



February 9, 2021

Tracey Desjardins, Town Planner
Kris McNeill, Assistant Planner, Codes Enforcement
Gardiner City Hall
Gardiner, ME 04345

**RE: Preliminary Subdivision Submission
134 Spring Street Condominiums**

Dear Tracey, Kris and Members of the Planning Board,

On behalf of Maine Affordable Properties, LLC, please find attached Preliminary Subdivision Application and supportive documentation. The property is in the HDR zone, Map 036, Lot 071 and has been officially surveyed at 1.21 acres total or 52,707.6 square feet.

The multi-family dwelling density in the HDR District requires 5,000 square feet per unit. The land area of 1.21 acres would allow up to 10.5 or 10 units maximum. Two-units currently exist within the existing house, which allows for 8 new units of housing.

PROPOSAL SUMMARY

The proposed plan is for 8 new residential housing units within 4 duplex buildings.

Although much of the detailed information is included in the attached formal Application for Preliminary Subdivision, we have summarized the major points of the proposed project below.

Maine Affordable Properties, LLC purchased the property in January 2020. The existing home and accessory apartment were in need of renovation and repairs. They have since renovated the existing home and it is currently rented.

One of the partners of Maine Affordable Properties owns a well known and well-established landscape construction company that has been in business for over 30 years, providing excavation, site work, landscape construction and maintenance. Anderson Landscaping of North Yarmouth and Maine Affordable Properties brings their combined experience to this project. The applicant has significant experience in neighborhood and community development. They are both owners and site and building contractors which will guarantee a high-quality final product. Some of their recent projects include:

22 Abby Lane
Yarmouth, Maine 04096
207.749.4032
tsffarmer@gmail.com

- Eagle Ridge Condominiums, original owner, site contractor and developer for a 14-unit condominium development, North Yarmouth, ME
- Knights Way Subdivision, original owner, site contractor and developer for a 9-lot single family residential neighborhood, North Yarmouth, ME
- Pinehurst Residential Subdivision; original owner and site contractor for a 5-lot single family residential neighborhood, North Yarmouth, ME
- Toddy Brook Golf Course. A premier 18 hole Golf Course and club house on approximately 140 acres, including a driving range and club house and a 110 car parking lot. Completely built, maintained and still owned by Robert Anderson.

134 Spring Street Condominiums. Due to their past experiences with residential development, Maine Affordable Properties is sensitive to the concerns of neighbors and the demands of town departments, e.g., water, sewer, public works, fire and police. The proposal for 134 Spring Street Condominiums is to retain the existing structure and yard, keep the existing driveway intersection at Spring, keep the general location of the parking toward the rear of the house and to the greatest extent possible, keep the look and feel of the property from Spring Street. The existing trees and lawn around the house will remain undisturbed. Six existing large mature maple trees in the front portion of the site will remain undisturbed. The new development will take place in the back portion of the lot, beyond the large mature maple trees.

Road. The proposed new road is an 18' wide, private road, to be owned and maintained by the new Homeowners Association. We have incorporated an L-Shaped turnaround to allow for internal emergency access.

Homes. We are proposing 4 new 2-story duplex structures with a footprint of 24' x 56' each. The new homes will be very modest in size at 24' x 28' each. Half of the first floor of each unit will have an internal car port and approximately 1,060 s.f. of living space. An additional parking space will be provided in the driveway of each unit. A separate 5-space parking lot will be provided for visiting guests. Each unit will have a back yard patio of approximately 10' x 10' or 100 s.f.

The percent of the lot covered by buildings, including the existing home is approximately 13%, under the maximum 35% allowed by the Ordinance.

Stormwater will be managed by the use of foundation perimeter drip line infiltration and by a bio-engineered stormwater basin, also known as a raingarden. The raingarden is long and shallow and will be planted with appropriate perennial shrubs to help filter and absorb runoff. The raingarden will be a visually appealing asset to the development.

Landscaping. Maine Affordable Properties is committed to providing appropriate screening and buffering around the perimeter of the property to satisfy abutter concerns. Additionally, street trees and front and back yard landscaping for each unit will be

provided prior to occupancy. Anderson Landscaping will be responsible for the installation and maintenance of the proposed landscaping.

Maine Affordable Properties is responsible for providing public notice of the March 9, 2021 meeting. A notice of the March 9 public hearing will be published in the Kennebec Journal 2 times, not more than 14 days before and not less than 7 days before the March 9 public hearing. The notice will state the purpose of the hearing and give the date, time and place of the hearing. We will provide a copy of the two notices to the Planning Department prior to the public hearing.

Maine Affordable Properties will also notify the owners of all property within 200 feet of the proposed subdivision at least 14 days and no more than 30 days in advance of the public hearing. The notice shall state the purpose of the hearing and give the date, time and place of the hearing.

This submission included 10 copies of a complete application, including:

- Preliminary Subdivision Application
- Set of proposed plans, including,
 - L-1 Existing Conditions Plan
 - L-2 Layout and Dimensions Plan
 - L-3 Grading and Utilities Plan
 - L-4 Preliminary Landscaping Plan
- Stormwater Management and Erosion & Sedimentation Control Report
- A letter from Norway Savings Bank, stating proposed funding for the project
- A list of all abutters within 200' of the proposed development
- A check in the amount of \$150. for preliminary subdivision application

We look forward to discussing our plans and information with the Board at the March 9, 2021 meeting. Should you have any questions or need additional information prior to that, please do not hesitate to contact me.

Sincerely,



Tom Farmer
Landscape Architect



6 Church Street,
Gardiner, Maine 04345
Phone (207) 582-4200

Subdivision Preliminary Plan Application

Subdivision Name: 134 Spring Street Subdivision Fees: \$250

Date of Submission: 10.15.2020 Received by: _____

Proposal: 8 unit residential condominium development.

General Information:

Name of Property Owner: Maine Affordable Properties, LLC

Address: Attn: Robert Anderson, 352 Memorial Hwy, North Yarmouth, ME 04097

Phone/Fax No: 207-415-3919

Applicant Name: SAME

Address: _____

Phone/Fax No _____

Design Consultant(s): Surveyor Engineer Architect Planner

Name: Tom Farmer, Landscape Architect & Land Planner

Address: 22 Abby Lane, Yarmouth, ME 04096

Phone/Fax No 207-749-4032

Name: Little River Land Surveying, Inc.

Address: PO BOX 332, LISBON FALLS MAINE 04252

Phone/Fax No: (207) 840056

Property Information:

City Tax Map: 036 Lot(s): 071 Zoning District(s): HDR

Deed Reference(s): Book 13463 Page 70

Flood Zone: Yes X No Shoreland Zone: Yes X No

Frontage: Road 115.34' Shore NA Property Size: 1.21 (Acres)

Development Information:

Does the parcel include any water bodies? If yes, describe and shown on plan NO

Has the land been part of a prior approved subdivision? Yes No If Yes, state the following:

Subdivision Name & Approval Date _____

Acres to be Developed: Approx. 32,000 s.f. < 1 acre Number of Lots or Units: 8 new, 10 total w 2 existing

Anticipated Date of Construction: Spring 2011 through 2012 Completion: Spring 2013

Will the subdivision be developed in a phase plan, if so, Identify stages: NO

Will the subdivision have any common land or buildings: Yes, Home Owners Association, common land and infrastructure.

Identify the Water supply system: Municipal

Identify the sewage Disposal System: Municipal

If Public, does it require an extension of the public sewer lines? Yes No

Identify the number of fire hydrants and location(s): An existing hydrant located arrox. 220' away at the intersection of Spring St. and Mt. Vernon St.

Will the subdivision have sidewalks: yes no If yes, describe: With such a low volume of traffic and a dead end road, the road can be used for walking and playing.

Will the streets have curbs: yes no If yes, describe:

Describe the storm drainage system: LID (low-impact design) green infrastructure alternatives. Refer to Stormwater Report

Will the subdivision require a Zoning Variance? yes no If yes, describe: _____

Will the subdivision require a special Exception Permit? yes no If yes, describe: _____

SUBMISSION REQUIREMENTS

In addition to the Application and preliminary plan, the following submissions are required:

- a. Location map showing
 - 1) Existing subdivisions in the proximity of the proposed subdivision.
None
 - 2) Locations and names of existing and proposed streets.
Shown on plans
 - 3) Boundaries and designations of all Shoreland zoning and other land use districts.
None
 - 4) An outline of the proposed subdivision and any remaining portion of the owner's property if not included in the subdivision proposal.
All property included
- b. Proof of right, title or interest in the property.
Included with Step 1 – Site Inventory and Analysis.
- c. A copy of all existing and proposed deed restrictions, rights-of-way, or other encumbrances affecting the property.
Not Applicable, none
- d. The book, page, and tax map and lot information of the property
Included on page 1 of Application
- e. The names of all property owners abutting the property.
See Appendix
- f. Acreage of the proposed subdivision, acreage of roads, and acreage of any land not included in the subdivision.
1.21 acres total. Approx. 7,800 s.f. of new private road
- g. A copy of that portion of the county soil survey covering the subdivision
Included in the Stormwater Report
- h. When connection to the public sewer is proposed, a letter from the City Manager indicating that there is adequate capacity.
Public sewer is proposed. We have forwarded the Site Plan to Mr. Clark, Wastewater Director and are waiting for his review and approval.
- i. The location of all existing and proposed wells and appropriate documentation. If public water is proposed, a letter from the water district indicating that there is adequate supply and pressure.
Public water is proposed. We have forwarded the Site Plan to Mr. Grey at the Water District and are waiting for his review and approval.
- j. A written statement from the Police Chief approving all street traffic patterns, parking, curb cuts, and traffic impacts.
We have forwarded the Site Plan to Chief Toman and are waiting for his review and approval.

- k. A written statement from the Fire Chief approving all hydrant locations and any other fire suppression measures proposed.
We have forwarded the Site Plan to Chief Sieberg and his reply was that he did not see any problems from the Fire Department.
- l. Phosphorus control measures, if subdivision is located w/in the direct watershed of a great pond.
Not Applicable
- m. Road plans, specifications, and appropriate documentation.
We are proposing a private road, 18' wide and paved. Per the Ordinance requirements, the road and associated parking areas will be built with a minimum of 12" Aggregate sub-base course (max. sized stone 4"), 3" of Crushed aggregate base course and 2.5" of bituminous pavement of which the first 1.5" will be installed as the base course and the final 1" finish course will be installed following all construction activity.
- n. Traffic access data for the site including an estimate of the amount of vehicular traffic to be generated on a daily basis.
Based on ITE Trip Generation Report, 10th Edition, Eight (8) new condominiums = 7 trips per day per unit or 56 new trips per day total. This minimal increase is consistent with the surrounding residential neighborhood and does not warrant any changes to roadway width or turn lanes. Spring Street is not considered a collector or through-street and speeds are very low, posted at 25 MPH. Sight distance is excellent in both directions at the new intersection with over 500 feet in both directions.
- o. A statement indicating how the solid waste from the subdivision will be handled.
The applicant will contract with a private hauler to handle the waste generated.
- p. Documentation indicating that the applicant has the financial and technical capacity to meet the requirements of this Ordinance.
Technical capacity included in cover letter narrative. Financial funding letter included as an attachment herewithin
- q. Any other data necessary in order to meet the requirements of this Ordinance.
Not applicable
- r. A description of the anticipated types of land use that will be developed within the proposed subdivision.
Residential only
- s. A description of how all roads and other public improvements will be maintained until the improvements are dedicated to the city or for private roads and improvements how they will be maintained over their life span.
No public improvements are proposed. The road and all internal infrastructure will be owned and maintained by the new Homeowner's Association.

PRELIMINARY PLAN MAPS

A subdivision plan consisting of one or more maps drawn to a scale of not more than 100 feet to the inch. The plan shall show the following:

Name of the subdivision. Number of lots.

Date north point graphic scale.

Proposed lot lines with dimensions.

A survey of the perimeter of the tract giving complete descriptive data by bearing and distances made and certified by a Registered Land Surveyor. The corner of the tract shall be located on the ground and marked by permanent markers. The plan shall indicate the type of permanent marker proposed to be set or found at each lot corner.

All above information, when applicable is included on each plan of the plan set.

Contour intervals of 10 feet when any land in the proposed subdivision falls outside of 10% grade.
Not Applicable

The location of all wetlands regardless of size.

None

The location of all rivers streams brooks and ponds within or adjacent to the subdivision.

None

The location of all slopes in excess of 10% slope

Not Applicable

The number of acres within the subdivision location of property lines existing buildings, vegetative cover type and other essential existing features.

Included

The location of any significant sand and gravel aquifers.

None

The boundaries of any flood hazard areas and the 100-year flood elevation as depicted on the most recent FIRM Map.

None

The location and boundaries of any significant wildlife habitat as identified by the Department of Inland Fisheries and Wildlife.

None known -- most of the property is buildings and asphalt. There is one wooded section with no special attributes

The location of any site or structure listed on the National Register of Historic Places or any archeological site identified by the State Historic Preservation Commission.

None

The location of all scenic areas and rare and endangered plants as identified by the City of Gardiner.

None

The location of all subsurface wastewater disposal system test pits or borings and test data and appropriate documentation.

None

The location of any open space trails and recreation features.

None

The location, type, size and design of all proposed essential services and utilities.

Schematic utility locations have been shown on the Grading and Utilities Plan. Final locations and sizing will be as required by the individual utility companies prior to construction.

All erosion control features proposed for the site.

Shown and described in the Erosion & Sedimentation Control Report.

All stormwater control features proposed for the site.

Shown and described in the Stormwater Report.

All parcels of land proposed to be owned or held in common or joint ownership by the subdivision or individual lot owners.

Condominium development. All land and infrastructure to be owned by the Homeowner's Association.

All land proposed to be offered for public acceptance to the city.

Not Applicable

The type and location of any proposed fire control features and appropriate documentation.

None proposed. Existing hydrant within 220'

WAIVERS

No waivers are proposed.



February 9, 2021

Town of Gardiner
Planning Board

RE: MAP, LLC condominium development project

To Whom It May Concern:

Please be advised that Robert Anderson and David Wilson, including their various business entities, are believed to have the financial capacity to complete the proposed improvements at an estimated cost of \$1 million on the property located in Gardiner, ME for their MAP, LLC condominium development project.

Please note that this letter does not constitute an agreement or commitment to lend. The terms and conditions upon which Norway Savings Bank may extend credit are subject to the comprehensive analysis, due diligence and satisfactory documentation as determined necessary by the Bank and its counsel.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Pamela J. Bowerman".

Pamela J. Bowerman
VP, Commercial Lending
83 Maine Street
Brunswick, ME 04011
1.888.725.2207, Ext.1406
(O) 207.319.1423
(F) 207.729.1154
pbowerman@norwaysavingsbank.com

Cc: Robert Anderson
David Wilson



200 foot Abutters List Report

Gardiner, ME
October 16, 2020

Subject Property:

Parcel Number: 036071
CAMA Number: 036071
Property Address: 134 SPRING ST

Mailing Address: MAINE AFFORDABLE PROPERTIES LLC
325 MEMORIAL HIGHWAY
NORTH YARMOUTH, ME 04097

Abutters:

Parcel Number: 036048
CAMA Number: 036048
Property Address: 145 SPRING ST

Mailing Address: JOLICOEUR DANIEL JAMES
145 SPRING ST
GARDINER, ME 04345

Parcel Number: 036049
CAMA Number: 036049
Property Address: 141 SPRING ST

Mailing Address: WALSH SUSAN M
12 ELM ST APT 11
FREEPORT, ME 04102

Parcel Number: 036050
CAMA Number: 036050
Property Address: 137 SPRING ST

Mailing Address: DELONG INVESTMENT PROPERTIES
LLC
210 SOUTH STREET
GORHAM, ME 04038

Parcel Number: 036051
CAMA Number: 036051
Property Address: 133 SPRING ST

Mailing Address: ALBERT JEFFREY A ALBERT RHONDA J
133 SPRING ST
GARDINER, ME 04345

Parcel Number: 036052
CAMA Number: 036052
Property Address: 129 SPRING ST

Mailing Address: ALBERT JEFFREY A & RHONDA J
133 SPRING ST
GARDINER, ME 04345

Parcel Number: 036053
CAMA Number: 036053
Property Address: 125 SPRING ST

Mailing Address: ROWE LEON
125 SPRING ST
GARDINER, ME 04345

Parcel Number: 036054
CAMA Number: 036054
Property Address: 117 SPRING ST

Mailing Address: SACRE STEPHEN
826 WHITEFIELD RD
PITTSSTON, ME 04345

Parcel Number: 036055
CAMA Number: 036055
Property Address: 113 SPRING ST

Mailing Address: MORRILL GARDNER W & ADELEEN C
113 SPRING ST
GARDINER, ME 04345

Parcel Number: 036065
CAMA Number: 036065
Property Address: 12 AUTUMN ST

Mailing Address: EWT LLC 5 % KEYSTONE PROPERTY
MGMT
99 FISHERVILLE RD
CONCORD, NH 03303-1020

Parcel Number: 036066
CAMA Number: 036066
Property Address: 20 AUTUMN ST

Mailing Address: GREENLEAF SYLVIA
20 AUTUMN ST
GARDINER, ME 04345-1802



www.cai-tech.com

10/16/2020

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.

Page 1 of 4



200 foot Abutters List Report

Gardiner, ME
October 16, 2020

Parcel Number: 036067 CAMA Number: 036067 Property Address: 28 AUTUMN ST	Mailing Address: HAGENBUCH RICHARD SR CROSBIE SHARON 28 AUTUMN ST GARDINER, ME 04345
Parcel Number: 036068 CAMA Number: 036068 Property Address: 38 AUTUMN ST	Mailing Address: MEEHAN DENNIS & TRACY 38 AUTUMN ST GARDINER, ME 04345
Parcel Number: 036069 CAMA Number: 036069 Property Address: 114 SPRING ST	Mailing Address: LEE KEVIN 114 SPRING ST GARDINER, ME 04345
Parcel Number: 036070 CAMA Number: 036070 Property Address: 124 SPRING ST	Mailing Address: WALLACE EARL L WALLACE PATRICIA A 124 SPRING ST GARDINER, ME 04345
Parcel Number: 036072 CAMA Number: 036072 Property Address: 138 SPRING ST	Mailing Address: GRANT NATHAN JR 138 SPRING ST GARDINER, ME 04345
Parcel Number: 036073 CAMA Number: 036073 Property Address: 37 MT VERNON ST	Mailing Address: STEVENS ERIC O STEVENS SHARON F 37 MT VERNON ST GARDINER, ME 04345-1817
Parcel Number: 036074 CAMA Number: 036074 Property Address: 33 MT VERNON ST	Mailing Address: MAINE AFFORDABLE PROPERTIES LLC PO BOX 275 CUMBERLAND CENTER, ME 04021
Parcel Number: 036075 CAMA Number: 036075 Property Address: 29 MT VERNON ST	Mailing Address: BISSON ROBERT L 29 MT VERNON ST GARDINER, ME 04345
Parcel Number: 036076 CAMA Number: 036076 Property Address: 25 MT VERNON ST	Mailing Address: DICENT VALERIO PERSON IN POSSESSION GUERRERO AMALIA PERSON IN POSSESSION 25 MT VERNON ST GARDINER, ME 04345
Parcel Number: 036077 CAMA Number: 036077 Property Address: 23 MT VERNON ST	Mailing Address: SMITH PAUL D 23 MT VERNON ST GARDINER, ME 04345
Parcel Number: 036078 CAMA Number: 036078 Property Address: 17 MT VERNON ST	Mailing Address: MACDONALD CLAIRE HEIRS OF 1593 RIVERS ROAD GREEN COVE SPRINGS, FL 32043
Parcel Number: 036079 CAMA Number: 036079 Property Address: 15 MT VERNON ST	Mailing Address: LAFLAMME BRIAN P LAFLAMME CONSTANCE 15 MT VERNON ST GARDINER, ME 04345-1817



www.cai-tech.com

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.

10/16/2020

Page 2 of 4



200 foot Abutters List Report

Gardiner, ME
October 16, 2020

Parcel Number: 036080 CAMA Number: 036080 Property Address: 11 MT VERNON ST	Mailing Address: STROUT ALEXANDER 11 MT VERNON ST GARDINER, ME 04345
Parcel Number: 036081 CAMA Number: 036081 Property Address: 12 MT VERNON ST	Mailing Address: KELLEY MARIAH O PERSONAL REPRESENTATIVE TERRELL DENNIS 512 KELLEY ROAD PITTSTON, ME 04345
Parcel Number: 036082 CAMA Number: 036082 Property Address: 16 MT VERNON ST	Mailing Address: KELLEY MARIAH O PERSONAL REPRESENTATIVE TERRELL DENNIS 512 KELLEY ROAD PITTSTON, ME 04345
Parcel Number: 036083 CAMA Number: 036083 Property Address: 20 MT VERNON ST	Mailing Address: LEONARD MARK E LEONARD CATHERINE L 58 CEDAR LANE NOBLEBORO, ME 04555
Parcel Number: 036084 CAMA Number: 036084 Property Address: 24 MT VERNON ST	Mailing Address: LANE DAVID E 1854 HALLOWELL RD LITCHFIELD, ME 04350
Parcel Number: 036085 CAMA Number: 036085 Property Address: 28 MT VERNON ST	Mailing Address: GIPSON LEWIS E GIPSON BARBARA 28 MT VERNON ST GARDINER, ME 04345-1818
Parcel Number: 036086 CAMA Number: 036086 Property Address: 32 MT VERNON ST	Mailing Address: MCLAUGHLIN STEPHEN 32 MT VERNON ST GARDINER, ME 04345
Parcel Number: 036087 CAMA Number: 036087 Property Address: 36 MT VERNON ST	Mailing Address: RAND GREGORY 36 M VERNON ST GARDINER, ME 04345
Parcel Number: 036088 CAMA Number: 036088 Property Address: 150 SPRING ST	Mailing Address: SNELL PETER S 150 SPRING ST GARDINER, ME 04345
Parcel Number: 036131 CAMA Number: 036131 Property Address: 141 HIGHLAND AV	Mailing Address: MCDONOUGH HALSEY 61 WINTER ST GARDINER, ME 04345-1907
Parcel Number: 036132 CAMA Number: 036132 Property Address: 133 HIGHLAND AV	Mailing Address: DINEEN DAVID F JR 345 HIGHLAND AV GARDINER, ME 04345
Parcel Number: 036133 CAMA Number: 036133 Property Address: 129 HIGHLAND AV	Mailing Address: FLYNN TIMOTHY L & JACQUELYN 249 COUNTY ROAD GORHAM, ME 04038



www.cai-tech.com

10/16/2020

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.

Page 3 of 4



200 foot Abutters List Report

Gardiner, ME
October 16, 2020

Parcel Number: 036134
CAMA Number: 036134
Property Address: 119 HIGHLAND AV

Mailing Address: NOWELL DEAN E NOWELL DALE
119 HIGHLAND AV
GARDINER, ME 04345

Parcel Number: 036135
CAMA Number: 036135
Property Address: 115 HIGHLAND AV

Mailing Address: HAMEL STACY L & GERALDINE B
186 BOOTS & SADDLE RD
PALERMO, ME 04354

Parcel Number: 036136
CAMA Number: 036136
Property Address: 107 HIGHLAND AV

Mailing Address: MCDONOUGH HALSEY W
61 WINTER ST
GARDINER, ME 04345



www.cai-tech.com

10/16/2020

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.

Page 4 of 4

STORMWATER MANAGEMENT REPORT and EROSION & SEDIMENTATION CONTROL PLAN

134 Spring Street Condominiums
Gardiner, Maine

On behalf of Maine Affordable Properties, LLC, we are pleased to submit the following information and accompanying plans and details to show satisfactory compliance with the stormwater management for the development, in accordance with the most recent edition of the "Maine Stormwater Management Design Manual: Technical Design Manual, Volume III" published by the Maine Department of Environmental Protection.

The stormwater design for this development is based on **Chapter 10- Low Impact Development Practices** of the Maine Stormwater Management Design Manual Technical Design Manual Volume III. Additional publications and reference manuals have also been used and cited below where applicable.

Low Impact Development (LID) BMPs can be used to minimize the impacts of development and minimize the need for structural BMPs. The objective is to isolate impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces to the extent practicable.

For this development we will first treat the roof runoff at its source by use of advanced Drip Line Filters or reservoirs. This will help retain and filter the majority of the roof runoff and help limit the size of an area draining to a LID BMP, in this case a bioretention swale AKA engineered raingarden.

Included in this report is the soils map downloaded from the Town of Gardiner web site ON-LINE mapping, produced by CAI Technologies. The soils map shows that the soils are BuB2, Lamoine silt loam, 3 to 8 percent slopes Hydrologic Soil Group C. The use of LID and raingardens are suitable BMP's for this hydrologic soil group.

An important step and major factor to minimizing surface runoff from new impervious surfaces, the developer will be installing Drip Line Filter Strips around the perimeter of the foundation. The runoff from the roof will be detained at the drip line, be filtered through the foundation backfill and be discharged via a foundation underdrain pipe. The roof dripline filtration BMP will be installed according to the Maine Stormwater Management Design Manual Technical Design Manual Volume III, May 2016, (attached) "Chapter 7.5 Roof Dripline Filters", included with this report.

For the purpose of this report, we are not including the runoff from the existing home or existing driveway and parking area, although any and all surface runoff from that structure is flowing toward and draining into the northern raingarden area and remaining on-site. We have included the entire new roadway surface

Roof Dripline Filter

Treatment Storage: The reservoir bed at the drip line is sized based on the runoff volume from the roof and patio area per duplex. The sizing for the Dripline Filter is based on the publication *LID Guidance Manual for Maine Communities Approaches for implementation of Low Impact Development practices at the local level, September 21, 2007* by the Horsley Witten Group, Inc. For calculating the size of the filter strips, we are using the sizing for a “Infiltration - Dry Well / Infiltration Trench” per the following guidelines:

- Retain a runoff volume based on the 2 year, 1” storm event. This calculation is 1 inch times the sub-catchment’s impervious area.
 - The total area of one (1) duplex roof and the rear patio, draining to the dripline filter is 1,444 s.f. (56’ x 24’ + 10’ x 10’).
 - 1,444 s.f. x .083 feet (1 inch of rainfall) = 120 cubic feet of water volume.
 - The linear feet of the foundation drip line are 36 l.f. in the rear (excludes patios) and 26 l.f. in the front (excludes driveway and walk) and 24 l.f. on each side of each duplex for a total of 86 l.f. We are proposing a 2’ wide by 10” (.83’) deep crushed stone top layer reservoir (refer to cross-section detail). The capacity of this reservoir is 148 cubic feet, which exceeds the 120 cubic feet required.

Roof Dripline Filter Detail

Refer to the attached sections from *Chapter 7.5 Roof Dripline Filters* for additional detail:

Reservoir Layer (top 10”): The reservoir layer should consist of clean washed stone meeting the requirements of MaineDOT Standard Specification 703.22 Type C Underdrain Stone. The reservoir layer shall 24” wide x 10” deep.

Drainage Layer: The drainage layer should consist of a free draining sand meeting the requirements of MaineDOT Standard Specification 703.22 Type B Underdrain Backfill as necessary to provide frost protection for the foundation. Crushed stone may not be substituted.

Filter Layer: The backfill for the foundation may be used as the filter media as long as the material is a mineral soil with between 4 and 7% fines (passing #200 sieve) and is at least 4 inches thick.

Underdrain Layer: An underdrain layer consisting of a 4” diameter slotted underdrain pipe bedded in 8 to 12 inches of underdrain backfill material (MaineDOT Specification 703.22 Type B Underdrain Sand or Type C Underdrain Stone wrapped in filter fabric).

Rain Garden

All overflow drainage on the site will be either captured via drainage swales or sloped to drain toward the proposed raingarden. All runoff from the driveways and roadway will be managed by the proposed rain-garden.

The proposed rain garden is sized to hold a minimum of one inch of runoff from the contributing impervious surface. In this area of the country, the majority (around 90%) of storms are one inch or less in size. What this means is that sizing the garden to contain this volume of water will give the most benefit, without oversizing it to try to contain larger, more infrequent events that are a much smaller portion of the total yearly runoff volume.

Sizing

Based on a publication entitled *“Rain Gardens, A Design Guide for Connecticut and New England Homeowners”* by the University of Connecticut, Cooperative Extension System and NEMO (Nonpoint Education for Municipal Officials), I used the following steps to calculate the necessary size of our proposed rain garden:

1. *Estimate how much of the new impervious area drains to the area where you want to install the garden.*

For this calculation we included the area of the roofs not being captured by the drip line filters (264 s.f. / duplex or 1,056 s.f. total) and all of the new driveways, roadway and parking areas (13,756 s.f.) for a total of 14,812 s.f. of new impervious surface.

2. *Divide this area by 18, which is the proposed depth in inches of storage within the surface of the raingarden. This calculation sizes the rain garden to hold one inch of runoff from the drainage area, in a garden 18 inches deep. The result is the area in square feet that we will need for the rain garden.*

14,812 square feet divided by 18 = 822 square feet (at an average of 18 inches deep).
The two combined areas of the rain garden shown on the plan equals approximately 1,620 square feet, which is approximately twice the amount of storage needed for 90% of the rain events.

Maintenance

Maintenance of the raingardens will be annually in the spring and incorporated into the Homeowner’s Association Declaration of Covenants and Restrictions as follows:

- Clean the basin of debris and excessive sediment
- 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

Construction Details

Attached is a construction detail for the Roof Dripline Filter and the rain garden, including a specific planting plan for the two areas of the rain garden.

Chapter 7.5 - Roof Dripline Filters

The runoff from a peaked roof without gutters may be detained at the drip line, be filtered through the foundation backfill and be discharged via a foundation underdrain pipe or equivalent. The roof dripline filtration BMP needs to be designed with the following criteria:

BMP Components: The roof dripline filtration BMP consists of the following layers in ascending depth order: a reservoir layer of crushed stone, a drainage layer of sand, a filter layer of mineral soil with 4 to 7% fines, and an underdrain layer with perforated underdrain pipe to gravity outlet. The BMP extends the length of the building or area of roof to be treated.

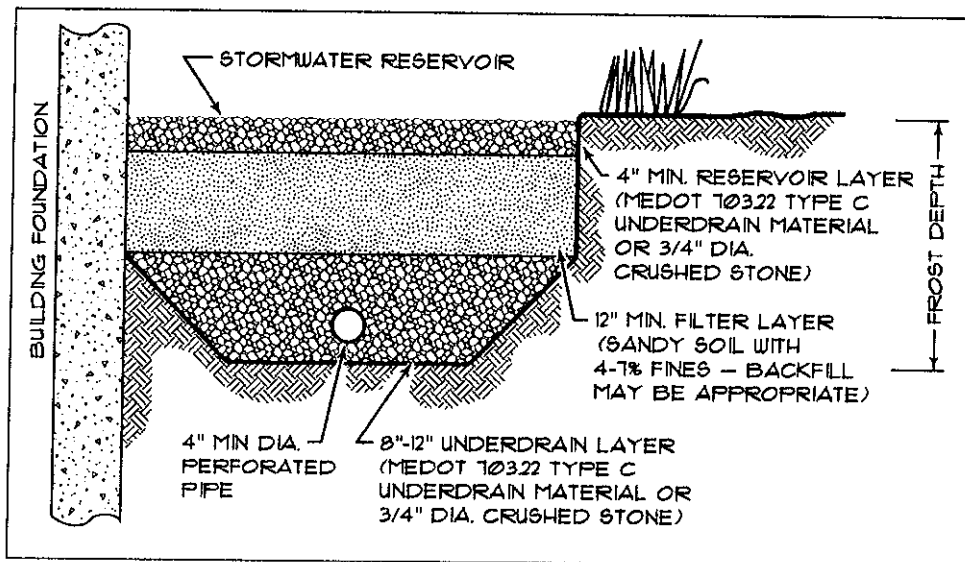


Figure 7.5.1 – Roof Dripline Cross-Section

Capacity for large storm: To meet the Chapter 500 Flooding Standards requirements, the reservoir needs to provide a minimum storage capacity for the direct entry of the rain precipitation from a 24-hour, 25-year storm (5 + inches) or an overflow may be needed or provided for.

Treatment Storage: The reservoir layer at the drip line must consist of crushed stone with a porosity of 40%. Its width and depth (4" min to 12" max) is sized based on the runoff volume from the roof. For example, a 30 foot wide roof panel will need a 6.3 foot wide by 1 foot deep reservoir to store the first 1-inch of runoff for treatment.

Drip line edge: The drip line trench should extend the length of the building or area of roof.

Treatment Storage: The reservoir bed at the drip line should be sized based on the runoff volume from the roof (For example, a 30 foot wide roof panel will need a 4 foot wide by 1.5 foot deep rock storage bed).

Reservoir Layer: The reservoir layer should consist of clean washed stone meeting the requirements of MaineDOT Standard Specification 703.22 Type C Underdrain Stone. The depth of the reservoir course shall be based on the desired storage volume.

Drainage Layer: The drainage layer should consist of a free draining sand meeting the requirements of MaineDOT Standard Specification 703.22 Type B Underdrain Backfill as necessary to provide frost protection for the foundation. Crushed stone may not be substituted.

Filter Layer: The backfill for the foundation may be used as the filter media as long as the material is a mineral soil with between 4 and 7% fines (passing #200 sieve) and is at least 4 inches thick.

Underdrain Layer: An underdrain layer consisting of a 4" diameter slotted underdrain pipe bedded in 8 to 12 inches of underdrain backfill material (MaineDOT Specification 703.22 Type B Underdrain Sand or Type C Underdrain Stone wrapped in filter fabric).

Frost Protection: Frost depth is measured from the bottom of the porous stone of the reservoir layer.

Basement Waterproofing: To prevent the penetration of water into a basement, the basement wall should be waterproofed.

Filter Sizing: A minimum storage capacity within a porous reservoir layer is needed to allow for the treatment of one inch or more of runoff and should have a minimum storage capacity for the direct entry of the rain precipitation from a 24-hour, 25-year storm (5 + inches) or an overflow needs to be provided.

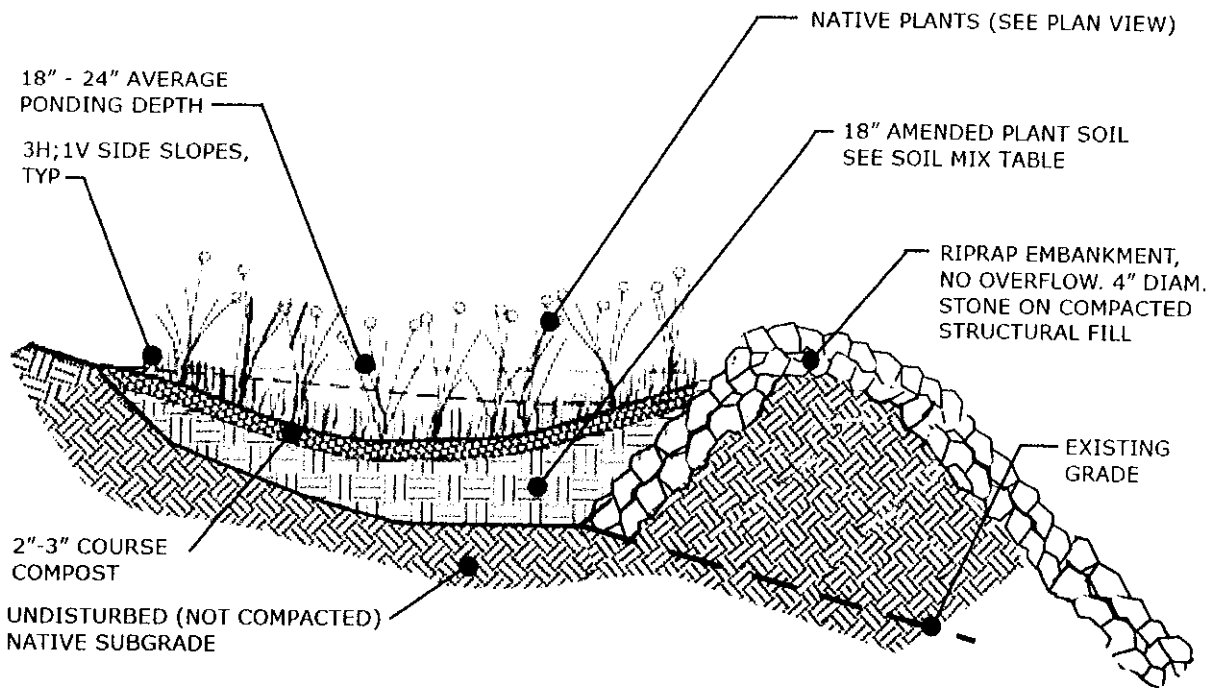
Detention Time: Stored volume needs to fully drain within 24 to 48 hours. An orifice may be needed to regulate the outflow.

Additional Storage: The reservoir layer may be increased and the drainage layer may be used to store runoff after the first 1-inch of runoff assuming a porosity of 20% for Underdrain Sand. For example, a 3 foot thick drainage layer that is 6.3 feet wide at the top and 3 feet wide at the bottom can store 1.1 inches of runoff from a 30 foot wide roof panel.

Overflow: An overflow should be provided for runoff above the combined capacity of the reservoir and drainage layers.

Maintenance: A dripline filter bed needs to be maintained like any other filter basin. The maintenance activities for filtration BMPs listed in Chapter 7.2 of the BMP manual apply equally to this type of structure. Any debris must be removed from the reservoir course. The Maintenance plan needs to address that these structures are part of the stormwater management plan for the project, cannot be paved over or altered in anyway. No gutter may be installed on the roof line.

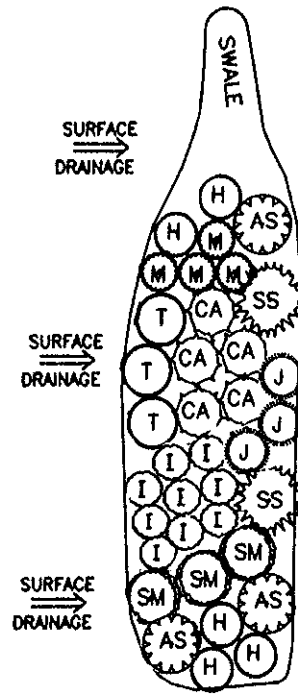
SOIL FILTER MEDIA		
Filter Media	Filter By Volume	Specification
Sand	45%-50%	MEDOT Specification #703.01 fine aggregate for concrete
Topsoil	25%-35%	Loamy Sand topsoil with minimal clay content and between 15 to 25% fines passing the #200 sieve
Mulch	20%-30%	Moderately fine, shredded bark or wood fiber mulch with less than 5% passing the #200 sieve



Infiltration Rain Garden with Planting Soil

NTS

RAINGARDEN PLANTING PLAN



Plan View
1" = 10'

RAIN GARDEN PLANT LIST				
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	FULL SIZE WIDTH
SS	2	<i>Clethra alnifolia</i>	Summersweet	5 feet
CA	5	<i>Lobelia cardinalis</i>	Cardinal Flower	1 inch
T	3	<i>Asclepias tuberosa</i>	Butterfly Weed	2 ft to 3 ft
I	9	<i>Iris versicolor</i>	Blue Flag	2 ft to 4 ft
M	4	<i>Caltha palustris</i>	Marsh Marigold	1 foot
J	3	<i>Euthochium maculatum</i>	Joe Pye Weed	1 ft to 2 ft
SM	3	<i>Asclepias incarnata</i>	Swamp Milkweed	2 ft to 3 ft
AS	3	<i>Symphotrichum novae-angliae</i>	New England Aster	3 ft to 7 ft
H	5	<i>Helenium autumnale</i>	Sneezeweed	2 ft to 3 ft

EROSION & SEDIMENTATION CONTROL PLAN

134 Spring Street Condominiums
Gardiner, Maine

PROJECT EROSION CONTROL PLAN

1. Topsoil stripped in areas of construction that is suitable for reuse as loam shall be stockpiled on site at a location to be designated by the Owner or Owner's Rep. Unsuitable soil shall be separated, removed, and disposed of at an approved disposal location off site.
2. Prior to beginning any clearing/land disturbing activities, the contractor shall install the perimeter silt fences or berms and a stone apron construction entrance.
3. All ground areas disturbed for construction will be graded, loamed and seeded as soon as possible. Permanent seed mixture shall conform to the seeding plan contained in the erosion control plan.
4. Silt fences/berms shall be inspected, repaired and cleaned as noted in the EC notes.
5. The contractor shall repair and add stone to the stabilized construction entrance as it becomes saturated with mud to ensure that it works as planned during construction.
6. Silt removed from around inlets and behind the silt fences shall be placed in a topsoil stockpile and mixed into it for later use in landscaping operations.

TEMPORARY EROSION CONTROL MEASURES

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Siltation sock or wood waste compost berms shall be installed downhill of any disturbed areas to trap runoff borne sediments until the area is revegetated. Silt sock or berm shall be installed per the detailed provided and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence or berm line.
2. Straw or hay mulch including hydroseeding is intended to provide over for denuded or seeded areas until revegetation is established. Mulch placed between 4/15 and 9/15 on slopes of less than 15% shall be anchored by applying water; mulch placed on slopes of 15% shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Mulch shall not be placed over snow.
3. Temporary stockpiles of materials will be protected as follows:
 - a. Temporary stockpiles shall not be located on any slopes which exceed 15%,
 - b. Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with hydroseed and emulsified mulch tackifier, or by covering the stockpile with mulch, and
 - c. Stockpiles shall be surrounded by silt fence or berms at the time of formation.

LOT DEVELOPMENT PLAN

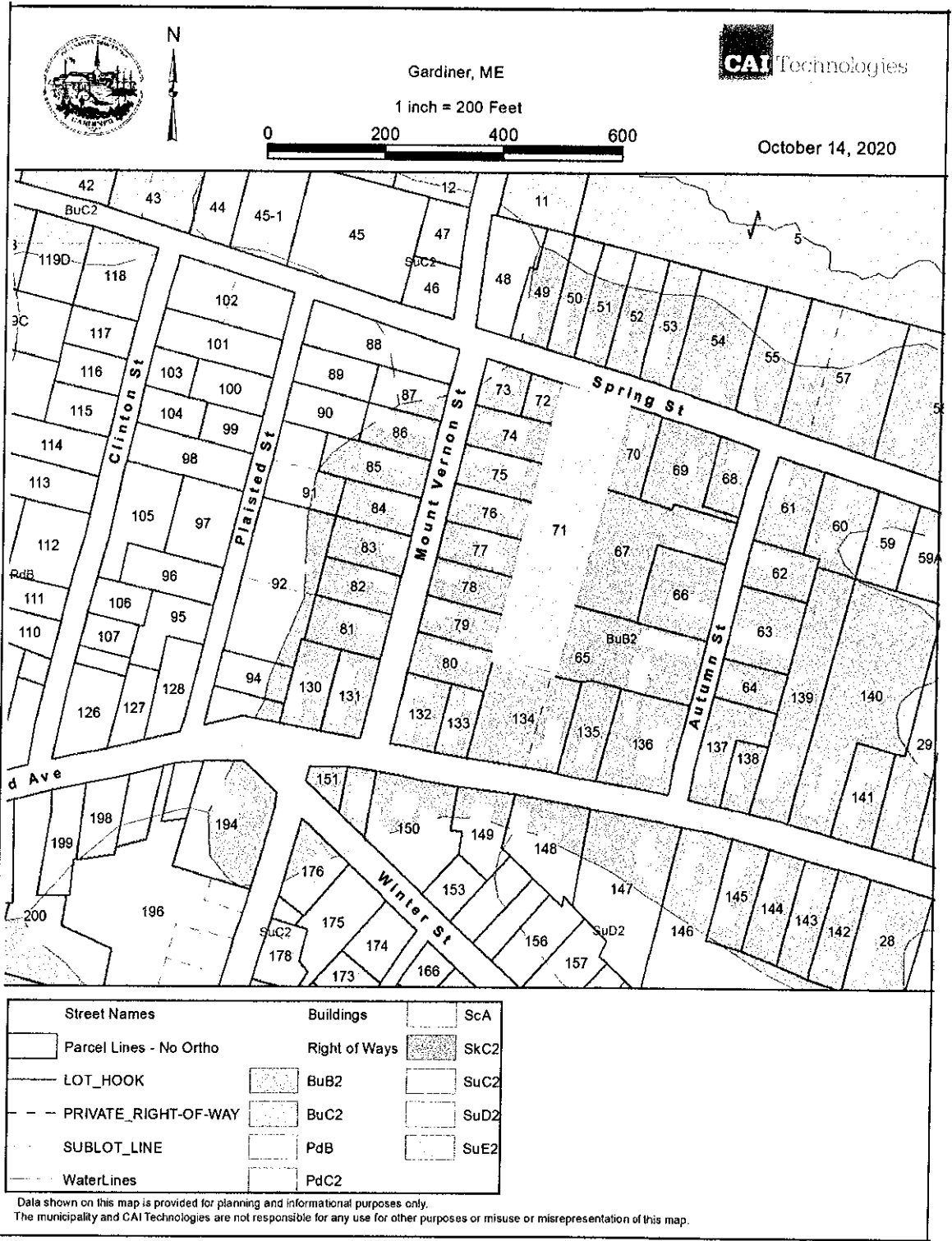
Prior to construction the Contractor shall submit to the Owner a Schedule for the completion of the work. Items may be constructed simultaneously. Limit the amount of exposed area to those in which work is expected to be undertaken during 30 days.

The following construction sequence shall be used to optimize the effectiveness of the Erosion and Sedimentation Control Measures:

1. Install stabilized construction entrance at lot driveway
2. Install perimeter siltation sock and/or wood-waste berms at any flow points. (See layout on Site Plan.)
3. Install tree protection - wood or similar 48" ht. snow fence no less than 4' from trunk of flagged trees.
4. Clear area necessary for house.
5. During grubbing operations, install stone check dams at any evident concentrated flow discharge points
6. Commence earthwork for foundations.
7. Commence building construction.
8. Commence installation of underground utilities
9. Completed remaining earthwork operations.
10. Remove old driveway and install gravel base for new driveway area.
11. Install pavement for driveway, ensuring drainage as shown on Site Plan.
12. Loam, lime, fertilize, seed and mulch (or sod) disturbed areas. Revegetate disturbed areas as rapidly as possible: within 7 days within 100' of river and within 14 days for other areas.
13. One the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
14. Touch up loam and seed.

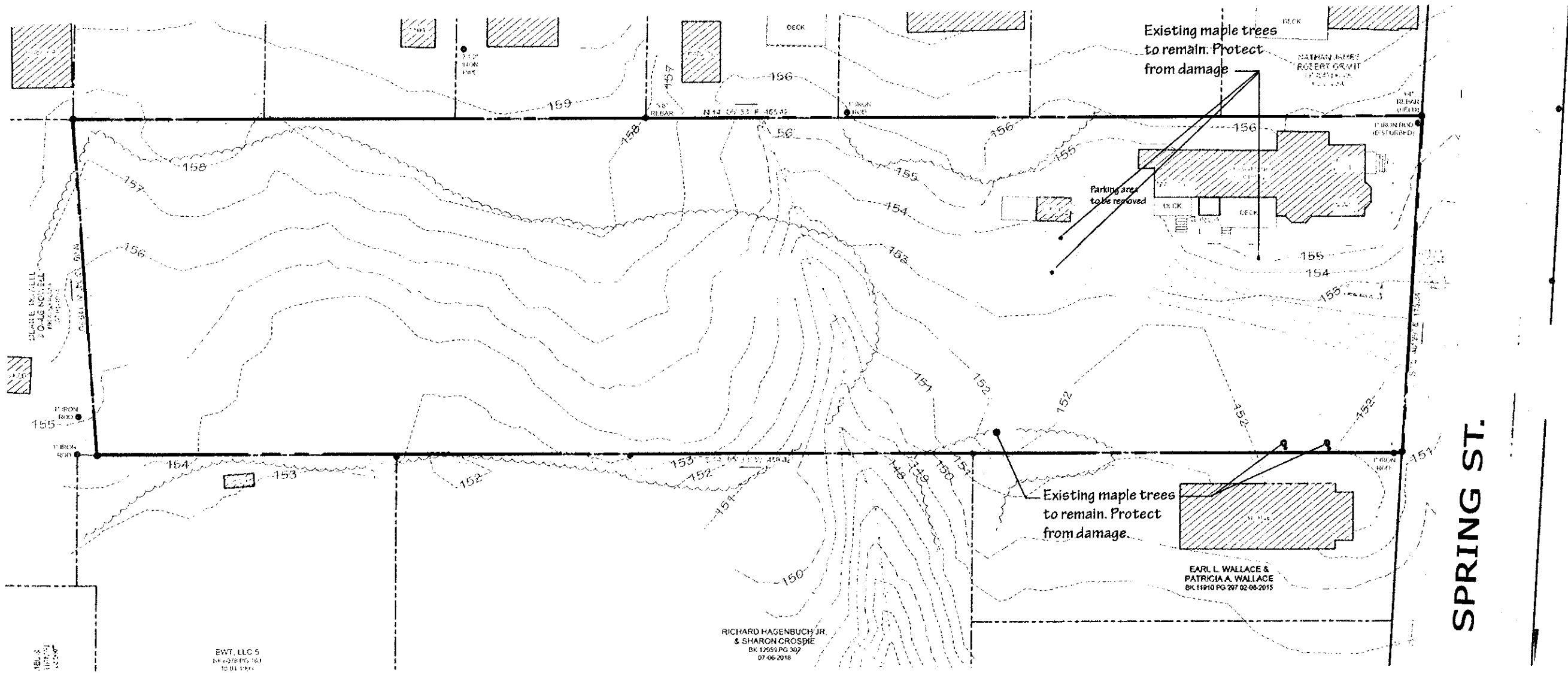
GENERAL NOTES

1. This project is subject to the terms and conditions of the Planning Board permit from the Town of Gardiner, which will be made a part of the contract documents. All construction will be governed by the Town of Gardiner Zoning Ordinance and any Conditions of Approval.
2. Land disturbing activities shall be accomplished in a manner and sequence that causes the least practical disturbance of the site. The contractor shall install any added measures which may be necessary to control erosion /sedimentation from the site, depended upon the actual site and weather conditions.



NOTES:

1. Base Map from a plan entitled "Retracment Survey with Topographic Features" by Little River Land Surveying, Inc., dated 12.21.2020. 1 foot contour intervals.
2. Property Owner: Maine Affordable Properties, LLC
Book 13463, Page 70, date 01-28-2020.
1.21 Acres

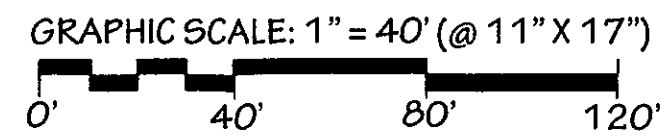


**TOM FARMER
LANDSCAPE
ARCHITECTURE**

Tom Farmer, Landscape Architect
22 Abby Lane, Yarmouth, ME 04096
tsffarmer@gmail.com
p. 207.749.4032

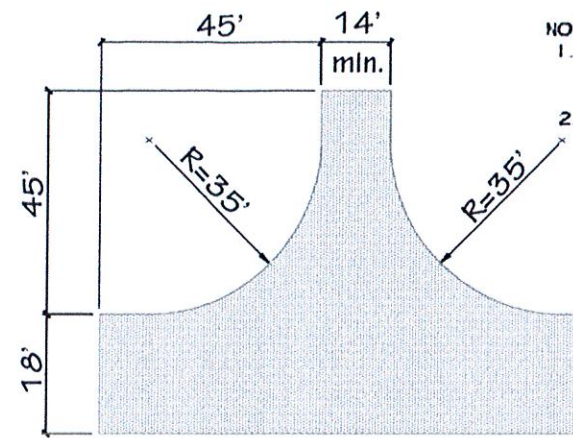
EXISTING CONDITIONS PLAN
134 Spring Street Condominiums
Gardiner ME
Maine Affordable Properties, LLC.

Date:
02/09/2021



NOTES:

1. Base Map from a plan entitled "Retracment Survey with Topographic Features" by Little River Land Surveying, Inc., dated 12.21.2020. 1 foot contour intervals.
2. Property Owner: Maine Affordable Properties, LLC Book 13463, Page 70, date 01-28-2020. 1.21 Acres



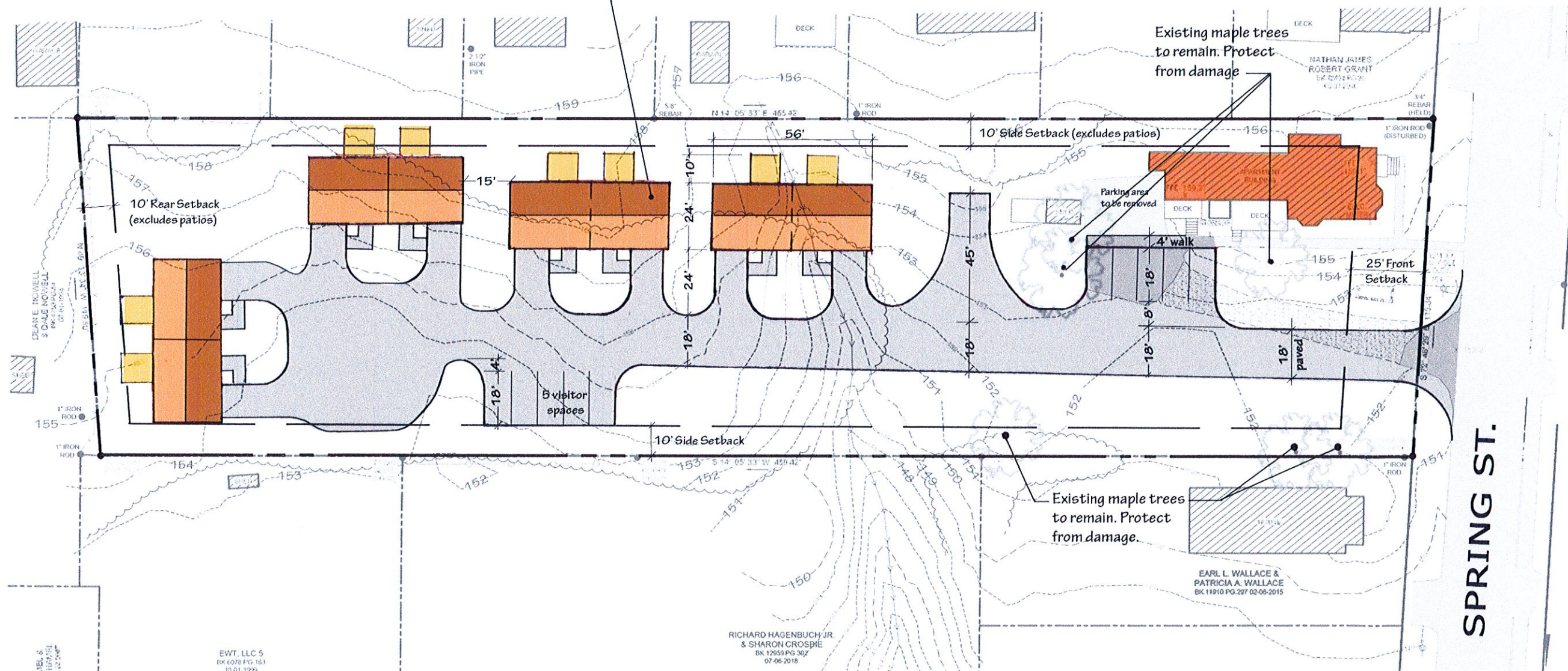
NOTES:

1. TURN-AROUND SHALL CONFORM TO ALL STREET AND ROAD CONSTRUCTION STANDARDS
2. SNOW STORAGE SHALL BE PROVIDED FOR OFF THE ENDS AND RADII OF THE TURN-AROUND SUCH THAT FULL ROADWAY DIMENSIONS MAY BE MAINTAINED DURING THE WINTER MONTHS.

L-Shape Emergency Turnaround Detail



24' x 28' Units w/ one space car port, one space in front and 10' x 10' patio



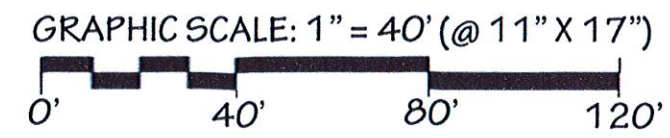
**TOM FARMER
LANDSCAPE
ARCHITECTURE**

Tom Farmer, Landscape Architect
22 Abby Lane, Yarmouth, ME 04096
tsfarmer@gmail.com
p. 207.749.4032

LAYOUT AND DIMENSIONS PLAN

134 Spring Street Condominiums
Gardiner ME
Maine Affordable Properties, LLC.

Date:
02/09/2021



NOTES:

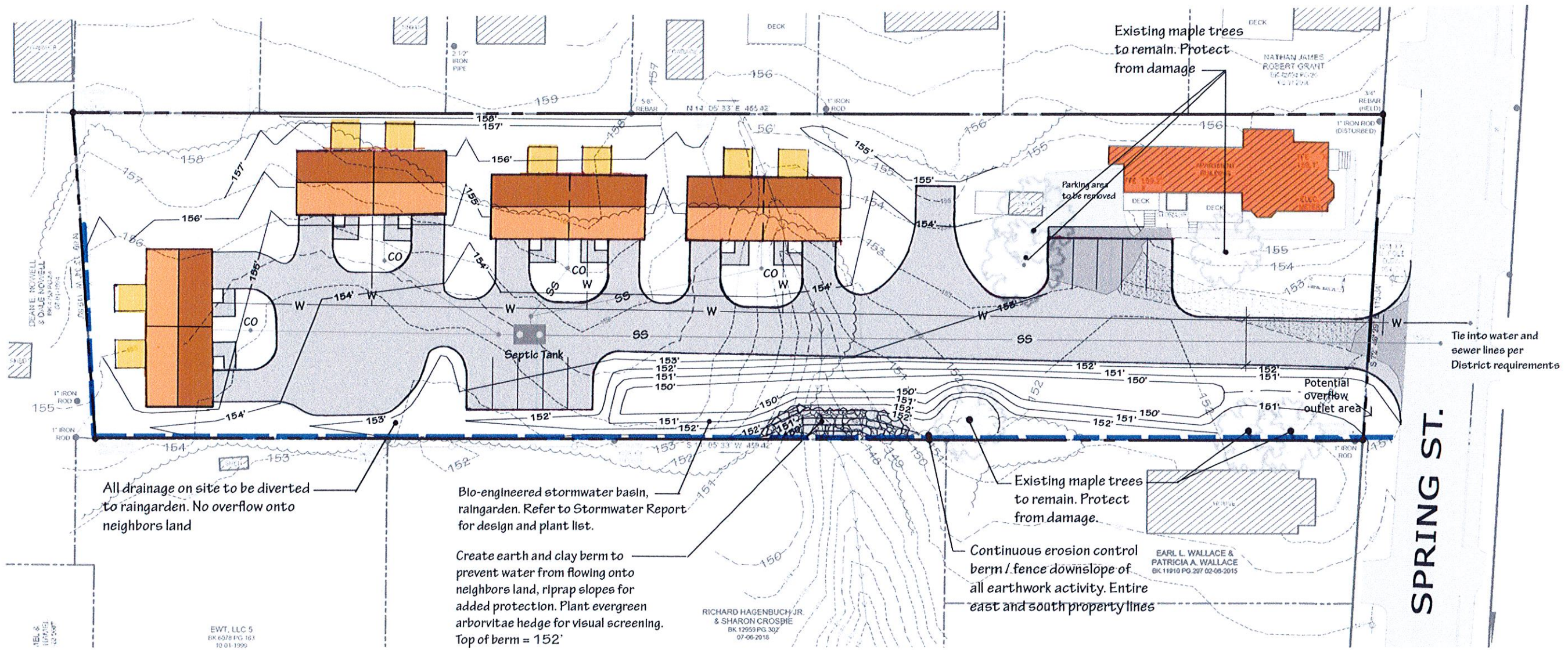
1. Base Map from a plan entitled "Retracment Survey with Topographic Features" by Little River Land Surveying, Inc., dated 12.21.2020. 1 foot contour intervals.
2. Property Owner: Maine Affordable Properties, LLC Book 13463, Page 70, date 01-28-2020. 1.21 Acres



**TOM FARMER
LANDSCAPE
ARCHITECTURE**

Tom Farmer, Landscape Architect
22 Abby Lane, Yarmouth, ME 04096

tsfarmer@gmail.com
p. 207.749.4032

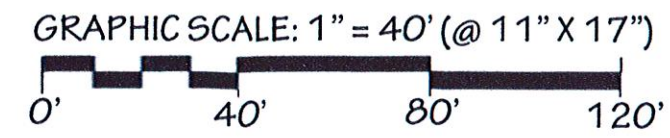


GRADING AND UTILITIES PLAN

134 Spring Street Condominiums
Gardiner ME

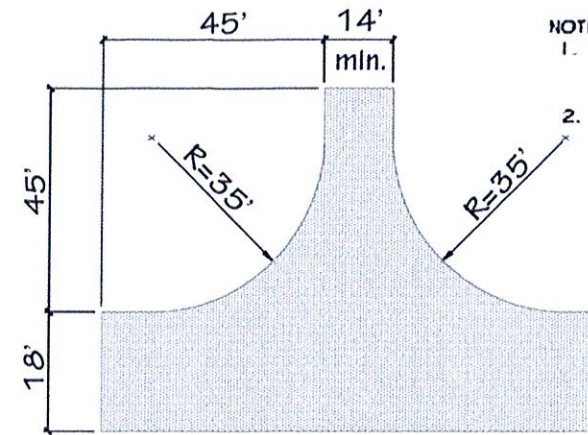
Maine Affordable Properties, LLC.

Date:
02/09/2021



NOTES:

1. Base Map from a plan entitled "Retracement Survey with Topographic Features" by Little River Land Surveying, Inc., dated 12.21.2020. 1 foot contour intervals.
2. Property Owner: Maine Affordable Properties, LLC Book 13463, Page 70, date 01-28-2020. 1.21 Acres

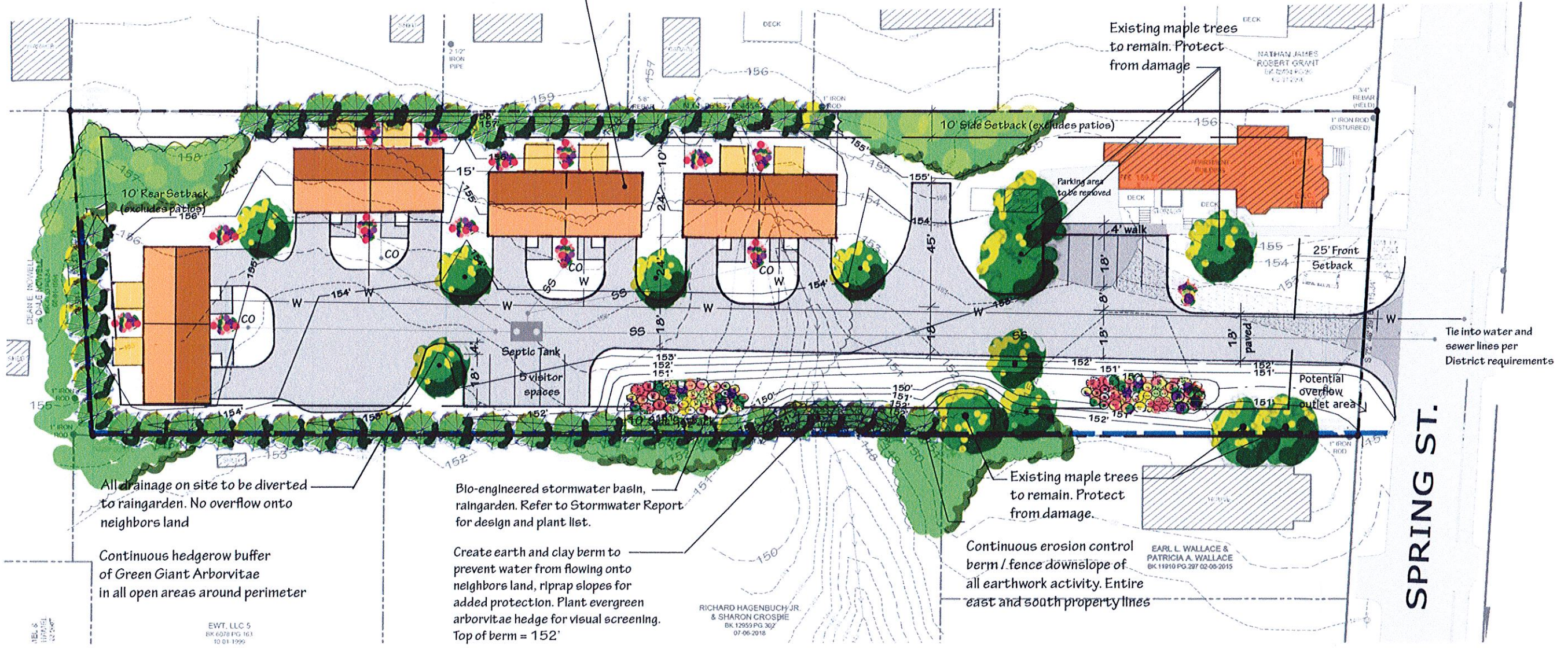


- NOTES:
1. TURN-AROUND SHALL CONFORM TO ALL STREET AND ROAD CONSTRUCTION STANDARDS
 2. SNOW STORAGE SHALL BE PROVIDED FOR OFF THE ENDS AND RADII OF THE TURN-AROUND SUCH THAT FULL ROADWAY DIMENSIONS MAY BE MAINTAINED DURING THE WINTER MONTHS.



L-Shape Emergency Turnaround Detail

24' x 28' Units w/ one space car port, one space in front and 10'x10' patio



All drainage on site to be diverted to raingarden. No overflow onto neighbors land

Continuous hedgerow buffer of Green Giant Arborvitae in all open areas around perimeter

Bio-engineered stormwater basin, raingarden. Refer to Stormwater Report for design and plant list.

Create earth and clay berm to prevent water from flowing onto neighbors land, riprap slopes for added protection. Plant evergreen arborvitae hedge for visual screening. Top of berm = 152'

Existing maple trees to remain. Protect from damage.

Continuous erosion control berm / fence downslope of all earthwork activity. Entire east and south property lines

Tie into water and sewer lines per District requirements

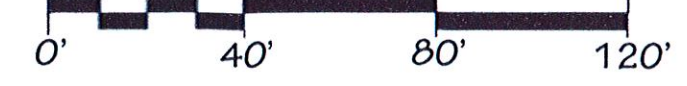
SPRING ST.

RICHARD HAGENBUCH, JR. & SHARON CROSBIE
BK 12959 PG 302
07-06-2018

EARL L. WALLACE & PATRICIA A. WALLACE
BK 11910 PG 297 02-08-2015

EWI, LLC 5
BK 6078 PG 16.1
10-01-1999

GRAPHIC SCALE: 1" = 40' (@ 11" X 17")



TOM FARMER
LANDSCAPE
ARCHITECTURE

Tom Farmer, Landscape Architect
22 Abby Lane, Yarmouth, ME 04096
tsfarmer@gmail.com
p. 207.749.4032

PRELIMINARY LANDSCAPING PLAN

134 Spring Street Condominiums
Gardiner ME

Maine Affordable Properties, LLC.

Date:
02/09/2021

L-4