

**TOWN OF SUNAPEE
PLANNING BOARD AGENDA
For THURSDAY MARCH 14, 2024
7:00 PM at the at the TOWN MEETING ROOM
23 EDMONT ROAD**

Join Zoom Meeting:

<https://us06web.zoom.us/j/86320400450?pwd=w7AN0bBs7N4oaCv8qfBYR9fLCXOwsa.1>

Meeting ID: 863 2040 0450

Passcode: 133328

NEW CASES

Case # SPR 24-03	Erect a new digital scoreboard at the baseball field
Parcel ID: 0123-0024-0000	at Dewey Park.

*Town of Sunapee
Steve Bourque – Representative
706 Route 11
Sunapee, NH 03782
Rural Residential District*

CONTINUED CASES

Case # SPR 24-02	Erect a shop building on site for storage of project
Parcel ID: 0232-0023-0000	related materials.

*Jared & Laura Raymond
Jim Bruss – Agent
60 Route 103
Sunapee, NH 03782
Mixed-Use District*

CONSULTATION

Parcel ID: 0207-0004-0000	Review of subdivision proposal.
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*Peter & Susan Maurer
Maurer Lane
Sunapee, NH 03782
Rural Land District*

NOTE: In the event the meeting is canceled, the agenda will be continued to the next scheduled Planning Board meeting.

Parcel ID: 0231-0048-0000 Review of subdivision proposal.

*FHS Associates, LLC
Aaron Simpson
15 Sugarhouse Lane
Sunapee, NH 03782
Rural Residential District*

LOT MERGER:

Parcel ID:

0126-0016-0000 – 10 Stone End Road

0126-0015-0000 – 14 Stone End Road

0126-0014-0000 – 16 Stone End Road

OTHER BUSINESS:

Stone End Owner, LLC
Davis Companies

Review of Subdivision and Site Plan Regulations.

MISCELLANEOUS:

Review Minutes from Previous Meeting(s).

***NOTE: Any and all submissions must be provided 5 days prior to the meeting**

NOTE: In the event the meeting is canceled, the agenda will be continued to the next scheduled Planning Board meeting.

RECEIVED

FEB 20 2024



TOWN OF
SUNAPEE

TOWN OF SUNAPEE
APPLICATION FOR SITE PLAN REVIEW
(PDF OF SITE PLAN MUST BE INCLUDED WITH APPLICATION)

1. Landowner(s) Name(s) Town of Sunapee
Address 706 Rt 11 Sunapee NH 03782
(Mailing) 23 Edgemont Rd Sunapee NH 03782
Phone (603) 763-2212
2. Zoning District Rural Res.
3. Project Location: 706 Rt. 11
4. Parcel ID: SUN-0123-0021-0000
5. Complete description of current use of property:
Recreation Space for Ball field

6. Does this project require a special exception or variance by the ZBA as outlined in the Sunapee Zoning Regulations? Yes ___ No X (If yes, complete the Zoning Board of Adjustment application, and Land Use Questionnaire.)

7. Complete description of proposed project (Include area dimensions, use, # of employees, # of dwelling units, etc.)

See Attached

8. Certification/Permission for inspection. To the best of my knowledge, the above is true and accurate. I hereby grant permission for site inspection to Planning Board official(s). I also understand that it is my responsibility for providing a complete application. I realize that any of the application requirements, which are assumed waivable during the initial review, may still be required at the time of review by the Planning Board.


Signature(s) of Landowner(s)

2/21/24
Date

Date of Application:

Phase I _____ Phase II _____

Phase III _____ Major Site Plan _____

Home Business _____

Fee Paid _____ Method of Payment _____

RECEIVED

1-20-2023

TOWN OF

FINAL HEARING CHECKLIST

The following items must be submitted in accordance with the attached meeting and deadline schedule for the Planning Board meeting you wish to attend:

- ☐ Completed Application
- ☐ Fees
- ☐ Two (2) copies of plans for review (with required information per Article V)
- ☐ List of abutters, including mailing addresses
- ☐ PDF of Site Plan emailed to zoning@town.sunapee.nh.us

The Planner will review the plans to determine if the appropriate information has been provided on the plans. If the submission is deemed complete, notices will be sent (14) calendar days prior to the hearing. The following items must be included on the plan per Article V:

- ☐ Plan at a scale of 1" = 20' or less
- ☐ Perimeter boundary survey
- ☐ Title of drawing with name of applicant
- ☐ Parcel ID
- ☐ Name and mailing addresses of abutting property owners
- ☐ Signature block for Water & Sewer Commission, Police Chief, Road Agent & Conservation Commission
- ☐ Site location map
- ☐ North point, bar scale, appropriate dates
- ☐ Name, address, and seal of person preparing map
- ☐ Location and shape of existing and proposed buildings
- ☐ Square footage for each use designated on plan
- ☐ Existing and proposed contours at an interval or no more than 5'. Spot elevations for level lot.
- ☐ Streams, wetlands, and other water bodies
- ☐ Width, location, and grades of existing and proposed streets and driveways
- ☐ Layout and size of parking spaces
- ☐ Sewage disposal facilities for property including mains and service lines
- ☐ Water supply for property including mains and services lines
- ☐ Proposed landscaping plan
- ☐ Existing and proposed electric lines
- ☐ Existing and proposed telephone lines

☐ Exterior lighting plan

Article V requirements (cont.):

☐ Proposed signs-size and location

☐ Locations of retaining walls, fences, and outside storage areas

☐ Location of fire alarms and sprinklers

The Planning Board may waive the following items if it is determined, the project's impact will be minor, and otherwise, each item will be required:

☐ Drainage design, including drainage structures, culverts, ditches, and storm sewer lines

☐ Drainage calculations

☐ Plans for toxic waste storage

☐ Location of hazardous materials storage

State of New Hampshire Permits:

☐ Department of Transportation (Highway/Access)

☐ NHWSPCD (Septic Systems)

☐ Water Supply Division

☐ Site Specific (Department of Environmental Services)

☐ Wetlands Board




TOWN OF SUNAPEE

23 Edgemont Road
Sunapee, New Hampshire 03782
Phone: (603) 763-2212

Dewey Field Scoreboard Donation

- Scoreboard to be donated by JS Automotive
- Location for the sign
 - Utilize the existing location to reduce cost
 - Poles are already in place from old manual scoreboard
 - Mount to existing structure
 - Removed the need to pour new footings with concrete.
 - No lighting toward the sign is being added.
- Wiring and trench
 - Trench to be dug by town to establish depth from the home dugout, around backstop to the scoreboard location.
 - Electric wiring is being donated by Lake Sunapee Electrical.
 - They will ensure that proper grounding and hook up from the utility box at the home dugout, underground wires, and connections to the scoreboard are all done up to code.
- Size of sign
 - Sign will be either:
 - 4'H x 8' W or
 - 5' H x 10' W
 - Sign will have the advertisement of JS Automotive at the bottom
 - Sign will have 'Sunapee Dewey Park' above
- Sign being sourced through Vermont Display
 - Company was recommended to us by Sunapee School Facilities Director, Matt Bouranis
 - This company recently replaced the scoreboard at the Sherburne Gym.

An aerial photograph of a baseball field, Dewey Field. A red line is drawn on the image, starting from the bottom left, moving horizontally to the right, then diagonally up and to the right, and finally vertically up to a red square. The red square is located on the right side of the field, near the outfield fence. The field is surrounded by a grassy area and a road is visible in the top left corner.

Dewey Field Scoreboard

Scoreboard in location where old manual scoreboard was located.

RECEIVED

JAN 12 2024

RECEIVED

JAN 12 2024

TOWN OF
SUNAPEE

TOWN OF SUNAPEE

APPLICATION FOR SITE PLAN REVIEW

(PDF OF SITE PLAN MUST BE INCLUDED WITH APPLICATION)

1. Landowner(s) Name(s) Jared + Laura Raymond
 Address 276 Mountain Rd, Newbury, NH 03255
 (Mailing) Same
 Phone 603 - 344 - 1552
2. Zoning District Mixed Use 1
3. Project Location: 60 Route 103
4. Parcel ID: 000232 - 000023
5. Complete description of current use of property:

Office Building + Parking

6. Does this project require a special exception or variance by the ZBA as outlined in the Sunapee Zoning Regulations? Yes ___ No ☒ (If yes, complete the Zoning Board of Adjustment application, and Land Use Questionnaire.)

7. Complete description of proposed project (Include area dimensions, use, # of employees, # of dwelling units, etc.)

Erect a shop building on site for storage of project related materials

8. Certification/Permission for inspection. To the best of my knowledge, the above is true and accurate. I hereby grant permission for site inspection to Planning Board official(s). I also understand that it is my responsibility for providing a complete application. I realize that any of the application requirements, which are assumed waivable during the initial review, may still be required at the time of review by the Planning Board.

JB As Agent

Signature(s) of Landowner(s)

1/12/24

Date

Date of Application:

Phase I _____ Phase II _____

Phase III _____ Major Site Plan _____

Home Business _____

Fee Paid _____ Method of Payment _____

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- ☒ North point, bar scale, appropriate dates
- ☒ Name, address, and seal of person preparing map
- ☒ Location and shape of existing and proposed buildings
- ☒ Square footage for each use designated on plan
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- ☒ Streams, wetlands, and other water bodies
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- ☒ Layout and size of parking spaces
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- ☒ Water supply for property including mains and services lines
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- ☒ Existing and proposed electric lines
- ☒ Existing and proposed telephone lines

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☒ Location of hazardous materials storage

State of New Hampshire Permits:

☒ Department of Transportation (Highway/Access)

☒ NHWSPCD (Septic Systems)

☒ Water Supply Division

☒ Site Specific (Department of Environmental Services)

☒ Wetlands Board



200 foot Abutters List Report

Tri Town, NH

January 12, 2024

Subject Property:

Parcel Number: Sun-0232-0023-0000
CAMA Number: Sun-0232-0023-0000
Property Address: 60 ROUTE 103

Mailing Address: RAYMOND, JARED S & LAURA A
276 MOUNTAIN RD
NEWBURY, NH 03255

Abutters:

Parcel Number: Sun-0225-0013-0000
CAMA Number: Sun-0225-0013-0000
Property Address: 9 YOUNGS HILL RD

Mailing Address: KANGAS, WESLEY A.
9 YOUNGS HILL RD
SUNAPEE, NH 03782

Parcel Number: Sun-0225-0013-0100
CAMA Number: Sun-0225-0013-0100
Property Address: YOUNGS HILL RD Unit 100

Mailing Address: KANGAS, WESLEY
9 YOUNGS HILL RD
SUNAPEE, NH 03782

Parcel Number: Sun-0225-0036-0000
CAMA Number: Sun-0225-0036-0000
Property Address: 36 ROUTE 103

Mailing Address: MCDONOUGH FAMILY PROPERTIES, L
1567 SUMMER ST
BRISTOL, NH 03222

Parcel Number: Sun-0232-0001-0000
CAMA Number: Sun-0232-0001-0000
Property Address: YOUNGS HILL RD

Mailing Address: JOHNSON 2014 TRUST, JOLYON
JOLYON JOHNSON, TRUSTEE
PO BOX 596
SUNAPEE, NH 03782

Parcel Number: Sun-0232-0016-0000
CAMA Number: Sun-0232-0016-0000
Property Address: 52 DEPOT RD

Mailing Address: INTREAL LTD, INC
PO BOX 798
SUNAPEE, NH 03782

Parcel Number: Sun-0232-0016-0000
CAMA Number: Sun-0232-0016-0001
Property Address: 54 DEPOT RD Unit 1

Mailing Address: INTREAL LTD, INC
PO BOX 798
SUNAPEE, NH 03782

Parcel Number: Sun-0232-0017-0000
CAMA Number: Sun-0232-0017-0000
Property Address: ROUTE 103

Mailing Address: ZORNIO, IDA C/O PETER ZORNIO
9301 PRINCE WILLIAM
AUSTIN, TX 78730

Parcel Number: Sun-0232-0018-0000
CAMA Number: Sun-0232-0018-0000
Property Address: 46 DEPOT RD

Mailing Address: LANDLADIES 46 LLC.
276 MOUNTAIN ROAD
NEWBURY, NH 03255

Parcel Number: Sun-0232-0020-0000
CAMA Number: Sun-0232-0020-0000
Property Address: 40 DEPOT RD

Mailing Address: JACKSON, GARY L
40 DEPOT RD
SUNAPEE, NH 03782

Parcel Number: Sun-0232-0022-0000
CAMA Number: Sun-0232-0022-0000
Property Address: 39 DEPOT RD

Mailing Address: INTREAL LTD, INC.
PO BOX 798
SUNAPEE, NH 03782



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.

1/12/2024

Page 1 of 1



William Cass, P.E.
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

District 2 Office, 8 Eastman Hill Rd., Enfield, NH 03748 (603) 448-2654



David Rodrigue, P.E.
Assistant Commissioner

DRIVEWAY PERMIT

To: Jared Raymond
PO Box 289
Newbury, NH 03255

City/Town: Sunapee
Route/Road: Depot Rd (N4350041)
Patrol Section: 213
Tax Map: 232
Lot: 23
Development:

Permit #: **02-435-0039**
District: 02
Permit Date 10/19/2023

Permission is hereby granted to construct (alter) a driveway, entrance, exit or approach adjoining Depot Rd (N4350041), pursuant to the location and specifications as described below. Failure to adhere to the standards and engineering drawings previously approved shall render this instrument null and void. Failure to start or complete construction of said facility within one calendar year of the date of this permit shall require application for permit extension or renewal in accordance with the Driveway Access Rules. Facilities constructed in violation of the permit specifications or the rules, shall be corrected immediately upon notification by a Department representative. Any cost by the State to correct deficiencies shall be fully borne by the landowner. The landowner shall defend, indemnify and hold harmless the Department and its duly appointed agents and employees against any action for personal injury and/or property damage sustained by reason of the exercise of this permit.

Drive 1

Location: Approximately 0.034 miles west of NH Route 103 on the north side of Depot Rd (N4350041).
SLD Station: 180 (right) GPS: 43.369677 N 72.122711 W.

Specifications: This permit authorizes a gravel access to be used as a Commercial drive. Any change in use, increase in use or reconstruction of the driveway requires reapplication.

The right-of-way line is located 24.75 feet from and parallel to the centerline of the highway.
The entrance shall be graded so that the surface of the drive drops 2 inches at a point 4 feet from Depot Rd (N4350041) edge of pavement to create a drainage swale.

The driveway shall not exceed 12 feet in width. The entrance of the drive may be flared; typically the flare radius is one half the driveway width.

The intent of this permit is to record the change in use of the driveway from residential to commercial and approve the reconstruction of the existing driveway at 60 Route 103 in Sunapee.

Other Conditions:

No structures, including buildings, permanent or portable signs, lights, displays, fences, walls, etc. shall be permitted on, over or under the Highway Right of Way.

No parking, catering or servicing shall be conducted within the Highway Right of Way.

The applicant shall comply with all applicable ordinances and regulations of the municipality or other State Agencies.

The Department has relied on the title and subdivision information provided by the landowner. The Department has not performed additional title research and makes no warranty or representation concerning landowner's legal right to access. In the event of a dispute about the landowner's legal right to the access provided herein, the landowner will defend and indemnify the Department.

All excavated topsoil, or in the absence of topsoil the top 6 inches of soil, within the limits of state ROW shall be properly re-used within the limits of the state ROW. All temporary stockpiles of the re-use material shall be located within the state ROW, or as otherwise approved by the District Engineer.

The Contractor shall be solely responsible for the handling, transport and disposal of any surplus material generated by their project and shall comply with all federal, state and local laws, ordinances and rules in doing so.

I/We, the contractor/Owner, certify that the property will not have any illicit unauthorized drainage connections to the NHDOT storm water drainage system. An illicit discharge is any direct or indirect discharge to the NHDOT drainage system that is not composed entirely of storm water. Illicit discharges include, without limitation, sewage, process wastewater, or wash water and any connections from floor drains, sinks, or toilets.

Property Owner shall pre-post the approved and signed NHDOT District 2 Driveway Permit at a location so that it is readily visible from the accessing State roadway during the construction of the driveway.

Property Owner shall grade the driveway limits so that, including during construction, no stormwater runoff flows onto the State of New Hampshire roadway or shoulders. Site drainage shall not be permitted to cause ponding, ice or ice build-up in the right-of-way.

Property Owner shall not flare the end of the driveway onto the abutting properties.

Property Owner shall install the necessary erosion and sediment control measures during the construction and use of the driveway. All erosion and sediment control measures shall be maintained and remain in place until substantial vegetation growth has occurred.

Upon completion of the construction of the permitted driveway and other priority permanent features, Property Owner shall fine grade the adjacent areas to manage stormwater runoff, apply loam and seed or otherwise permanently stabilize all disturbed surface side areas.

Property Owner, for daily temporary traffic control, shall install the necessary roadway warning signage in accordance with the 2009 MUTCD Part 6, and at least one certified flagger shall be utilized while working or maneuvering along the NH State Road, including for during delivery of construction materials. Property Owner shall erect black on orange "Trucks Entering" signs, 36 inches by 36 inches dimension, to both approaches to the driveway (500 feet advance warning).

The permitted driveway is for an access only. Establishing a landing area and/or loading trucks within the highway right-of-way is strictly prohibited. Parking or storing any supplies, equipment and/or vehicles in the State right-of-way shall be prohibited.

Property Owner shall be responsible for maintaining the driveway permanently and also accomplish and maintain all necessary removal of vegetation including clearing of brush, trees, etc., snow, or other vision obstructing materials, so that the 400 feet minimum sight distances in both directions are not inhibited when entering/exiting the driveway. Property Owner shall not place/store any snow within the State right-of-way.

Property Owner shall be responsible for the maintenance of ditches, side slopes and other permanent structures or surface features, and establishing satisfactory adjacent drainage away from the State road. Disturbance, wetting, silting or damage to the roadway is prohibited, including for seasonal factors.

Copies: District, Town, Patrolman

James Bruss
PO Box 289
Newbury, NH 03255

Approved



Assistant District Engineer
For Director of Administration



William Cass, P.E.
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

District 2 Office, 8 Eastman Hill Rd., Enfield, NH 03748 (603) 448-2654



David Rodrigue, P.E.
Assistant Commissioner

DRIVEWAY PERMIT

To: Jared Raymond
PO Box 289
Newbury, NH 03255

City/Town: Sunapee
Route/Road: NH 103 (S0000103)
Patrol Section: 213
Tax Map: 232
Lot: 23
Development:

Permit #: **02-435-0038**
District: 02
Permit Date 10/19/2023

Permission is hereby granted to construct (alter) a driveway, entrance, exit or approach adjoining NH 103 (S0000103), pursuant to the location and specifications as described below. Failure to adhere to the standards and engineering drawings previously approved shall render this instrument null and void. Failure to start or complete construction of said facility within one calendar year of the date of this permit shall require application for permit extension or renewal in accordance with the Driveway Access Rules. Facilities constructed in violation of the permit specifications or the rules, shall be corrected immediately upon notification by a Department representative. Any cost by the State to correct deficiencies shall be fully borne by the landowner. The landowner shall defend, indemnify and hold harmless the Department and its duly appointed agents and employees against any action for personal injury and/or property damage sustained by reason of the exercise of this permit.

Drive 1

Location: Approximately 0.006 miles south of Youngs Hill Road on the west side of NH 103 (S0000103).
SLD Station: 1793 (right) GPS: 43.370033 N 72.122526 W.

Specifications: This permit authorizes a paved access to be used as a Commercial drive. Any change in use, increase in use or reconstruction of the driveway requires reapplication.

The right-of-way line is located 50 feet from and parallel to the centerline of the highway.
The entrance shall be graded so that the surface of the drive drops 3 inches at a point 6 feet from NH 103 (S0000103) edge of pavement to create a drainage swale.

The driveway shall not exceed 22 feet in width. The entrance of the drive may be flared; typically the flare radius is one half the driveway width.

The intent of this permit is to record the change in use of the driveway from residential to commercial and approve the reconstruction and paving of the existing driveway at 60 Route 103 in Sunapee. The gravel base material shall be regraded so that the finished grade of the driveway pavement is flush with the highway pavement to ensure positive drainage to the swale at the beginning of the driveway.

Other Conditions:

No structures, including buildings, permanent or portable signs, lights, displays, fences, walls, etc. shall be permitted on, over or under the Highway Right of Way.

No parking, catering or servicing shall be conducted within the Highway Right of Way.

The applicant shall comply with all applicable ordinances and regulations of the municipality or other State Agencies.

The Department has relied on the title and subdivision information provided by the landowner. The Department has not performed additional title research and makes no warranty or representation concerning landowner's legal right to access. In the event of a dispute about the landowner's legal right to the access provided herein, the landowner will defend and indemnify the Department.

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Copies: District, Town, Patrolman

Relax & Co.
James Bruss
PO Box 289
Newbury, NH 03255

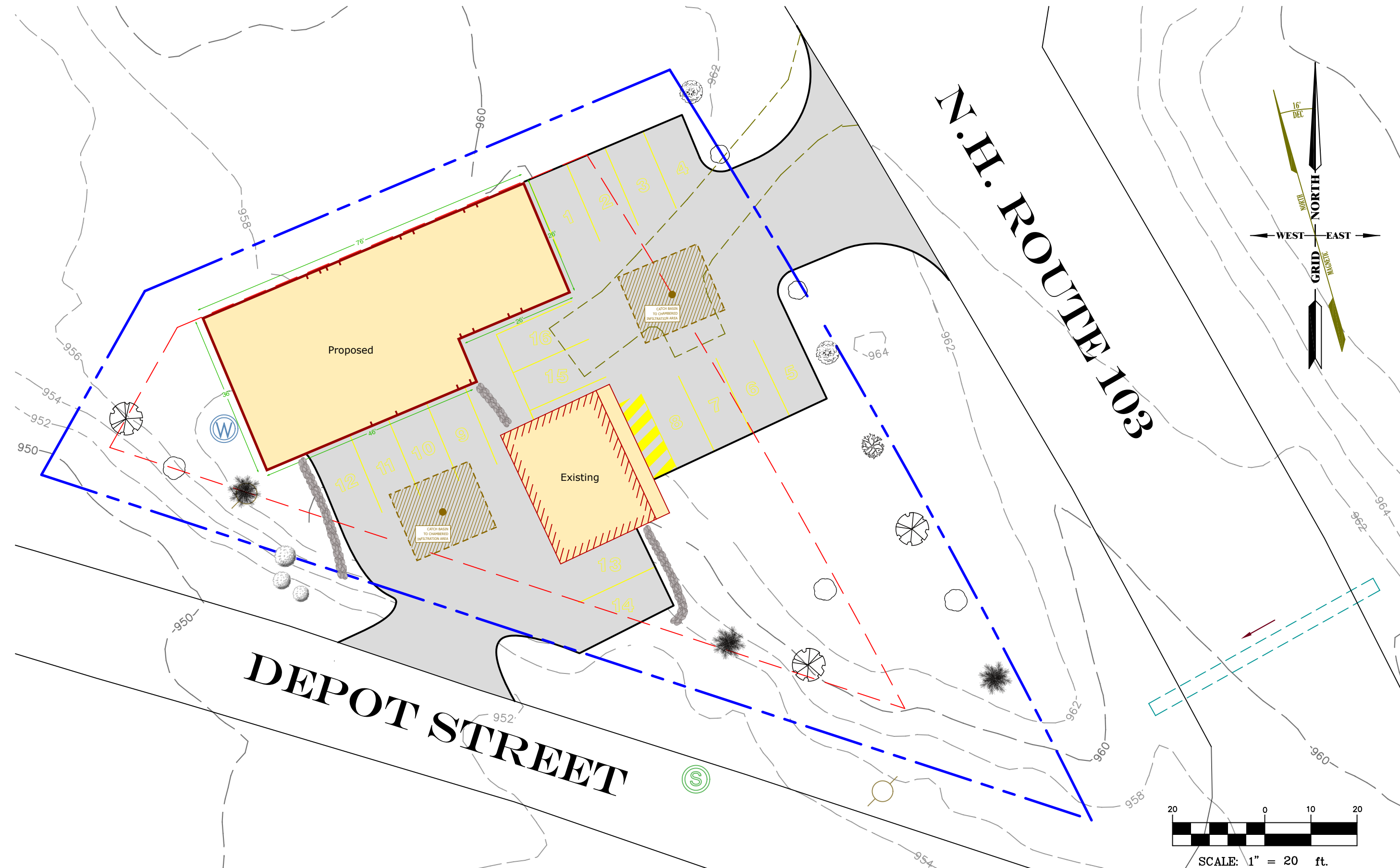
Approved



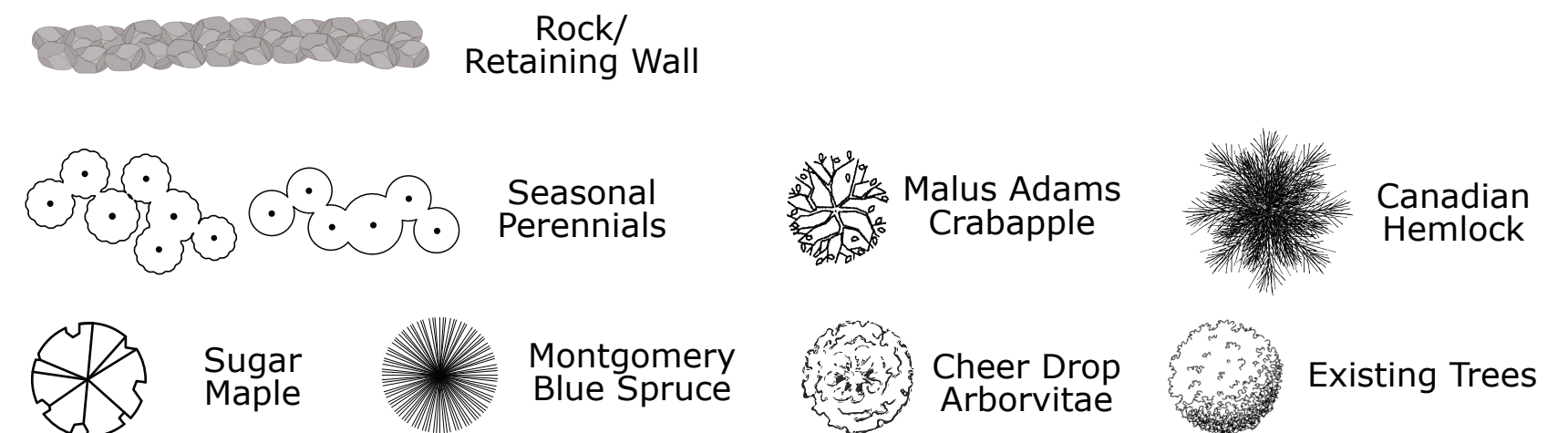
Assistant District Engineer
For Director of Administration

All Aisles = 24'

8166 / 17,076



Road Agent:

[illegible]60 Route 103
Sunapee, NH

DESCRIPTION:

Relax and Company
Offices

AWINGS PROVIDED BY:

Relax and Company

DATE:

1/04/24

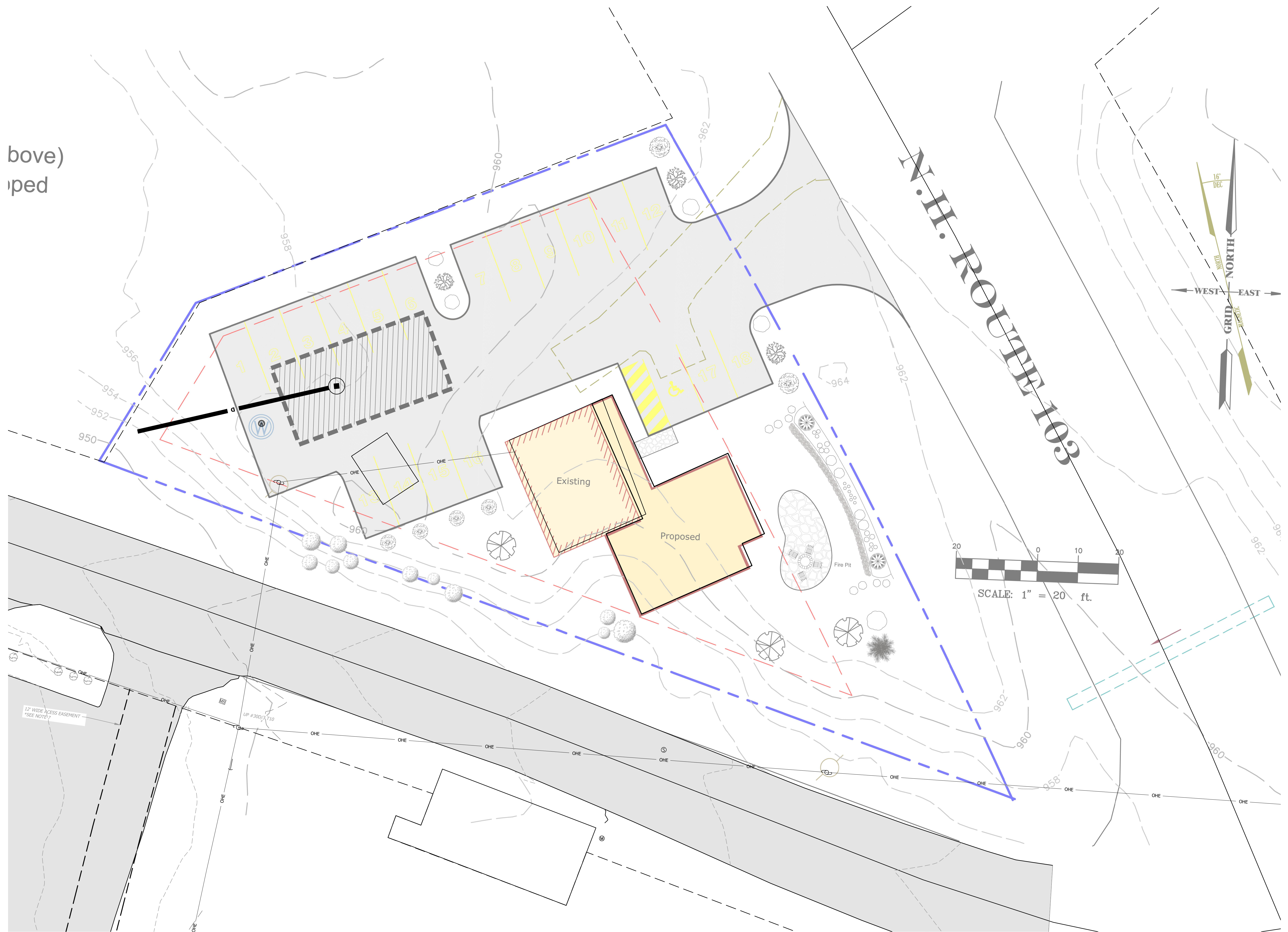
SCALE:

 $1'' = 20'$

SHEET:

S-1

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oped



STORMWATER MANAGEMENT NARRATIVE

for

**Relax & Company
60 Rt. 103, Sunapee, NH**

Project Description

The subject property is located at 60 Rt. 103 and is within the Mixed Use 1 (M1) zoning district. The subject property contains one existing structure, gravel driveway, and native vegetation. The property is serviced by a private well and septic system. Overhead utilities are also currently provided to the site from Depot Road. The subject property slopes from east to west and eventually drains to an adjacent road side ditch and then to a wetland area.

Existing Site Conditions

In the construction area, slopes range from 1% to more than 20%, with most slopes in the construction area around 7%.

The soil types in the proposed disturbance area (per NRCS Web Soil Survey) are Deerfield Loamy Fine Sand and Windsor Loamy Sand, designated with hydrologic ratings of soil Group A. These soils have a medium infiltration rate, with a Ksat value of 1.4 to 99.9 inches/hour. The site is mostly woods, with the exception of the existing buildings and adjacent gravel access and parking areas..

Currently the subject parcel contains roughly 1,600 square feet of impervious cover between roofs and gravel surface.

Proposed Site Conditions

In the proposed conditions, the size and shape of the subcatchment areas are not altered due to the placement of new site features. The single study points remain the same.

An underground infiltration system consisting of a stone reservoir, 2,400 cubic feet of crushed stone (20' x 40' x 3') is proposed to handle the increase in impervious area on site. This system collects most of the new driveway, parking area and the new roof area, equaling just more than 8,200 square feet of impervious surfaces. The underground system provides a level of detention along with treatment for the area that is collected, infiltrating a majority of the stormwater that is directed there.

Overall, the increase in impervious cover on the site from pre-development to post-Development is 6,500 square feet. The underground system proposed provides treatment and detention for more than this amount.

Study Methodology

Runoff and routing calculations have been performed for the watershed areas affected by the proposed development. Times of concentration and runoff curve number calculations have been determined using the method described in the Natural Resource Conservation Service (NRCS) Technical Release 55, (TR-55). Time of concentration calculations have been amended where the values given by the TR-55 method is less than five minutes. In these cases a standard minimum value of five minutes has been used to keep this parameter within the acceptable working range of the model. Each Tc path and corresponding length and slope is identified in the pre and post development drainage area plan. The TR-20 based HydroCAD (version 10.0) modeling software has been utilized to perform the complex runoff and routing calculations.

Calculation Results

Preface

Existing-development and post-development calculations have been calculated for the 2-, 10-, 25-, and 50-year storm frequency in accordance with Town of Newmarket's Development Regulations. The SCS TR-20 method was used with a Type III 24-hour storm. The Time of Concentration (Tc) is calculated using the Lag Method. Two Study Points (**SP-1 AND SP-2**) were used for comparison of post-development runoff values with those from existing conditions.

Results

Peak Rate (cfs)

	<i>2 Yr.</i>	<i>10 Yr.</i>	<i>25 Yr.</i>
<i>SP-1</i>			
Existing	0.0	0.0	0.1
Proposed	0.0	0.0	0.1

Summary

There is a reduction in peak flow and volume of stormwater runoff at the analysis point for all the design storm events. This is due to the underground infiltration system.

Per Appendix B of the New Hampshire Stormwater Manual infiltration BMP's remove 90% TSS, 60% total nitrogen and 60% total phosphorous.

This will help reduce the runoff generated from the site, increase the groundwater recharge, and further protect the water quality of the downstream areas.

In addition to collecting and treating nearly 150% of the increase of impervious area on site all of the disturbed areas will be loamed and seeded to provide an additional level of erosion control and stormwater retention.

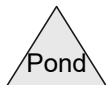
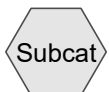
PRE-DEVELOPMENT MODEL OUTPUT



Study Point #1



S1 - Ex. Cond



Routing Diagram for 230764 PRE_RT103

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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 6516 NH Merrimack East

Rainfall events imported from "NRCS-Rain.txt" for 6522 NH Sullivan Other

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NRCC 24-hr	C	Default	24.00	1	2.65	2
2	10-Year	NRCC 24-hr	C	Default	24.00	1	3.85	2
3	25-Year	NRCC 24-hr	C	Default	24.00	1	4.77	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.230	49	50-75% Grass cover, Fair, HSG A (S1)
0.021	96	Gravel surface, HSG A (S1)
0.016	98	Unconnected roofs, HSG A (S1)
0.117	36	Woods, Fair, HSG A (S1)
0.383	50	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.383	HSG A	S1
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.383		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.230	0.000	0.000	0.000	0.000	0.230	50-75% Grass cover, Fair	S1
0.021	0.000	0.000	0.000	0.000	0.021	Gravel surface	S1
0.016	0.000	0.000	0.000	0.000	0.016	Unconnected roofs	S1
0.117	0.000	0.000	0.000	0.000	0.117	Woods, Fair	S1
0.383	0.000	0.000	0.000	0.000	0.383	TOTAL AREA	

230764 PRE_RT103*NRCC 24-hr C 2-Year Rainfall=2.65"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS1: S1 - Ex. Cond

Runoff Area=16,700 sf 4.19% Impervious Runoff Depth>0.02"

Flow Length=50' Slope=0.0500 '/' Tc=8.8 min UI Adjusted CN=49 Runoff=0.00 cfs 0.001 af

Link SP1: Study Point #1

Inflow=0.00 cfs 0.001 af

Primary=0.00 cfs 0.001 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.001 af Average Runoff Depth = 0.02"
95.81% Pervious = 0.367 ac 4.19% Impervious = 0.016 ac

Summary for Subcatchment S1: S1 - Ex. Cond

Runoff = 0.00 cfs @ 20.00 hrs, Volume= 0.001 af, Depth> 0.02"
 Routed to Link SP1 : Study Point #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 2-Year Rainfall=2.65"

Area (sf)	CN	Adj	Description
700	98		Unconnected roofs, HSG A
900	96		Gravel surface, HSG A
10,000	49		50-75% Grass cover, Fair, HSG A
5,100	36		Woods, Fair, HSG A
16,700	50	49	Weighted Average, UI Adjusted
16,000			95.81% Pervious Area
700			4.19% Impervious Area
700			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	50	0.0500	0.09		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 4.19% Impervious, Inflow Depth > 0.02" for 2-Year event
 Inflow = 0.00 cfs @ 20.00 hrs, Volume= 0.001 af
 Primary = 0.00 cfs @ 20.00 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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NRCC 24-hr C 10-Year Rainfall=3.85"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS1: S1 - Ex. Cond

Runoff Area=16,700 sf 4.19% Impervious Runoff Depth>0.20"

Flow Length=50' Slope=0.0500 '/' Tc=8.8 min UI Adjusted CN=49 Runoff=0.03 cfs 0.006 af

Link SP1: Study Point #1

Inflow=0.03 cfs 0.006 af

Primary=0.03 cfs 0.006 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.006 af Average Runoff Depth = 0.20"
95.81% Pervious = 0.367 ac 4.19% Impervious = 0.016 ac

Summary for Subcatchment S1: S1 - Ex. Cond

Runoff = 0.03 cfs @ 12.35 hrs, Volume= 0.006 af, Depth> 0.20"
 Routed to Link SP1 : Study Point #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 10-Year Rainfall=3.85"

Area (sf)	CN	Adj	Description
700	98		Unconnected roofs, HSG A
900	96		Gravel surface, HSG A
10,000	49		50-75% Grass cover, Fair, HSG A
5,100	36		Woods, Fair, HSG A
16,700	50	49	Weighted Average, UI Adjusted
16,000			95.81% Pervious Area
700			4.19% Impervious Area
700			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	50	0.0500	0.09		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 4.19% Impervious, Inflow Depth > 0.20" for 10-Year event
 Inflow = 0.03 cfs @ 12.35 hrs, Volume= 0.006 af
 Primary = 0.03 cfs @ 12.35 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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NRCC 24-hr C 25-Year Rainfall=4.77"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS1: S1 - Ex. Cond

Runoff Area=16,700 sf 4.19% Impervious Runoff Depth>0.46"

Flow Length=50' Slope=0.0500 '/' Tc=8.8 min UI Adjusted CN=49 Runoff=0.13 cfs 0.015 af

Link SP1: Study Point #1

Inflow=0.13 cfs 0.015 af

Primary=0.13 cfs 0.015 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.015 af Average Runoff Depth = 0.46"
95.81% Pervious = 0.367 ac 4.19% Impervious = 0.016 ac

Summary for Subcatchment S1: S1 - Ex. Cond

Runoff = 0.13 cfs @ 12.20 hrs, Volume= 0.015 af, Depth> 0.46"
 Routed to Link SP1 : Study Point #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 25-Year Rainfall=4.77"

Area (sf)	CN	Adj	Description
700	98		Unconnected roofs, HSG A
900	96		Gravel surface, HSG A
10,000	49		50-75% Grass cover, Fair, HSG A
5,100	36		Woods, Fair, HSG A
16,700	50	49	Weighted Average, UI Adjusted
16,000			95.81% Pervious Area
700			4.19% Impervious Area
700			100.00% Unconnected

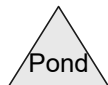
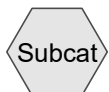
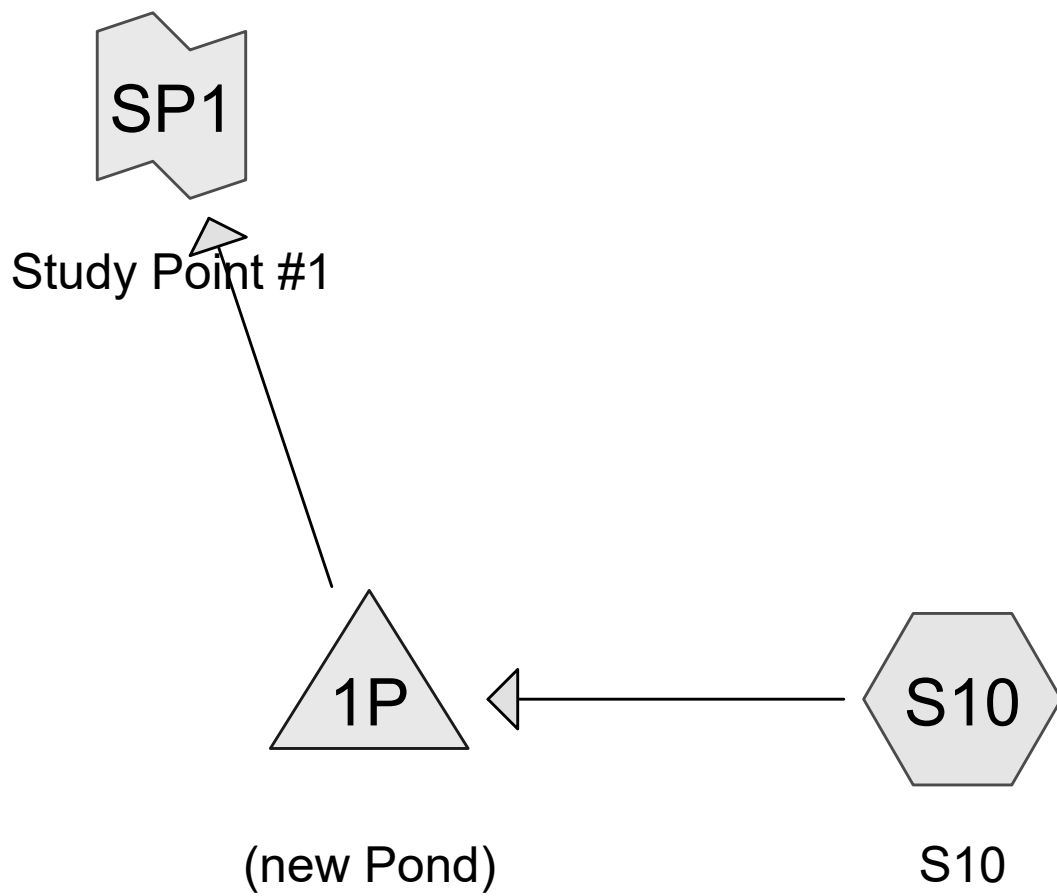
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	50	0.0500	0.09		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 4.19% Impervious, Inflow Depth > 0.46" for 25-Year event
 Inflow = 0.13 cfs @ 12.20 hrs, Volume= 0.015 af
 Primary = 0.13 cfs @ 12.20 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

POST-DEVELOPMENT MODEL OUTPUT



Routing Diagram for 230764 POST_RT103

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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 6516 NH Merrimack East

Rainfall events imported from "NRCS-Rain.txt" for 6522 NH Sullivan Other

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NRCC 24-hr	C	Default	24.00	1	2.65	2
2	10-Year	NRCC 24-hr	C	Default	24.00	1	3.85	2
3	25-Year	NRCC 24-hr	C	Default	24.00	1	4.77	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.149	39	>75% Grass cover, Good, HSG A (S10)
0.149	98	Paved parking, HSG A (S10)
0.039	98	Unconnected roofs, HSG A (S10)
0.046	36	Woods, Fair, HSG A (S10)
0.383	68	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.383	HSG A	S10
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.383		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.149	0.000	0.000	0.000	0.000	0.149	>75% Grass cover, Good	S10
0.149	0.000	0.000	0.000	0.000	0.149	Paved parking	S10
0.039	0.000	0.000	0.000	0.000	0.039	Unconnected roofs	S10
0.046	0.000	0.000	0.000	0.000	0.046	Woods, Fair	S10
0.383	0.000	0.000	0.000	0.000	0.383	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)
1	1P	937.50	937.00	50.0	0.0100	0.012	0.0	12.0	0.0

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS10: S10

Runoff Area=16,700 sf 49.10% Impervious Runoff Depth>0.39"
Tc=6.0 min CN=68 Runoff=0.17 cfs 0.012 af

Pond 1P: (new Pond)

Peak Elev=936.22' Storage=63 cf Inflow=0.17 cfs 0.012 af
Discarded=0.06 cfs 0.012 af Primary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.012 af

Link SP1: Study Point #1

Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.012 af Average Runoff Depth = 0.39"
50.90% Pervious = 0.195 ac 49.10% Impervious = 0.188 ac

Summary for Subcatchment S10: S10

Runoff = 0.17 cfs @ 12.15 hrs, Volume= 0.012 af, Depth> 0.39"
 Routed to Pond 1P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 2-Year Rainfall=2.65"

Area (sf)	CN	Description
1,700	98	Unconnected roofs, HSG A
0	96	Gravel surface, HSG A
6,500	98	Paved parking, HSG A
6,500	39	>75% Grass cover, Good, HSG A
2,000	36	Woods, Fair, HSG A
16,700	68	Weighted Average
8,500		50.90% Pervious Area
8,200		49.10% Impervious Area
1,700		20.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DE

Summary for Pond 1P: (new Pond)

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth > 0.39" for 2-Year event
 Inflow = 0.17 cfs @ 12.15 hrs, Volume= 0.012 af
 Outflow = 0.06 cfs @ 12.10 hrs, Volume= 0.012 af, Atten= 63%, Lag= 0.0 min
 Discarded = 0.06 cfs @ 12.10 hrs, Volume= 0.012 af
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Link SP1 : Study Point #1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 936.22' @ 12.37 hrs Surf.Area= 700 sf Storage= 63 cf

Plug-Flow detention time= 5.7 min calculated for 0.012 af (100% of inflow)
 Center-of-Mass det. time= 5.2 min (856.8 - 851.6)

Volume	Invert	Avail.Storage	Storage Description
#1	936.00'	840 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,100 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
936.00	700	0	0
939.00	700	2,100	2,100

Device	Routing	Invert	Outlet Devices
#1	Primary	937.50'	12.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 937.50' / 937.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	938.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Discarded	936.00'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.06 cfs @ 12.10 hrs HW=936.06' (Free Discharge)
 ↑ **3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=936.00' (Free Discharge)
 ↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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NRCC 24-hr C 10-Year Rainfall=3.85"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS10: S10

Runoff Area=16,700 sf 49.10% Impervious Runoff Depth>0.99"
Tc=6.0 min CN=68 Runoff=0.50 cfs 0.031 af

Pond 1P: (new Pond)

Peak Elev=937.54' Storage=432 cf Inflow=0.50 cfs 0.031 af
Discarded=0.06 cfs 0.031 af Primary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.031 af

Link SP1: Study Point #1

Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.031 af Average Runoff Depth = 0.99"
50.90% Pervious = 0.195 ac 49.10% Impervious = 0.188 ac

Summary for Subcatchment S10: S10

Runoff = 0.50 cfs @ 12.14 hrs, Volume= 0.031 af, Depth> 0.99"
 Routed to Pond 1P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 10-Year Rainfall=3.85"

Area (sf)	CN	Description
1,700	98	Unconnected roofs, HSG A
0	96	Gravel surface, HSG A
6,500	98	Paved parking, HSG A
6,500	39	>75% Grass cover, Good, HSG A
2,000	36	Woods, Fair, HSG A
16,700	68	Weighted Average
8,500		50.90% Pervious Area
8,200		49.10% Impervious Area
1,700		20.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DE

Summary for Pond 1P: (new Pond)

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth > 0.99" for 10-Year event
 Inflow = 0.50 cfs @ 12.14 hrs, Volume= 0.031 af
 Outflow = 0.06 cfs @ 11.90 hrs, Volume= 0.031 af, Atten= 87%, Lag= 0.0 min
 Discarded = 0.06 cfs @ 11.90 hrs, Volume= 0.031 af
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Link SP1 : Study Point #1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 937.54' @ 13.07 hrs Surf.Area= 700 sf Storage= 432 cf

Plug-Flow detention time= 57.2 min calculated for 0.031 af (100% of inflow)
 Center-of-Mass det. time= 56.5 min (883.7 - 827.2)

Volume	Invert	Avail.Storage	Storage Description
#1	936.00'	840 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,100 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
936.00	700	0	0
939.00	700	2,100	2,100

Device	Routing	Invert	Outlet Devices
#1	Primary	937.50'	12.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 937.50' / 937.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	938.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Discarded	936.00'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.06 cfs @ 11.90 hrs HW=936.04' (Free Discharge)
 ↑ **3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=936.00' (Free Discharge)
 ↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth = 0.00" for 10-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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NRCC 24-hr C 25-Year Rainfall=4.77"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentS10: S10

Runoff Area=16,700 sf 49.10% Impervious Runoff Depth>1.54"
Tc=6.0 min CN=68 Runoff=0.80 cfs 0.049 af

Pond 1P: (new Pond)

Peak Elev=938.55' Storage=713 cf Inflow=0.80 cfs 0.049 af
Discarded=0.06 cfs 0.045 af Primary=0.13 cfs 0.004 af Outflow=0.19 cfs 0.049 af

Link SP1: Study Point #1

Inflow=0.13 cfs 0.004 af
Primary=0.13 cfs 0.004 af

Total Runoff Area = 0.383 ac Runoff Volume = 0.049 af Average Runoff Depth = 1.54"
50.90% Pervious = 0.195 ac 49.10% Impervious = 0.188 ac

Summary for Subcatchment S10: S10

Runoff = 0.80 cfs @ 12.14 hrs, Volume= 0.049 af, Depth> 1.54"
 Routed to Pond 1P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NRCC 24-hr C 25-Year Rainfall=4.77"

Area (sf)	CN	Description
1,700	98	Unconnected roofs, HSG A
0	96	Gravel surface, HSG A
6,500	98	Paved parking, HSG A
6,500	39	>75% Grass cover, Good, HSG A
2,000	36	Woods, Fair, HSG A
16,700	68	Weighted Average
8,500		50.90% Pervious Area
8,200		49.10% Impervious Area
1,700		20.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, DE

Summary for Pond 1P: (new Pond)

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth > 1.54" for 25-Year event
 Inflow = 0.80 cfs @ 12.14 hrs, Volume= 0.049 af
 Outflow = 0.19 cfs @ 12.52 hrs, Volume= 0.049 af, Atten= 76%, Lag= 22.8 min
 Discarded = 0.06 cfs @ 11.70 hrs, Volume= 0.045 af
 Primary = 0.13 cfs @ 12.52 hrs, Volume= 0.004 af
 Routed to Link SP1 : Study Point #1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 938.55' @ 12.52 hrs Surf.Area= 700 sf Storage= 713 cf

Plug-Flow detention time= 98.1 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 97.7 min (914.2 - 816.5)

Volume	Invert	Avail.Storage	Storage Description
#1	936.00'	840 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,100 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
936.00	700	0	0
939.00	700	2,100	2,100

Device	Routing	Invert	Outlet Devices
#1	Primary	937.50'	12.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 937.50' / 937.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	938.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Discarded	936.00'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.06 cfs @ 11.70 hrs HW=936.03' (Free Discharge)
 ↑ **3=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.12 cfs @ 12.52 hrs HW=938.54' (Free Discharge)
 ↑ **1=Culvert** (Passes 0.12 cfs of 2.79 cfs potential flow)
 ↑ **2=Sharp-Crested Rectangular Weir** (Weir Controls 0.12 cfs @ 0.68 fps)

Summary for Link SP1: Study Point #1

Inflow Area = 0.383 ac, 49.10% Impervious, Inflow Depth = 0.13" for 25-Year event
Inflow = 0.13 cfs @ 12.52 hrs, Volume= 0.004 af
Primary = 0.13 cfs @ 12.52 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

SOIL REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Sullivan County, New Hampshire**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:610 if printed on A landscape (11" x 8.5") sheet.

0 5 10 20 30 Meters

0 25 50 100 150 Feet

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

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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Sullivan County, New Hampshire
Survey Area Data: Version 29, Aug 22, 2023

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

Date(s) aerial images were photographed: May 27, 2020—Sep 16, 2020

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HeB	Hermon sandy loam, 3 to 8 percent slopes	1.2	62.8%
MaB	Marlow fine sandy loam, 3 to 8 percent slopes	0.7	36.2%
Na	Naumburg loamy sand	0.0	1.0%
Totals for Area of Interest		1.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sullivan County, New Hampshire

HeB—Hermon sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w9r8

Elevation: 0 to 950 feet

Mean annual precipitation: 31 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Hermon and similar soils: 90 percent

Minor components: 10 percent

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

Description of Hermon

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainbase, interfluvium, base slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy and gravelly supraglacial meltout till derived from granite and gneiss

Typical profile

Ap - 0 to 9 inches: sandy loam

Bs1 - 9 to 16 inches: very gravelly sandy loam

Bs2 - 16 to 32 inches: extremely gravelly loamy sand

C - 32 to 65 inches: very gravelly coarse sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(1.42 to 14.17 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

Minor Components

Monadnock

Percent of map unit: 4 percent
Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Skerry

Percent of map unit: 4 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Microfeatures of landform position: Closed depressions, closed depressions
Down-slope shape: Concave, convex
Across-slope shape: Concave, linear
Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent
Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

MaB—Marlow fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2ty5f
Elevation: 590 to 1,710 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Marlow and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marlow

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Summit, shoulder, backslope

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Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

Typical profile

Ap - 0 to 4 inches: fine sandy loam

E - 4 to 6 inches: fine sandy loam

Bs1 - 6 to 10 inches: fine sandy loam

Bs2 - 10 to 15 inches: fine sandy loam

Bs3 - 15 to 20 inches: fine sandy loam

BC - 20 to 24 inches: fine sandy loam

Cd - 24 to 65 inches: fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 39 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)

Hydric soil rating: No

Minor Components

Peru

Percent of map unit: 7 percent

Landform: Hills, mountains

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: No

Pillsbury

Percent of map unit: 3 percent

Landform: Hills, mountains

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

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Hydric soil rating: Yes

Monadnock

Percent of map unit: 3 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Na—Naumburg loamy sand

Map Unit Setting

National map unit symbol: 9d4x

Elevation: 150 to 1,800 feet

Mean annual precipitation: 30 to 50 inches

Mean annual air temperature: 37 to 45 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Naumburg and similar soils: 75 percent

Minor components: 25 percent

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

Description of Naumburg

Setting

Landform: Outwash terraces

Parent material: Sandy outwash derived mainly from granite, gneiss and schist

Typical profile

H1 - 0 to 7 inches: loamy sand

H2 - 7 to 33 inches: sand

H3 - 33 to 60 inches: sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

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Drainage class: Poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Hydrologic Soil Group: A/D

Ecological site: F144BY303ME - Acidic Swamp

Hydric soil rating: Yes

Minor Components

Croghan

Percent of map unit: 10 percent

Hydric soil rating: No

Not named wet

Percent of map unit: 10 percent

Landform: Depressions

Hydric soil rating: Yes

Not named wet

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

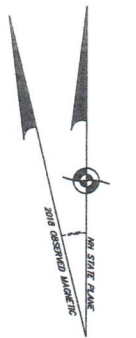
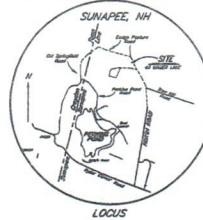
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

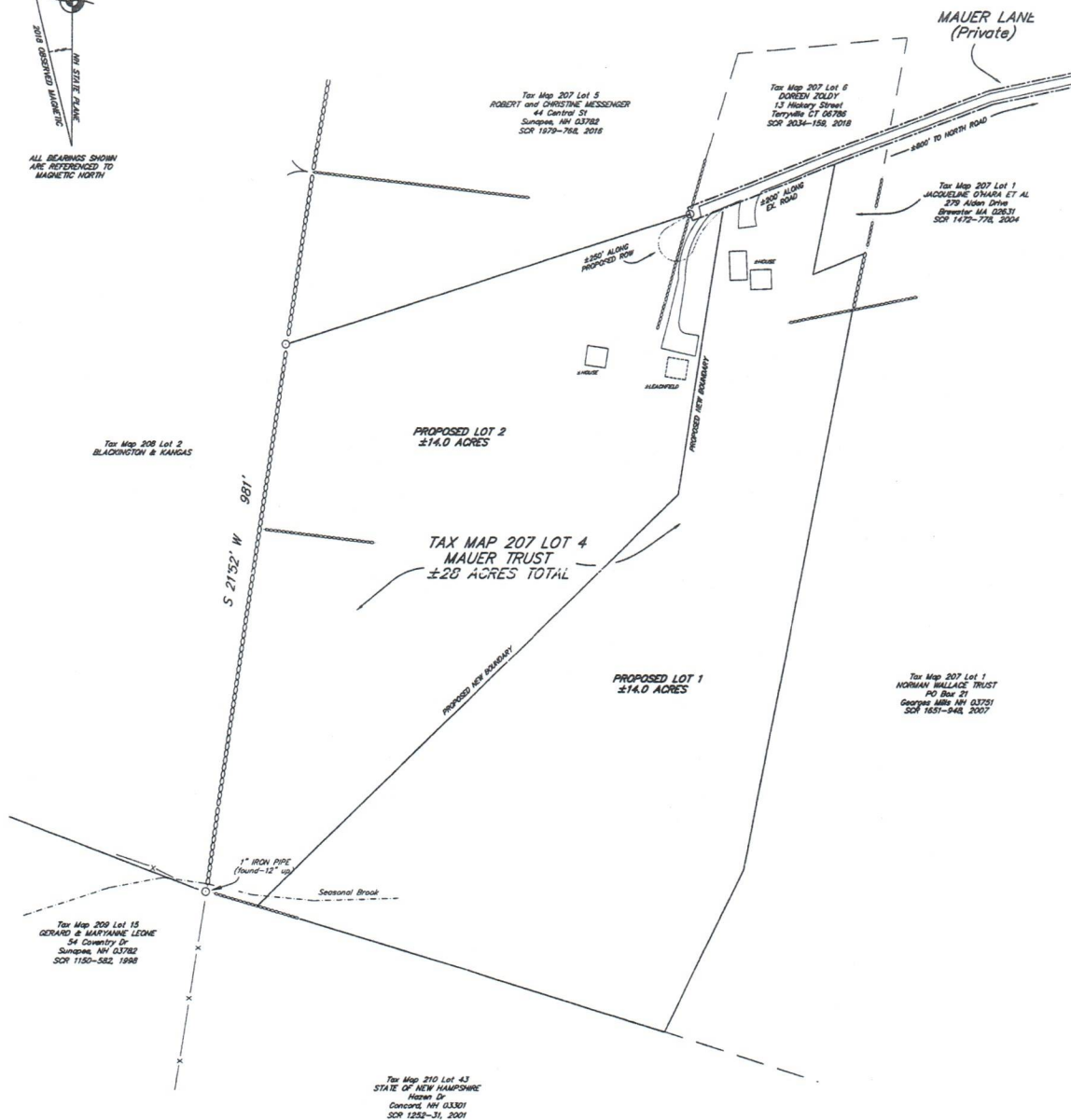
United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

[illegible]

- KEY**
- Barbed Wire Fence
 - Stone Wall
 - 1" Iron Pipe (found) - or as noted
 - 3/4" Iron Pipe (not- 2019) or as noted
 - Drillhole (not- 2019) or as noted
 - Drainage Ditch (found) or as noted
 - Edge Road/Driveway
 - Wooded Road/Trail
 - Utility Pole w/ Overhead Lines
 - Stream
 - Iron Line/ Edge Marsh



ALL BEARINGS SHOWN
ARE REFERENCED TO
MAGNETIC NORTH



This property is located in the Rural Zoning District.

**TAX MAP 207 LOT 4 - 45 MAUZER LANE
CONCEPTUAL SUBDIVISION PLAN - 2**

PROPERTY OF THE
NELSEN E. and HELEN L. MAUZER TRUST
LOCATED IN
SUNAPEE, N.H.

REVISIONS

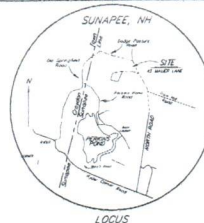


DECEMBER 10, 2019

PENNYROYAL HILL LAND SURVEYING & FORESTRY LLC
CLAYTON R. PLATT, L.C. SURVEYOR NO. 833
418 Pine Hill Road Croydon, NH 03775 (603) 863-0881

KEY

- Barbed Wire Fence
- Staplewell
- 1" Iron Pipe (found 1" or as noted)
- 3/4" Iron Rod (set-2018) or as noted
- Drillhole (set-2018) or as noted
- Gravel Bank (found) or as noted
- Edge Road/Drive
- Woods Road/Trail
- Utility Pole w/ Overhead Lines
- Grass
- Tree Line/Edge Marsh



LOCUS

ALL BEARINGS SHOWN
ARE REFERENCED TO
MAGNETIC NORTH

Tax Map 208 Lot 2
BLACKINGTON & KANGAS

Tax Map 207 Lot 3
ROBERT and CHRISTINE MESSENGER
44 Central St
Sunapee, NH 03782
SCR 1979-768, 2016

Tax Map 207 Lot 6
DORLEEN ZOLDY
13 Highway Street
Terryville CT 06786
SCR 2014-158, 2018

MAUER LANE
(Private)

Tax Map 207 Lot 1
JACQUELINE O'HARA ET AL
279 Alden Drive
Brewster MA 02631
SCR 1472-778, 2004

PROPOSED LOT 2
±3.0 ACRES

PROPOSED LOT 1
±3.0 ACRES

TAX MAP 207 LOT 4
MAUER TRUST
±28 ACRES TOTAL

MAUER TRUST
±22 ACRES COMMON LAND

Tax Map 207 Lot 1
NORMAN WALLACE TRUST
PO Box 21
Georgetown NH 03751
SCR 1651-948, 2007

Tax Map 209 Lot 15
GERARD & MARYANNE LEONE
54 Cornett Dr
Sunapee, NH 03782
SCR 1150-582, 1998

Tax Map 210 Lot 43
STATE OF NEW HAMPSHIRE
Hazen Dr
Concord, NH 03301
SCR 1252-31, 2001

This property is located in the Rural Zoning District.

TAX MAP 207 LOT 4 - 45 MAUER LANE
CONCEPTUAL SUDIVISION PLAN - 1

PROPERTY OF
NELSEN E. and HELEN L. MAUER TRUST
LOCATED IN
SUNAPEE, N.H.

REVISIONS

SCALE = 1" = 100'

DECEMBER 10, 2019

PENNYROYAL HILL LAND SURVEYING & FORESTRY LLC
CLAYTON E. PLATT LIC. SURVEYOR NO. 633
418 Pine Hill Road Croydon, NH 03793 (603) 863-0981

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

OWNER OF LOTS: STONE END OWNER LLC
C/O Davis Companies
125 High St #2111, Boston MA 02110

Description of Lots:

Lot 1:

Town of Sunapee Tax Parcel ID: 0126-0016-0000
Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: 2134 Page #: 832

Location/Street Address: 10 Stone End Road

Lot 2

Town of Sunapee Parcel ID: 0126-0015-0000

Deed to owner recorded at Sullivan County Registry of Deeds:
Book #: 2252 Page #: 38

Location/Street Address: 14 Stone End Road

Description of Lots (cont.):

Lot 3:

Town of Sunapee Tax Parcel ID: 0126-0014-0000

Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: 2252 Page #: 35

Location/Street Address: 16 Stone End Road

Lot 4:

Town of Sunapee Tax Parcel ID: _____

Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: _____ Page #: _____

Location/Street Address: _____

Lot 5:

Town of Sunapee Tax Parcel ID: _____

Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: _____ Page #: _____

Location/Street Address: _____

Lot 6:

Town of Sunapee Tax Parcel ID: _____

Deed to owner recorded at Sullivan County Registry of Deeds:

Book #: _____ Page #: _____

Location/Street Address: _____

1A

1. After reviewing the Owner's application to merge the Lots described above, the Lots will not violate any existing municipal land use ordinance regulation.
2. The Owner of the Lots described above agrees that, for the purposes of municipal regulation and taxation, the Lots shall be deemed to be merged into one lot. Neither one of the Lots may be separately transferred in the future without subdivision approval and compliance with all applicable municipal ordinances and regulations.
3. The original of this Notice shall be recorded at the Sullivan County Registry of Deeds, and a copy shall be sent to the Town of Sunapee Board of Selectmen.

Executed as of the day and year noted above.

TOWN OF SUNAPEE PLANNING BOARD

Signature: _____

Printed Name: _____
(Chairman)

The foregoing instrument was acknowledged before me, this _____ day of _____, 20____ by _____, the
Chairman of the Town of Sunapee Planning Board on behalf of such Board.

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

COUNTY OF SULLIVAN

Signature: [Signature], MANAGER
(Landowner)

Printed Name: Gary P. Lilienthal, MANAGER
(Landowner)

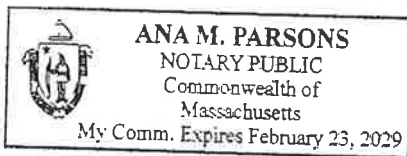
Signature: _____
(Landowner)

Printed Name: _____
(Landowner)

STATE OF MASSACHUSETTS
COUNTY OF MIDDLESEX

The foregoing instrument was acknowledged before me, this 6th day of
March, 2024 by Gary P. Lilienthal, Manager

(Landowner)



Ana M. Parsons
Justice of the Peace/Notary Public
My Commission Expires: 2/23/29

STATE OF
COUNTY OF

The foregoing instrument was acknowledged before me, this _____ day of
_____, 20____ by _____

(Landowner)

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

FEE SCHEDULE

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

RECORDING FEES:

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

RETURN POSTAGE OR SELF-ADDRESSED STAMPED ENVELOPE

FOR RECORDING PURPOSES:

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

FOR PLANNING COMMISSION NOTICE OF MERGER:

Make check out to Town of Sunapee for \$75.00

Return all completed forms and checks to:

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

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

Law Offices of Work & Clark
PO Box 627
Newport, New Hampshire 03773-0627

Book: 2252 Page: 38

E Doc # 2400735

02/23/2024 10:06:34 AM

Book 2252 Page 38

Page 1 of 3

Janet Gibson, Register of Deeds
Sullivan County New Hampshire

LCHIP

SUA080147 25.00

Return to:
c/o The Davis Companies
125 High Street #2111
Boston, MA 02110
Attention: Robert Kubica

TM 0126-0015-0000

WARRANTY DEED

I, Jonathan G. Davis, Trustee of the Sunapee Boat House Trust dated June 2, 1999, and not individually, with an address of 76 Fernwood Road, Chestnut Hill, MA 02467, for consideration paid, grant to

STONE END OWNER, LLC, a New Hampshire limited liability company, with an address c/o The Davis Companies, 125 High Street, #2111, Boston, MA 02110

with WARRANTY COVENANTS,

A certain tract or parcel of land with buildings located thereon, situated in the Town of Sunapee, County of Sullivan and State of New Hampshire, more particularly described as follows, to wit:

THE REAL PROPERTY, with the buildings and improvements located thereon situate on the Westerly shore of Lake Sunapee, so-called, in the Town of Sunapee, County of Sullivan and State of New Hampshire, the same being shown as Lot 3 on a map entitled "Map Showing Division of Stone End Lodge Property, Sunapee, New Hampshire" prepared by Walter S. Breckenridge, Surveyor, and John A. Breckenridge, Draftsman, Newport, New Hampshire, March 7, 1970, and recorded in the Sullivan County Registry of Deeds as #5, Folder 3, Pocket 8, Plan File #1.

The right to use in common with "the Grantor" and others an easement over the road leading from Gamet Hill Road to the driveway over which "the Grantees" have an easement under the terms of record on file. For further reference see deed of William P. Breeding and Louise M. Breeding to Ruth B. Gallup dated November 6, 1946, and recorded in the Sullivan County Registry of Deeds at Book 311, Page 51.

The within conveyance is made subject to the easements and rights as more particularly set forth in a warranty deed from said Gallup to Walter E. Goddard II and Eleanor J. Goddard recorded in Volume 636, Page 366 of the Sullivan County Registry of Deeds.

The within conveyance is further made subject to the provisions of an Agreement

between Donald T. Gallup and I. Louise Gallup, Walter E. Goddard II and Eleanor J. Goddard and Margot T. Davis, dated April 21, 1995 and recorded in Volume 1059, Page 223 of the Sullivan County Registry of Deeds; and to the easements for the benefit of Lot 1 and Lot 2, set forth in the deeds at Volume 690, Page 72, and Volume 690, Page 74.

The premises are further made subject to, and conveyed with the benefit of, all rights and easements of record affecting the premises.

Meaning and intending to describe and convey the same premises conveyed to Jonathan G. Davis, Trustee of the Sunapee Boat House Trust dated June 2, 1999 by Warranty Deed of Margot T. Davis dated June 2, 1999 and recorded in Volume 1192, Page 098 of the Sullivan County Registry of Deed.

The within premises are not homestead premises.

This conveyance constitutes a non-contractual transfer and is therefore exempt from the payment of New Hampshire transfer tax pursuant to RSA 78-B:2 (XXII).

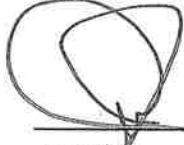
TRUSTEE'S CERTIFICATE

The undersigned Trustee, Jonathan G. Davis, Trustee of the Sunapee Boat House Trust dated June 2, 1999, a trust duly established and existing under law, and thereto has full and absolute power in said Trust to convey any interest in real estate and improvements thereon held in said Trust and no purchaser or third party shall be bound to inquire whether the Trustee has said power or is properly exercising said power or to see to the application of any Trust asset paid to the Trustee for a conveyance thereof.

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Executed this ____ day of February, 2024.

TRUSTEE:



Jonathan G. Davis, as Trustee of the Sunapee
Boat House Trust and not individually

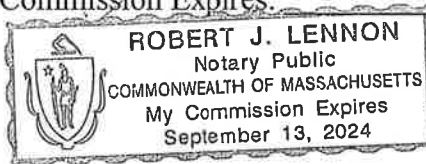
COMMONWEALTH OF MASSACHUSETTS
COUNTY OF SUFFOLK

On this 16th day of February, 2024, before me, the undersigned notary public, personally appeared Jonathan G. Davis, as Trustee of the Sunapee Boat House Trust, personally known to me to be the person whose name is signed on the preceding or attached document, and acknowledged that he signed the foregoing instrument by his free act and deed.



Notary Public

My Commission Expires:



Law Offices of Work & Clark
PO Box 627
Newport, New Hampshire 03773-0627

E Doc # 2400734

02/23/2024 10:06:33 AM

Book 2252 Page 35

Page 1 of 3

**Janet Gibson, Register of Deeds
Sullivan County New Hampshire**

LCHIP

SUA080146 25.00

Return to:

c/o The Davis Companies
125 High Street #2111
Boston, MA 02110
Attention: Robert Kubica

TM 0126-0014-0000

WARRANTY DEED

Margot T. Davis and Jonathan G. Davis, Trustees of the Stone End Lodge Realty Trust under a Declaration of Trust dated as of November 19, 2002, and not individually, with an address of 76 Fernwood Road, Chestnut Hill, MA 02467, for consideration paid, grant to

STONE END OWNER, LLC, a New Hampshire limited liability company, with an address of c/o The Davis Companies, 125 High Street, #2111, Boston, MA 02110

with WARRANTY COVENANTS,

A certain tract or parcel of land with the buildings located thereon, situated in the Town of Sunapee, County of Sullivan and State of New Hampshire, more particularly described as follows, to wit:

THE REAL PROPERTY, with the buildings and improvements located thereon situate on the Westerly shore of Lake Sunapee, so-called, in the Town of Sunapee, County of Sullivan and State of New Hampshire, the same being shown as Lots 4 and 5 ("Lodge Property") on a map entitled "Map Showing Division of Stone End Lodge Property, Sunapee, New Hampshire" prepared by Walter S. Breckenridge, Surveyor, and John A. Breckenridge, Draftsman, Newport, New Hampshire, March 7, 1970; and recorded in the Sullivan County Registry of Deeds as #5, Folder 3; Pocket 8, Plan File #1.

Meaning and intending to describe and convey the same premises conveyed by Margot T. Davis by Warranty Deed to Margot T. Davis and Jonathan G. Davis, Trustees of the Stone End Lodge Realty Trust under a Declaration of Trust dated as of November 19, 2002, dated November 19, 2002 and recorded in the Sullivan County of Registry of Deeds at Book 1341, Page 968.

The premises are further made subject to, and conveyed with the benefit of, all rights and easements of record affecting the premises.

The within premises are not homestead premises.

This conveyance constitutes a non-contractual transfer and is therefore exempt from the payment of New Hampshire transfer tax pursuant to RSA 78-B:2 (XXII).

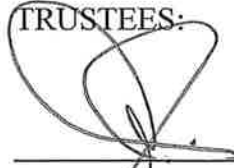
TRUSTEES' CERTIFICATE

The undersigned Trustees, Margot T. Davis and Jonathan G. Davis, Trustees of the Stone End Lodge Realty Trust under a Declaration of Trust dated as of November 19, 2002, a trust duly established and existing under law, and thereto have full and absolute power in said Trust to convey any interest in real estate and improvements thereon held in said Trust and no purchaser or third party shall be bound to inquire whether the Trustees have said power or are properly exercising said power or to see to the application of any Trust asset paid to the Trustees for a conveyance thereof.

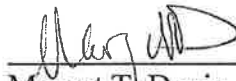
[Remainder of Page Intentionally Blank]

Executed this ____ day of February, 2024.

TRUSTEES:



Jonathan G. Davis, as Trustee of the Stone End Lodge
Realty Trust and not individually



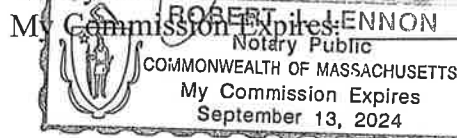
Margot T. Davis, as Trustee of the Stone End Lodge
Realty Trust and not individually

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF SUFFOLK

On this 16th day of February, 2024, before me, the undersigned notary public, personally appeared Jonathan G. Davis and Margot T. Davis, personally known to me to be the persons whose names are signed on the preceding or attached document, and acknowledged that they signed the foregoing instrument by their free act and deed.



Notary Public



Janet Gibson, Register of Deeds
Sullivan County New Hampshire
LCHIP SUA063133 25.00
TRANS TAX SU018531 17,625.00

Return to:
c/o The Davis Companies
125 High Street #2111
Boston, MA 02110
Attention: Robert Kubica

TM 0126-0016-0000

Transfer Tax: \$17,625.00

WARRANTY DEED

DAVIS FAMILY INVESTMENT LIMITED PARTNERSHIP, a Massachusetts limited partnership, with an address c/o The Davis Companies, 125 High Street #2111, Boston, MA 02110, for consideration paid, grant to

STONE END OWNER, LLC, a New Hampshire limited liability company, with an address c/o The Davis Companies, 125 High Street #2111, Boston, MA 02110

with WARRANTY COVENANTS,

Certain tracts or parcels of land, with the buildings, if any, thereon, situate in the Town of Sunapee, Sullivan County, New Hampshire, and more particularly bounded and described as follows:

PARCEL I:

Two tracts or parcels of land with any buildings which may be thereon, situate in the Town of Sunapee, Sullivan County, State of New Hampshire, on the Westerly shore of Lake Sunapee, so-called, on a Plan entitled "Map Showing Division of Stone End Lodge Property, Sunapee, New Hampshire," prepared by Walter S. Breckenridge, Surveyor, and John A. Breckenridge, Draftsman, Newport, New Hampshire, dated March 7, 1970 and recorded in the Sullivan County Registry of Deeds in Pocket 8, Folder 3, Number 5 of Planfile 1, more particularly bounded and described as follows, to wit:

TRACT ONE: Shown as Lot #1 (the "Cottage") on the aforementioned Plan and described as follows:

Beginning at a granite post at the end of a stone wall at land, now or formerly, of Sumner Bissell, being the Northwest corner of the premises herein conveyed; thence North 84° 15' East 104 feet,

more or less, to a high fieldstone pillar; thence due South 42.8 feet, more or less, along Lot #3 on said Plan to a maple tree; thence South 78° West 61.7 feet, more or less, to an iron pin; thence South 08° East 144.4 feet, more or less, to an iron pin on the shore of said Lake Sunapee, the previous two courses being along Lot #2 on said Plan; thence Southwesterly, Westerly and Northwesterly along the contour of said Lake Sunapee 37 feet, more or less, to an iron pin (the straight line distance between said two iron pins being 24 feet, more or less); thence North 11° 15' West 200 feet, more or less, along land, now or formerly, of said Bissell, to the point of beginning.

Also conveying an easement over the existing driveway located on said Lot #3, as the same is shown on the aforementioned Plan, for the passage of men and vehicles to be used by the grantees, their heirs, successors and assigns, and their guests and tenants, in common with Donald T. and I. Louise Gallup, their heirs, successors and assigns, and their guests and tenants.

TRACT TWO: Shown as Lot #2 (the "Chalet") on the aforementioned Plan and described as follows:

Beginning at an iron pin on the shore of said Lake Sunapee being the Southwest corner of the premises herein conveyed; thence North 08° West 144.4 feet, more or less, to an iron pin; thence North 78° East 61.7 feet, more or less, to a maple tree at Lot #3, the previous two courses being along Lot #1 on said Plan; thence South 11° West 68.6 feet, more or less, to an iron pin; thence South 01° 30' West 57 feet, more or less, to an iron pin on the shore of said Lake Sunapee; thence Southwesterly 41 feet, more or less, along the contour of said Lake Sunapee to the point of beginning.

Also conveying an easement over the existing driveway located on said Lot #3, as the same is shown on the aforementioned Plan, for the passage of men and vehicles to be used by the grantees, their heirs, successors and assigns, and their guests and tenants, in common with Donald T. and I. Louise Gallup, their heirs, successors and assigns, and their guests and tenants.

Meaning and intending to describe the same premises conveyed to the Grantor by virtue of a Warranty Deed from Walter E. Goddard, II and Eleanor J. Goddard dated September 20, 2004 and recorded with the Sullivan County Registry of Deeds at Book 1475, Page 522.

PARCEL II:

A certain tract or parcel of land, with any improvements thereon, situated in Sunapee, County of Sullivan and State of New Hampshire, and being shown as Parcel A on a Survey Plan entitled "Plan of Standard Property Survey & Annexation for Lot Line Adjustment - Land to be Conveyed from Tax Map 126 Lot 18 - 130 Garnet Hill Road - Property of Sumner F. Bissell, et al. - to Tax Map 126 Lot 16 - 10 Stone End Road - Property of The Davis Family Investment Ltd - Located in Sunapee, N.H.", dated September 12, 2018, revised October 10, 2018, prepared by Pennyroyal Hill Land Surveying & Forestry LLC, approved by the Sunapee Planning Board on October 11, 2018, and recorded as Plan #5233 in the Sullivan County Registry of Deeds on October 17, 2018, said tract or parcel being more particularly bounded and described as follows:

Beginning at a stone bound with drillhole at the end of a stone wall situated Easterly of Garnet Hill Road and Southerly of Stone End Road, said point of beginning the Northwesterly corner of land now or formerly of Jonathan G. Davis, Trustee of the Sunapee Boat House Trust, and being the Northeasterly corner of the premises described herein; thence South 12° 00' 21" East Seventy and Forty-Six Hundredths (70.46) feet along said Sunapee Boat House Trust land to an iron rod at other land now or formerly of Davis Family Investment Limited Partnership; thence North 74° 54' 47" West One Hundred Ninety-Three and Seventy-Six Hundredths (193.76) feet to an iron rod; thence North 00° 05' 22" East Sixty and Thirty-Four Hundredths (60.34) feet to an iron rod set in a stone wall at land of the Lake Sunapee Yacht Club, the previous two courses having been against said Davis Family Investment Limited Partnership land; thence South 75° 59' 39" East One Hundred Thirty-Six and Ninety-One Hundredths (136.91) feet to a point; thence South 77° 33' 43" East Forty and Forty-Four Hundredths (40.44) feet to the point of beginning, the previous two courses having been along a stone wall and against said land of the Lake Sunapee Yacht Club; consisting of 0.26 acre, more or less.

Granting also as an appurtenance to said Parcel A and not to be severed therefrom a perpetual right and easement to pass and repass with men, teams and vehicles over and upon a twenty foot wide right-of-way as shown on said plan and identified as "Proposed 20' Right of Way to Parking Area", running from the Easterly edge of Garnet Hill Road in a general Northeasterly direction to the Westerly boundary line of said Parcel A.

The within transfer constitutes an annexation of the tract or parcel herein conveyed to a contiguous tract or parcel of land which was conveyed to Davis Family Investment Limited Partnership by Walter E. Goddard, II and Eleanor J. Goddard by Warranty Deed dated September 20, 2004, recorded in Volume 1475, Page 522 of the Sullivan County Registry of Deeds, which annexation was permitted by vote of the Sunapee Planning Board on October 11, 2018. The within grantee, by virtue of its acceptance of this deed, agrees that the premises hereby conveyed shall not be deemed or considered a separate lot of record, but shall be regarded as merged into and made an integral part of the contiguous lot of land so that the same shall hereafter be one combined single lot of record.

Meaning and intending to describe the same premises conveyed to the Grantor by virtue of a Warranty Deed from Jonathan G. Davis, Trustee of the Sunapee Boat House Trust u/d/t dated June 2, 1999, which deed is dated and recorded with the Sullivan County Registry of Deeds at Book 2062, Page 351.

Said Parcels are further shown as "Tax Map 126 Lot 16" and "Parcel A" on a plan of land entitled "Plan of Standard Property Survey & Annexation for Lot Line Adjustment - Land to be Conveyed from Tax Map 126 Lot 18 - 130 Garnet Hill Road - Property of Sumner F. Bissell, et al. - to Tax Map 126 Lot 16 - 10 Stone End Road - Property of The Davis Family Investment Ltd - Located in Sunapee, N.H.", dated September 12, 2018, revised January 9, 2019, prepared by Pennyroyal Hill Land Surveying & Forestry LLC, approved by the Sunapee Planning Board on January 10, 2019, and recorded with the Sullivan County Registry of Deeds as Plan No. 5244.

Subject to Notice of Merger of Lots Pursuant to New Hampshire RSA 674:39-A, Town of Sunapee, New Hampshire dated November 10, 2005 and recorded with said Deeds at Book 1553, Page 93.

The premises are further made subject to, and conveyed with the benefit of, all rights and easements of record affecting the premises.

The within premises are not homestead premises.

[Remainder of Page Intentionally Blank]

Executed this 21st day of December, 2020.

DAVIS FAMILY INVESTMENT
LIMITED PARTNERSHIP

By: Davis Family Limited Corporation, General Partner

By: [Signature]
Name: Jonathan G. Davis
Title: President

State of Massachusetts

County of Suffolk

On this 21st day of December, 2020, before me, the undersigned notary public, personally appeared Jonathan G. Davis, personally known to me to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it as the President of Davis Family Limited Corporation, the general partner of Davis Family Investment Limited Partnership, voluntarily for the stated purpose contained therein.

[Signature: Diane K. Remsberg]
Notary Public
My Commission Expires: 5/24/24





Tax Map No. 5-56
MICHAEL W. DURFOR and HOLLINGSWORTH SIMPSON - DURFOR
S.C.R. 829 - 359 (tract 1)
see also Reference Plan No. 4, Lot No. 2

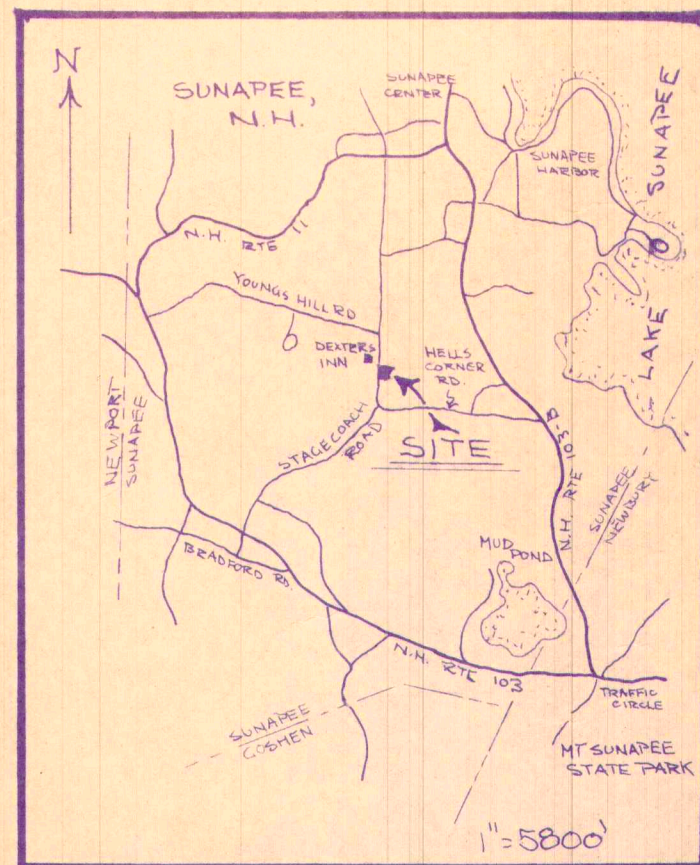
Tax Map No. 5-56-1
FRANK H. and SHIRLEY H. SIMPSON
S.C.R. 738 - 431
see also Reference Plans Nos. 3 & 4, Lot No. 1

Tax Map No 5-51 (in part)
6.62 Acres
288,211 sq. ft.

Tax Map No. 5-51A
MICHAEL W. DURFOR and HOLLINGSWORTH SIMPSON - DURFOR
S.C.R. 829 - 359 (tract 2)
see also Reference Plan No. 4, Lot No. 3

Tax Map No. 5-51 (in part)
FRANK H. and SHIRLEY H. SIMPSON
S.C.R. 888 - 669 (tract 1, in part)
see also Reference Plan No. 1

Tax Map Nos. 5-51 B-F
FRANK H. and SHIRLEY H. SIMPSON
S.C.R. 888 - 390
see also Reference Plans Nos. 1 & 2



LOCATION MAP

NOTES

1. This plan is based on a total station survey having a control traverse precision greater than 1:10,000 (N.H.L.S.A. Standards category 1, condition 2.)
2. Title reference to parcel is S.C.R. Book 888 Page 669 (Frank H. Simpson & Assoc. to Frank H. & Shirley H. Simpson, Sept. 24, 1988.)
3. This parcel was created through a series of subdivisions recorded as follows:
A. S.C.R. Plan No. 11-04-14-01 - established easterly and southerly boundary, 7/13/1973.
B. S.C.R. Plan No. 13-02-18-01 - further defined southerly boundary, Rec'd 8/2/1974.
C. S.C.R. Plan No. 12-04-14-02 - established northerly boundary, Rec'd 6/26/1987.

REFERENCE PLANS

1. S.C.R. 11-04-14-01 - "Subdivision, Property of Frank Simpson...", by Southern Vermont Engineering and dated Feb. 20, 1973 (Rec'd 7/13/73.)
2. S.C.R. 13-02-18-01 - "The Place at the Inn, Sunapee, N.H.,... Phase 1A Plot Plan", by Southern Vermont Engineering and dated April 30, 1974 (Rec'd 8/2/74.)
3. S.C.R. 08-04-27-02 - "Subdivision Plan of Land Owned by Frank H. Simpson Assocs....", by Wayne McCutcheon Assocs. and dated March 23, 1982 (Rec'd 8/19/82.)
4. S.C.R. 12-04-14-02 - "Subdivision Plan of Land Owned by Frank H. Simpson Assocs....", by Wayne McCutcheon Assocs. and dated Dec. 3, 1986 (Rec'd 6/26/87.)

PLAN OF LAND

PROPERTY OF

FRANK H. and SHIRLEY H. SIMPSON

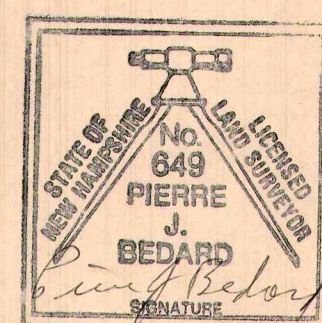
LOCATED IN

SUNAPEE, N.H.

Scale in Feet =

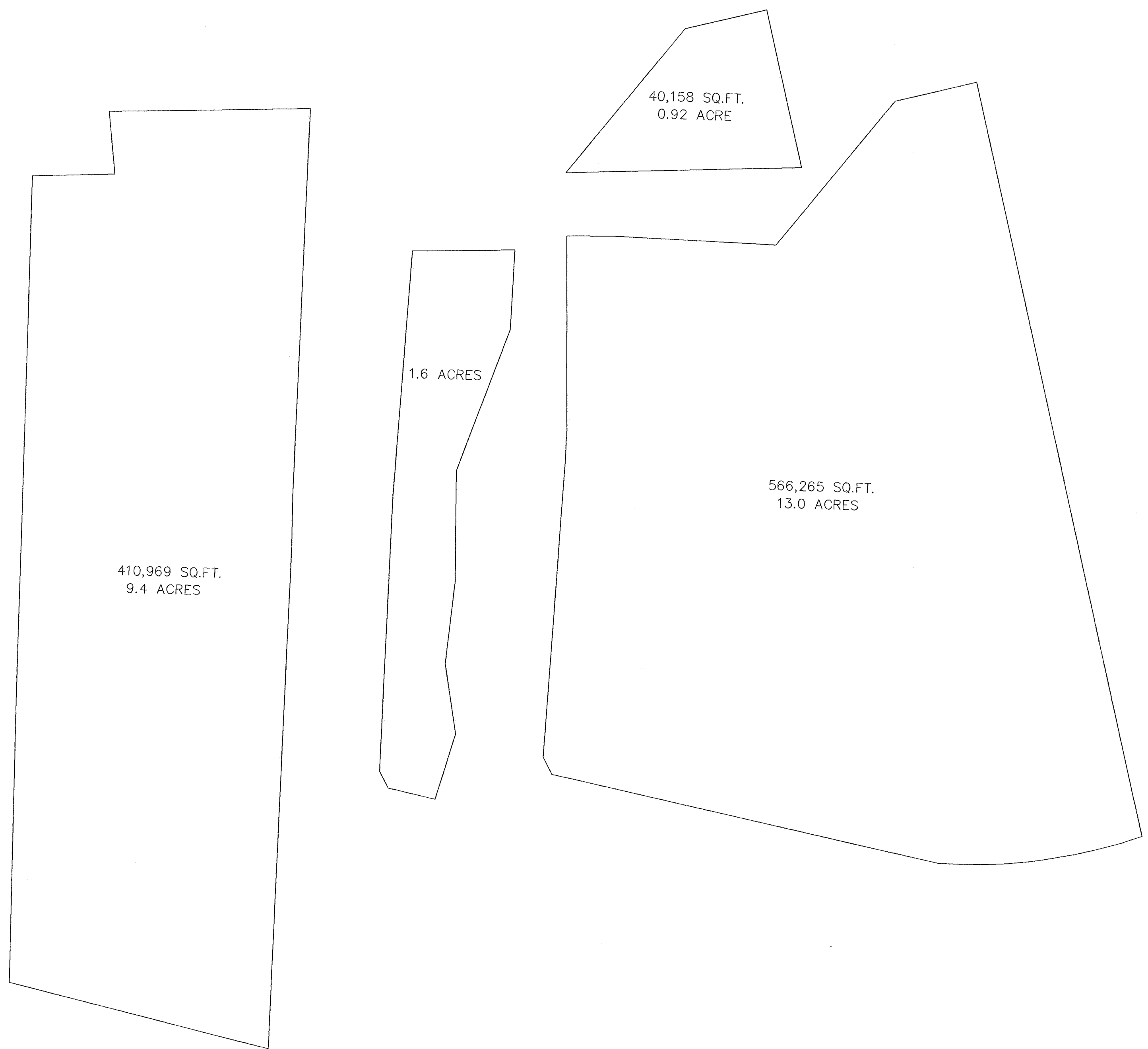
1" = 50'
Lot 51C 6.62

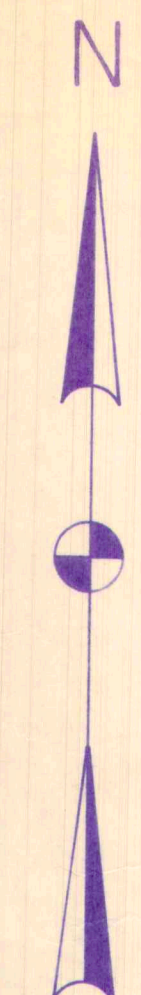
JANUARY, 1991



I CERTIFY THAT THIS SURVEY PLAT SHOWS THE PROPERTY LINES THAT ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIPS OR FOR NEW WAYS ARE SHOWN.
(R.S.A. 676:18)

DATE





TRUE NORTH
BY
SOLAR OBSERVATION

ROBERT C. LEAR

FRANK H. SIMPSON ASSOCIATES

PARCEL B
35.5 ACRES
TO BE ANNEXED TO PHASE 1A

LOIS & GLORIA ARCHILLES

STEPHEN & MARIANNE E. JORDAN

LOIS & GLORIA ARCHILLES

JAMES W. & BARBARA J.
DULING

WILLIAM D. & ELLEN A. NOLEN

LEO R. & MONIQUE J.
CARON

MICHAEL J. & CONSTANCE
SIMMONS

ROGER G. & ADELE S. BISHOP III

LUTHER T. & JAQUELINE S. WEIGLE

LUTHER T. & JAQUELINE S.
WEIGLE

FRANK H. SIMPSON ASSOCIATES
SEE PLAN OF CD & S ASSOCIATES
PHASE 1A
APPROVED JULY 16, 1974
RECORDED IN SULLIVAN COUNTY REGISTRY
PLANFILE 1 POCKET 13 FOLDER 2 NO. 18

GLENLYNAR HOUSE

SUGAR HOUSE

CONDOMINIUM FOUNDATION

THREE UNIT CONDOMINIUM

WATER SYSTEM

SEPTIC TANK

APPROX. LOCATION
OF LEARN FIELD

STAGECOACH ROAD

HELLS CORNER

CORNER

ROAD

CLOSURE LINE N 87° 48' W 1889.4'
1900'± ALONG ROAD

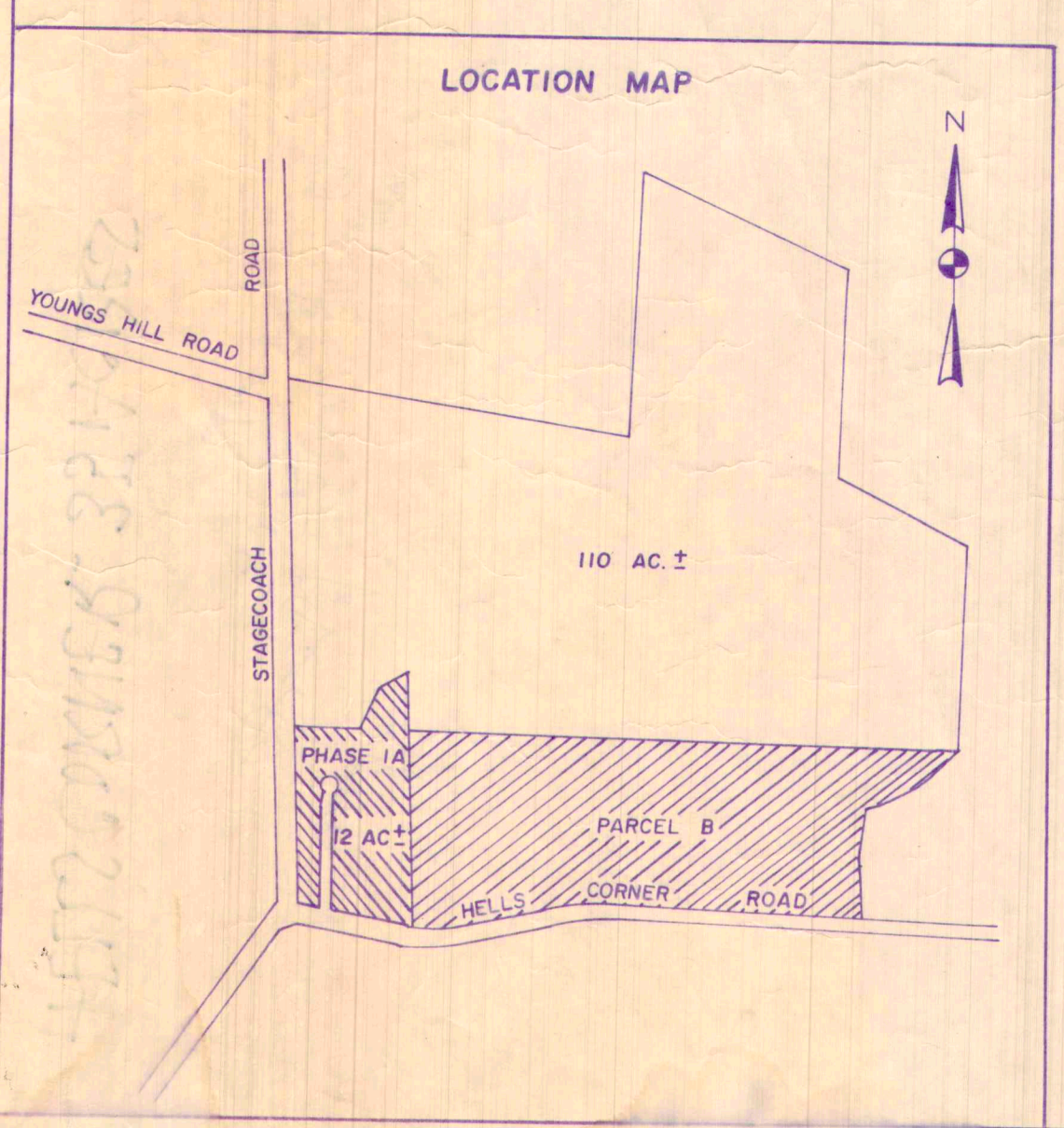
382'± ALONG CENTER OF BROOK
CLOSURE LINE S 42° 45' 30" W 583.0'

LARGE BOULDER

LARGE BOULDER

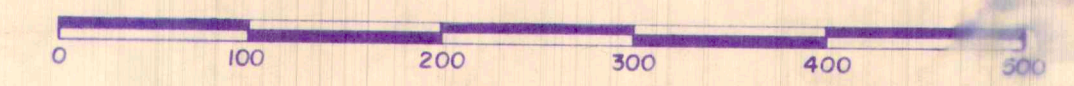
LARGE BOULDER

LOCATION MAP



ANNEXATION PLAN OF LAND
OWNED BY
FRANK H. SIMPSON ASSOCIATES
HELLS CORNER ROAD
SUNAPEE, NEW HAMPSHIRE

SCALE: 1" = 100' MARCH 12, 1985



I HEREBY CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT
SHOWN HEREON, AND THIS PLAT IS MADE IN ACCORDANCE WITH
THE FIELD NOTES OF SAID SURVEY.

Wayne C. McCutcheon

APPROVED BY TOWN OF SUNAPEE PLANNING BOARD

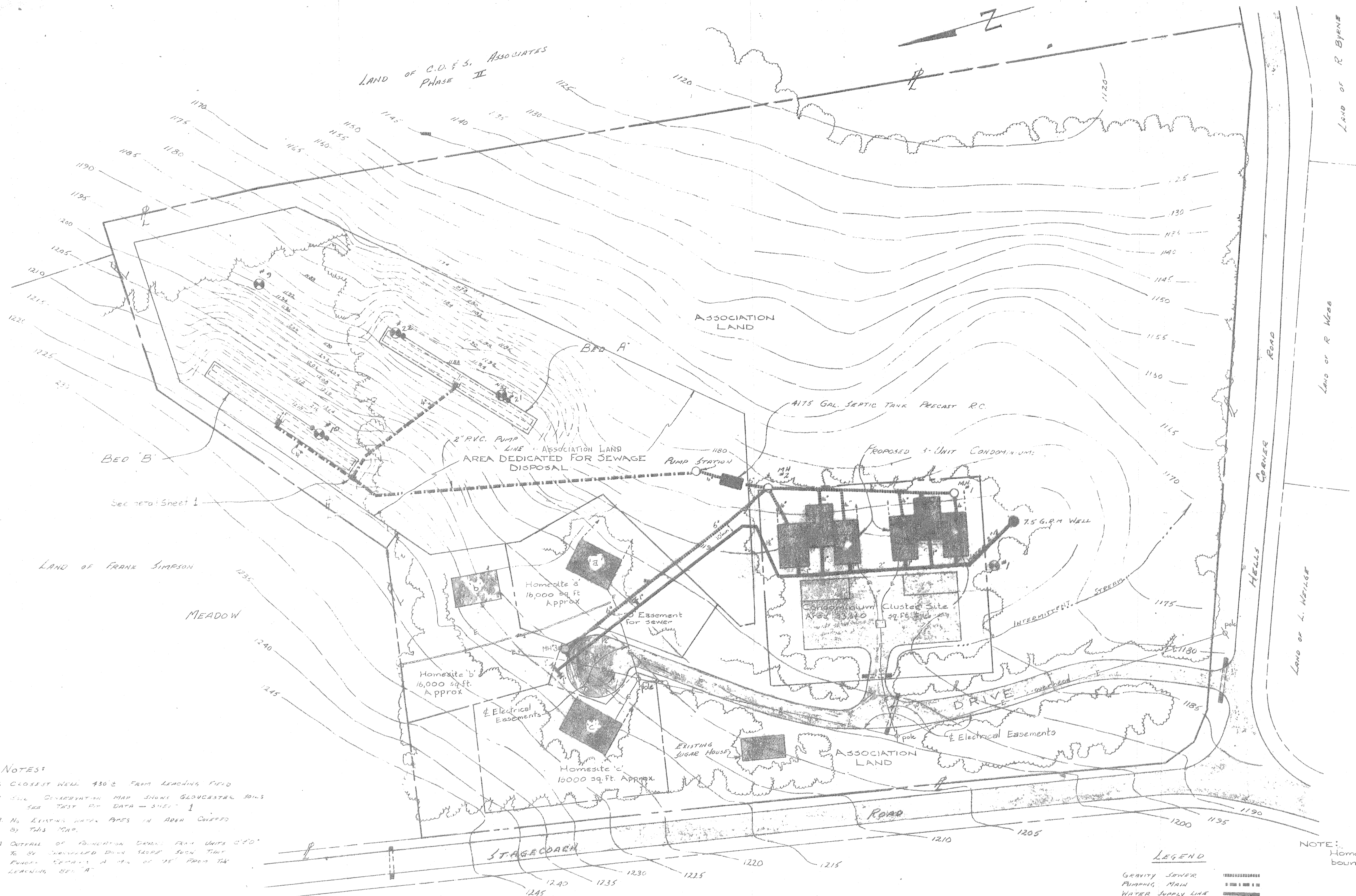
CHAIRPERSON: _____

DATED: _____

THE SUBDIVISION REGULATIONS OF THE TOWN OF SUNAPEE ARE A
PART OF THIS PLAT, AND APPROVAL OF THIS PLAT IS CONTINGENT
ON COMPLETION OF ALL THE REQUIREMENTS OF SAID SUBDIVISION
REGULATIONS, EXCEPTING ONLY ANY VARIANCES OR MODIFICATIONS
MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

WAYNE MCCUTCHEON ASSOCIATES

CLAREMONT, NEW HAMPSHIRE



- NOTES:
1. CLOSEST WELL 430' FROM LEACHING FIELD
 2. SOIL CORRELATION MAP SHOWS GLOUCESTER SOILS SEE TEST DATA SHEET 1
 3. NO EXISTING WATER LINES IN AREA COVERED BY THIS MAP.
 4. OUTFALL OF FOUNDATION DRAIN FROM UNIT C-20 TO BE SUBMITTED DRAIN RECORD SUCH THAT PUMPED EFFLUENT IS 15' FROM THE LEACHING BED 'A'

TOWN OF SUNAPEE
PLANNING BOARD
SUNAPEE, NEW HAMPSHIRE 03782
NOT APPLICABLE ☐
APPROVED ☒
DISAPPROVED ☐
DATE 11/16/73

Marylen C. Smith
Arthur A. Cabane
Richard D. Dumas
Suzanne P. Mellick
John C. Nutter
Rupert L. Boutin
[Signature]

NOTE: Homesite and Condominium Cluster Site boundaries subject to final survey.

LEGEND

- GRAVITY SEWER
- PUMPING MAIN
- WATER SUPPLY LINE
- TEST HOLE
- PERCOLATION TEST
- SEWER MANHOLES
- SITE BOUNDARY

Revised 9-21-73 (Homesite and Condominium Cluster site boundaries changed)
Revised 9-17-73 (Homesite and Condominium Cluster site boundaries added)

APPROVED BY TOWN OF SUNAPEE PLANNING COMMISSION

SITE PLAN
SCALE 1" = 40'
0 20 40 80 120 160

DATE: _____

SOUTHERN VERMONT ENGINEERING INC.
CONSULTING ENGINEER
CIVIL, SANITARY, ENVIRONMENTAL & SITE PLANNING
100 MAIN STREET
SUNAPEE, VT 03782

THE PLACE AT THE INN
Sunapee, New Hampshire
Owner-Developer C.D.E. Associates
PHASE I SITE PLAN
SEWAGE DISPOSAL

SHEET 3 OF 3
DATE SURVEYED 11/16/73
DATE PLANNED 11/16/73
DRAWN BY [Signature]