BARK. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS ARE NOT ACCEPTABLE. THE EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH.

RIPRAP STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNEVEN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. THE DEPTH OF STONE SHALL BE A MINIMUM OF 2.2 TIMES THE MAXIMUM STONE DIAMETER. A GRAVEL OR GEOTEXTILE FILTER BLANKET SHALL BE PLACED BETWEEN THE RIPRAP AND UNDERLYING SOIL SURFACE. GRAVEL FILTER BLANKETS SHALL MEET MDOT TYPE-C UNDERDRAIN MATERIAL SPECIFICATIONS AND BE AT LEAST 6 INCHES THICK. GEOTEXTILE FILTER BLANKETS SHALL BE SPECIFIED BASED ON SITE CONDITIONS. RIPRAP SLOPES SHALL BE TOED INTO THE BASE OF THE EMBANKMENT BY EXCAVATING A TRENCH AT THE BOTTOM OF THE SLOPE AND INSTALLING A STABLE BASE OF RIPRAP TO GRADE.

DITCHES, CHANNELS AND SWALES ARE CONSIDERED PERMANENTLY STABILIZED WHEN THE CHANNEL HAS 90% COVER OF HEALTHY VEGETATION WITH A WELL GRADED RIPRAP LINING, EROSION CONTROL BLANKET, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE BANKS, OR DOWNCUTTING OF THE CHANNEL.

10. STORMWATER CHANNELS

EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL. PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

INSPECTION & MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL CONSTRUCTION OPERATIONS COMPLY WITH THE INSPECTION AND MAINTENANCE PROCEDURES FOR THE PROJECT, INCLUDING, BUT NOT LIMITED TO THOSE INCLUDED IN THIS PLAN SET, THE "INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN", AND THE "MAINE EROSION AND SEDIMENTATION CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS". 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 PRIOR TO, DURING AND AFTER A STORM EVENT GENERATING MORE THAN 0.5 INCH OF RAINFALL OVER A 24-HOUR PERIOD 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. 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. 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 AND TOWN 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.

WINTER EROSION AND SEDIMENTATION CONTROL NOTES:

THE WINTER CONSTRUCTION PERIOD TYPICALLY BEGINS IN EARLY NOVEMBER AND ENDS IN MID APRIL. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AN AREA SHALL BE CONSIDERED DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN THE ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. A COVER OF EROSION CONTROL MIX IS THE PREFERRED TEMPORARY MULCH DURING WINTER CONDITIONS.

1. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 75 FEET FROM ANY REGULATED NATURAL RESOURCES SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH AN EROSION CONTROL COVER. DURING WINTER CONSTRUCTION, A DOUBLE ROW OF SEDIMENT BARRIERS (FOR EXAMPLE, SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY REGULATED NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE REGULATED NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

2. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

3. MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE (TWICE THE NORMAL ACCEPTED RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCHES THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. SNOW MUST BE REMOVED DOWN TO A ONE-INCH DEPTH PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERTY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WITH THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4. SOIL STOCKPILING

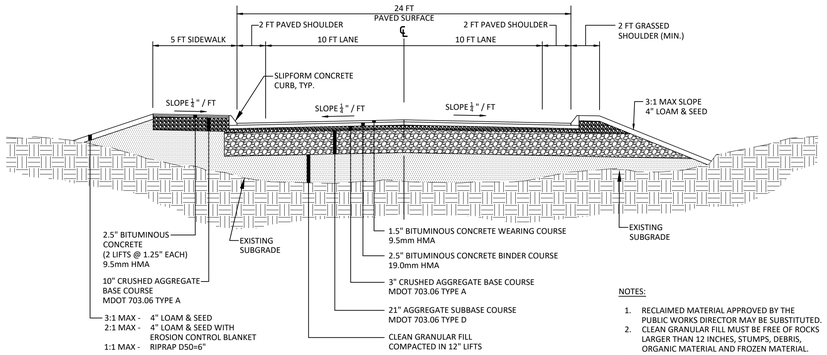
STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RAT EOR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STACKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED WITHIN 100 FEET FROM ANY REGULATED NATURAL RESOURCE.

5. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF DORMANT SEEDING IS USED, ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS PER 1,000 S.F. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75%) IN THE SPRING SHALL BE REVEGETATED.

6. OVER-WINTER STABILIZATION OF DITCHES AND CHANNELS

AL

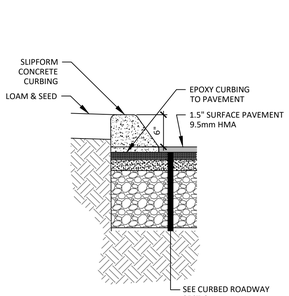


TYPICAL ROADWAY SECTION

NOT TO SCALE

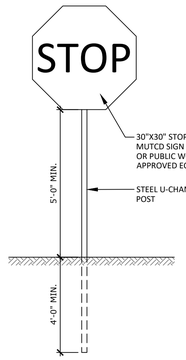
NOTES:

1. RECLAIMED MATERIAL APPROVED BY THE PUBLIC WORKS DIRECTOR MAY BE SUBSTITUTED.
2. CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL.
3. GEOTEXTILE FABRIC OR UNDERDRAINS MAY BE REQUIRED BY THE DIRECTOR OF PUBLIC WORKS OR DESIGNEE IF POOR SOILS ARE ENCOUNTERED.



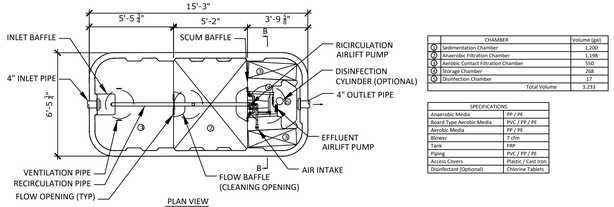
TYPICAL CURB SECTION

NOT TO SCALE



STOP SIGN INSTALLATION

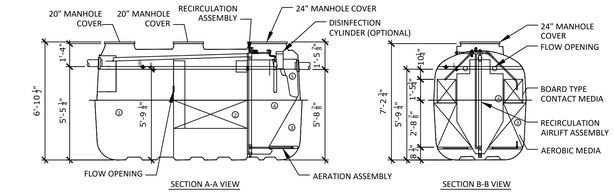
NOT TO SCALE



PLAN VIEW

	CHAMBER	Volume (gal)
A	Sedimentation Chamber	1,200
B	Anaerobic Filtration Chamber	1,198
C	Aerobic Contact Filtration Chamber	550
D	Storage Chamber	268
E	Disinfection Chamber	17
	Total Volume	3,233

SPECIFICATIONS	
Anaerobic Media	PP / PE
Board Type Aerobic Media	PVC / PP / PE
Aerobic Media	PP / PE
Blower	1 cfm
Tank	FRP
Piping	PVC / PP / PE
Access Covers	Plastic / Cast Iron
Disinfectant (Optional)	Chlorine Tablets

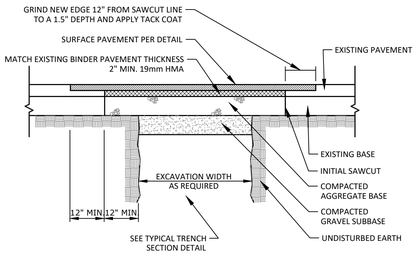


SECTION A-A VIEW

SECTION B-B VIEW

FUJI CLEAN CEN21 TREATMENT DEVICE

NOT TO SCALE

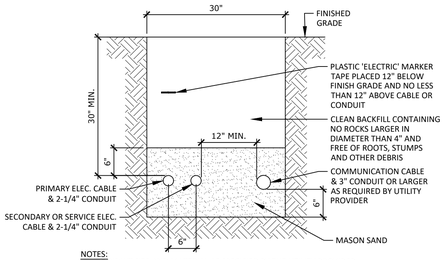


NOTES:

1. SEE TYPICAL ROAD SECTION FOR REQUIRED DEPTHS OF AGGREGATE AND PAVEMENT COURSES

PAVEMENT REPAIR DETAIL

NOT TO SCALE



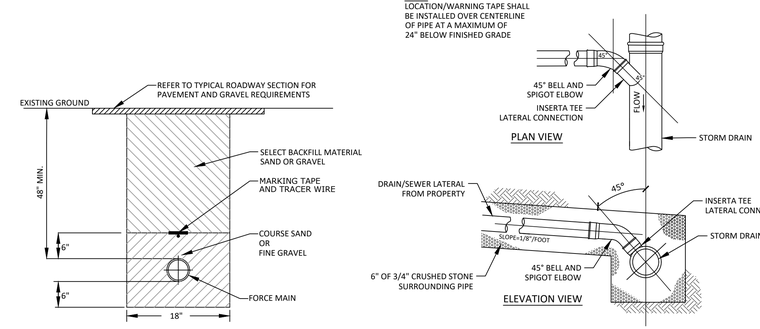
NOTES:

1. CONDUIT SIZE AND MATERIAL AS SPECIFIED BY THE UTILITY PROVIDER.
2. INSTALLATION SHOULD NOT ALLOW THE INTER-TWINING OF CABLES.
3. BEDDING AND BACKFILL SHALL BE FREE OF ROOTS, STUMPS AND OTHER DEBRIS.
4. COMMUNICATION CABLE AND POWER CABLE SHALL HAVE NO LESS THAN 12 INCHES OF RADIAL SEPARATION.

UTILITY TRENCH DETAIL

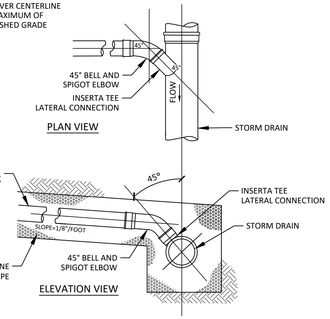
NOT TO SCALE

NOTE:
LOCATION/WARNING TAPE SHALL
BE INSTALLED OVER CENTERLINE
OF PIPE AT A MAXIMUM OF
24" BELOW FINISHED GRADE



FORCE MAIN TYPICAL TRENCH CROSS-SECTION

NOT TO SCALE

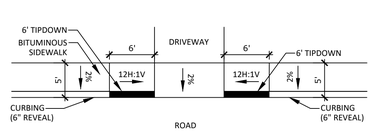


PLAN VIEW

ELEVATION VIEW

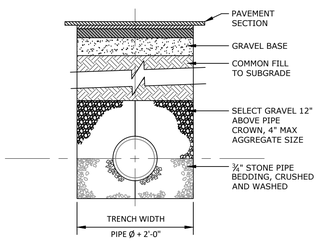
DRAIN/SEWER LATERAL CONNECTION

NOT TO SCALE



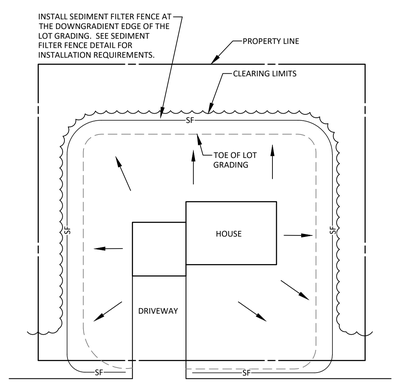
PEDESTRIAN / DRIVEWAY RAMP DETAIL

NOT TO SCALE



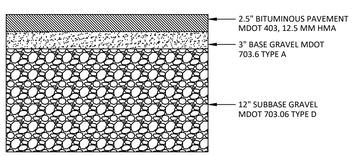
TYPICAL TRENCH SECTION

NOT TO SCALE



TYPICAL HOUSE LOT
EROSION CONTROL DETAIL

NOT TO SCALE

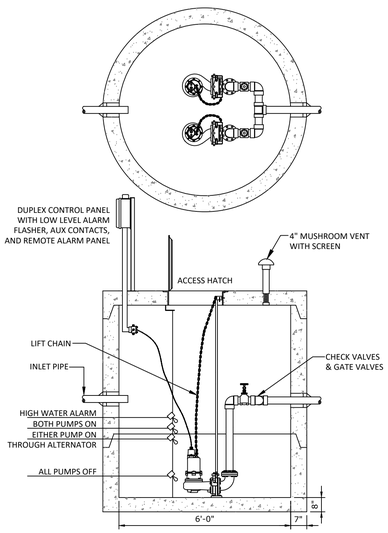


TYPICAL DRIVEWAY SECTION

NOT TO SCALE

NOTES:

1. CLEAN GRANULAR FILL MUST BE FREE OF ROCKS LARGER THAN 12 INCHES, STUMPS, DEBRIS, ORGANIC MATERIAL AND FROZEN MATERIAL.

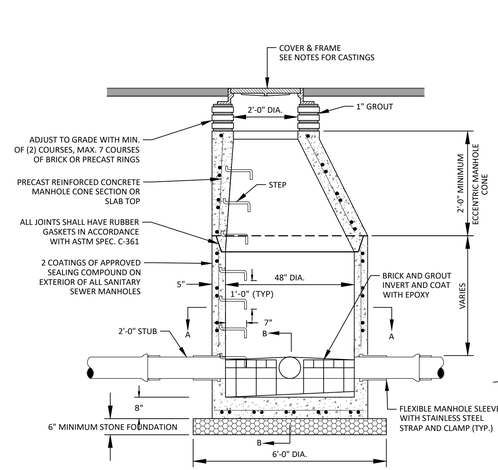


NOTES:

1. PUMP STATION INVERT ELEVATION INFORMATION IS FOR PRICING ONLY. FINAL DESIGN TO BE PROVIDED BY DESIGN ENGINEER PRIOR TO ISSUANCE OF DRAWINGS FOR CONSTRUCTION.

PUMP STATION DETAIL

NOT TO SCALE

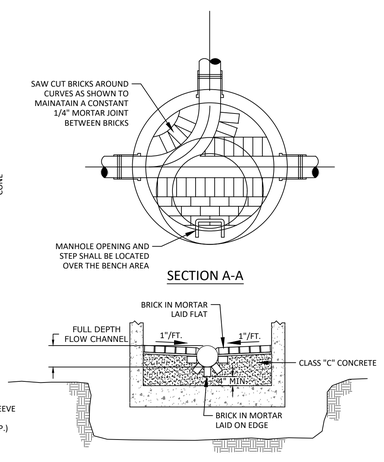


PRECAST CONCRETE SANITARY MANHOLE

NOTES:

1. SOLID COVER TO BE EAST JORDAN IRON WORKS PRODUCT NUMBER 00104175 OR APPROVED EQUAL AND SHALL BE MARKED "SANITARY SEWER". FRAME TO BE EAST JORDAN IRONWORKS PRODUCT NUMBER 00104510 OR APPROVED EQUAL.
2. CONNECTIONS TO EXISTING SANITARY MANHOLES TO BE APPROVED BY SEWER DISTRICT AND CORE DRILLED WITH FLEXIBLE BOOT.
3. MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT ARE TO BE BUILT ON A SMOOTH RADIUS. IF SIDE PIPES ENTER CHANNEL, SHAPE TO RECEIVE ADDED SIDE FLOW (SEE SECTION A-A).
4. USE FLAT SLAB TOP MANHOLE WHEN THE DIFFERENCE BETWEEN INVERT AND RIM IS LESS THAN 6'-0" AND WHEN MANHOLE DIAMETER IS GREATER THAN 4'-0".
5. AVERAGE STRENGTH OF CONCRETE TO BE 4,000 PSI AT 28 DAYS. STRUCTURE TO BE DESIGNED FOR H-20 LOADING.

NOT TO SCALE



SECTION A-A

SECTION B-B

NOT FOR CONSTRUCTION

DUSTIN M. ROMA
REG. NO. 12131
STATE OF MAINE
REGISTERED PROFESSIONAL ENGINEER
5-18-2026

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 593-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

DETAILS

LEGACY VILLAGE RETIREMENT COMMUNITY

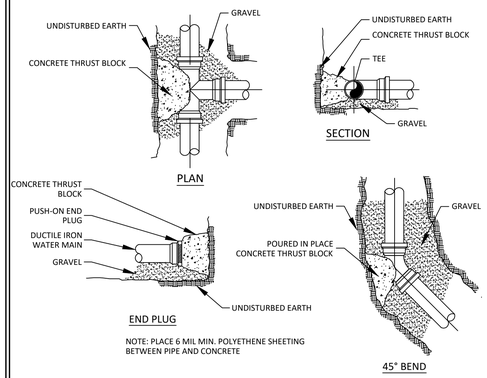
VARIOUS
WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

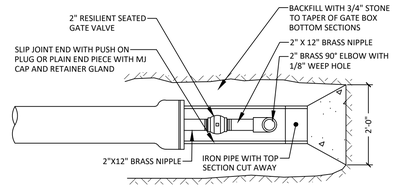
25007 JOB NUMBER:
AS NOTED SCALE:
5-18-2026 DATE:
SHEET 12 OF 13
D-2

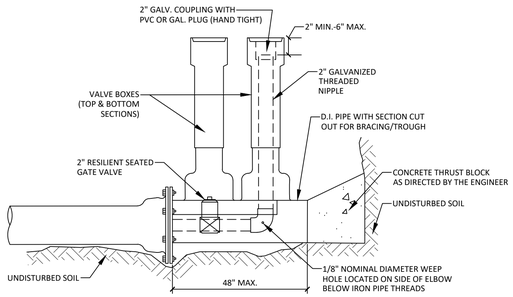
CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
		SQ. FT. OF BEARING ON UNDISTURBED SOIL		
FITTINGS		90°BENDS	45°BENDS	TEES AND PLUGS
PIPE SIZE	6"	4.0	2.0	3.0
	8"	8.0	4.0	6.0
	12"	15	9	12
	16"	26	14	19
	20"	40	22	28

BASED ON SOIL BEARING PRESSURE OF 2000PSF AND 100PSI LINE PRESSURE. COMPACT COURSE TO FINE SANDS AND CLAYS REQUIRE ENGINEERED BLOCKS. ENGINEERED BLOCKS WILL TYPICALLY REQUIRE REINFORCING STEEL OF #5 AT 12".

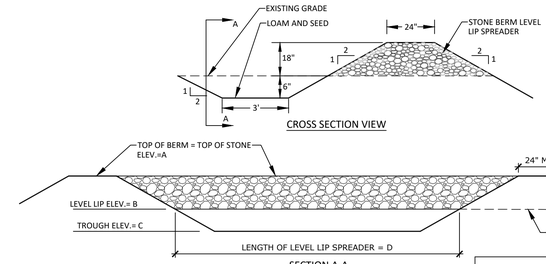


THRUST BLOCK DETAIL
NOT TO SCALE



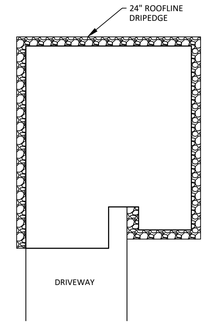


STANDARD 2" BLOW OFF
NOT TO SCALE

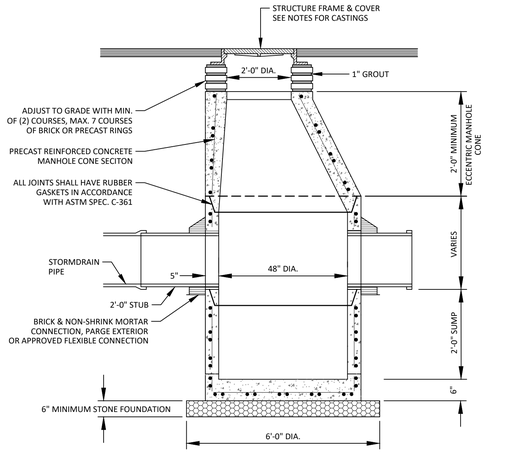


STORMWATER LEVEL LIP SPREADER
NOT TO SCALE

LEVEL SPREADER DATA				
POND ID	A	B	C	D
FB-1	229.50	228.00	227.50	20'
FB-3	237.50	236.00	235.50	20'



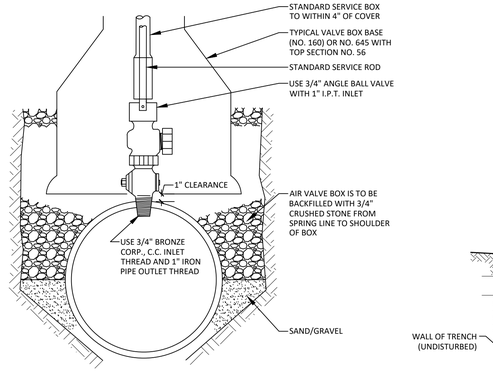
UNIT ROOFLINE DRIPEDGE LOCATIONS
NOT TO SCALE



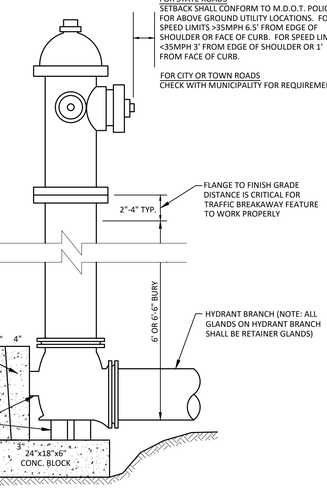
NOTES:

1. LARGER DIAMETER STRUCTURES MAY BE REQUIRED DUE TO SIZE OR GEOMETRY OF PIPE CONNECTIONS AT MANHOLE. WALL THICKNESS TO INCREASE BY 1" FOR EACH 1'-0" DIA. INCREASE. PROVIDE SHOP DRAWINGS.
2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
3. FRAME AND COVER CASTINGS
   CATCH BASIN NEENAH FOUNDRY PRODUCT NO. R-3405, GUTTER INLET FRAME, GRATE
   DRAIN MANHOLE NEENAH FOUNDRY PRODUCT NO. R-1568, MANHOLE FRAME "DRAIN"
   *OR ENGINEER APPROVED EQUAL. SUBMIT CATALOG SHEETS TO ENGINEER FOR APPROVAL.

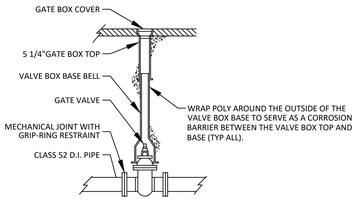
PRECAST CONCRETE DRAINAGE STRUCTURE
NOT TO SCALE



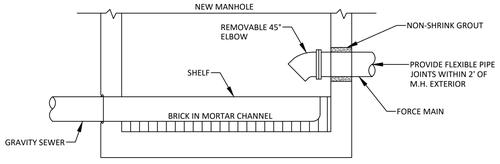
TYPICAL AIR VALVE (1")
NOT TO SCALE



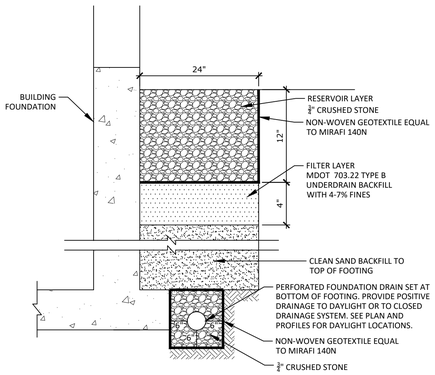
TYPICAL HYDRANT INSTALLATION DETAIL
NOT TO SCALE



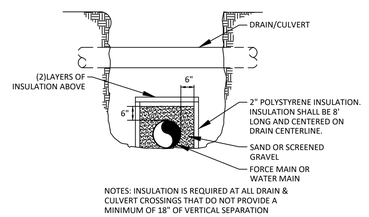
GATE VALVE
NOT TO SCALE



FORCE MAIN TERMINOUS
NOT TO SCALE

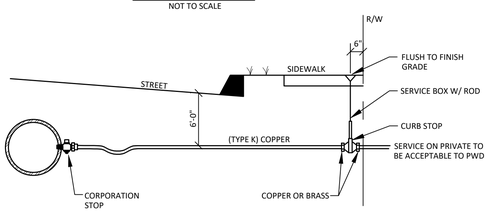


ROOF DRIP EDGE
NOT TO SCALE

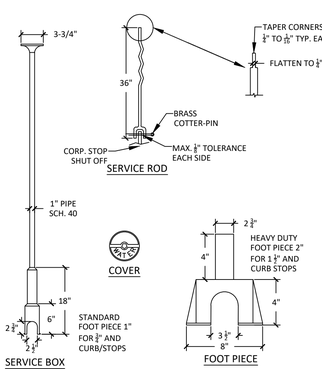


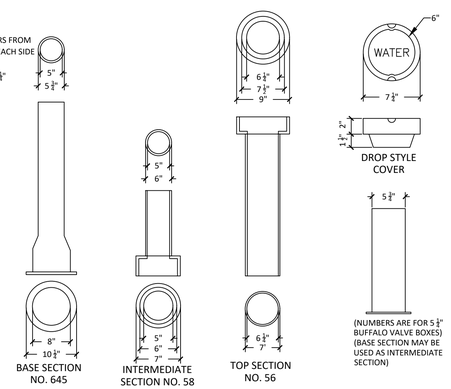
NOTES: INSULATION IS REQUIRED AT ALL DRAIN & CULVERT CROSSINGS THAT DO NOT PROVIDE A MINIMUM OF 18" OF VERTICAL SEPARATION

INSULATION DETAIL
NOT TO SCALE

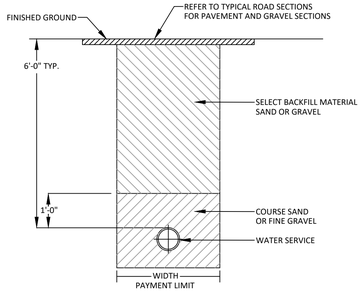


TYPICAL SERVICE CONNECTION
NOT TO SCALE

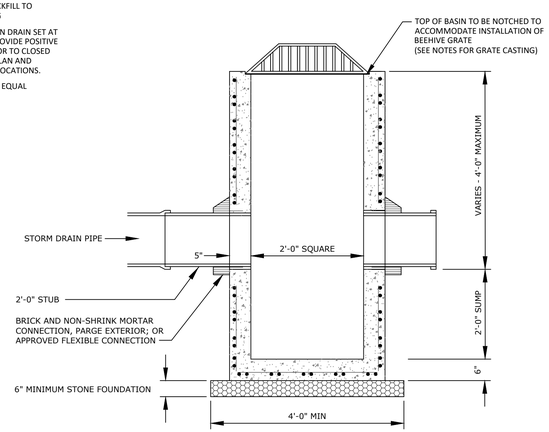




VALVE BOX & COVER
NOT TO SCALE



TYPICAL WATER MAIN TRENCH CROSS-SECTION
NOT TO SCALE



NOTES:

1. CAST IRON GRATE SHALL BE EQUAL TO NEENAH FOUNDRY, PRODUCT NO. R-4345, BEEHIVE LIGHT DUTY GRATE, OR APPROVED EQUIVALENT.
2. SUBMIT SHOP DRAWINGS AND CASTING SPECIFICATIONS TO ENGINEER FOR APPROVAL.

PRECAST CONCRETE CATCH BASIN STRUCTURE - TYPE F
NOT TO SCALE

NOT FOR CONSTRUCTION

STATE OF MAINE — DUSTIN M. ROMA — No. 12131 — REGISTERED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

DETAILS

LEGACY VILLAGE RETIREMENT COMMUNITY
WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007
JOB NUMBER:

AS NOTED
SCALE:

5-18-2026
DATE:

SHEET 13 OF 13

D-3

PLAN NOTES:

1. BASE PLAN PREPARED BY DM ROMA CONSULTING ENGINEERS.
2. SOIL PROFILES AND SOIL SAMPLES (SS#) SHOWN HEREON ARE AS INDICATED IN REPORT TITLED "SOIL NARRATIVE REPORT FOR WEBB ROAD PROPERTY, ROBIE HOLDINGS LLC, WEBB ROAD, WINDHAM, MAINE" PREPARED BY MARK HAMPTON ASSOCIATES, INC. SIGNED ON JULY 14, 2025.
3. HIGH INTENSITY SOIL SURVEY HAS BEEN PREPARED BY MARK HAMPTON ASSOCIATES, INC. IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS AND THE MAINE BOARD OF CERTIFICATION OF GEOLOGISTS AND SOIL SCIENTISTS.

LEGEND

EXISTING	PROPOSED
	PROPERTY LINE/R.O.W.
	ABUTTER PROPERTY LINE
	EASEMENT LINE
	CENTERLINE
	EDGE OF PAVEMENT/CURB
	EDGE OF GRAVEL
	EDGE OF WETLANDS
	CENTERLINE OF STREAM
200 201	CONTOUR LINE
	TREELINE
	CULVERT/STORMDRAIN
W	WATER MAIN
	UTILITY POLE
OHU	OVERHEAD UTILITIES
SS1	SOIL SAMPLE
	MARK HAMPTON ASSOC.
	LIMIT OF SOIL PROFILE

SLOPE DESIGNATIONS:

0-3%	A
3-8%	B
8-15%	C
15-25%	D
>25%	E

DRAINAGE CLASS:

EXCESSIVELY WELL DRAINED	EWD
WELL DRAINED	WD
MODERATELY WELL DRAINED	MWD
SOMEWHAT POORLY DRAINED	SPD
POORLY DRAINED	PD
VERY POORLY DRAINED	VPD



DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 593-5055

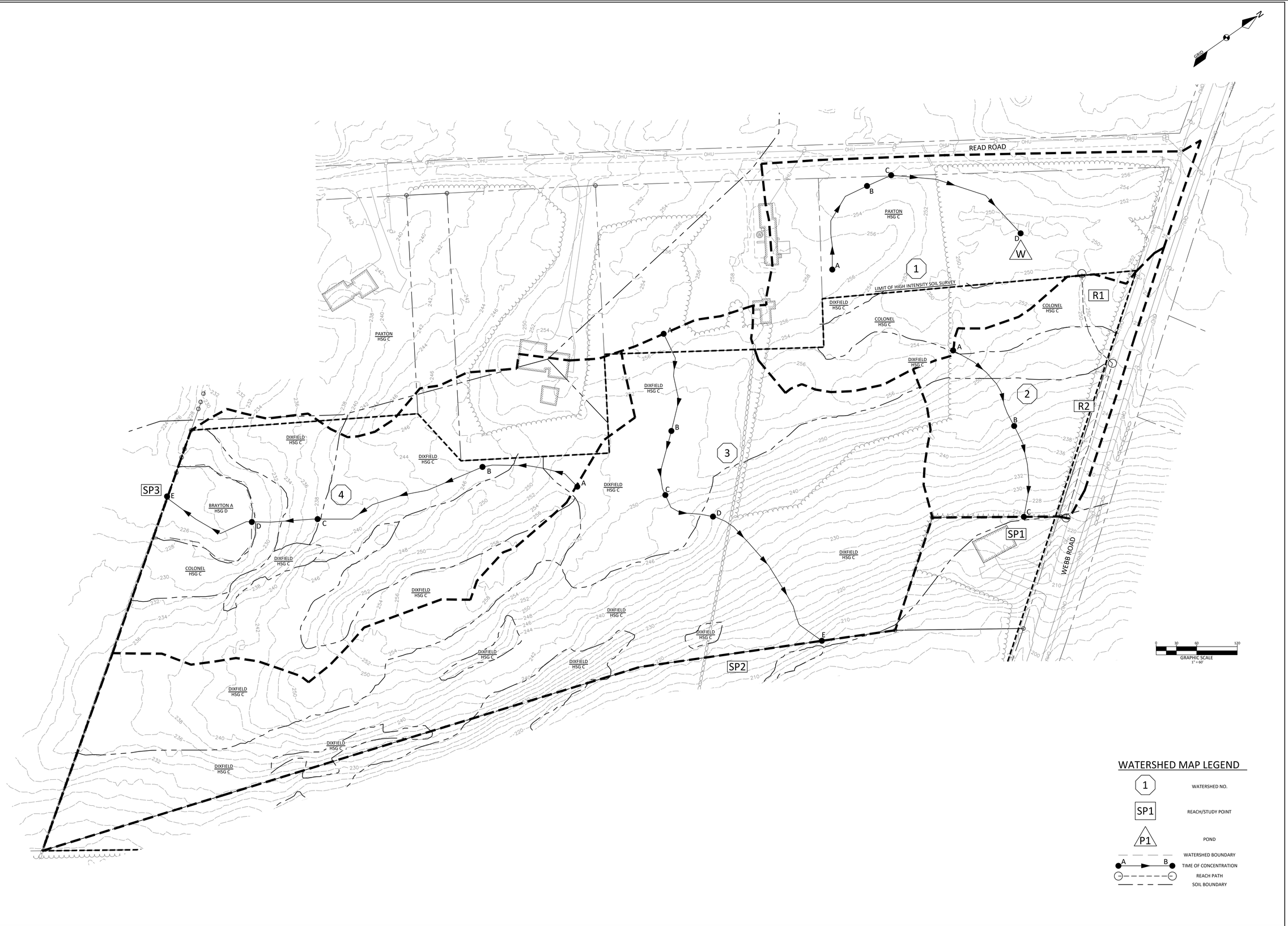
REV	DATE	BY	DESCRIPTION

CLASS A - HIGH INTENSITY SOIL SURVEY

WEBB ROAD PROPERTY
WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1508
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 60'	SCALE:
7-21-2025	DATE:
SHEET 1 OF 1	
HISS-1	



WATERSHED MAP LEGEND

- 1 — WATERSHED NO.
- SP1 — REACH/STUDY POINT
- P1 — POND
- WATERSHED BOUNDARY
- A → B — TIME OF CONCENTRATION
- REACH PATH
- SOIL BOUNDARY

NOT FOR CONSTRUCTION

STATE OF MAINE
JAYSON R HASKELL
No. 13502
LICENSED PROFESSIONAL ENGINEER
5-18-2026

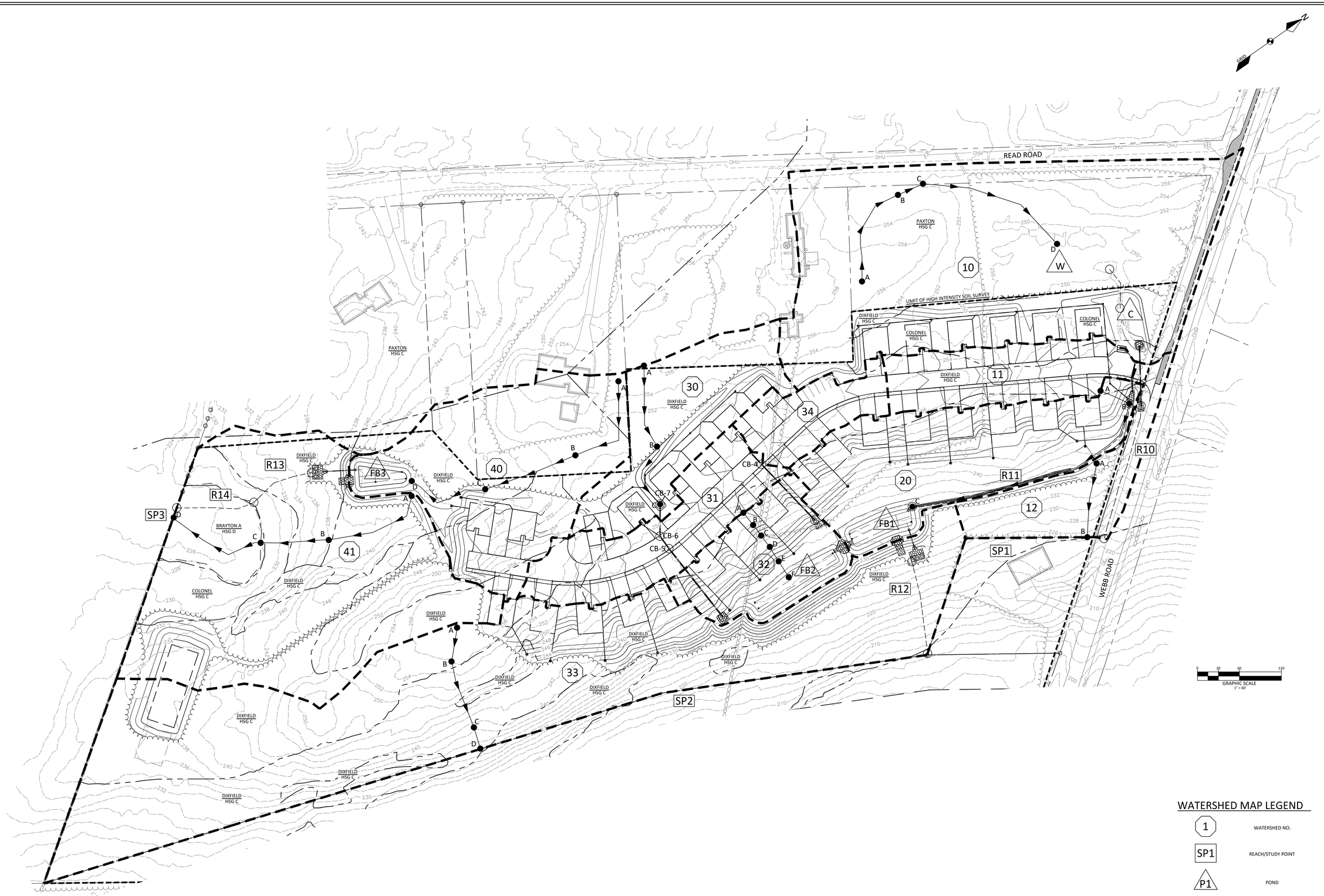
DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

WATERSHED MAP: EXISTING CONDITIONS

LEGACY VILLAGE RETIREMENT COMMUNITY
WEBB ROAD
WINDHAM, MAINE
FOR:
ROBIE HOLDINGS, LLC
PO BOX 1308
WINDHAM, MAE 04062

25007	JOB NUMBER:
1" = 60'	SCALE:
5-18-2026	DATE:
SHEET 1 OF 2	
WS-1	



WATERSHED MAP LEGEND

- 1 — WATERSHED NO.
- SP1 — REACH/STUDY POINT
- P1 — POND
- WATERSHED BOUNDARY
- A → B — TIME OF CONCENTRATION
- REACH PATH
- SOIL BOUNDARY

NOT FOR CONSTRUCTION

STATE OF MAINE — JAYSON R HASKELL No. 13502 — LICENSED PROFESSIONAL ENGINEER — 5-18-2026

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-18-26	DMR	ISSUED FOR PERMITTING

WATERSHED MAP: DEVELOPED CONDITIONS

LEGACY VILLAGE RETIREMENT COMMUNITY

WEBB ROAD
WINDHAM, MAINE

FOR:
ROBIE HOLDINGS, LLC
PO BOX 1308
WINDHAM, ME 04062

25007	JOB NUMBER:
1" = 60'	SCALE:
5-18-2026	DATE:
SHEET 2 OF 2	
WS-2	

Town of Windham

Town Offices
8 School Road
Windham, Maine

Cover Sheet

File Number: PB 26-040

Agenda Date: 7/13/2026 **Version:** 1 **Status:** Agenda Ready

In Control: Planning Board **File Type:** Planning Board Document

Agenda Number:

#26-13 Chapter 120 Land Use Ordinance Amendments Articles 4 and 9 to update Conservation Subdivision and Zoning Standards
The LUO amendment updates Conservation Subdivision standards in §120-911K by removing single-family-only limitations, clarifying conservation area integration and buffer requirements, revising open space calculations, and allowing limited resource alteration where conservation intent is maintained. Related Article 4 changes correct prior density omissions in the Farm (F) and Farm Residential (FR) districts and require conservation subdivisions for parcels greater than 8 acres and 5 acres, respectively.

TOWN OF WINDHAM MAINE

PLANNING DEPARTMENT
8 School Road
Windham, Maine 04062
Tel: (207) 894-5960 ext. 2
Fax: (207) 892-1916
www.windhammaine.us

PLANNING BOARD MEMO

DATE: June 30, 2026

TO: Windham Planning Board
FROM: Steve Puleo, Planning Director
Cc: Amanda Lessard, Assistant Town Manager
Natalie Thomsen, Town Planner

RE: #26-13 Chapter 120 Land Use Ordinance Amendments Articles 4 and 9 to update Conservation Subdivision and Zoning Standards

Planning Board Meeting of July 13, 2026

Overview

The amendment updates the Conservation Subdivision standards in §120-911K. The changes remove single-family-only limitations, clarify conservation area and buffer requirements, revise open space calculations, and allow limited alteration of natural resources where the conservation purpose of the subdivision is maintained. The amendment also updates Article 4 by correcting prior density omissions and requiring conservation subdivisions for larger parcels in the Farm (F) and Farm Residential (FR) Districts.

Policy Purpose

The amendment is intended to preserve rural character, agricultural lands, natural resources, wildlife habitat, and connected open space while accommodating residential growth. The proposed standards direct development to the most suitable portions of a site, clarify subdivision design and open space requirements, and provide a more predictable review process for applicants and the Planning Board.

Summary of the Proposed Chapter 120 Land Use Ordinance Changes

Conservation Subdivisions

Article 4 District Standards

- §120-406E(2). Corrects prior density omissions in the Farm (F) District Country Subdivision standards Farm (F) District Country subdivision net density standard.
- §120-406F(2). Requires conservation subdivision design for subdivisions on parcels greater than 8 acres in the Farm District.
- §120-407E(2). Corrects prior density omissions in the Farm Residential (FR) District Country subdivision net density standard.
- §120-407F(3). Requires conservation subdivision design for subdivisions on parcels greater than 5 acres in the Farm Residential District.

Article 9 Subdivision Review

- §120-911K. Conservation Subdivisions.

- Removes references to single-family subdivisions as two-family dwelling are now permitted in all zoning districts.
- Clarifies the process of including priority and secondary conservation areas in the proposed open space.
- Specifies a buffer yard meeting the standards of §120-511 along the subdivision adjacent to streets and the exterior perimeter of the subdivision.
- Allows for alteration of natural resources. for the construction of certain improvements where the Board makes certain findings.
- Changes the minimum amount of open space required by eliminating road rights-of-way from the calculation and basing the amount in part on the zoning district.
- Clarifies the size and function of wetlands identified as primary and secondary conservation areas.

Zoning Amendment Process

There are no specific standards in the Town ordinance by which to judge the proposed text amendment; however, State statute requires that ordinance amendments be consistent with the goals and policies of the Comprehensive Plan.

The amendment process is governed by §120-107of the Land Use Ordinance. In accordance with this process, the Planning Board will hold a public hearing on July 27, 2026, and following deliberation may vote to forward a recommendation to the Town Council. The Town Council may schedule to act on the proposed amendments at the August 11, 2026 meeting.

MOTION:

To **[recommend / recommend with comments / not recommend]** approval of the proposed amendments to Chapter 120, Articles 4 and 9, updating Conservation Subdivision standards, correcting density requirements in the Farm and Farm Residential Districts, and revising open space, conservation area, and subdivision design requirements under §120-911K.

ORGINAL

AMENDMENTS TO THE LAND USE ORDINANCE
RE: CONSERVATION SUBDIVISIONS

…

SECTION 120-406E(2) : FARM DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 60,000 square feet.

(a) Country subdivision: 250,000 square feet.

…

SECTION 120-406F(2): FARM DISTRICT CONSERVATION SUBDIVISION

(2) Conservation subdivision. (See Article **9**, Subdivision Review.) All submissions for subdivisions in the Farm District must be designed as a conservation subdivision or a country subdivision.

,,,

SECTION 120-407E(2): FARM-RESIDENTIAL DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 40,000 square feet.

(a) Country subdivision: 250,000 square feet.

…

SECTION 120-407F(3): FARM-RESIDENTIAL DISTRICT CONSERVATION SUBDIVISION

(3) Conservation subdivision. (See Article **9**, Subdivision Review). All submissions for subdivisions in the Farm-Residential District must be designed as a conservation subdivision or a country subdivision.

…

SECTION 120-911K: CONSERVATION SUBDIVISION PERFORMANCE STANDARDS

K. Conservation subdivisions.

(1) Purpose.

(a) This subsection establishes standards and procedures for developing conservation subdivisions that set aside a significant portion of the site as open space that is permanently protected while allowing the homes to be grouped on smaller lots on the portions of the site that have the least natural, cultural, or historical resource value for conservation purposes. The standards are intended to ensure that those areas of the site that are not developable or that have natural resource value are included in the open

space.

(b) Development under this provision is intended to promote imaginative, well-designed subdivisions which preserve open space, forests and agricultural uses, and an overall rural character. Additionally, conservation subdivisions should provide public access to land for passive and active recreation; protect natural features, environmentally sensitive areas and wildlife cover; respect the physical qualities of the land; and, in some instances, reduce the overall development costs of a subdivision. The standards for conservation subdivisions allow for the creation of lots that are smaller than those that would otherwise be required by the applicable zoning district regulations and in some cases can be combined with density bonuses to allow additional lots, in return for setting aside the balance of the property as permanent open space.

(c) These provisions are designed to ensure that conservation subdivisions developed in the Town:

[1] Preserve those areas of the site that have the highest natural resource value for conservation purposes (refer to the primary and secondary listed below);

[2] Preserve rural character and functions in rural portions of Windham;

[3] Provide a well-designed approach to the overall roadway and site layout that results in a landscape that provides a sense of a unique and appealing place;

[4] Preserve identified historic, archaeological, and cultural features located on the site;

[5] Locate the buildings and structures on those portions of the site that are most appropriate for development;

[6] Create continuous open spaces, or "greenways," by linking the open spaces in adjoining subdivisions wherever possible; and

[7] Minimize the impact of residential development on the Town, neighboring properties, and the natural environment.

(d) In addition to all applicable standards of this chapter, the Planning Board may approve a single-family conservation subdivision, provided the following conditions are met:

(2) Applicability.

(a) All submissions for single-family subdivisions in the Farm Zoning District and Farm-Residential Zoning District that meet the space and bulk requirements listed in the appropriate zoning district must be designed as a conservation subdivision or a country subdivision.

(b) All submissions for subdivisions in all other zoning districts that meet the space and bulk requirements listed in the appropriate zoning district may be designed as a conservation subdivision or a traditional subdivision.

(c) Property located within more than one residential zoning district. The overall density of the subdivision shall not exceed the combination of the density requirements of the districts in which the subdivision is located, before density bonuses are applied.

(3) Procedure for conservation subdivisions; design process for conservation subdivision open space.

(a) Delineation of open space. The area to be designated as open space or otherwise preserved as part of the development shall be delineated based upon the primary and secondary conservation areas. The proposed open space in conservation subdivisions shall be identified in accordance with the following:

[1] The minimum percentage and acreage of required open space shall be calculated by the applicant and submitted in accordance with the provisions of § **120-911K** and of this chapter.

[2] The proposed open space shall be designated using an existing resources inventory and site analysis sketch plan as a base. This plan shall describe the property proposed to be subdivided and analyze the opportunities and constraints for open space preservation and development. This should be submitted for preapplication review with planning staff prior to submitting a formal application for subdivision approval.

[3] The primary conservation areas on the site shall be delineated and shall be incorporated into the open space. The primary conservation areas shall include floodplains, wetlands, and areas with sustained slopes over 25%.

[4] The secondary conservation areas on the site shall then be delineated. In delineating secondary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed open space based upon the priorities set forth in § **120-911K(6)(c)**.

[5] On the basis of those priorities and practical considerations related to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, and the applicant's subdivision objectives, sufficient secondary conservation areas shall be identified to be included in the open space to meet at least the minimum area percentage requirement for open space. This delineation shall clearly indicate the boundaries as well as the types of resources included within them.

[6] The proposed open space shall include all primary conservation areas and the secondary conservation areas with the highest resource significance as identified. For subdivisions that are not conservation subdivisions, the primary and secondary conservation areas shall be identified using the existing resources inventory and site analysis sketch plan as a base. The layout of the subdivision shall consider these resources and shall preserve them to the extent reasonable.

(b) Open space design.

[1] All open space areas shall be part of a larger continuous and integrated open space system within the parcel being developed. At least 75% of the open space shall be contiguous to another open space area. For the purposes of this subsection, areas shall be considered contiguous if they are within 100 feet of each other and there are no impediments to access between the areas.

[2] Open space shall, to the greatest extent possible, protect site features identified in the existing resources inventory and site analysis sketch plan.

[3] Natural features shall generally be maintained in their natural condition but may be modified to improve their appearance or to restore their overall condition and natural processes.

[4] No area of open space shall be less than 50 feet in its smallest dimension and less than 10,000 square feet in area. Open space not meeting this standard is allowed as an added project enhancement but shall not be counted toward the required project open space.

[5] The boundaries of open spaces shall be marked by natural features wherever possible, such as hedgerows, stone walls, edges of woodlands, streams, or individual large trees. Where no such existing demarcations are present, additional plantings, fences, or other landscape features shall be added to enable residents or the public, if applicable, to distinguish where the open space ends and private lot areas begin. Where structural demarcations such as fences are used, they shall be the minimum needed to accomplish this objective.

[6] Open space shall include lands located along existing public streets in order to preserve existing rural landscape character as seen from these streets and shall, in no case, contain less than the required buffer, setback area, or separation distance.

(c) Location of building sites. Potential building sites shall be tentatively located taking into consideration the proposed open space and/or the primary and secondary conservation areas identified in § **120-911K(6)(c)**, as well as other relevant data from the existing resources inventory and site analysis sketch plan, such as topography and soils.

[1] Building envelopes should generally be located at least 100 feet from primary conservation areas and at least 50 feet from secondary conservation areas, taking into consideration the potential negative impacts of development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences and other uses.

[2] Buildings shall be set back at least 100 feet from existing public and private streets. This buffer may be part of the conservation subdivision open space. When buildings will be visible from the existing streets, the applicant shall minimize the visual impact of new development through larger setbacks or screening with elements such as low walls, split-rail fencing, trees or other plantings.

[3] Buildings shall be set back at least 50 feet from the external perimeter of the property line of the conservation subdivision, with the exception of property lines along public or private streets. The buffer strip shall be naturally vegetated or landscaped. This buffer may only be part of the open space if the area is a primary or secondary conservation area delineated in accordance with § **120-911K(3)(a)**.

(d) Alignment of streets and ways and creation of a trail system. Based upon the designated building sites, a circulation plan shall be designed to provide vehicular and pedestrian access to each site. The street layout shall bear a logical relationship to topographic conditions. Impacts of the street plan on proposed conservation lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and minimizing cut and fill. Street connections shall generally be encouraged to minimize the number of new culs-de-sac and to facilitate access to and from buildings in different parts of the subdivision. A trail system shall be created within the open space to provide access from the subdivision homes to the open space network created by the subdivision.

(e) Drawing in the lot lines. Upon completion of the preceding steps in § **120-911K(3)(a)** through **(d)**, lot lines shall be drawn as required to delineate the boundaries of individual lots. Lots shall be designed in keeping with the standards for individual lots found in Article **4** and shall be further designed to provide each residence with a clear delineation of its property bounds and with usable yard spaces.

(4) Basic standards for conservation subdivisions.

(a) Conservation subdivisions shall meet all applicable requirements of this chapter.

(b) The Planning Board shall allow lots within conservation subdivisions to be reduced from standard subdivision standards as specified in the applicable zoning district. In return for the reduction in the requirements for lot area, frontage, and structure setbacks, the applicant shall provide common open space.

(c) In order to determine the maximum number of dwelling units permitted on a tract of land, the net residential acreage of the parcel shall be divided by the net residential density standard of the applicable zoning district. Density bonuses are applicable, per the appropriate zoning district standards (see Article **4**).

(d) A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.

[1] The subdivider may retain ownership of the remaining land from which the subdivision lots are to be created, provided the portion of the remaining land counted toward the subdivision open space is subject to a permanent conservation or agricultural easement, or the subdivider may transfer ownership of the open space to a third party per § **120-911E(2)**.

[2] The land remaining will be a numbered lot within the subdivision.

[3] The open space standards in § **120-911K(5)** shall apply.

(e) Each building envelope shall be an element of an overall subdivision plan for site development. Only developments having a total site plan for structures will be considered. The application shall illustrate the placement of building envelopes and the treatment of spaces, paths, roads, service and parking and in so doing shall take into consideration all requirements of § **120-911K** and of other relevant sections of these regulations.

(f) For conservation subdivisions that are not served by a public water supply, the applicant must demonstrate on the plan that it is possible to locate a subsurface wastewater disposal field and a well on each lot. When determined that it is necessary for specific lots, by the Planning Board, as a condition of approval, the location of these elements shall be elements of the subdivision plan, and any future changes to the location of these elements will require an amended subdivision plan review.

(g) Up to 30% of individual lots or dwelling units may have direct vehicular access onto a public street existing at the time of development.

[1] Driveways may cross the buffer and must run essentially perpendicular to the street.

[2] Driveways serving individual lots in a conservation subdivision on an existing public street must be separated from new driveways and street intersections by 300 feet.

(5) Arrangement of lots.

(a) Diversity and originality in lot layout and individual building site design shall be encouraged to achieve the best possible relationship between the proposed development and the land under consideration.

(b) Factors considered by the Planning Board when evaluating the proposed arrangement of lots shall include, but not be limited to:

[1] Arrangement of roads, stormwater facilities, wastewater and other utilities in conformance with the natural features of the parcel, minimizing changes to the topography.

[2] Minimization of impervious cover.

[3] Protection of stream corridors and other important habitat areas.

[4] Protection of wetlands.

[5] Feasibility of continued or future agricultural use.

[6] Feasibility of continued or future forest management.

[7] Relationship to neighboring property, including conservation easements or natural, cultural, recreational or scenic features.

(6) Open space requirements for conservation subdivisions.

(a) The open space provided by the conservation subdivision shall be identified on the recorded subdivision plan as "Open Space — Reserved for Recreation, Agricultural and/or Conservation Purposes."

(b) Minimum amount required. The amount of open space provided within the subdivision shall be equal to or greater than the sum of the following:

[1] All of the areas of the parcel that are deducted from the gross area of the site to determine the net residential area (see § **120-541**, Net residential area or acreage); plus

[2] At least 50% of the remaining land that is not deducted from the calculated net residential area (see § **120-541**, Net residential area or acreage).

(c) Priorities for land included in open space. The land set aside in the open space shall be selected based upon the following priorities:

[1] Primary conservation priorities.

[a] Streams, wetlands, floodplains, vernal pools, and areas with a slope in excess of 25%. Buffers that are required by ordinance along these protected resources shall also be considered primary conservation areas.

[b] Areas that maintain the rural character of roadsides.

[c] Scenic resources, including viewsheds and agricultural fields, along with the forested margin adjacent to these resources.

[d] Areas that are adjacent to other protected open space.

[2] Secondary conservation priorities.

[a] Areas that provide protection for unique or irreplaceable resources, including the habitat of rare, significant, or endangered species, archaeological or historic sites, landmarks, and cemeteries.

[b] Areas that provide for the continuation of resource systems into or through the site such as shorelands, river or stream corridors, wildlife travel corridors, trails, and unfragmented habitat blocks. The width of such corridors shall be as follows:

[i] Shorelands, river or stream corridors: 100% of the width of any required

vegetative buffer, in addition to the required buffer.

[ii] Wildlife travel corridors: 300 feet.

[iii] Recreational trail corridors: 25 feet on either side of the trail. Unfragmented habitat blocks shall have a minimum contiguous area of 150 acres.

[c] Areas that encompass groups of small wetlands not included in primary conservation areas, as well as streams or ponds in a continuously forested area.

[d] Other secondary conservation areas, including fields, aquifer recharge areas, deer yards, and other identified habitat.

(d) For open space not retained by the subdivider, one principal access point having a minimum width of 20 feet shall be provided from the road network within the conservation subdivision. Additional, secondary points of access having a minimum width of 10 feet may be provided from individual lots when these lots abut or are located within a portion of the open space area.

[1] The size and location of the principal and secondary access points shall be reviewed and approved by the Planning Board as part of the Board's review of the conservation subdivision.

[2] In order to be eligible for any density bonus described in the applicable zoning district standards, the following conditions must be met: the open space must be open for general public use, not just homeowners within the subdivision or the subdivider; and the open space must either be accessed from an existing public street, or access is from an abutting property that is public, permanent open space or recreation land; or access must be formalized in easement language if access is to be provided over the new subdivision street or streets until such time as the subdivision street or streets are adopted by the Town. Access easements for the open space must be recorded at the registry prior to the issuance of building permits.

(e) The required open space shall not be used for commercial recreation or for private clubs whose membership is different from the homeowners' association.

(f) The proposed location of open space areas should also be considered in relation to other open space areas on abutting properties, and logical connections to and from open space areas on abutting properties should be given consideration by the Planning Board.

(7) Country subdivisions. As an alternative to conservation subdivision design in the Farm Zoning District and the Farm-Residential Zoning District, an applicant may choose a country subdivision design. This alternative does not include the reservation of open space or the level of site analysis and design required by a conservation subdivision. As a result, large residential lots are required in order to meet Town goals of protecting water quality and wildlife habitats and preserving rural character.

(a) Layout and design of the development.

[1] Minimum property line setbacks. All principal buildings shall be set back a minimum of 75 feet from any property line. Accessory buildings and structures with less than 200 square feet of footprint area shall be set back a minimum of 50 feet from any property line. Any other accessory buildings and structures shall be set back a minimum of 75 feet from any property line.

[2] Streetscape buffers. A vegetated buffer strip shall be maintained on any country lot that fronts on or otherwise abuts any existing public and private street to minimize the visual impact of the development on the streetscape. The depth of the buffer strip shall be at least 50 feet. The buffer strip may be crossed by driveways or access drives that run essentially perpendicular to the street. The buffer strip shall be naturally vegetated or landscaped in a manner appropriate to the existing site conditions and the secondary conservation value of the strip.

[3] Perimeter buffers. A vegetated buffer strip shall be maintained along the external perimeter or property line of the country subdivision, with the exception of property lines along public or private streets, to minimize the impact of the country subdivision on abutting properties. The width of the buffer strip shall be at least 50 feet. The buffer strip shall be naturally vegetated or landscaped.

(b) Conceptual master plan. A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.

REDLINE

Rev. ~~April 2024~~July 2026

AMENDMENTS TO THE LAND USE ORDINANCE
RE: CONSERVATION SUBDIVISIONS

…
SECTION 120-406E(2) : FARM DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 60,000 square feet.
(a) Country subdivision: ~~250,000~~200,000 square feet.

…
SECTION 120-406F(2): FARM DISTRICT CONSERVATION SUBDIVISION

(2) Conservation subdivision. (See Article **9**, Subdivision Review.) All submissions for subdivisions on lots greater than 8 acres of gross land area in the Farm District must be designed as a conservation subdivision or a country subdivision.

Commented [SP1]: Are small subdivisions avoiding the conservation subdivisions

,,,
SECTION 120-407E(2): FARM-RESIDENTIAL DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 40,000 square feet.
(a) Country subdivision: ~~250,000~~200,000 square feet.

…
SECTION 120-407F(3): FARM-RESIDENTIAL DISTRICT CONSERVATION SUBDIVISION

(3) Conservation subdivision. (See Article **9**, Subdivision Review). All submissions for subdivisions on lots greater than 5 acres of gross land area in the Farm-Residential District must be designed as a conservation subdivision or a country subdivision.

…
SECTION 120-911K: CONSERVATION SUBDIVISION PERFORMANCE STANDARDS

K. Conservation subdivisions.

(1) Purpose.

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(a) This subsection establishes standards and procedures for developing conservation subdivisions that set aside a significant portion of the site as open space that is permanently protected while allowing the homes to be grouped on smaller lots on the portions of the site that have the least natural, cultural, or historical resource value for conservation purposes. The standards are intended to ensure that those areas of the site that are not developable or that have natural resource value are included in the open

space.

(b) Development under this provision is intended to promote imaginative, well-designed subdivisions which preserve open space, forests and agricultural uses, and an overall rural character. Additionally, conservation subdivisions should provide public access to land for passive and active recreation; protect natural features, environmentally sensitive areas and wildlife cover; respect the physical qualities of the land; and, in some instances, reduce the overall development costs of a subdivision. The standards for conservation subdivisions allow for the creation of lots that are smaller than those that would otherwise be required by the applicable zoning district regulations and in some cases can be combined with density bonuses to allow additional lots, in return for setting aside the balance of the property as permanent open space.

(c) These provisions are designed to ensure that conservation subdivisions developed in the Town:

[1] Preserve those areas of the site that have the highest natural resource value for conservation purposes (refer to the primary and secondary listed below);

[2] Preserve rural character and functions in rural portions of Windham;

[3] Provide a well-designed approach to the overall roadway and site layout that results in a landscape that provides a sense of a unique and appealing place;

[4] Preserve identified historic, archaeological, and cultural features located on the site;

[5] Locate the buildings and structures on those portions of the site that are most appropriate for development;

[6] Create continuous open spaces, or "greenways," by linking the open spaces in adjoining subdivisions wherever possible; and

[7] Minimize the impact of residential development on the Town, neighboring properties, and the natural environment.

(d) In addition to all applicable standards of this chapter, the Planning Board may approve a ~~single-family~~ conservation subdivision, provided the following conditions are met:

(2) Applicability.

(a) All submissions for ~~single-family~~ subdivisions in the Farm Zoning District and Farm-Residential Zoning District that meet the space and bulk requirements listed in the appropriate zoning district must be designed as a conservation subdivision or a country subdivision.

(b) All submissions for subdivisions in all other zoning districts that meet the space and bulk requirements listed in the appropriate zoning district may be designed as a conservation subdivision or a traditional subdivision.

(c) Property located within more than one residential zoning district. The overall density of the subdivision shall not exceed the combination of the density requirements of the districts in which the subdivision is located, before density bonuses are applied.

(3) Procedure for conservation subdivisions; design process for conservation subdivision open space.

(a) Delineation of open space. The area to be designated as open space or otherwise preserved as part of the development shall be delineated based upon the primary and secondary conservation areas. The proposed open space in conservation subdivisions shall be identified in accordance with the following:

[1] The minimum percentage and acreage of required open space shall be calculated by the applicant and submitted in accordance with the provisions of § **120-911K** and of this chapter.

[2] The proposed open space shall be designated using an existing resources inventory and site analysis sketch plan as a base. This plan shall describe the property proposed to be subdivided and analyze the opportunities and constraints for open space preservation and development. This should be submitted for preapplication review with planning staff prior to submitting a formal application for subdivision approval.

[3] The primary conservation areas on the site shall be delineated and shall be incorporated into the open space. In delineating primary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed open space based upon the priorities set forth in § **120-911K(6)(c)**.~~The primary conservation areas shall include floodplains, wetlands, and areas with sustained slopes over 25%.~~

[4] The secondary conservation areas on the site shall then be delineated. In delineating secondary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed open space based upon the priorities set forth in § **120-911K(6)(c)**.

[5] On the basis of those priorities and practical considerations related to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, and the applicant's subdivision objectives, sufficient secondary conservation areas shall be identified to be included in the open space to meet at least the minimum area percentage requirement for open space. This delineation shall clearly indicate the boundaries as well as the types of resources included within them.

~~[6] The proposed open space shall include all primary conservation areas and the secondary conservation areas with the highest resource significance as identified. For subdivisions that are not conservation subdivisions, the primary and secondary conservation areas shall be identified using the existing resources inventory and site analysis sketch plan as a base. The layout of the subdivision shall consider these~~

Commented [AL2]: This is repetitive of the requirements above.

~~resources and shall preserve them to the extent reasonable.~~

Commented [AL3]: This section only applies to conservation or country subdivisions. This language should be in another section of the subdivision standards to be applicable.

(b) Open space design.

[1] All open space areas shall be part of a larger continuous and integrated open space system within the parcel being developed. At least 75% of the open space shall be contiguous to another open space area. For the purposes of this subsection, areas shall be considered contiguous if they are within 100 feet of each other and there are no impediments to access between the areas.

[2] Open space shall, to the greatest extent possible, protect site features identified in the existing resources inventory and site analysis sketch plan.

[3] Natural features shall generally be maintained in their natural condition but may be modified to improve their appearance or to restore their overall condition and natural processes.

[4] No area of open space shall be less than 50 feet in its smallest dimension and less than 10,000 square feet in area. Open space not meeting this standard is allowed as an added project enhancement but shall not be counted toward the required project open space.

[5] The boundaries of open spaces shall be marked by natural features wherever possible, such as hedgerows, stone walls, edges of woodlands, streams, or individual large trees. Where no such existing demarcations are present, additional plantings, fences, or other landscape features shall be added to enable residents or the public, if applicable, to distinguish where the open space ends and private lot areas begin. Where structural demarcations such as fences are used, they shall be the minimum needed to accomplish this objective.

[6] Open space shall include lands located along existing public streets in order to preserve existing rural landscape character as seen from these streets and shall, in no case, contain less than the required buffer, setback area, or separation distance.

(c) Location of building sites. Potential building sites shall be tentatively located taking into consideration the proposed open space and/or the primary and secondary conservation areas identified in § **120-911K(6)(c)**, as well as other relevant data from the existing resources inventory and site analysis sketch plan, such as topography and soils.

[1] Building envelopes should generally be located at least ~~100~~ 75 feet from primary conservation areas and at least 50 feet from secondary conservation areas, taking into consideration the potential negative impacts of development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences and other uses.

Commented [SP4]: Building setback

[2] Buildings shall be set back at least 100 feet from existing public and private streets. A buffer yard along the street, adjacent to, and parallel with, the front property line

of the conservation subdivision, shall be provided in accordance with the performance standards of § 120-511. The remainder of the 100-foot buffer strip shall be naturally vegetated or landscaped. This buffer may be part of the conservation subdivision open space. When buildings will be visible from the existing streets, the applicant shall minimize the visual impact of new development through larger setbacks or screening with elements such as low walls, split-rail fencing, trees or other plantings.

[3] Buildings shall be set back at least 50 feet from the external perimeter of the property line of the conservation subdivision, with the exception of property lines along public or private streets. A buffer yard, meeting the Buffer Yard D standards in § 120-511 Table 1, adjacent to the exterior perimeter of the conservation subdivision shall be provided in accordance with performance standards of § 120-511. The remainder of the 50-foot buffer strip shall be naturally vegetated or landscaped. This buffer may ~~only~~ be part of the open space, but shall only count towards the required project open space if the area is a primary or secondary conservation area delineated in accordance with § **120-911K(3)(a)**, or additional land area is required after to meet the minimum area percentage requirement for open space after primary and secondary conservation areas have been incorporated into the open space.

Commented [AL5]: Note that the Planning Board has the flexibility to approve alternative buffer plans in accordance with § 120-511C(1)(b) and buffer yards in Section 120-511 are not applicable for agricultural uses.

(d) Alignment of streets and ways and creation of a trail system. Based upon the designated building sites, a circulation plan shall be designed to provide vehicular and pedestrian access to each site. The street layout shall bear a logical relationship to topographic conditions. Impacts of the street plan on proposed conservation lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and minimizing cut and fill. Street connections shall generally be encouraged to minimize the number of new culs-de-sac and to facilitate access to and from buildings in different parts of the subdivision. A trail system shall be created within the open space to provide access from the subdivision homes to the open space network created by the subdivision.

(e) Drawing in the lot lines. Upon completion of the preceding steps in § **120-911K(3)(a)** through **(d)**, lot lines shall be drawn as required to delineate the boundaries of individual lots. Lots shall be designed in keeping with the standards for individual lots found in Article **4** and shall be further designed to provide each residence with a clear delineation of its property bounds and with usable yard spaces.

(4) Basic standards for conservation subdivisions.

(a) Conservation subdivisions shall meet all applicable requirements of this chapter.

(b) The Planning Board shall allow lots within conservation subdivisions to be reduced from standard subdivision standards as specified in the applicable zoning district. In return for the reduction in the requirements for lot area, frontage, and structure setbacks, the applicant shall provide common open space.

(c) In order to determine the maximum number of dwelling units permitted on a tract of land, the net residential acreage of the parcel shall be divided by the net residential density standard of the applicable zoning district. Density bonuses are applicable, per the appropriate zoning district standards (see Article **4**).

(d) A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.

[1] The subdivider may retain ownership of the remaining land from which the subdivision lots are to be created, provided the portion of the remaining land counted toward the subdivision open space is subject to a permanent conservation or agricultural easement, or the subdivider may transfer ownership of the open space to a third party per § **120-911E(2)**.

[2] The land remaining will be a numbered lot within the subdivision.

[3] The open space standards in § **120-911K(5)** shall apply.

(e) Each building envelope shall be an element of an overall subdivision plan for site development. Only developments having a total site plan for structures will be considered. The application shall illustrate the placement of building envelopes and the treatment of spaces, paths, roads, service and parking and in so doing shall take into consideration all requirements of § **120-911K** and of other relevant sections of these regulations.

(f) For conservation subdivisions that are not served by a public water supply, the applicant must demonstrate on the plan that it is possible to locate a subsurface wastewater disposal field and a well on each lot. When determined that it is necessary for specific lots, by the Planning Board, as a condition of approval, the location of these elements shall be elements of the subdivision plan, and any future changes to the location of these elements will require an amended subdivision plan review.

(g) Up to 30% of individual lots or dwelling units may have direct vehicular access onto a public street existing at the time of development.

[1] Driveways may cross the buffer and must run essentially perpendicular to the street.

[2] Driveways serving individual lots in a conservation subdivision on an existing public street must be separated from new driveways and street intersections by 300 feet.

(h) Alteration of Natural Resources. The Planning Board may allow the alteration of natural resources identified as primary and secondary areas and their associated buffers and setbacks for the construction of the following improvements:

[1] Stormwater management facilities.

[2] Road crossings, bridges, culverts, and the installation of utilities needed to access property on the other side of wetlands and water bodies.

[3] Docks, boat ramps, and other structures necessary for direct access to water bodies.

The Board must find that:

[1] The resulting subdivision design best achieves the purposes of a conservation subdivision.

[2] The design is integrated with the natural topographic conditions and minimizes the need for cuts and fills.

[3] The impacts on the resource(s) and their respective buffers and setbacks have been minimized; and

[4] The design and function of the improvements incorporate accepted best management practices. Proposed stream crossings shall utilize Maine Stream Smart principles.

(5) Arrangement of lots.

(a) Diversity and originality in lot layout and individual building site design shall be encouraged to achieve the best possible relationship between the proposed development and the land under consideration.

(b) Factors considered by the Planning Board when evaluating the proposed arrangement of lots shall include, but not be limited to:

[1] Arrangement of roads, stormwater facilities, wastewater and other utilities in conformance with the natural features of the parcel, minimizing changes to the topography.

[2] Minimization of impervious cover.

[3] Protection of stream corridors and other important habitat areas.

[4] Protection of wetlands.

[5] Feasibility of continued or future agricultural use.

[6] Feasibility of continued or future forest management.

[7] Relationship to neighboring property, including conservation easements or natural, cultural, recreational or scenic features.

(6) Open space requirements for conservation subdivisions.

(a) The open space provided by the conservation subdivision shall be identified on the recorded subdivision plan as "Open Space — Reserved for Recreation, Agricultural and/or Conservation Purposes."

(b) Minimum amount required. The amount of open space provided within the subdivision shall be equal to or greater than the sum of the following:

[1] Excepting acreage which is used for public or private rights-of-way, ~~All of the~~ areas of the parcel that are deducted from the gross area of the site to determine the net residential area (see § **120-541**, Net residential area or acreage); plus

[2] ~~At least 50%~~A percentage of the remaining land that is not deducted from the calculated net residential area (see § **120-541**, Net residential area or acreage).

[a] In the Farm District: At least 50%.

[b] In the Farm-Residential District: At least 45%.

[c] Other Zoning Districts: At least 40%.

(c) Priorities for land included in open space. The land set aside in the open space shall be selected based upon the following priorities:

[1] Primary conservation priorities.

[a] Streams, wetlands greater than 4,300 square feet averaging more than 30 feet in width as determined by measuring the width of five evenly spaced section, floodplains, vernal pools, and areas with a slope in excess of 25%. Buffers that are required by ordinance along these protected resources shall also be considered primary conservation areas.

[b] Areas that maintain the rural character of roadsides.

[c] Scenic resources, including viewsheds and agricultural fields, along with the forested margin adjacent to these resources.

[d] Areas that are adjacent to other protected open space.

[2] Secondary conservation priorities.

[a] Areas that provide protection for unique or irreplaceable resources, including the habitat of rare, significant, or endangered species, archaeological or historic sites, landmarks, and cemeteries.

[b] Areas that provide for the continuation of resource systems into or through the site such as shorelands, river or stream corridors, wildlife travel corridors, trails, and unfragmented habitat blocks. The width of such corridors shall be as

Commented [AL6]: For reference, Previously cluster subdivisions required The total area of reserved open space within the development shall equal or exceed 50% of the gross land area of the property to be subdivided. At least fifty percent (50%) of the land suitable for development (see Section 534 – Net Residential Area or Acreage) shall be included in the common open space.

Commented [SP7]: To avoid drainage swales and small wetland

follows:

[i] Shorelands, river or stream corridors: 100% of the width of any required vegetative buffer, in addition to the required buffer.

[ii] Wildlife travel corridors: 300 feet.

[iii] Recreational trail corridors: 25 feet on either side of the trail. Unfragmented habitat blocks shall have a minimum contiguous area of 150 acres.

[c] Areas that encompass groups of small wetlands not included in primary conservation areas or wetlands that function primarily as drainage swales in upland areas, as well as streams or ponds in a continuously forested area.

[d] Other secondary conservation areas, including fields, aquifer recharge areas, deer yards, and other identified habitat.

(d) For open space not retained by the subdivider, one principal access point having a minimum width of 20 feet shall be provided from the road network within the conservation subdivision. Additional, secondary points of access having a minimum width of 10 feet may be provided from individual lots when these lots abut or are located within a portion of the open space area.

[1] The size and location of the principal and secondary access points shall be reviewed and approved by the Planning Board as part of the Board's review of the conservation subdivision.

[2] In order to be eligible for any density bonus described in the applicable zoning district standards, the following conditions must be met: the open space must be open for general public use, not just homeowners within the subdivision or the subdivider; and the open space must either be accessed from an existing public street, or access is from an abutting property that is public, permanent open space or recreation land; or access must be formalized in easement language if access is to be provided over the new subdivision street or streets until such time as the subdivision street or streets are adopted by the Town. Access easements for the open space must be recorded at the registry prior to the issuance of building permits.

(e) The required open space shall not be used for commercial recreation or for private clubs whose membership is different from the homeowners' association.

(f) The proposed location of open space areas should also be considered in relation to other open space areas on abutting properties, and logical connections to and from open space areas on abutting properties should be given consideration by the Planning Board.

(7) Country subdivisions. As an alternative to conservation subdivision design in the Farm Zoning District and the Farm-Residential Zoning District, an applicant may choose a country subdivision design. This alternative does not include the reservation of open space

or the level of site analysis and design required by a conservation subdivision. As a result, large residential lots are required in order to meet Town goals of protecting water quality and wildlife habitats and preserving rural character.

(a) Layout and design of the development.

[1] Minimum property line setbacks. All principal buildings shall be set back a minimum of 75 feet from any property line. Accessory buildings and structures with less than 200 square feet of footprint area shall be set back a minimum of 50 feet from any property line. Any other accessory buildings and structures shall be set back a minimum of 75 feet from any property line.

[2] Streetscape buffers. A vegetated buffer strip shall be maintained on any country lot that fronts on or otherwise abuts any existing public and private street to minimize the visual impact of the development on the streetscape. The depth of the buffer strip shall be at least 50 feet. A buffer yard along the street, adjacent to, and parallel with, the front property line of the conservation subdivision, shall be provided in accordance with the performance standards of § 120-511. The buffer strip may be crossed by driveways or access drives that run essentially perpendicular to the street. The remainder of the 50-foot buffer strip shall be naturally vegetated or landscaped in a manner appropriate to the existing site conditions and the secondary conservation value of the strip.

[3] Perimeter buffers. A vegetated buffer strip shall be maintained along the external perimeter or property line of the country subdivision, with the exception of property lines along public or private streets, to minimize the impact of the country subdivision on abutting properties. The width of the buffer strip shall be at least 50 feet. A buffer yard, meeting the Buffer Yard D standards in § 120-511 Table 1, adjacent to the exterior perimeter of the country subdivision shall be provided in accordance with performance standards of § 120-511. The remainder of ~~The~~ the 50-foot buffer strip shall be naturally vegetated or landscaped.

(b) Conceptual master plan. A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.

CLEAN

Rev. July 2026

AMENDMENTS TO THE LAND USE ORDINANCE
RE: CONSERVATION SUBDIVISIONS

…

SECTION 120-406E(2) : FARM DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 60,000 square feet.

(a) Country subdivision: 200,000 square feet.

…

SECTION 120-406F(2): FARM DISTRICT CONSERVATION SUBDIVISION

(2) Conservation subdivision. (See Article **9**, Subdivision Review.) All submissions for subdivisions on lots greater than 8 acres of gross land area in the Farm District must be designed as a conservation subdivision or a country subdivision.

,,,

SECTION 120-407E(2): FARM-RESIDENTIAL DISTRICT COUNTRY SUBDIVISION NET RESIDENTIAL DENSITY

(2) Net residential density: 40,000 square feet.

(a) Country subdivision: 200,000 square feet.

…

SECTION 120-407F(3): FARM-RESIDENTIAL DISTRICT CONSERVATION SUBDIVISION

(3) Conservation subdivision. (See Article **9**, Subdivision Review). All submissions for subdivisions on lots greater than 5 acres of gross land area in the Farm-Residential District must be designed as a conservation subdivision or a country subdivision.

…

SECTION 120-911K: CONSERVATION SUBDIVISION PERFORMANCE STANDARDS

K. Conservation subdivisions.

(1) Purpose.

(a) This subsection establishes standards and procedures for developing conservation subdivisions that set aside a significant portion of the site as open space that is permanently protected while allowing the homes to be grouped on smaller lots on the portions of the site that have the least natural, cultural, or historical resource value for conservation purposes. The standards are intended to ensure that those areas of the site that are not developable or that have natural resource value are included in the open

space.

(b) Development under this provision is intended to promote imaginative, well-designed subdivisions which preserve open space, forests and agricultural uses, and an overall rural character. Additionally, conservation subdivisions should provide public access to land for passive and active recreation; protect natural features, environmentally sensitive areas and wildlife cover; respect the physical qualities of the land; and, in some instances, reduce the overall development costs of a subdivision. The standards for conservation subdivisions allow for the creation of lots that are smaller than those that would otherwise be required by the applicable zoning district regulations and in some cases can be combined with density bonuses to allow additional lots, in return for setting aside the balance of the property as permanent open space.

(c) These provisions are designed to ensure that conservation subdivisions developed in the Town:

[1] Preserve those areas of the site that have the highest natural resource value for conservation purposes (refer to the primary and secondary listed below);

[2] Preserve rural character and functions in rural portions of Windham;

[3] Provide a well-designed approach to the overall roadway and site layout that results in a landscape that provides a sense of a unique and appealing place;

[4] Preserve identified historic, archaeological, and cultural features located on the site;

[5] Locate the buildings and structures on those portions of the site that are most appropriate for development;

[6] Create continuous open spaces, or "greenways," by linking the open spaces in adjoining subdivisions wherever possible; and

[7] Minimize the impact of residential development on the Town, neighboring properties, and the natural environment.

(d) In addition to all applicable standards of this chapter, the Planning Board may approve a conservation subdivision, provided the following conditions are met:

(2) Applicability.

(a) All submissions for subdivisions in the Farm Zoning District and Farm-Residential Zoning District that meet the space and bulk requirements listed in the appropriate zoning district must be designed as a conservation subdivision or a country subdivision.

(b) All submissions for subdivisions in all other zoning districts that meet the space and bulk requirements listed in the appropriate zoning district may be designed as a conservation subdivision or a traditional subdivision.

(c) Property located within more than one residential zoning district. The overall density of the subdivision shall not exceed the combination of the density requirements of the districts in which the subdivision is located, before density bonuses are applied.

(3) Procedure for conservation subdivisions; design process for conservation subdivision open space.

(a) Delineation of open space. The area to be designated as open space or otherwise preserved as part of the development shall be delineated based upon the primary and secondary conservation areas. The proposed open space in conservation subdivisions shall be identified in accordance with the following:

[1] The minimum percentage and acreage of required open space shall be calculated by the applicant and submitted in accordance with the provisions of § **120-911K** and of this chapter.

[2] The proposed open space shall be designated using an existing resources inventory and site analysis sketch plan as a base. This plan shall describe the property proposed to be subdivided and analyze the opportunities and constraints for open space preservation and development. This should be submitted for preapplication review with planning staff prior to submitting a formal application for subdivision approval.

[3] The primary conservation areas on the site shall be delineated and shall be incorporated into the open space. In delineating primary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed open space based upon the priorities set forth in § **120-911K(6)(c)**.

[4] The secondary conservation areas on the site shall then be delineated. In delineating secondary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to lowest suitability for inclusion in the proposed open space based upon the priorities set forth in § **120-911K(6)(c)**.

[5] On the basis of those priorities and practical considerations related to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, and the applicant's subdivision objectives, sufficient secondary conservation areas shall be identified to be included in the open space to meet at least the minimum area percentage requirement for open space. This delineation shall clearly indicate the boundaries as well as the types of resources included within them.

(b) Open space design.

[1] All open space areas shall be part of a larger continuous and integrated open space system within the parcel being developed. At least 75% of the open space shall be contiguous to another open space area. For the purposes of this subsection, areas shall be considered contiguous if they are within 100 feet of each other and there are

no impediments to access between the areas.

[2] Open space shall, to the greatest extent possible, protect site features identified in the existing resources inventory and site analysis sketch plan.

[3] Natural features shall generally be maintained in their natural condition but may be modified to improve their appearance or to restore their overall condition and natural processes.

[4] No area of open space shall be less than 50 feet in its smallest dimension and less than 10,000 square feet in area. Open space not meeting this standard is allowed as an added project enhancement but shall not be counted toward the required project open space.

[5] The boundaries of open spaces shall be marked by natural features wherever possible, such as hedgerows, stone walls, edges of woodlands, streams, or individual large trees. Where no such existing demarcations are present, additional plantings, fences, or other landscape features shall be added to enable residents or the public, if applicable, to distinguish where the open space ends and private lot areas begin. Where structural demarcations such as fences are used, they shall be the minimum needed to accomplish this objective.

[6] Open space shall include lands located along existing public streets in order to preserve existing rural landscape character as seen from these streets and shall, in no case, contain less than the required buffer, setback area, or separation distance.

(c) Location of building sites. Potential building sites shall be tentatively located taking into consideration the proposed open space and/or the primary and secondary conservation areas identified in § **120-911K(6)(c)**, as well as other relevant data from the existing resources inventory and site analysis sketch plan, such as topography and soils.

[1] Building envelopes should generally be located at least 75 feet from primary conservation areas and at least 50 feet from secondary conservation areas, taking into consideration the potential negative impacts of development on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences and other uses.

[2] Buildings shall be set back at least 100 feet from existing public and private streets. A buffer yard along the street, adjacent to, and parallel with, the front property line of the conservation subdivision, shall be provided in accordance with the performance standards of § 120-511. The remainder of the 100-foot buffer strip shall be naturally vegetated or landscaped. This buffer may be part of the conservation subdivision open space. When buildings will be visible from the existing streets, the applicant shall minimize the visual impact of new development through larger setbacks or screening with elements such as low walls, split-rail fencing, trees or other plantings.

[3] Buildings shall be set back at least 50 feet from the external perimeter of the property line of the conservation subdivision, with the exception of property lines along public or private streets. A buffer yard, meeting the Buffer Yard D standards in § 120-511 Table 1, adjacent to the exterior perimeter of the conservation subdivision shall be provided in accordance with performance standards of § 120-511. The remainder of the 50-foot buffer strip shall be naturally vegetated or landscaped. This buffer may be part of the open space, but shall only count towards the required project open space if the area is a primary or secondary conservation area delineated in accordance with § **120-911K(3)(a)**, or additional land area is required after to meet the minimum area percentage requirement for open space after primary and secondary conservation areas have been incorporated into the open space.

(d) Alignment of streets and ways and creation of a trail system. Based upon the designated building sites, a circulation plan shall be designed to provide vehicular and pedestrian access to each site. The street layout shall bear a logical relationship to topographic conditions. Impacts of the street plan on proposed conservation lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and minimizing cut and fill. Street connections shall generally be encouraged to minimize the number of new culs-de-sac and to facilitate access to and from buildings in different parts of the subdivision. A trail system shall be created within the open space to provide access from the subdivision homes to the open space network created by the subdivision.

(e) Drawing in the lot lines. Upon completion of the preceding steps in § **120-911K(3)(a)** through **(d)**, lot lines shall be drawn as required to delineate the boundaries of individual lots. Lots shall be designed in keeping with the standards for individual lots found in Article **4** and shall be further designed to provide each residence with a clear delineation of its property bounds and with usable yard spaces.

(4) Basic standards for conservation subdivisions.

(a) Conservation subdivisions shall meet all applicable requirements of this chapter.

(b) The Planning Board shall allow lots within conservation subdivisions to be reduced from standard subdivision standards as specified in the applicable zoning district. In return for the reduction in the requirements for lot area, frontage, and structure setbacks, the applicant shall provide common open space.

(c) In order to determine the maximum number of dwelling units permitted on a tract of land, the net residential acreage of the parcel shall be divided by the net residential density standard of the applicable zoning district. Density bonuses are applicable, per the appropriate zoning district standards (see Article **4**).

(d) A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the

location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.

[1] The subdivider may retain ownership of the remaining land from which the subdivision lots are to be created, provided the portion of the remaining land counted toward the subdivision open space is subject to a permanent conservation or agricultural easement, or the subdivider may transfer ownership of the open space to a third party per § **120-911E(2)**.

[2] The land remaining will be a numbered lot within the subdivision.

[3] The open space standards in § **120-911K(5)** shall apply.

(e) Each building envelope shall be an element of an overall subdivision plan for site development. Only developments having a total site plan for structures will be considered. The application shall illustrate the placement of building envelopes and the treatment of spaces, paths, roads, service and parking and in so doing shall take into consideration all requirements of § **120-911K** and of other relevant sections of these regulations.

(f) For conservation subdivisions that are not served by a public water supply, the applicant must demonstrate on the plan that it is possible to locate a subsurface wastewater disposal field and a well on each lot. When determined that it is necessary for specific lots, by the Planning Board, as a condition of approval, the location of these elements shall be elements of the subdivision plan, and any future changes to the location of these elements will require an amended subdivision plan review.

(g) Up to 30% of individual lots or dwelling units may have direct vehicular access onto a public street existing at the time of development.

[1] Driveways may cross the buffer and must run essentially perpendicular to the street.

[2] Driveways serving individual lots in a conservation subdivision on an existing public street must be separated from new driveways and street intersections by 300 feet.

(h) Alteration of Natural Resources. The Planning Board may allow the alteration of natural resources identified as primary and secondary areas and their associated buffers and setbacks for the construction of the following improvements:

[1] Stormwater management facilities.

[2] Road crossings, bridges, culverts, and the installation of utilities needed to access property on the other side of wetlands and water bodies.

[3] Docks, boat ramps, and other structures necessary for direct access to water bodies.

The Board must find that:

[1] The resulting subdivision design best achieves the purposes of a conservation subdivision.

[2] The design is integrated with the natural topographic conditions and minimizes the need for cuts and fills.

[3] The impacts on the resource(s) and their respective buffers and setbacks have been minimized; and

[4] The design and function of the improvements incorporate accepted best management practices. Proposed stream crossings shall utilize Maine Stream Smart principles.

(5) Arrangement of lots.

(a) Diversity and originality in lot layout and individual building site design shall be encouraged to achieve the best possible relationship between the proposed development and the land under consideration.

(b) Factors considered by the Planning Board when evaluating the proposed arrangement of lots shall include, but not be limited to:

[1] Arrangement of roads, stormwater facilities, wastewater and other utilities in conformance with the natural features of the parcel, minimizing changes to the topography.

[2] Minimization of impervious cover.

[3] Protection of stream corridors and other important habitat areas.

[4] Protection of wetlands.

[5] Feasibility of continued or future agricultural use.

[6] Feasibility of continued or future forest management.

[7] Relationship to neighboring property, including conservation easements or natural, cultural, recreational or scenic features.

(6) Open space requirements for conservation subdivisions.

(a) The open space provided by the conservation subdivision shall be identified on the recorded subdivision plan as "Open Space — Reserved for Recreation, Agricultural and/or Conservation Purposes."

(b) Minimum amount required. The amount of open space provided within the subdivision shall be equal to or greater than the sum of the following:

[1] Excepting acreage which is used for public or private rights-of-way, areas of the parcel that are deducted from the gross area of the site to determine the net residential area (see § **120-541**, Net residential area or acreage); plus

[2] A percentage of the remaining land that is not deducted from the calculated net residential area (see § **120-541**, Net residential area or acreage).

[a] In the Farm District: At least 50%.

[b] In the Farm-Residential District: At least 45%.

[c] Other Zoning Districts: At least 40%.

(c) Priorities for land included in open space. The land set aside in the open space shall be selected based upon the following priorities:

[1] Primary conservation priorities.

[a] Streams, wetlands greater than 4,300 square feet averaging more than 30 feet in width as determined by measuring the width of five evenly spaced section, floodplains, vernal pools, and areas with a slope in excess of 25%. Buffers that are required by ordinance along these protected resources shall also be considered primary conservation areas.

[b] Areas that maintain the rural character of roadsides.

[c] Scenic resources, including viewsheds and agricultural fields, along with the forested margin adjacent to these resources.

[d] Areas that are adjacent to other protected open space.

[2] Secondary conservation priorities.

[a] Areas that provide protection for unique or irreplaceable resources, including the habitat of rare, significant, or endangered species, archaeological or historic sites, landmarks, and cemeteries.

[b] Areas that provide for the continuation of resource systems into or through the site such as shorelands, river or stream corridors, wildlife travel corridors, trails, and unfragmented habitat blocks. The width of such corridors shall be as follows:

[i] Shorelands, river or stream corridors: 100% of the width of any required vegetative buffer, in addition to the required buffer.

[ii] Wildlife travel corridors: 300 feet.

[iii] Recreational trail corridors: 25 feet on either side of the trail. Unfragmented habitat blocks shall have a minimum contiguous area of 150 acres.

[c] Areas that encompass groups of small wetlands not included in primary conservation areas or wetlands that function primarily as drainage swales in upland areas, as well as streams or ponds in a continuously forested area.

[d] Other secondary conservation areas, including fields, aquifer recharge areas, deer yards, and other identified habitat.

(d) For open space not retained by the subdivider, one principal access point having a minimum width of 20 feet shall be provided from the road network within the conservation subdivision. Additional, secondary points of access having a minimum width of 10 feet may be provided from individual lots when these lots abut or are located within a portion of the open space area.

[1] The size and location of the principal and secondary access points shall be reviewed and approved by the Planning Board as part of the Board's review of the conservation subdivision.

[2] In order to be eligible for any density bonus described in the applicable zoning district standards, the following conditions must be met: the open space must be open for general public use, not just homeowners within the subdivision or the subdivider; and the open space must either be accessed from an existing public street, or access is from an abutting property that is public, permanent open space or recreation land; or access must be formalized in easement language if access is to be provided over the new subdivision street or streets until such time as the subdivision street or streets are adopted by the Town. Access easements for the open space must be recorded at the registry prior to the issuance of building permits.

(e) The required open space shall not be used for commercial recreation or for private clubs whose membership is different from the homeowners' association.

(f) The proposed location of open space areas should also be considered in relation to other open space areas on abutting properties, and logical connections to and from open space areas on abutting properties should be given consideration by the Planning Board.

(7) Country subdivisions. As an alternative to conservation subdivision design in the Farm Zoning District and the Farm-Residential Zoning District, an applicant may choose a country subdivision design. This alternative does not include the reservation of open space or the level of site analysis and design required by a conservation subdivision. As a result, large residential lots are required in order to meet Town goals of protecting water quality and wildlife habitats and preserving rural character.

(a) Layout and design of the development.

[1] Minimum property line setbacks. All principal buildings shall be set back a minimum of 75 feet from any property line. Accessory buildings and structures with less than 200 square feet of footprint area shall be set back a minimum of 50 feet from any property line. Any other accessory buildings and structures shall be set

back a minimum of 75 feet from any property line.

[2] Streetscape buffers. A vegetated buffer strip shall be maintained on any country lot that fronts on or otherwise abuts any existing public and private street to minimize the visual impact of the development on the streetscape. The depth of the buffer strip shall be at least 50 feet. A buffer yard along the street, adjacent to, and parallel with, the front property line of the conservation subdivision, shall be provided in accordance with the performance standards of § 120-511. The buffer strip may be crossed by driveways or access drives that run essentially perpendicular to the street. The remainder of the 50-foot buffer strip shall be naturally vegetated or landscaped in a manner appropriate to the existing site conditions and the secondary conservation value of the strip.

[3] Perimeter buffers. A vegetated buffer strip shall be maintained along the external perimeter or property line of the country subdivision, with the exception of property lines along public or private streets, to minimize the impact of the country subdivision on abutting properties. The width of the buffer strip shall be at least 50 feet. A buffer yard, meeting the Buffer Yard D standards in § 120-511 Table 1, adjacent to the exterior perimeter of the country subdivision shall be provided in accordance with performance standards of § 120-511. The remainder of the 50-foot buffer strip shall be naturally vegetated or landscaped.

(b) Conceptual master plan. A landowner may choose not to maximize the development potential of a tract of land in the first subdivision application and reserve remaining development rights for a future subdivision application. In this instance, a conceptual master plan showing the location of future lots must be submitted. The conceptual master plan shall include the minimum information required for a sketch plan submission.