

City of Laconia Technical Review Committee
Tuesday February 17th 2026 - 10:00 AM
City Hall - Armand A. Bolduc City Council Chamber
AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. RECORDING SECRETARY
4. ACCEPTANCE OF MINUTES FROM PREVIOUS MEETINGS
5. REVIEW OF CONTINUED PLANNING BOARD APPLICATIONS
6. REVIEW OF NEW PLANNING BOARD APPLICATIONS

6.I. PB2026-028 191 & 193 Court St (450/45 &46)

The applicant has requested a boundary line of adjustment.

Documents:

[PB2026-028 APPLICATION.PDF](#)
[PB2026-028 SITE PLAN.PDF](#)

6.II. PB2026-031 33 White Oaks Rd (278-241-29)

The applicant is requesting a site plan and subdivision review.

Documents:

[PB2026-031 APPLICATION.PDF](#)
[PB2026-031 COVER LETTER.PDF](#)
[PB2026-031 ABUTTER LIST.PDF](#)
[PB2026-031 CHECKLIST.PDF](#)
[PB2026-031 DRAINAGE ANALYSIS.PDF](#)
[PB2026-031 PLAN SET.PDF](#)

6.III. PB2026-032 Pickerel Pond Rd (13/183/16)

The applicant is seeking a site plan review

Documents:

[PB2026-032 APPLICATION.PDF](#)
[PB2026-032 SITE PLAN.PDF](#)

6.IV. PB2026-033 651 Union Ave (371 / 220 / 21)

The applicant is seeking a CUP for an automotive dealership.

Documents:

[PB2026-033 APPLICATION.PDF](#)
[PB2026-033 PROPERTY CARD.PDF](#)
[PB2026-033 SITE PLAN.PDF](#)

7. MINOR SITE PLAN PUBLIC HEARINGS, CONSIDERATION, AND POSSIBLE VOTE
8. OTHER BUSINESS
9. ADJOURNMENT



RECEIVED

JAN 14 2026

City of Laconia
Planning/Zoning

Application(s) #:

PB2026-028

Fees Paid:

\$360.00

Check #:

4810

Receipt #:

PLANNING BOARD APPLICATION

Project Name: 191 & 193 Court Street Subdivision

Project Address: 191 & 193 Court Street, Laconia, NH 03246

Tax Map/ Lot # (s): 450/45 & 46 Zoning District (s): UC Parcel Size Acres: .15 & .23

Number of Lots: 2 Total Developed Land Area: 1226 & 3768 sq ft Building(s) and/or additions Total Sq. Ft. 2 buildings

Submittal Request (Check all that apply):

- | | | |
|--|---|---|
| ☐ Alternative Parking CUP | ☐ Amendment | ☐ Boundary Line Adjustment |
| ☐ Boundary Line Agreement | ☐ Change of Use | ☐ Cluster Development CUP |
| ☐ Cluster Subdivision | ☐ Condominium Subdivision | ☐ Conventional Subdivision |
| ☐ Discretionary Easement | ☐ Marinas and Yacht Club CUP | ☐ Minor Site Plan |
| ☐ Performance Zoning CUP | ☐ Site Plan (Commercial) | ☐ Site Plan (Multi-family) |
| ☐ Steep Slope CUP | ☐ Wetland/Wetland Buffer CUP | ☐ Other _____ |

Proposal Description: In October 2025 the City of Laconia Zoning Board voted to approve our request for Variance from the minimum lot size
size to adjust the boundary line between two lots containing one commercial building and one single family home. Lakes Region Community
Developers (LRCD) now respectfully requests approval from the Planning Board for a Boundary Line Adjustment for 191 & 193 Court Street.
The proposed adjustment would result in one lot containing the existing commercial building and another containing the single-family residence.
This request will not change the existing uses of either property; it is simply intended to create a clear boundary between the two buildings.

I hereby make application to the City of Laconia for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning Ordinance and land use regulations of the City, except where waivers are requested. The City of Laconia Planning Board, Minor Site Plan Committee, Technical Review Committee and/or city employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at any and all meetings before the Planning Board, Minor Site Plan Committee or Technical Review Committee.

Sign as appropriate (If agent or non-person please attach certification)

NOTE: Please attach an Applicant Contact Worksheet

PROPERTY OWNER 1

PROPERTY OWNER 2

AGENT / APPLICANT

Printed Name: _____

Signature: _____

Date: _____



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎603-527-1264
☎603-524-2164

CERTIFIED LIST OF ABUTTERS

RSA 672:3 "Abutter" means any person whose property is located in New Hampshire and adjoins or is directly across the street or stream from the land under consideration by the local land use board. For purposes of receiving testimony only, and not for purposes of notification, the term "abutter" shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration. For purposes of receipt of notification by a municipality of a local land use board hearing, in the case of an abutting property being under a condominium or other collective form of ownership, the term abutter means the officers of the collective or association, as defined in RSA 356-B:3, XXIII. For purposes of receipt of notification by a municipality of a local land use board hearing, in the case of an abutting property being under a manufactured housing park form of ownership as defined in RSA 205-A:1, II, the term "abutter" includes the manufactured housing park owner and the tenants who own manufactured housing which adjoins or is directly across the street or stream from the land under consideration by the local land use board.

The following information must be completed by the applicant in order to begin the application process to the Planning Board or Zoning Board of Adjustment. Below, list the verified names and mailing addresses of the applicant, authorized agent(s), engineer, architect, land surveyor, soil scientist, consultant, abutter, holders of conservation easements or restrictions on adjacent lands, municipal/regional planning commissions (if a regional notice is required), associations, etc., not more than five (5) days prior to submission, per RSA 676:4,I(b). Abutters' names and mailing addresses must be verified against the records kept in the Laconia Assessor's Office. Attach additional copies of this form if necessary. Include an addressed #10 envelope and certified mail receipt for each person/professional listed below.

Map/Block/Lot	Name of Property Owner/Professional	Mailing Address of Owner/Professional
450-13-16	Griffin George H & Tammy	18 Bay Street, Laconia, NH 03246
450-13-44	Letarte Forrest	173 Jack Frost Lane, Conway, NH 03818
450-54-15	Filaroski Janet C 1998 Trust	184 Court Street, Laconia, NH 03246
450-54-47	Tellier Elizabeth	187 Court Street, Laconia, NH 03246
450-54-48	Tutt Dora E 1998 Trst	37 Lake Country Rd, Meredith, NH 03253
450-74-52	McCarthy Daniel J IV & Lynda M	78 Fair Street, Laconia, NH 03246
450-74-53	Watson Douglas	84 Fair Street, Laconia, NH 03246
455-13-67	Greer Property Management LLC	305 Gilford Av, Gilford, NH 03249
455-54-23	Belknap House	200 Court Street, Laconia, NH 03246
455-54-3	Filaroski Janet C 1998 Trust	184 Court Street, Laconia, NH 03246
455-54-66	Matias Ezequiel Perez	6 Sunshine Drive, Belmont, NH 03220

Name of Person Preparing List

Preparer's Signature

Caitlin MEANEY

Date Prepared

Date

1/13/2025
1/13/2025

***Fee per Abutter \$10.00**



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎603-527-1264
📠603-524-2164

General Conditional Use Permits Requirements

1. The Use is authorized in the Table of Permitted Uses as a conditional use. N/A
2. Any specific conditions or standards are met. The setback requirement is not met but the ZBA has approved our variance request for this.
3. Public safety or health will not be materially endangered. Correct, public safety or health will not be endangered.
4. The value of adjoining or abutting properties will not be substantially affected. The value of abutting properties will not be substantially affected.
5. Compatibility with uses of adjoining or abutting properties and the neighborhood. This will further clarify the uses of the two properties.
6. Highway or pedestrian safety will not be substantially adversely impacted. Highway and pedestrian safety will not be impacted.
7. Natural resources of the city will not be substantially adversely impacted. Natural resources will not be impacted.
8. Adequate public facilities and utilities are available or will be provided by the applicant. No public facilities and utilities will be needed for this request.



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎ 603-527-1264
📠 603-524-2164

**Wetlands Conservation Overlay District
Conditional Use Requirements**

Documentation must be submitted to support that the activity or use (waiver requests should be submitted on the appropriate form):

1. Ensures the protection of wetland resources from activities that would adversely affect their functions and values [see 235-17B.(1)(a)-(h), (2)(a)-(e), and (3)]; [submittal of erosion and sedimentation control plan, list of fish/wildlife habitat affected, location of surface/ground water locations, listing of any representative or rare examples of wetland plants or animals, unique characteristics of the wetland/buffer, existing use of the site for recreational or educational purposes, and picture of the wetlands site] _____

N/A

2. Minimizes the degradation to or loss of wetlands or wetlands buffer; an evaluation may be required using the New Hampshire Method, authored by the Audubon Society [The applicant should demonstrate that an evaluation is not warranted if a waiver is requested]; _____

N/A

3. Minimizes the environmental impact to abutting or downstream property and/or hydrologically connected water and/or wetland resources [drainage analysis and watershed map should be included to show wetland located in the local watershed]; N/A _____

4. Cannot be practically located elsewhere on the site to eliminate or reduce the impact to the wetland and/or its buffer area [applicant should demonstrate that the avoidance, minimization, mitigation method has been utilized in site design]; and N/A _____



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
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📠 603-524-2164

**Wetlands Conservation Overlay District
Conditional Use Requirements**

5. Is or is in the process of permitting for any other applicable state or federal permits [copies of the applications should be submitted with this application]. N/A



January 13, 2026

Dear Members of the Laconia Planning Board,

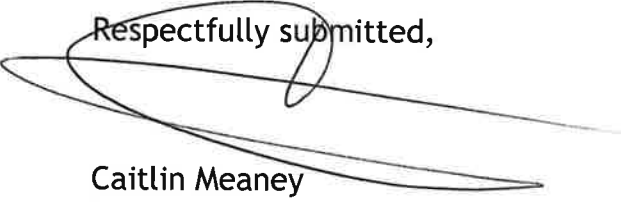
Lakes Region Community Developers respectfully submits the enclosed application requesting approval of a Boundary Line Adjustment for consideration at the Planning Board's March 3, 2026 meeting.

In October 2025, the City of Laconia Zoning Board of Adjustment approved Lakes Region Community Developers' request for a variance from the minimum lot size requirements to permit an adjustment of the boundary line between two adjacent properties located at 191 and 193 Court Street. These parcels currently contain one commercial building, which serves as LRCD's administrative office, and one single-family residential structure.

Pursuant to that approval, Lakes Region Community Developers now respectfully requests Planning Board approval of the corresponding Boundary Line Adjustment. The proposed adjustment would result in one parcel containing the existing commercial building and a separate parcel containing the single-family residence. This request will not result in any change to the existing use of either property and is intended solely to establish a clear and appropriate boundary between the two structures.

Thank you for your time and consideration of this request. Please do not hesitate to contact us should additional information or clarification be required.

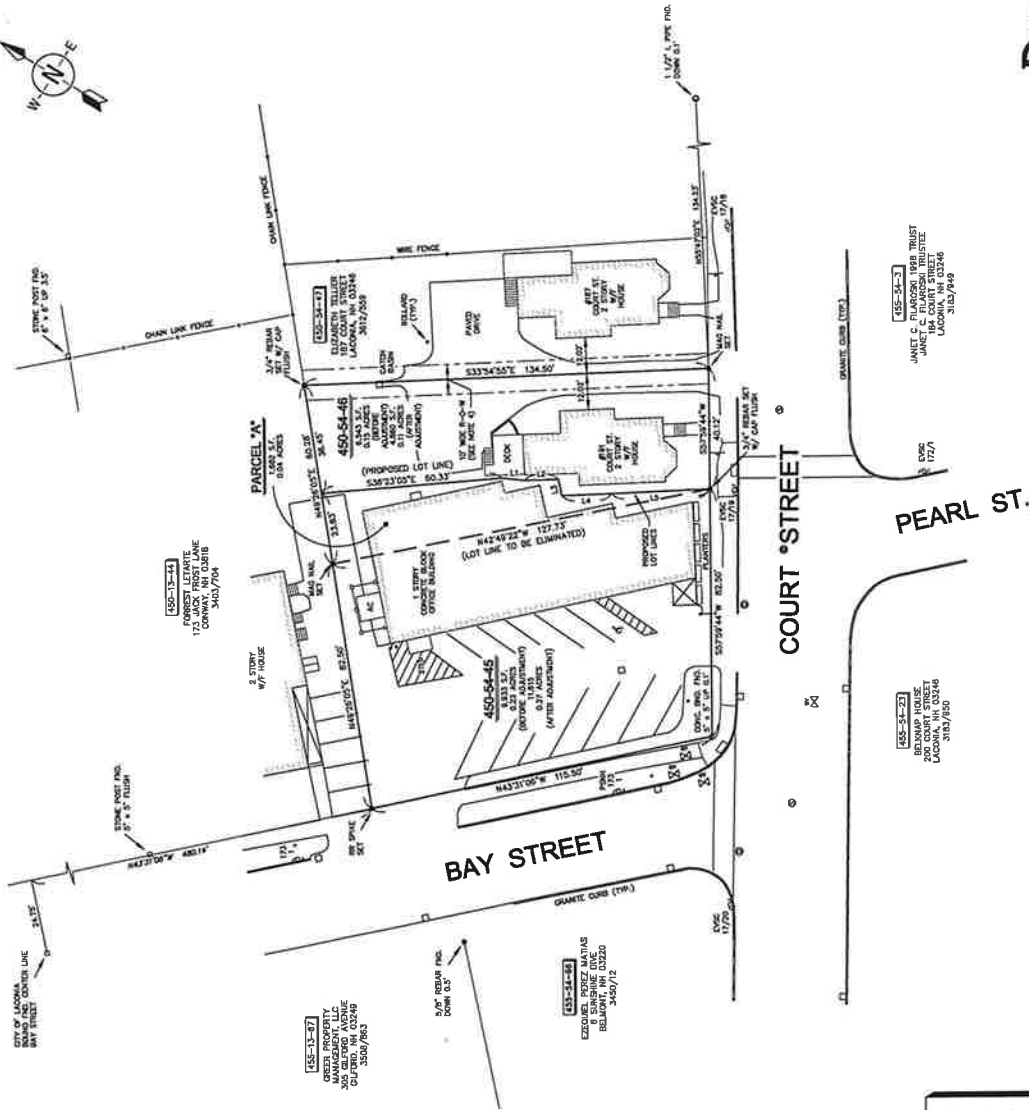
Respectfully submitted,



Caitlin Meaney
Lakes Region Community Developers



LOCATION MAP



NOTES:

- OWNERS OF RECORD, LACONIA AREA COMMUNITY LAND TRUST, INC. 200 COURT STREET, SUITE 200, LACONIA, NH 03246
 - DEED REFERENCE TO BOTH PARCELS IS BOOK 3227 PAGE 065 BEADUP COUNTY RECORDS OF DEEDS.
 - PARCELS ARE IN THE (U) URBAN COMMERCIAL ZONING DISTRICT SETBACKS ARE: FRONT - 5' REAR - 5'
 - 450-54-45 AND 450-54-46 ARE A STRIP OF LAND TEN FEET IN WIDTH, ADJACENT TO THE EAST SIDE OF COURT STREET, BETWEEN PEARL AND BAY STREET IN BOOK 3227 PAGE 065, B.C.L.U.
 - THE REPORT OF THIS PLAN IS TO ADJUST THE BOUNDARY LINE BETWEEN TAX MAP 450, BLOCK 54, LOT 45 AND TAX MAP 450, BLOCK 54, LOT 46 TO MAKE THE BOUNDARY MORE CONFORMANT.
- REFERENCE PLANS:
- PLAN OF "BURNHAM TRAIL" TRACED MARCH 6, 1933 BY L.K. FOLEY, C.E.
 - PLAN OF "BURNHAM TRAIL" TRACED MARCH 6, 1933 BY L.K. FOLEY, C.E.
 - PLAN OF "BURNHAM TRAIL" TRACED MARCH 6, 1933 BY L.K. FOLEY, C.E.
 - PLAN OF "BURNHAM TRAIL" TRACED MARCH 6, 1933 BY L.K. FOLEY, C.E.

LINE	BEARING	DIST.
1	S 33° 54' 56" E	11.16'
2	S 33° 54' 56" E	5.35'
3	S 33° 54' 56" E	11.16'
4	S 33° 54' 56" E	11.16'
5	S 33° 54' 56" E	11.16'

BOUNDARY LINE
ADJUSTMENT PLAN
PREPARED FOR
LACONIA AREA
COMMUNITY LAND TRUST, INC.

TAX MAP 450, BLOCK 54, LOT 45
(193 COURT STREET)

AND
TAX MAP 450, BLOCK 54, LOT 46
(191 COURT STREET)

LACONIA, (BELKNAP COUNTY) NH
JULY 24, 2025



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& King
INC.

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LEGEND
IRON PIPE FOUND
IRON PIPE FOUND OR SET
REBAR FOUND OR SET
UTILITY POLE
DRY WIRE
WELL
WATER VALVE
GAS VALVE
CATCH BASIN
DRAIN MANHOLE
SEWER MANHOLE

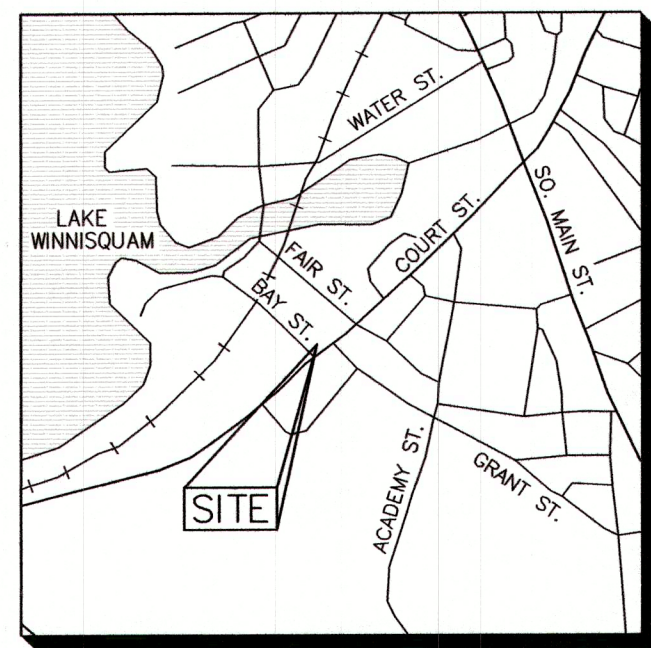
I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL SURVEY OF THE PROPERTY AND ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE _____

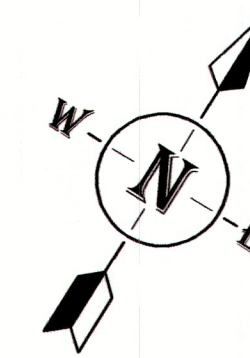
DESIGNED LAND SURVEYOR # 1716



NO.	DATE	DESCRIPTION	BY



LOCATION MAP



NOTES:

- 1) OWNER OF RECORD: LACONIA AREA COMMUNITY LAND TRUST, INC.
D/B/A LACONIA REGION COMMUNITY DEVELOPERS
193 COURT STREET
LACONIA, NH 03246
- 2) DEED REFERENCE TO BOTH PARCELS IS BOOK 3227 PAGE 095 BELKNAP COUNTY REGISTRY OF DEEDS.
- 3) PARCELS LIE IN THE (UC) URBAN COMMERCIAL ZONING DISTRICT
SETBACKS ARE: FRONT - 5'
SIDE - 5'
REAR - 5'
- 4) SEE RIGHT TO PASS AND REPASS OVER A STRIP OF LAND TEN FEET IN WIDTH, FIVE FEET ON EACH SIDE OF LINE BEING EQUAL DISTANT BETWEEN #191 AND #187 COURT STREET IN BOOK 3227 PAGE 095. B.C.R.D.
- 5) THE INTENT OF THIS PLAN IS TO ADJUST THE BOUNDARY LINE BETWEEN TAX MAP 450, BLOCK 54, LOT 45 AND TAX MAP 450, BLOCK 54, LOT 46 TO MAKE THE BUILDINGS MORE CONFORMING.

REFERENCE PLANS:

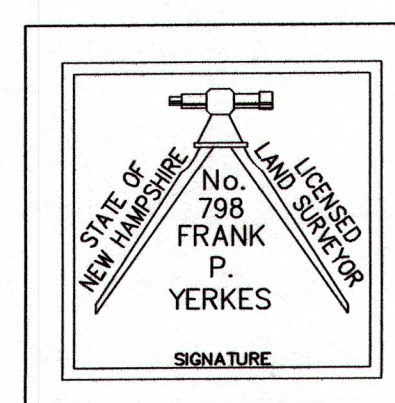
- 1) PLAN OF "MORRISON FIELD" TRACED MARCH 6, 1935 BY L.K. PERLEY, C.E. RECORDED B.C.R.D. PLAN BOOK 1, PAGE 25.
- 2) PLAN OF "BAY STREET" DATED SEPT. 1919, SCALE 1" = 40' ON FILE AT THE CITY OF LACONIA DEPT. OF PUBLIC WORKS.

LINE TABLE		
LINE	BEARING	DIST.
L1	S25°49'09"E	7.61'
L2	S33°11'32"E	11.16'
L3	S45°54'39"W	5.59'
L4	S33°54'54"E	16.41'
L5	S34°18'53"E	32.58'

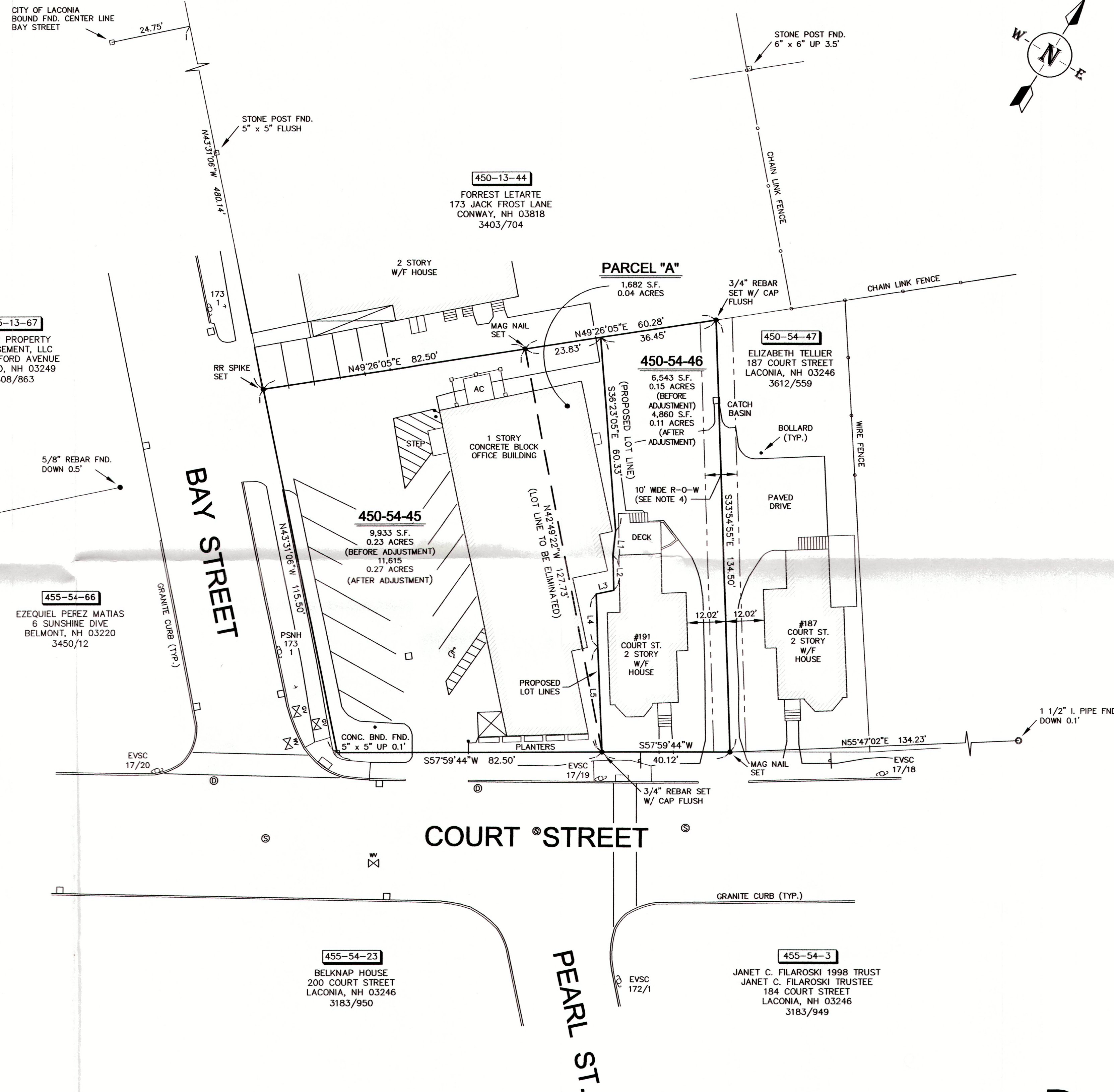
LEGEND	
□	BOUND FOUND
○	IRON PIPE FOUND
●	REBAR FOUND OR SET
⌋	UTILITY POLE
⌋	GUY WIRE
⌋	BOLLARD
⌋	WATER VALVE
⌋	GAS VALVE
⌋	CATCH BASIN
⊙	DRAIN MANHOLE
⊙	SEWER MANHOLE

I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND HAS A MAXIMUM ERROR OF CLOSURE OF 1:10,000 ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE _____ LICENSED LAND SURVEYOR # 798

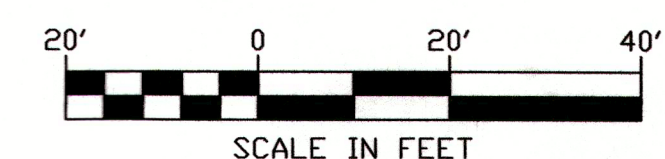


NO.	DATE	DESCRIPTION	BY



**BOUNDARY LINE
ADJUSTMENT PLAN**
PREPARED FOR
**LACONIA AREA
COMMUNITY LAND TRUST, INC.**

TAX MAP 450, BLOCK 54, LOT 45
(193 COURT STREET)
AND
TAX MAP 450, BLOCK 54, LOT 46
(191 COURT STREET)
LACONIA, (BELKNAP COUNTY) NH
JULY 24, 2025



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Application(s) #: _____

Fees Paid: _____

Check #: _____

Receipt #: _____

PLANNING BOARD APPLICATION

Project Name: 33 White Oaks Subdivision

Project Address: 33 White Oaks Rd, Laconia, NH

Tax Map/ Lot # (s): 278/241/29 Zoning District (s): CR/RR-1 Parcel Size Acres: 16.28

Number of Lots: 25 Total Developed Land Area: 7.46 Building(s) and/or additions Total Sq. Ft. 24

Submittal Request (Check all that apply):

- | | | |
|--|---|--|
| ☐ Alternative Parking CUP | ☐ Amendment | ☐ Boundary Line Adjustment |
| ☐ Boundary Line Agreement | ☐ Change of Use | ☐ Cluster Development CUP |
| ☐ Cluster Subdivision | ☐ Condominium Subdivision | ☒ Conventional Subdivision |
| ☐ Discretionary Easement | ☐ Marinas and Yacht Club CUP | ☐ Minor Site Plan |
| ☐ Performance Zoning CUP | ☐ Site Plan (Commercial) | ☒ Site Plan (Multi-family) |
| ☐ Steep Slope CUP | ☐ Wetland/Wetland Buffer CUP | ☐ Other _____ |

Proposal Description: Please see enclosed Cover Letter

I hereby make application to the City of Laconia for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning Ordinance and land use regulations of the City, except where waivers are requested. The City of Laconia Planning Board, Minor Site Plan Committee, Technical Review Committee and/or city employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at any and all meetings before the Planning Board, Minor Site Plan Committee or Technical Review Committee.

Sign as appropriate (If agent or non-person please attach certification)

NOTE: Please attach an Applicant Contact Worksheet

PROPERTY OWNER 1

Printed Name: Daniel A. Greenhalgh

Signature: [Signature]

Date: 1/28/26

PROPERTY OWNER 2

AGENT / APPLICANT

Printed Name: Scott Buonopane

Signature: [Signature]
Date: 1/28/26



R5089-0278
January 30, 2026

Mr. Rob Mora
Director of Planning Department
City of Laconia Planning Department
45 Beacon Street E
Laconia, NH 03246

**Re: Site Plan Review & Subdivision Permit Application
33 White Oaks Subdivision - 33 White Oaks Road, Laconia, NH**

Dear Rob:

On behalf of Daniel H Greenhalgh (Owner) and Scott Buonopane (Applicant), we are pleased to submit the following material to the Technical Review Committee (TRC) in support of a Site Plan Review & Subdivision Permit Application for the above reference project:

- Site Plan Set, dated January 30, 2026;
- Planning Board Application, dated January 30, 2026;
- Site Plan Checklist, dated January 30, 2026;
- Subdivision Checklist, dated January 30, 2026;
- Drainage Analysis, dated January 30, 2026;
- Trip Generation Analysis, dated January 30, 2026;
- Wetland Delineation Memorandum, dated December 2, 2025;
- Application Fee Calculation Form, dated January 30, 2026;
- Abutters Mailing Labels

The proposed project is located along White Oaks Road on a parcel of land identified as Tax Map 278 Block 241 Lot 29 on the City of Laconia Tax Maps. The project includes the subdivision of the existing parcel into twenty-five (25) lots, consisting of twenty-four (24) single-family residential building lots and one (1) lot for the remainder of the existing parcel. The proposed work includes the construction of two (2) new public roadways and associated infrastructure improvements, including stormwater management and utilities. The proposed lots and roadway have been designed to meet or exceed applicable zoning and subdivision requirements.

On November 17, 2025, the Laconia Zoning Board of Adjustments granted zoning relief for the proposed project relative to dimensional requirements associated with the Commercial Resort (CR) district boundary on the subject parcel. The approved variance allows for the application of the CR zoning district dimensional requirements for a distance of 500 FT from the district boundary, whereas 100 FT is otherwise allowed.

Under separate cover, a permit application fee in the amount of \$3,595.00 will be delivered to the Planning Department. A copy of the application fee calculation form is enclosed.

We respectfully request to be placed on the Technical Review Committee meeting agenda for February 17, 2026. If you have any questions or need any additional information, please contact Neil Hansen by phone at (603) 294-9213 or by email at nehansen@tighebond.com.

Sincerely,
Tighe & Bond, Inc.



Patrick M. Crimmins, PE
Vice President



Neil A. Hansen, PE
Project Manager

Copy: Scot Buonopane (via email)

J:\R\5089 Residential\0278 - 33 White Oaks Rd, Laconia, NH\Report\Applications\City of Laconia\20260130_TRC Submission\20260130 TRC Cover Letter.docx



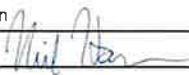
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Map/Block/Lot	Name of Property Owner/Professional	Mailing Address of Owner/Professional
Applicant	Scott Buonopane	217 Middlesex Turnpike, Burlington, MA 01803
Agent	Neil A. Hansen, Tighe & Bond	177 Corporate Drive, Portsmouth, NH 03801
278/241/29	Daniel H Greenhalgh	18 Tenney Rd, Pelham, NH 03076
278/241/4	PAUGUS VIEW CONDOMINIUM ASSOCIATION C/O PATRICK MULHOLLAND	27 QUAKER LN, SEABROOK, NH 03874
282/241/2	GILFORD OUTPARCEL LLC C/O WS DEVELOPMENT ASSOCI	33 BOYLSTON ST STE 3000, CHESTNUT HILL, MA 02467
282/241/1	GILFORD ROUTE 11 REALTY T C/O WS ASSET MANAGEMENT I	33 BOYLSTON ST SUITE 3000, CHESTNUT HILL, MA 02467
283/23/5	HALEY KIMBERLY BETH	147 LAKE ST, LACONIA, NH 03246
278/241/28	HOSA LLC C/O PATRICIA MARCHETTI &	PO BOX 5243, LACONIA, NH 03247
283/23/4	3 WAY REALTY GROUP LLC	45 FOLLIAGE LN, LACONIA, NH 03247
201/009 (Gilford)	BULL BROOK LLC	PO BOX 1767, SEABROOK, NH 03874
213/23 (Gilford)	GILFORD OUTPARCEL LLC WS ASSET MANAGEMENT INC	33 BOYLSTON STREET, SUITE 3000, CHESTNUT HILL, MA 02467
201/1 (Gilford)	PAUGUS BAY PLAZA CONDO ASC MSTRCRD C/O DAVID SALANITRO	91 TATE RD, GILFORD, NH 03249

Name of Person Preparing List Neil Hansen Date Prepared 1/29/2026
Preparer's Signature  Date 1/29/2026

***Fee per Abutter \$10.00**

SITE PLAN

Applicant Name Scott Buonopane

Office Use Only

Tax Map ____ Block ____ Lot ____

Date Reviewed _____

For Staff Use Only

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Site #	Waiver Req.	None Found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Application Properly Executed	X									
Filing Fee	X									
Abutter Information	X									
Authorization from Property Owner	X									
Plans (properly distributed)	X									
Existing Conditions	X									
Proposed Site Plan	X									
Architectural Plan					X					
Landscape Plan					X					
Reduced Plan Set (After PRC II for PB distribution)					X					
PLAN FORMAT										
Size (11" x 17" to 24" x 36")	X									
Scale: (No greater than 1" = 150')	X									
Bound if More than One Page	X									
Locus (No Greater than 1" = 1000')	X									
Legend	X									
Title Box	X									
(Lower Right Hand Corner)	X									
Owner Name and Address	X									
Project Name	X									
Project Location and Address	X									
Tax Map Number(s)	X									
Deed Book and Page Numbers	X									
Zone Designation/Boundaries	X									
Draft Date & Revision Dates	X									
Preparer Name & Address	X									
Original P.E./LLS Stamp & Signature	X									
North Arrow	X									

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Measurements	X									
Bearings	X									
Error of Closure Statement	X									
Signature Block (lower right hand corner)	X									

NATURAL FEATURES

Topographic Contours (2 ft. intervals)	X									
Wetland Delineation/CSS Stamp & Signature	X									
Water Bodies & Water Courses					X					
Ledge Outcroppings					X					
Significant Tree Stands	X									
FEMA Floodplain Boundary					X					
Steep Slope Areas > 25%	X									

Existing Condition Plan

Lot Sizes in Square Feet	X									
Lot Lines/Monumentation - Location	X									
Green Space Calculation	X									
Easements or Rights-of-way/Location & Width	X									
Structures - Location, Footprint & Use	X									
Curb Cuts & Driveways - location, layout & dimen.	X									
Access Street - location, pavement, & Row widths	X									
Sewer/Septic Disposal Facilities-location, line size	X									
Water Supply - location, line size	X									
Non-municipal utilities, elect., cable, alarm etc.	X									
Signage - location & size					X					
Outdoor Lighting - location & type					X					
Dock or Mooring Sites					X					

PROPOSED LAYOUT

Lot Lines	X									
Easements & Rights of Way	X									
Structures & Additions - location, footprint & use	X									
Building Dimensions/Height	X									
Parking & Loading areas -location, layout & dimen.					X					
Curb Cuts & Driveways - location, layout & dimen.	X									

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Handicapped spaces - location, layout & dimensions					X					
Parking Requirement Calculation based on Use (s)					X					
Signs - Location & Size					X					
Finished First Floor Elevations	X									
Solid Waste Disposal - location & type					X					
Outdoor Lighting - location & type					X					
Fire Lanes & Other Emergency Access					X					
Walkways - location & width					X					
Fences, walls - location, type & height	X									
Phasing Delineation					X					
Street Improvements - plans, profiles & cross-section	X									
911 Street Name Designation (DPW)	X									
Non-municipal Utility Connection Locations:	X									
I.e. electric, fire alarm	X									
Well Location					X					
Septic Disposal Facilities					X					
Drainage Improvements - location & Layout	X									
Grading Plan - contours @ 2 ft. intervals with	X									
finished grade elevations	X									
Municipal Utility Extensions - plan & profiles	X									
Sewer - locations, size & invert elevations of manhole	X									
Water Mains - location/size & invert of hydrants,	X									
gates, valves & blowoffs	X									
Pump Station Locations					X					
Erosion & Sediment Control Plan View & Detail	X									
Dock or Mooring Sites					X					

LANDSCAPE PLAN

Plan View & Planting Schedule					X					
Location, site & type of new, retained & relocated plantings					X					
Street Tree Layout					X					
Greenspace/Landscape Calculations					X					

ARCHITECTURAL PLAN

Preparer of plan					X					
All Elevations Shown					X					
Scale (minimum 1/8" = 1')					X					

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Building Colors					X					
Roof Type & Pitch					X					
Location of Windows & Doors					X					
Towers, Antennas - size, type & location					X					
Bulk/Height Relationship to Abutting Structures					X					
Building Height					X					

ABUTTING PROPERTIES

Owner Name & Address	X									
Tax Map Number	X									
Location & Use of Buildings/Property	X									

OFF-SITE PROPOSED IMPROVEMENTS

Streets					X					
Utilities					X					
Parks					X					
Others					X					

DOCUMENTS

Articles of Agreement					X					
Association By-Laws					X					
Restrictive Covenants					X					
Construction Estimates					X					
Easements					X					
Consultant Review Agreement					X					
Declaration of Condominium					X					
Traffic Impact Study	X									
Wetlands/Watercourse Impact Analysis	X									
Drainage Analysis for 10-Year Flow	X									
Groundwater Analysis					X					

TOWN, STATE & FEDERAL APPROVALS

Dredge and Fill (482-A)					X					
Army Corp. of Engineers					X					
Significant Alteration of Terrain (485-A:17) (Pending)	X									
Energy Facility (162h)					X					
State Public Works and Highways (236:13) - Driveway					X					
Condominium Development (356-B)					X					
Land Disclosure (356-A) if over 16 Lots					X					
HUD Land Disclosure (15 USC 1701), if over 50 Lots					X					
Conditional Use Permit for Wetlands Crossing					X					
Shoreline Protection (483-B)					X					

SUBDIVISION PLAN

Office Use Only

Tax Map ____ Block ____ Lot ____

Date Reviewed _____

Applicant Name Scott Buonopane

PLAT REQUIREMENTS FOR SUBDIVISION PLAN

	Enclosed	Plan Sht #	Waiver Req.	None Found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Application Properly Executed	X									
Filing Fee	X									
Abutter Information	X									
Authorization from Property Owner	X									
Plans (distributed properly)	X									
Reduced Plan Set (After PRC II for PB distribution)					X					

PLAN FORMAT

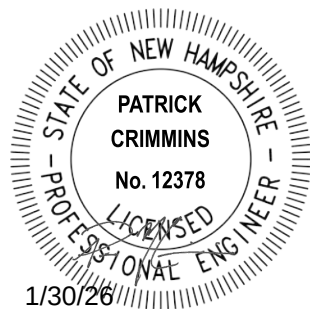
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Locus (No Greater than 1" = 1000')	X									
Legend	X									
Title Box - Subdivision/Lot Line Adjustment	X									
(Lower Right Hand Corner)	X									
Owner Name and Address	X									
Project Name	X									
Project Location	X									
Tax Map Number(s)	X									
Deed book and page	X									
Zone Designation/Boundaries	X									
Draft Date & Revision Dates	X									
Preparer Name & Address	X									
Original Surveyor Stamp & Signature	X									
North Arrow	X									
Measurements	X									
Bearings	X									
Error of Closure	X									
Planning Board Signature Block	X									
(Lower Right Hand Corner)	X									

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
NATURAL FEATURES										
Topographic Contours (2 ft. intervals)	X									
Wetland Delineation/CSS Stamp & Signature	X									
Water Bodies & Water Courses	X									
Ledge Outcroppings					X					
Significant Tree Stands	X									
FEMA Floodplain Boundary					X					
Steep Slope Areas > 25%	X									
EXISTING CONDITIONS PLAN										
Lot Sizes in Square Feet	X									
Lot Lines	X									
Easements or Rights-of-way/Location & width	X									
Septic Disposal Facilities					X					
Water Supply	X									
Buildings	X									
Roads	X									
Driveways	X									
Drainage Improvements	X									
PROPOSED LAYOUT										
Lot Lines	X									
Setback Lines	X									
Easements or Rights-of-way/Location & Width	X									
Septic Disposal Facilities/Sewer Design/Plan-Profile	X									
Water Supply/Water System Design/Plan & Profile	X									
Buildings	X									
Driveways	X									
Drainage Improvements/Plan & Profile	X									
Road Engineering/Road Cross Section/Plan & Profile	X									
911 Street Name Designation (DPW)	X									
Street Design	X									
Sidewalks					X					
Curbing					X					
Street Lighting					X					

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Street Trees					X					
Street Grades	X									
Erosion & Sediment Control Plan/View & Detail	X									
Dock Site/Mooring Locations					X					
Topography/Grading Plan	X									
Monumentation	X									
Common/Limited Common Areas					X					
Open Space/Public Sites					X					
Conservation Easements					X					
ABUTTING PROPERTIES										
Owner Name & Address	X									
Tax Map Number	X									
Wells within 75 feet	X									
Subdivision Names	X									
Roads/Road Names	X									
Building Lines within 200 Feet	X									
OFF-SITE PROPOSED IMPROVEMENTS										
Streets					X					
Utilities					X					
Parks					X					
Other					X					
DOCUMENTS										
Articles of Agreement					X					
Association By-Laws					X					
Restrictive Covenants					X					
Construction Estimates					X					
Easements					X					
Consultant Review Agreement					X					
Declaration of Condominium					X					

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
STUDIES										
Traffic Impact Study > 10 Lots	X									
Wetlands/Watercourse Impact Analysis	X									
Master Plan Compatability Statement					X					
Drainage Analysis for 50 Year Flow	X									
Groundwater Analysis					X					
TOWN, STATE & FEDERAL APPROVALS										
Dredge and Fill (482-A)					X					
Army Corp. of Engineers					X					
Significant Alteration of Terrain (485-A:17) (Pending)	X									
Subdivision Approval (485-A:29)					X					
Energy Facility (162h)					X					
State Public Works and Highways (236:13) - Driveway					X					
Condominium Development (356-B)					X					
Land Disclosure (356-A) if over 16 Lots					X					
HUD Land Disclosure (15 USC 1701), if over 50 Lots					X					
Conditional Use Permit for Wetland Crossings					X					
Shoreland Protection (483-B)					X					

Tighe & Bond



33 White Oaks Subdivision
Laconia, NH

Drainage Analysis

Scott Buonopane

January 30, 2026

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Appendices

Appendix A: NRCS Web Soil Survey
Appendix B: NRCC Rainfall Data
Appendix C: Full-Size Watershed Plans

SECTION 1 | Narrative

The proposed project is located along White Oaks Road on a parcel of land identified as Tax Map 278 Block 241 Lot 29 on the City of Laconia Tax Maps. The project includes the subdivision of the existing parcel into twenty-five (25) lots, consisting of twenty-four (24) single-family residential building lots and one (1) lot for the remainder of the existing parcel. The proposed work includes the construction of two (2) new public roadways and associated infrastructure improvements, including stormwater management and utilities. The proposed lots and roadway have been designed to meet or exceed applicable zoning and subdivision requirements.

1.1 On-Site Soil Description

The site consists of terrain that generally slopes from the north of the property to the south. The existing parcel has an approximate high point elevation of 592 along the norther parcel limits and a low point with a low point of approximately 554 to the south.

A Web Soil Survey for the subject parcel as obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) website and can be found in Appendix A of this report. The runoff analyzed within these studies has been modeled using Hydrologic Soil Group C soils. The site is comprised of Canterbury Soils with drainage classifications of moderate-drained soils.

1.2 Pre- & Post-Development Flow Comparison

For the purposes of this analysis, runoff generated by the site has been analyzed at two (2) distinct points of analysis (PA-1 & PA-2). These points of analysis were chosen to compare the Pre and Post-development flows. PA-1 is located along White Oaks Rd to the west of the proposed development lot. PA-2 is located at the on-site forested wetland to the east of the proposed work. Runoff from this wetland generally flows to the southwest along the abutting commercial property and ultimately to White Oaks Rd.

The peak discharge rates at this point of analysis were determined by analyzing Type III 24-hour storm events. The rainfall data for these storm events were obtained from the data published by the Northeast Regional Climate Center (NRCC) at Cornell University, which can be found in Appendix B.

TABLE 1-1 Comparison of Pre and Post Development Flows

Point of Analysis	Pre/Post 2-Year Storm (cfs)	Pre/Post 10-Year Storm (cfs)	Pre/Post 25-Year Storm (cfs)	Pre/Post 50-Year Storm (cfs)
PA-1	1.15/ 0.76	2.90/ 1.91	4.44/ 2.83	5.93/ 4.91
PA-2	3.12/ 1.98	8.42/ 7.17	13.18/ 9.63	17.87/ 12.09

1.3 Best Management Practices

All soil erosion and sediment control measures have been designed in accordance with the New Hampshire Stormwater Manual. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and improve stormwater quality from the site. Best Management Practices for this project include:

- Temporary erosion and sediment control practices to be implemented during construction;
- Permanent stabilization practices to be implemented prior to the completion of construction;
- Stormwater treatment practices including Sediment Forebays and Pretreatment Swales;
- Stormwater detention practices including Bioretention Rain Gardens;

SECTION 2 | Drainage Analysis

2.1 Calculation Methods

The design storms analyzed in this study are the 2-year, 10-year, 25-year and 50-year 24-hour duration storm events. The stormwater modeling system, HydroCAD 10.0 was utilized to predict the peak runoff rates from these storm events. A Type III storm pattern was used in the model.

The time of concentration was computed using the TR-55 Method, which provides a means of determining the time for an entire watershed to contribute runoff to a specific location via sheet flows, shallow concentrated flow and channel flow. Runoff curve numbers were calculated by estimating the coverage areas and then summing the curve number for the coverage area as a percent of the entire watershed.

References:

1. HydroCAD Stormwater Modeling System, by HydroCAD Software Solutions LLC, Chocorua, New Hampshire.
2. New Hampshire Stormwater Management Manual, Volume 2, Post-Construction Best Management Practices Selection and Design, December 2008.
3. "Extreme Precipitation in New York & New England." Extreme Precipitation in New York & New England by Northeast Regional Climate Center (NRCC), 26 June 2012.

2.2 Pre-Development Conditions

To analyze the pre-development condition, the site has been modeled utilizing two distinct points of analysis (PA-1 & PA-2). These points of analysis and watersheds are depicted on the plan entitled "Pre-Development Watershed Plan", Sheet C-801.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

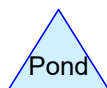
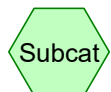
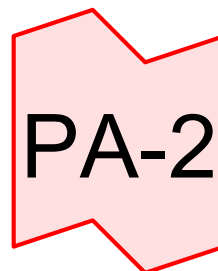
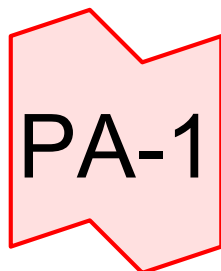
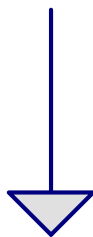
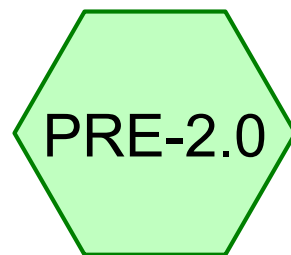
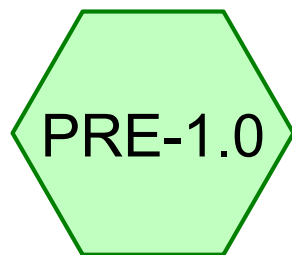
Point of Analysis 1 is comprised of one subcatchment area (PRE-1.0). This area includes two existing buildings, various residential driveways, a small portions of grass, and woods. Runoff from this area travels southwest via overland flow to Point of Analysis 1.

Point of Analysis One (PA-2)

Point of Analysis 2 is comprised of one subcatchment area (PRE-2.0). This area includes portions of an existing residential building to the north of the subject parcel and is comprised mainly of woodland and small portions of grass. Runoff from this area travels south via overland flow to Point of Analysis 2.

2.2.1 Pre-Development Calculations

2.2.2 Pre-Development Watershed Plan



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.856	74	>75% Grass cover, Good, HSG C (PRE-1.0, PRE-2.0)
0.029	98	Unconnected pavement, HSG C (PRE-1.0)
0.077	98	Unconnected roofs, HSG C (PRE-1.0, PRE-2.0)
8.164	70	Woods, Good, HSG C (PRE-1.0, PRE-2.0)
9.125	71	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
9.125	HSG C	PRE-1.0, PRE-2.0
0.000	HSG D	
0.000	Other	
9.125		TOTAL AREA

R5089-0278_PRE*Type III 24-hr 2-YR Rainfall=2.75"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE-1.0:

Runoff Area=89,588 sf 3.29% Impervious Runoff Depth>0.66"
Flow Length=561' Tc=11.1 min CN=72 Runoff=1.15 cfs 0.113 af

SubcatchmentPRE-2.0:

Runoff Area=307,898 sf 0.53% Impervious Runoff Depth>0.58"
Flow Length=698' Slope=0.0700 '/' Tc=13.1 min CN=70 Runoff=3.12 cfs 0.340 af

Link PA-1:

Inflow=1.15 cfs 0.113 af
Primary=1.15 cfs 0.113 af

Link PA-2:

Inflow=3.12 cfs 0.340 af
Primary=3.12 cfs 0.340 af

Total Runoff Area = 9.125 ac Runoff Volume = 0.454 af Average Runoff Depth = 0.60"
98.85% Pervious = 9.020 ac 1.15% Impervious = 0.105 ac

R5089-0278_PRE*Type III 24-hr 10-YR Rainfall=4.04"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE-1.0:

Runoff Area=89,588 sf 3.29% Impervious Runoff Depth>1.48"
Flow Length=561' Tc=11.1 min CN=72 Runoff=2.90 cfs 0.254 af

SubcatchmentPRE-2.0:

Runoff Area=307,898 sf 0.53% Impervious Runoff Depth>1.35"
Flow Length=698' Slope=0.0700 '/' Tc=13.1 min CN=70 Runoff=8.42 cfs 0.797 af

Link PA-1:

Inflow=2.90 cfs 0.254 af
Primary=2.90 cfs 0.254 af

Link PA-2:

Inflow=8.42 cfs 0.797 af
Primary=8.42 cfs 0.797 af

Total Runoff Area = 9.125 ac Runoff Volume = 1.051 af Average Runoff Depth = 1.38"
98.85% Pervious = 9.020 ac 1.15% Impervious = 0.105 ac

Summary for Subcatchment PRE-1.0:

Runoff = 2.90 cfs @ 12.16 hrs, Volume= 0.254 af, Depth> 1.48"
 Routed to Link PA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
1,703	98	Unconnected roofs, HSG C
33,291	74	>75% Grass cover, Good, HSG C
53,346	70	Woods, Good, HSG C
1,248	98	Unconnected pavement, HSG C
89,588	72	Weighted Average
86,637		96.71% Pervious Area
2,951		3.29% Impervious Area
2,951		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	25	0.0500	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.75"
1.1	73	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	60	0.0700	1.85		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.9	100	0.1400	1.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	140	0.0900	2.10		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.2	163	0.0600	1.22		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.1	561	Total			

Summary for Subcatchment PRE-2.0:

Runoff = 8.42 cfs @ 12.20 hrs, Volume= 0.797 af, Depth> 1.35"
 Routed to Link PA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
1,632	98	Unconnected roofs, HSG C
4,003	74	>75% Grass cover, Good, HSG C
302,263	70	Woods, Good, HSG C
307,898	70	Weighted Average
306,266		99.47% Pervious Area
1,632		0.53% Impervious Area
1,632		100.00% Unconnected

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Type III 24-hr 10-YR Rainfall=4.04"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	25	0.0700	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.75"
8.5	673	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
13.1	698	Total			

Summary for Link PA-1:

Inflow Area = 2.057 ac, 3.29% Impervious, Inflow Depth > 1.48" for 10-YR event
 Inflow = 2.90 cfs @ 12.16 hrs, Volume= 0.254 af
 Primary = 2.90 cfs @ 12.16 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-2:

Inflow Area = 7.068 ac, 0.53% Impervious, Inflow Depth > 1.35" for 10-YR event
 Inflow = 8.42 cfs @ 12.20 hrs, Volume= 0.797 af
 Primary = 8.42 cfs @ 12.20 hrs, Volume= 0.797 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

R5089-0278_PRE*Type III 24-hr 25-YR Rainfall=5.03"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE-1.0:

Runoff Area=89,588 sf 3.29% Impervious Runoff Depth>2.22"
Flow Length=561' Tc=11.1 min CN=72 Runoff=4.44 cfs 0.380 af

SubcatchmentPRE-2.0:

Runoff Area=307,898 sf 0.53% Impervious Runoff Depth>2.05"
Flow Length=698' Slope=0.0700 '/' Tc=13.1 min CN=70 Runoff=13.18 cfs 1.209 af

Link PA-1:

Inflow=4.44 cfs 0.380 af
Primary=4.44 cfs 0.380 af

Link PA-2:

Inflow=13.18 cfs 1.209 af
Primary=13.18 cfs 1.209 af

Total Runoff Area = 9.125 ac Runoff Volume = 1.589 af Average Runoff Depth = 2.09"
98.85% Pervious = 9.020 ac 1.15% Impervious = 0.105 ac

R5089-0278_PRE*Type III 24-hr 50-YR Rainfall=5.94"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE-1.0:

Runoff Area=89,588 sf 3.29% Impervious Runoff Depth>2.94"
Flow Length=561' Tc=11.1 min CN=72 Runoff=5.93 cfs 0.504 af

SubcatchmentPRE-2.0:

Runoff Area=307,898 sf 0.53% Impervious Runoff Depth>2.75"
Flow Length=698' Slope=0.0700 '/' Tc=13.1 min CN=70 Runoff=17.87 cfs 1.620 af

Link PA-1:

Inflow=5.93 cfs 0.504 af
Primary=5.93 cfs 0.504 af

Link PA-2:

Inflow=17.87 cfs 1.620 af
Primary=17.87 cfs 1.620 af

Total Runoff Area = 9.125 ac Runoff Volume = 2.124 af Average Runoff Depth = 2.79"
98.85% Pervious = 9.020 ac 1.15% Impervious = 0.105 ac

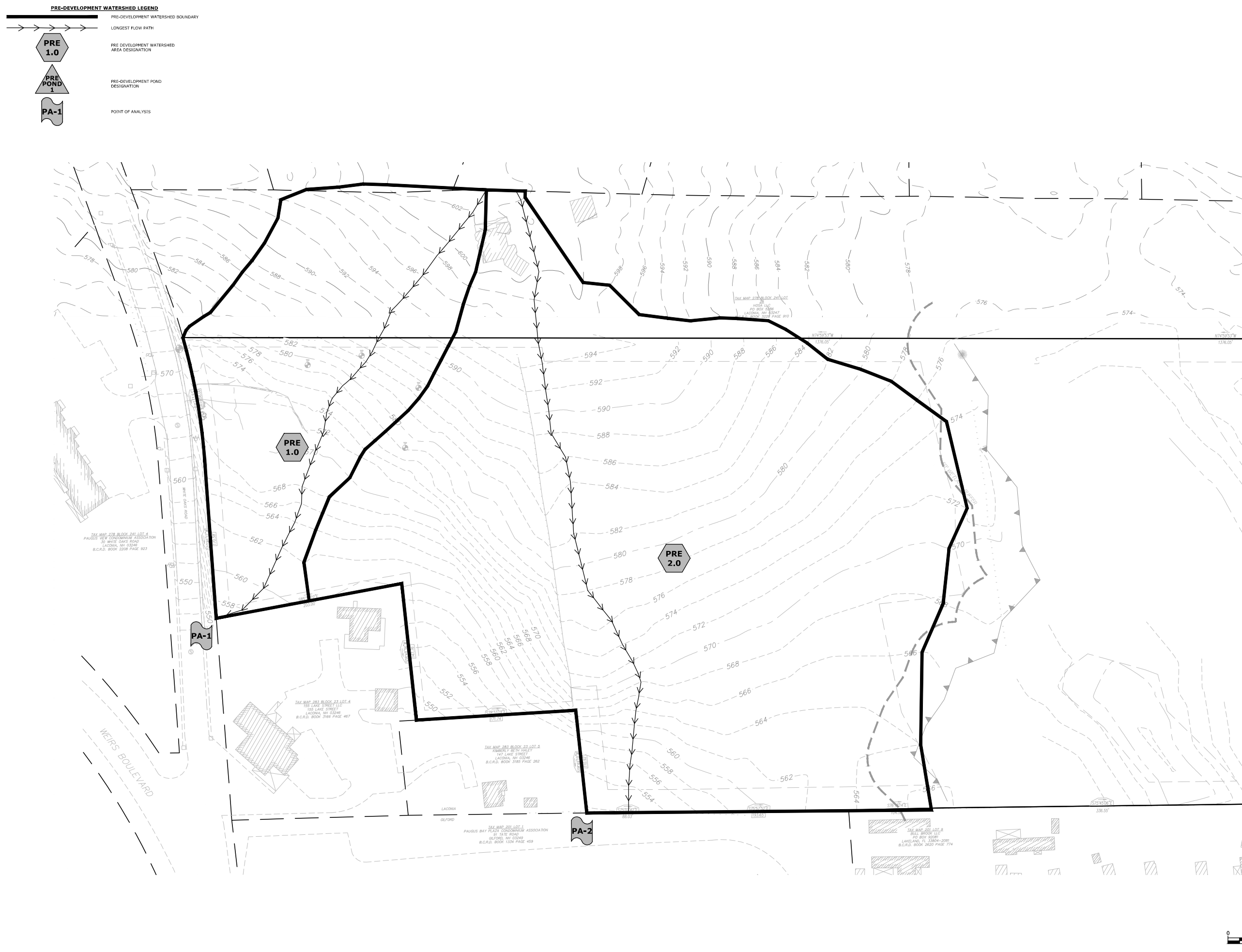
33 WHITE OAKS SUBDIVISION

Laconia, New
Hampshire

1	1/30/2026	TRC Submission
MARK	DATE	DESCRIPTION
PROJECT NO: R5089-027B		
DATE: 01/30/2026		
FILE: R5089-027B-C-HYDRO.dwg		
DRAWN BY: M.CURRAN/KRZCUJK		
DESIGNED BY: C.KRZCUJK		
CHECKED BY: N.HANSEN		
APPROVED BY: P.CRIMMINS		

SCALE: AS SHOWN

C-801



2.3 Post-Development Conditions

To analyze the post-development condition, the site has been modeled utilizing the same two distinct points of analysis (PA-1 & PA-2) as the pre-development conditions. These points of analysis and watersheds are depicted on the plan entitled "Post-Development Watershed Plan", Sheet C-802.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

Point of Analysis 1 is comprised of two Subcatchment area (POST-1.0 & POST-1.1) POST-1.0 includes a combination of grassed, wooded areas to the north and west of the proposed work along White Oaks Rd. Runoff from this area travels southwest via overland flow to Point of Analysis 1.

POST-1.1 is comprised of a portion of the proposed street, proposed residential houses and the surrounding grassed lawn area. Additionally this area captures runoff from the neighboring residential lot consisting of the residential building, woods, and grass cover. Runoff from this subcatchment travels via overland flow to a closed drainage system ultimately discharging to a surface sediment forebay and Rain Garden (RG-1). This treated stormwater is discharged to the ground surface adjacent to White Oaks Rd.

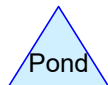
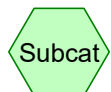
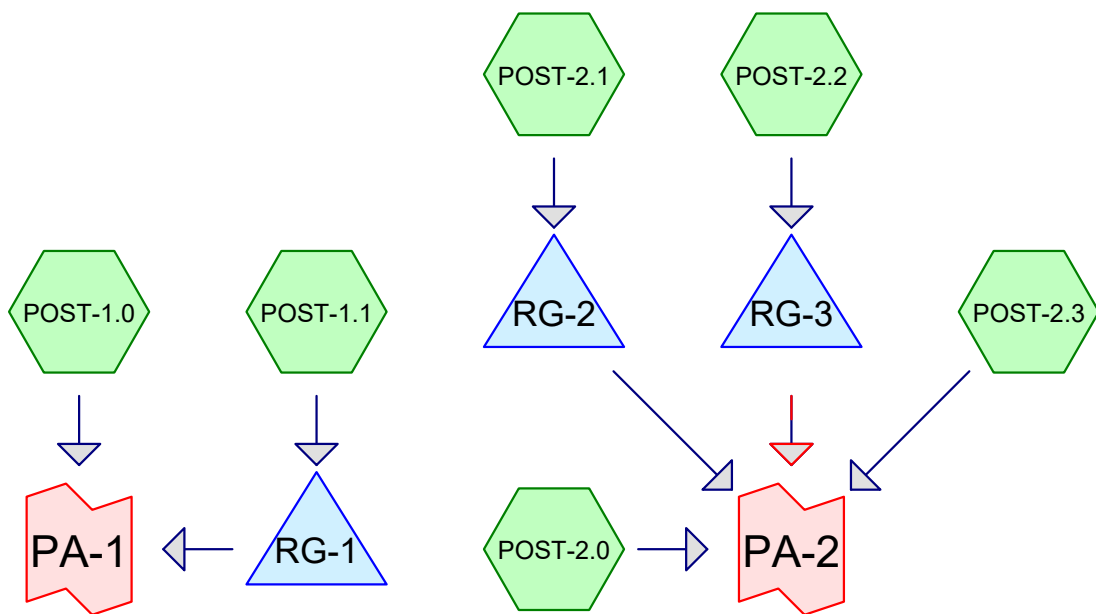
Point of Analysis One (PA-2)

Point of Analysis 2 is comprised of four subcatchment areas (POST-2.0, POST-2.1, POST-2.2, & POST-2.3). POST-2.0 and POST-2.3 are very similar in nature and include the area surrounding the proposed development which comprise of residential buildings, grass, and wooded areas. Runoff from these areas travels via overland flow to either the southeast or southwest to Point of Analysis 2.

POST-2.1 and POST-2.2 are very similar in nature to POST-1.1 and are comprised of the main project area including the proposed streets, residential buildings, driveways and surrounding grassed lawns. Runoff from these areas travels via grass lines swales along the proposed streets to a closed drainage system and ultimately their own bioretention rain gardens (RG-2 & RG-3). A sediment forebay is proposed for RG-2 for the purposes of pre treatment, whereas RG-3 proposes a pretreatment swale between the subject parcels. Runoff from these rain gardens discharges to the southwest and southeast to Point of Analysis 2.

2.3.1 Post-Development Calculations

2.3.2 Post-Development Watershed Plan



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
6.161	74	>75% Grass cover, Good, HSG C (POST-1.0, POST-1.1, POST-2.0, POST-2.1, POST-2.2, POST-2.3)
1.247	98	Unconnected pavement, HSG C (POST-1.0, POST-1.1, POST-2.1, POST-2.2)
1.034	98	Unconnected roofs, HSG C (POST-1.1, POST-2.0, POST-2.1, POST-2.2, POST-2.3)
0.683	70	Woods, Good, HSG C (POST-1.0, POST-2.0, POST-2.3)
9.125	80	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
9.125	HSG C	POST-1.0, POST-1.1, POST-2.0, POST-2.1, POST-2.2, POST-2.3
0.000	HSG D	
0.000	Other	
9.125		TOTAL AREA

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Type III 24-hr 2-YR Rainfall=2.75"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST-1.0: Runoff Area=9,807 sf 5.62% Impervious Runoff Depth>0.75"
Flow Length=329' Tc=6.5 min CN=74 Runoff=0.18 cfs 0.014 af

SubcatchmentPOST-1.1: Runoff Area=136,983 sf 23.52% Impervious Runoff Depth>0.90"
Flow Length=404' Tc=7.9 min UI Adjusted CN=77 Runoff=2.91 cfs 0.236 af

SubcatchmentPOST-2.0: Runoff Area=29,499 sf 11.75% Impervious Runoff Depth>0.80"
Flow Length=145' Tc=6.0 min UI Adjusted CN=75 Runoff=0.58 cfs 0.045 af

SubcatchmentPOST-2.1: Runoff Area=69,620 sf 44.00% Impervious Runoff Depth>1.38"
Flow Length=308' Tc=6.0 min CN=85 Runoff=2.53 cfs 0.184 af

SubcatchmentPOST-2.2: Runoff Area=77,713 sf 41.08% Impervious Runoff Depth>1.31"
Flow Length=197' Tc=6.0 min CN=84 Runoff=2.68 cfs 0.195 af

SubcatchmentPOST-2.3: Runoff Area=73,864 sf 0.74% Impervious Runoff Depth>0.71"
Flow Length=486' Tc=9.8 min CN=73 Runoff=1.09 cfs 0.100 af

Pond RG-1: Peak Elev=558.03' Storage=3,843 cf Inflow=2.91 cfs 0.236 af
Outflow=0.72 cfs 0.196 af

Pond RG-2: Peak Elev=559.99' Storage=3,183 cf Inflow=2.53 cfs 0.184 af
Outflow=0.85 cfs 0.157 af

Pond RG-3: Peak Elev=573.73' Storage=4,442 cf Inflow=2.68 cfs 0.195 af
Primary=0.23 cfs 0.140 af Secondary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.140 af

Link PA-1: Inflow=0.76 cfs 0.210 af
Primary=0.76 cfs 0.210 af

Link PA-2: Inflow=1.98 cfs 0.442 af
Primary=1.98 cfs 0.442 af

Total Runoff Area = 9.125 ac Runoff Volume = 0.774 af Average Runoff Depth = 1.02"
75.01% Pervious = 6.844 ac 24.99% Impervious = 2.281 ac

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Type III 24-hr 10-YR Rainfall=4.04"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST-1.0: Runoff Area=9,807 sf 5.62% Impervious Runoff Depth>1.62"
Flow Length=329' Tc=6.5 min CN=74 Runoff=0.41 cfs 0.030 af

SubcatchmentPOST-1.1: Runoff Area=136,983 sf 23.52% Impervious Runoff Depth>1.84"
Flow Length=404' Tc=7.9 min UI Adjusted CN=77 Runoff=6.23 cfs 0.482 af

SubcatchmentPOST-2.0: Runoff Area=29,499 sf 11.75% Impervious Runoff Depth>1.69"
Flow Length=145' Tc=6.0 min UI Adjusted CN=75 Runoff=1.30 cfs 0.096 af

SubcatchmentPOST-2.1: Runoff Area=69,620 sf 44.00% Impervious Runoff Depth>2.49"
Flow Length=308' Tc=6.0 min CN=85 Runoff=4.56 cfs 0.332 af

SubcatchmentPOST-2.2: Runoff Area=77,713 sf 41.08% Impervious Runoff Depth>2.40"
Flow Length=197' Tc=6.0 min CN=84 Runoff=4.93 cfs 0.357 af

SubcatchmentPOST-2.3: Runoff Area=73,864 sf 0.74% Impervious Runoff Depth>1.55"
Flow Length=486' Tc=9.8 min CN=73 Runoff=2.62 cfs 0.219 af

Pond RG-1: Peak Elev=559.35' Storage=7,593 cf Inflow=6.23 cfs 0.482 af
Outflow=1.79 cfs 0.428 af

Pond RG-2: Peak Elev=560.84' Storage=4,843 cf Inflow=4.56 cfs 0.332 af
Outflow=1.98 cfs 0.298 af

Pond RG-3: Peak Elev=574.10' Storage=6,017 cf Inflow=4.93 cfs 0.357 af
Primary=1.70 cfs 0.294 af Secondary=0.00 cfs 0.000 af Outflow=1.70 cfs 0.294 af

Link PA-1: Inflow=1.91 cfs 0.459 af
Primary=1.91 cfs 0.459 af

Link PA-2: Inflow=7.17 cfs 0.907 af
Primary=7.17 cfs 0.907 af

Total Runoff Area = 9.125 ac Runoff Volume = 1.517 af Average Runoff Depth = 2.00"
75.01% Pervious = 6.844 ac 24.99% Impervious = 2.281 ac

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Type III 24-hr 10-YR Rainfall=4.04"

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Summary for Subcatchment POST-1.0:

Runoff = 0.41 cfs @ 12.10 hrs, Volume= 0.030 af, Depth> 1.62"
 Routed to Link PA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
0	98	Unconnected roofs, HSG C
7,158	74	>75% Grass cover, Good, HSG C
2,098	70	Woods, Good, HSG C
551	98	Unconnected pavement, HSG C
9,807	74	Weighted Average
9,256		94.38% Pervious Area
551		5.62% Impervious Area
551		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	25	0.0885	0.10		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.75"
0.3	23	0.0885	1.49		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	97	0.0927	2.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	49	0.0612	1.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	30	0.2333	3.38		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.4	105	0.0952	4.63		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
6.5	329	Total			

Summary for Subcatchment POST-1.1:

Runoff = 6.23 cfs @ 12.12 hrs, Volume= 0.482 af, Depth> 1.84"
 Routed to Pond RG-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Adj	Description
17,066	98		Unconnected roofs, HSG C
104,758	74		>75% Grass cover, Good, HSG C
0	70		Woods, Good, HSG C
15,159	98		Unconnected pavement, HSG C
136,983	80	77	Weighted Average, UI Adjusted
104,758			76.48% Pervious Area
32,225			23.52% Impervious Area
32,225			100.00% Unconnected

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Type III 24-hr 10-YR Rainfall=4.04"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	25	0.0689	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.75"
0.8	62	0.0689	1.31		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.7	82	0.0823	2.01		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	58	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	39	0.2307	3.36		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.9	138	0.0289	2.55		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.9	404	Total			

Summary for Subcatchment POST-2.0:

Runoff = 1.30 cfs @ 12.10 hrs, Volume= 0.096 af, Depth> 1.69"
Routed to Link PA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Adj	Description
3,465	98		Unconnected roofs, HSG C
23,163	74		>75% Grass cover, Good, HSG C
2,871	70		Woods, Good, HSG C
0	98		Unconnected pavement, HSG C
29,499	76	75	Weighted Average, UI Adjusted
26,034			88.25% Pervious Area
3,465			11.75% Impervious Area
3,465			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	36	0.1940	0.32		Sheet Flow, Grass: Short n= 0.150 P2= 2.75"
0.3	39	0.0890	2.09		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	45	0.2889	3.76		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.3	25	0.0847	1.46		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	145	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 10-YR Rainfall=4.04"

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Summary for Subcatchment POST-2.1:

Runoff = 4.56 cfs @ 12.09 hrs, Volume= 0.332 af, Depth> 2.49"
 Routed to Pond RG-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
8,418	98	Unconnected roofs, HSG C
38,989	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
22,213	98	Unconnected pavement, HSG C
69,620	85	Weighted Average
38,989		56.00% Pervious Area
30,631		44.00% Impervious Area
30,631		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	15	0.3850	0.35		Sheet Flow, Grass: Short n= 0.150 P2= 2.75"
2.1	293	0.0247	2.36		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
2.8	308	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment POST-2.2:

Runoff = 4.93 cfs @ 12.09 hrs, Volume= 0.357 af, Depth> 2.40"
 Routed to Pond RG-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
15,535	98	Unconnected roofs, HSG C
45,787	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
16,391	98	Unconnected pavement, HSG C
77,713	84	Weighted Average
45,787		58.92% Pervious Area
31,926		41.08% Impervious Area
31,926		100.00% Unconnected

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Type III 24-hr 10-YR Rainfall=4.04"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	50	0.0714	0.23		Sheet Flow, Grass: Short n= 0.150 P2= 2.75"
0.4	48	0.0714	1.87		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.6	99	0.0050	1.06		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
5.6	197	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment POST-2.3:

Runoff = 2.62 cfs @ 12.15 hrs, Volume= 0.219 af, Depth> 1.55"
 Routed to Link PA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-YR Rainfall=4.04"

Area (sf)	CN	Description
550	98	Unconnected roofs, HSG C
48,519	74	>75% Grass cover, Good, HSG C
24,795	70	Woods, Good, HSG C
0	98	Unconnected pavement, HSG C
73,864	73	Weighted Average
73,314		99.26% Pervious Area
550		0.74% Impervious Area
550		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	25	0.0964	0.10		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.75"
0.6	51	0.0764	1.38		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.3	358	0.0391	1.38		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	52	0.0519	1.14		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
9.8	486	Total			

Summary for Pond RG-1:

Inflow Area = 3.145 ac, 23.52% Impervious, Inflow Depth > 1.84" for 10-YR event
 Inflow = 6.23 cfs @ 12.12 hrs, Volume= 0.482 af
 Outflow = 1.79 cfs @ 12.52 hrs, Volume= 0.428 af, Atten= 71%, Lag= 24.1 min
 Primary = 1.79 cfs @ 12.52 hrs, Volume= 0.428 af
 Routed to Link PA-1 :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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Type III 24-hr 10-YR Rainfall=4.04"

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Peak Elev= 559.35' @ 12.52 hrs Surf.Area= 3,654 sf Storage= 7,593 cf

Flood Elev= 562.50' Surf.Area= 6,132 sf Storage= 20,801 cf

Plug-Flow detention time= 114.4 min calculated for 0.428 af (89% of inflow)

Center-of-Mass det. time= 61.7 min (902.5 - 840.9)

Volume	Invert	Avail.Storage	Storage Description
#1	553.17'	20,801 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
553.17	1,107	0.0	0	0
554.25	1,107	40.0	478	478
556.00	1,107	10.0	194	672
558.00	1,995	100.0	3,102	3,774
560.00	4,450	100.0	6,445	10,219
562.00	6,132	100.0	10,582	20,801

Device	Routing	Invert	Outlet Devices
#1	Primary	553.17'	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 553.17' / 552.25' S= 0.0224 ' S= 0.0224 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	553.17'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 2	556.00'	10.000 in/hr Exfiltration over Surface area above 556.00' Excluded Surface area = 1,107 sf
#4	Device 1	557.50'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	560.00'	15.0" W x 18.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.78 cfs @ 12.52 hrs HW=559.35' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Passes 1.78 cfs of 9.01 cfs potential flow)
 2=Orifice/Grate (Passes 0.59 cfs of 2.30 cfs potential flow)
 3=Exfiltration (Exfiltration Controls 0.59 cfs)
 4=Orifice/Grate (Orifice Controls 1.20 cfs @ 6.09 fps)
 5=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond RG-2:

Inflow Area = 1.598 ac, 44.00% Impervious, Inflow Depth > 2.49" for 10-YR event
 Inflow = 4.56 cfs @ 12.09 hrs, Volume= 0.332 af
 Outflow = 1.98 cfs @ 12.31 hrs, Volume= 0.298 af, Atten= 57%, Lag= 12.9 min
 Primary = 1.98 cfs @ 12.31 hrs, Volume= 0.298 af
 Routed to Link PA-2 :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 560.84' @ 12.31 hrs Surf.Area= 2,175 sf Storage= 4,843 cf
 Flood Elev= 562.50' Surf.Area= 2,781 sf Storage= 7,711 cf

Plug-Flow detention time= 120.4 min calculated for 0.298 af (90% of inflow)

Center-of-Mass det. time= 71.4 min (887.0 - 815.5)

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Type III 24-hr 10-YR Rainfall=4.04"

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Volume	Invert	Avail.Storage	Storage Description
#1	555.17'	7,711 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
555.17	911	0.0	0	0
556.25	911	40.0	394	394
558.00	911	10.0	159	553
560.00	1,733	100.0	2,644	3,197
562.00	2,781	100.0	4,514	7,711

Device	Routing	Invert	Outlet Devices
#1	Primary	555.17'	12.0" Round Culvert L= 37.0' Ke= 0.500 Inlet / Outlet Invert= 555.17' / 554.50' S= 0.0181 ' S= 0.0181 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	555.17'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 2	558.00'	10.000 in/hr Exfiltration over Surface area above 558.00' Excluded Surface area = 911 sf
#4	Device 1	559.50'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Device 1	561.50'	15.0" W x 18.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.98 cfs @ 12.31 hrs HW=560.84' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Passes 1.98 cfs of 8.60 cfs potential flow)
 2=Orifice/Grate (Passes 0.29 cfs of 2.20 cfs potential flow)
 3=Exfiltration (Exfiltration Controls 0.29 cfs)
 4=Orifice/Grate (Orifice Controls 1.69 cfs @ 4.83 fps)
 5=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond RG-3:

[92] Warning: Device #5 is above defined storage

Inflow Area = 1.784 ac, 41.08% Impervious, Inflow Depth > 2.40" for 10-YR event
 Inflow = 4.93 cfs @ 12.09 hrs, Volume= 0.357 af
 Outflow = 1.70 cfs @ 12.39 hrs, Volume= 0.294 af, Atten= 65%, Lag= 18.1 min
 Primary = 1.70 cfs @ 12.39 hrs, Volume= 0.294 af
 Routed to Link PA-2 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link PA-2 :

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 574.10' @ 12.39 hrs Surf.Area= 4,614 sf Storage= 6,017 cf
 Flood Elev= 576.25' Surf.Area= 6,526 sf Storage= 11,045 cf

Plug-Flow detention time= 167.8 min calculated for 0.294 af (82% of inflow)
 Center-of-Mass det. time= 96.7 min (915.5 - 818.7)

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Type III 24-hr 10-YR Rainfall=4.04"

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Volume	Invert	Avail.Storage	Storage Description
#1	570.17'	11,045 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
570.17	3,048	0.0	0	0
571.25	3,048	40.0	1,317	1,317
573.00	3,048	10.0	533	1,850
574.00	4,408	100.0	3,728	5,578
575.00	6,526	100.0	5,467	11,045

Device	Routing	Invert	Outlet Devices
#1	Primary	570.17'	6.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 570.17' / 569.50' S= 0.0223 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.20 sf
#2	Device 1	570.17'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 2	573.00'	10.000 in/hr Exfiltration over Surface area above 573.00' Excluded Surface area = 3,048 sf
#4	Device 1	573.75'	15.0" W x 18.0" H Vert. Orifice/Grate X 104.00 C= 0.600 Limited to weir flow at low heads
#5	Secondary	576.00'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 0.50 Width (feet) 4.00 7.00

Primary OutFlow Max=1.70 cfs @ 12.39 hrs HW=574.10' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Barrel Controls 1.70 cfs @ 8.66 fps)
 2=Orifice/Grate (Passes < 1.81 cfs potential flow)
 3=Exfiltration (Passes < 0.36 cfs potential flow)
 4=Orifice/Grate (Passes < 85.19 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=570.17' TW=0.00' (Dynamic Tailwater)

- 5=Custom Weir/Orifice (Controls 0.00 cfs)

Summary for Link PA-1:

Inflow Area = 3.370 ac, 22.33% Impervious, Inflow Depth > 1.63" for 10-YR event
 Inflow = 1.91 cfs @ 12.43 hrs, Volume= 0.459 af
 Primary = 1.91 cfs @ 12.43 hrs, Volume= 0.459 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-2:

Inflow Area = 5.755 ac, 26.55% Impervious, Inflow Depth > 1.89" for 10-YR event
 Inflow = 7.17 cfs @ 12.15 hrs, Volume= 0.907 af
 Primary = 7.17 cfs @ 12.15 hrs, Volume= 0.907 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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Type III 24-hr 25-YR Rainfall=5.03"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST-1.0: Runoff Area=9,807 sf 5.62% Impervious Runoff Depth>2.39"
Flow Length=329' Tc=6.5 min CN=74 Runoff=0.61 cfs 0.045 af

SubcatchmentPOST-1.1: Runoff Area=136,983 sf 23.52% Impervious Runoff Depth>2.64"
Flow Length=404' Tc=7.9 min UI Adjusted CN=77 Runoff=9.02 cfs 0.693 af

SubcatchmentPOST-2.0: Runoff Area=29,499 sf 11.75% Impervious Runoff Depth>2.47"
Flow Length=145' Tc=6.0 min UI Adjusted CN=75 Runoff=1.92 cfs 0.139 af

SubcatchmentPOST-2.1: Runoff Area=69,620 sf 44.00% Impervious Runoff Depth>3.39"
Flow Length=308' Tc=6.0 min CN=85 Runoff=6.16 cfs 0.452 af

SubcatchmentPOST-2.2: Runoff Area=77,713 sf 41.08% Impervious Runoff Depth>3.30"
Flow Length=197' Tc=6.0 min CN=84 Runoff=6.70 cfs 0.490 af

SubcatchmentPOST-2.3: Runoff Area=73,864 sf 0.74% Impervious Runoff Depth>2.30"
Flow Length=486' Tc=9.8 min CN=73 Runoff=3.95 cfs 0.325 af

Pond RG-1: Peak Elev=560.20' Storage=11,140 cf Inflow=9.02 cfs 0.693 af
Outflow=2.66 cfs 0.631 af

Pond RG-2: Peak Elev=561.47' Storage=6,315 cf Inflow=6.16 cfs 0.452 af
Outflow=2.52 cfs 0.413 af

Pond RG-3: Peak Elev=574.60' Storage=8,630 cf Inflow=6.70 cfs 0.490 af
Primary=1.80 cfs 0.421 af Secondary=0.00 cfs 0.000 af Outflow=1.80 cfs 0.421 af

Link PA-1: Inflow=2.83 cfs 0.675 af
Primary=2.83 cfs 0.675 af

Link PA-2: Inflow=9.63 cfs 1.298 af
Primary=9.63 cfs 1.298 af

Total Runoff Area = 9.125 ac Runoff Volume = 2.144 af Average Runoff Depth = 2.82"
75.01% Pervious = 6.844 ac 24.99% Impervious = 2.281 ac

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Type III 24-hr 50-YR Rainfall=5.94"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST-1.0: Runoff Area=9,807 sf 5.62% Impervious Runoff Depth>3.13"
Flow Length=329' Tc=6.5 min CN=74 Runoff=0.80 cfs 0.059 af

SubcatchmentPOST-1.1: Runoff Area=136,983 sf 23.52% Impervious Runoff Depth>3.42"
Flow Length=404' Tc=7.9 min UI Adjusted CN=77 Runoff=11.68 cfs 0.897 af

SubcatchmentPOST-2.0: Runoff Area=29,499 sf 11.75% Impervious Runoff Depth>3.23"
Flow Length=145' Tc=6.0 min UI Adjusted CN=75 Runoff=2.52 cfs 0.182 af

SubcatchmentPOST-2.1: Runoff Area=69,620 sf 44.00% Impervious Runoff Depth>4.24"
Flow Length=308' Tc=6.0 min CN=85 Runoff=7.64 cfs 0.565 af

SubcatchmentPOST-2.2: Runoff Area=77,713 sf 41.08% Impervious Runoff Depth>4.14"
Flow Length=197' Tc=6.0 min CN=84 Runoff=8.35 cfs 0.615 af

SubcatchmentPOST-2.3: Runoff Area=73,864 sf 0.74% Impervious Runoff Depth>3.03"
Flow Length=486' Tc=9.8 min CN=73 Runoff=5.24 cfs 0.429 af

Pond RG-1: Peak Elev=560.65' Storage=13,295 cf Inflow=11.68 cfs 0.897 af
Outflow=4.62 cfs 0.831 af

Pond RG-2: Peak Elev=561.86' Storage=7,331 cf Inflow=7.64 cfs 0.565 af
Outflow=3.68 cfs 0.521 af

Pond RG-3: Peak Elev=574.99' Storage=10,975 cf Inflow=8.35 cfs 0.615 af
Primary=1.88 cfs 0.542 af Secondary=0.00 cfs 0.000 af Outflow=1.88 cfs 0.542 af

Link PA-1: Inflow=4.91 cfs 0.889 af
Primary=4.91 cfs 0.889 af

Link PA-2: Inflow=12.09 cfs 1.673 af
Primary=12.09 cfs 1.673 af

Total Runoff Area = 9.125 ac Runoff Volume = 2.747 af Average Runoff Depth = 3.61"
75.01% Pervious = 6.844 ac 24.99% Impervious = 2.281 ac

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POST-DEVELOPMENT WATERSHED LEGEND

POST 1.0

POST POND 1

PA-1

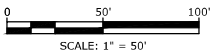
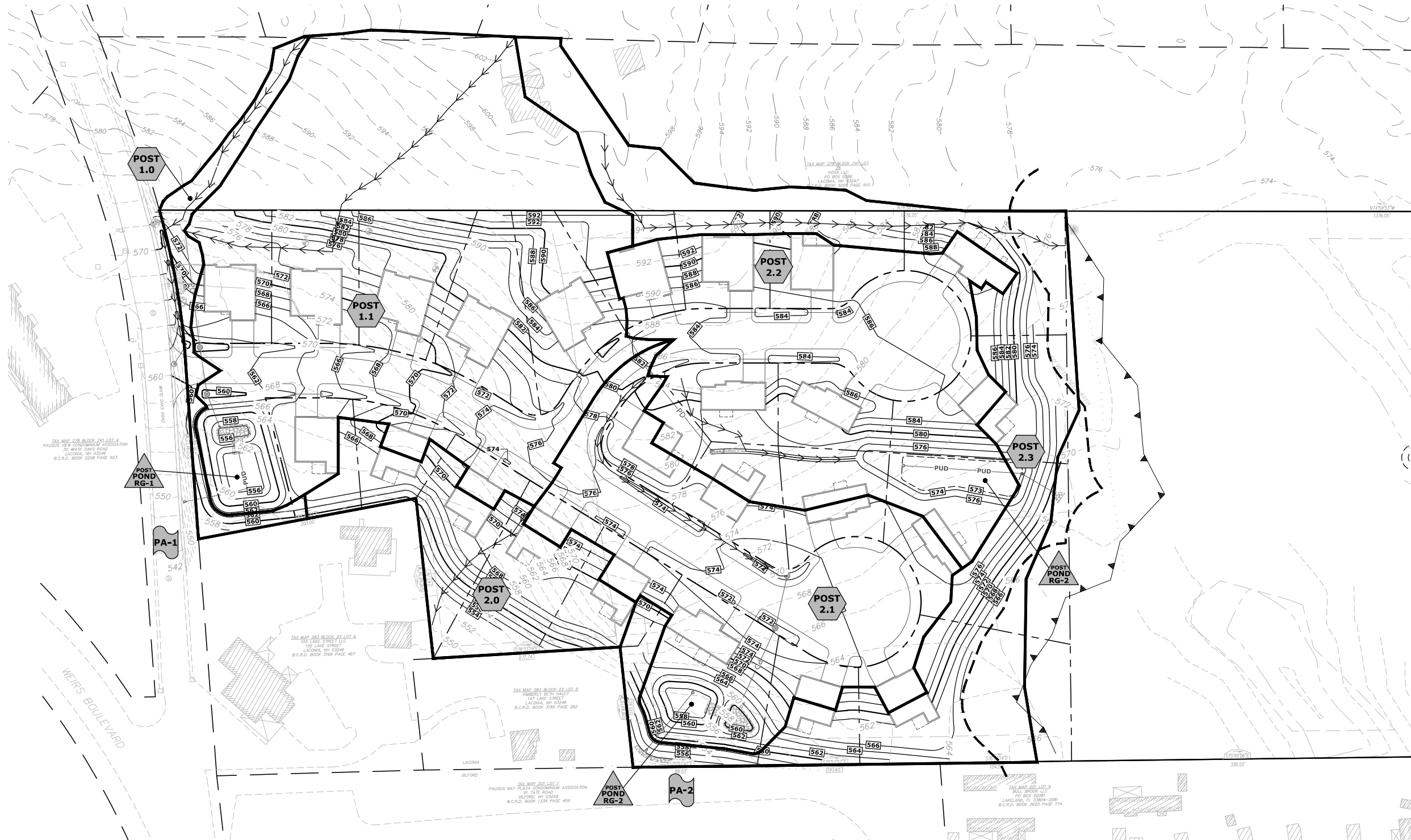
POST-DEVELOPMENT WATERSHED BOUNDARY

POST-DEVELOPMENT LONGEST FLOW PATH

POST-DEVELOPMENT WATERSHED AREA DESIGNATION

POST-DEVELOPMENT POND DESIGNATION

POINT OF ANALYSIS



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33 WHITE OAKS SUBDIVISION

33 White Oaks Road

Laconia, New Hampshire

1	1/30/2026	TRC Submission
MARK	DATE	DESCRIPTION
PROJECT NO: R5089-0278		
DATE: 01/30/2026		
FILE: R5089-0278-C-HYDRO.dwg		
DRAWN BY: M.CURLEY/C.KRZCUIK		
DESIGNED BY: C.KRZCUIK		
CHECKED BY: N.HANSEN		
APPROVED BY: P.CRIMMINS		

POST-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-803

2.4 Peak Rate Comparisons

The following table summarizes and compares the pre- and post-development peak runoff rates from the 2-year, 10-year, 25- year, and 50-year storm events at each point of analysis.

TABLE 2-1 Comparison of Pre and Post Development Flows

Point of Analysis	Pre/Post 2-Year Storm (cfs)	Pre/Post 10-Year Storm (cfs)	Pre/Post 25-Year Storm (cfs)	Pre/Post 50-Year Storm (cfs)
PA-1	1.15/ 0.76	2.90/ 1.91	4.44/ 2.83	5.93/ 4.91
PA-2	3.12/ 1.98	8.42/ 7.17	13.18/ 9.63	17.87/ 12.09

2.5 Mitigation Description

2.5.1 Mitigation Calculations

The proposed project area has been evaluated to treat the required water quality volume (WQV) per the requirements of Env-Wq 1500. These calculations have been provided in Section 3 of this report (BMP Worksheets).

2.5.2 Pre-Treatment Methods for Protecting Water Quality

Pretreatment methods for protecting water quality on this site include sediment forebays and pretreatment swales.

2.5.3 Treatment Methods for Protecting Water Quality

Treatment for the site is provided by means of three surface bioretention rain gardens. Each rain garden has been sized to treat the required Water Quality Volume for its respective subcatchment areas. The BMP Worksheets for these treatment practices have been included in Section 3 of this report.

SECTION 3 | BMP Worksheets

FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.08)

Type/Node Name:

RG 1

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable.

		Check if you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.08(a).		
3.15	ac	A = Area draining to the practice		
0.73	ac	A _I = Impervious area draining to the practice		
0.23	decimal	I = Percent impervious area draining to the practice, in decimal form		
0.26	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)		
0.81	ac-in	WQV = 1" x R _v x A		
2,956	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")		
739	cf	25% x WQV (check calc for sediment forebay volume)		
2,217	cf	75% x WQV (check calc for surface sand filter volume)		
		Method of Pretreatment? (not required for clean or roof runoff)		
1,036	cf	V _{SED} = Sediment forebay volume, if used for pretreatment		≥ 25%WQV
Calculate time to drain if system IS NOT underdrained:				
1,107	sf	A _{SA} = Surface area of the practice		
N/A	iph	K _{sat} _{DESIGN} = Design infiltration rate ¹		
		If K _{sat} (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?		
Yes	Yes/No	(Use the calculations below)		
-	hours	T _{DRAIN} = Drain time = V / (A _{SA} * I _{DESIGN})		≤ 72-hrs
Calculate time to drain if system IS underdrained:				
557.47	ft	E _{WQV} = Elevation of WQV (attach stage-storage table)		
0.15	cfs	Q _{WQV} = Discharge at the E _{WQV} (attach stage-discharge table)		
10.95	hours	T _{DRAIN} = Drain time = 2WQV/Q _{WQV}		≤ 72-hrs
554.25	feet	E _{FC} = Elevation of the bottom of the filter course material ²		
553.17	feet	E _{UD} = Invert elevation of the underdrain (UD), if applicable		
	feet	E _{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)		
	feet	E _{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)		
1.08	feet	D _{FC to UD} = Depth to UD from the bottom of the filter course		≥ 1'
554.25	feet	D _{FC to ROCK} = Depth to bedrock from the bottom of the filter course		≥ 1'
554.25	feet	D _{FC to SHWT} = Depth to SHWT from the bottom of the filter course		≥ 1'
560.65	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)		
562.50	ft	Elevation of the top of the practice		
YES		50 peak elevation ≤ Elevation of the top of the practice		← yes
If a surface sand filter or underground sand filter is proposed:				
YES	ac	Drainage Area check.		< 10 ac
	cf	V = Volume of storage ³ (attach a stage-storage table)		≥ 75%WQV
	inches	D _{FC} = Filter course thickness		18", or 24" if within GPA
Sheet		Note what sheet in the plan set contains the filter course specification.		
Yes/No		Access grate provided?		← yes

YES	ac	Drainage Area no larger than 5 ac?	← yes
2,299	cf	V = Volume of storage ³ (attach a stage-storage table)	≥ WQV
18.0	inches	D _{FC} = Filter course thickness	18", or 24" if within GPA
Sheet	C-605	Note what sheet in the plan set contains the filter course specification	
3.0	:1	Pond side slopes	≥ 3:1
Sheet	C-605	Note what sheet in the plan set contains the planting plans and surface cover	
If porous pavement is proposed:			
	acres	Type of pavement proposed (Concrete? Asphalt? Pavers? Etc.) A _{SA} = Surface area of the pervious pavement	
	:1	Ratio of the contributing area to the pervious surface area	≤ 5:1
	inches	D _{FC} = Filter course thickness	12", or 18" if within GPA
Sheet		Note what sheet in the plan set contains the filter course spec.	mod. 304.1 (see spec)

1. Rate of the limiting layer (either the filter course or the underlying soil). K_{sat_design} includes factor of safety. See Env-Wq 1504.14 for guidance on determining the infiltration rate.
2. See lines 34, 40 and 48 for required depths of filter media.
3. Volume without depending on infiltration. The volume includes the storage above the filter (but below the invert of the outlet structure, if any), the filter media voids, and the pretreatment area. The storage above the filter media shall not include the volume above the outlet structure, if any.

[illegible]

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Type III 24-hr 50-YR Rainfall=5.94"

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Stage-Area-Storage for Pond RG-1:

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
553.17	1,107	0	558.37	2,449	4,596
553.27	1,107	44	558.47	2,572	4,847
553.37	1,107	89	558.57	2,695	5,111
553.47	1,107	133	558.67	2,817	5,386
553.57	1,107	177	558.77	2,940	5,674
553.67	1,107	221	558.87	3,063	5,974
553.77	1,107	266	558.97	3,186	6,287
553.87	1,107	310	559.07	3,308	6,611
553.97	1,107	354	559.17	3,431	6,948
554.07	1,107	399	559.27	3,554	7,298
554.17	1,107	443	559.37	3,677	7,659
554.27	1,107	480	559.47	3,799	8,033
554.37	1,107	492	559.57	3,922	8,419
554.47	1,107	503	559.67	4,045	8,817
554.57	1,107	514	559.77	4,168	9,228
554.67	1,107	525	559.87	4,290	9,651
554.77	1,107	536	559.97	4,413	10,086
554.87	1,107	547	560.07	4,509	10,533
554.97	1,107	558	560.17	4,593	10,988
555.07	1,107	569	560.27	4,677	11,451
555.17	1,107	580	560.37	4,761	11,923
555.27	1,107	591	560.47	4,845	12,403
555.37	1,107	602	560.57	4,929	12,892
555.47	1,107	613	560.67	5,013	13,389
555.57	1,107	624	560.77	5,098	13,895
555.67	1,107	635	560.87	5,182	14,409
555.77	1,107	646	560.97	5,266	14,931
555.87	1,107	658	561.07	5,350	15,462
555.97	1,107	669	561.17	5,434	16,001
556.07	1,138	751	561.27	5,518	16,549
556.17	1,182	867	561.37	5,602	17,105
556.27	1,227	987	561.47	5,686	17,669
556.37	1,271	1,112	561.57	5,770	18,242
556.47	1,316	1,241	561.67	5,854	18,823
556.57	1,360	1,375	561.77	5,939	19,413
556.67	1,404	1,513	561.87	6,023	20,011
556.77	1,449	1,656	561.97	6,107	20,617
556.87	1,493	1,803	562.07	6,132	20,801
556.97	1,538	1,955	562.17	6,132	20,801
557.07	1,582	2,111	562.27	6,132	20,801
557.17	1,626	2,271	562.37	6,132	20,801
557.27	1,671	2,436	562.47	6,132	20,801
557.37	1,715	2,605			
557.47	1,760	2,779			
557.57	1,804	2,957			
557.67	1,848	3,140			
557.77	1,893	3,327			
557.87	1,937	3,518			
557.97	1,982	3,714			
558.07	2,081	3,917			
558.17	2,204	4,131			
558.27	2,326	4,357			

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Type III 24-hr 50-YR Rainfall=5.94"

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Stage-Discharge for Pond RG-1:

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
553.17	0.00	555.77	0.00	558.37	1.06	560.97	6.49
553.22	0.00	555.82	0.00	558.42	1.10	561.02	6.82
553.27	0.00	555.87	0.00	558.47	1.14	561.07	7.15
553.32	0.00	555.92	0.00	558.52	1.18	561.12	7.48
553.37	0.00	555.97	0.00	558.57	1.22	561.17	7.83
553.42	0.00	556.02	0.00	558.62	1.26	561.22	8.18
553.47	0.00	556.07	0.01	558.67	1.30	561.27	8.54
553.52	0.00	556.12	0.01	558.72	1.34	561.32	8.90
553.57	0.00	556.17	0.02	558.77	1.38	561.37	9.27
553.62	0.00	556.22	0.02	558.82	1.42	561.42	9.65
553.67	0.00	556.27	0.03	558.87	1.45	561.47	10.03
553.72	0.00	556.32	0.03	558.92	1.49	561.52	10.41
553.77	0.00	556.37	0.04	558.97	1.53	561.57	10.75
553.82	0.00	556.42	0.04	559.02	1.56	561.62	11.06
553.87	0.00	556.47	0.05	559.07	1.60	561.67	11.35
553.92	0.00	556.52	0.05	559.12	1.63	561.72	11.63
553.97	0.00	556.57	0.06	559.17	1.66	561.77	11.90
554.02	0.00	556.62	0.06	559.22	1.70	561.82	12.16
554.07	0.00	556.67	0.07	559.27	1.73	561.87	12.41
554.12	0.00	556.72	0.07	559.32	1.77	561.92	12.66
554.17	0.00	556.77	0.08	559.37	1.80	561.97	12.90
554.22	0.00	556.82	0.08	559.42	1.83	562.02	13.13
554.27	0.00	556.87	0.09	559.47	1.86	562.07	13.35
554.32	0.00	556.92	0.09	559.52	1.90	562.12	13.57
554.37	0.00	556.97	0.10	559.57	1.93	562.17	13.78
554.42	0.00	557.02	0.10	559.62	1.96	562.22	13.98
554.47	0.00	557.07	0.11	559.67	1.99	562.27	14.19
554.52	0.00	557.12	0.12	559.72	2.02	562.32	14.38
554.57	0.00	557.17	0.12	559.77	2.05	562.37	14.58
554.62	0.00	557.22	0.13	559.82	2.08	562.42	14.77
554.67	0.00	557.27	0.13	559.87	2.11	562.47	14.96
554.72	0.00	557.32	0.14	559.92	2.14		
554.77	0.00	557.37	0.14	559.97	2.17		
554.82	0.00	557.42	0.15	560.02	2.21		
554.87	0.00	557.47	0.15	560.07	2.30		
554.92	0.00	557.52	0.16	560.12	2.42		
554.97	0.00	557.57	0.18	560.17	2.56		
555.02	0.00	557.62	0.21	560.22	2.72		
555.07	0.00	557.67	0.25	560.27	2.89		
555.12	0.00	557.72	0.31	560.32	3.08		
555.17	0.00	557.77	0.37	560.37	3.28		
555.22	0.00	557.82	0.44	560.42	3.49		
555.27	0.00	557.87	0.51	560.47	3.72		
555.32	0.00	557.92	0.59	560.52	3.95		
555.37	0.00	557.97	0.65	560.57	4.20		
555.42	0.00	558.02	0.70	560.62	4.46		
555.47	0.00	558.07	0.76	560.67	4.72		
555.52	0.00	558.12	0.81	560.72	4.99		
555.57	0.00	558.17	0.87	560.77	5.28		
555.62	0.00	558.22	0.92	560.82	5.57		
555.67	0.00	558.27	0.96	560.87	5.87		
555.72	0.00	558.32	1.01	560.92	6.18		

FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.08)

Type/Node Name:

RG 2

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable.

		Check if you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.08(a).	
1.60	ac	A = Area draining to the practice	
0.70	ac	A _I = Impervious area draining to the practice	
0.44	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.44	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)	
0.71	ac-in	WQV = 1" x R _v x A	
2,577	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
644	cf	25% x WQV (check calc for sediment forebay volume)	
1,933	cf	75% x WQV (check calc for surface sand filter volume)	
		Method of Pretreatment? (not required for clean or roof runoff)	
1,022	cf	V _{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
Calculate time to drain if system IS NOT underdrained:			
911	sf	A _{SA} = Surface area of the practice	
N/A	iph	K _{sat} _{DESIGN} = Design infiltration rate ¹	
		If K _{sat} (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?	
Yes	Yes/No	(Use the calculations below)	
-	hours	T _{DRAIN} = Drain time = V / (A _{SA} * I _{DESIGN})	≤ 72-hrs
Calculate time to drain if system IS underdrained:			
559.47	ft	E _{WQV} = Elevation of WQV (attach stage-storage table)	
0.14	cfs	Q _{WQV} = Discharge at the E _{WQV} (attach stage-discharge table)	
10.23	hours	T _{DRAIN} = Drain time = 2WQV/Q _{WQV}	≤ 72-hrs
556.25	feet	E _{FC} = Elevation of the bottom of the filter course material ²	
555.17	feet	E _{UD} = Invert elevation of the underdrain (UD), if applicable	
	feet	E _{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
	feet	E _{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
1.08	feet	D _{FC to UD} = Depth to UD from the bottom of the filter course	≥ 1'
556.25	feet	D _{FC to ROCK} = Depth to bedrock from the bottom of the filter course	≥ 1'
556.25	feet	D _{FC to SHWT} = Depth to SHWT from the bottom of the filter course	≥ 1'
561.86	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
562.50	ft	Elevation of the top of the practice	
YES		50 peak elevation ≤ Elevation of the top of the practice	← yes
If a surface sand filter or underground sand filter is proposed:			
YES	ac	Drainage Area check.	< 10 ac
	cf	V = Volume of storage ³ (attach a stage-storage table)	≥ 75%WQV
	inches	D _{FC} = Filter course thickness	18", or 24" if within GPA
Sheet		Note what sheet in the plan set contains the filter course specification.	
Yes/No		Access grate provided?	← yes

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Stage-Area-Storage for Pond RG-2:

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
555.17	911	0	560.37	1,927	3,874
555.27	911	36	560.47	1,979	4,069
555.37	911	73	560.57	2,032	4,270
555.47	911	109	560.67	2,084	4,476
555.57	911	146	560.77	2,136	4,687
555.67	911	182	560.87	2,189	4,903
555.77	911	219	560.97	2,241	5,125
555.87	911	255	561.07	2,294	5,351
555.97	911	292	561.17	2,346	5,583
556.07	911	328	561.27	2,398	5,820
556.17	911	364	561.37	2,451	6,063
556.27	911	395	561.47	2,503	6,311
556.37	911	404	561.57	2,556	6,564
556.47	911	414	561.67	2,608	6,822
556.57	911	423	561.77	2,660	7,085
556.67	911	432	561.87	2,713	7,354
556.77	911	441	561.97	2,765	7,628
556.87	911	450	562.07	2,781	7,711
556.97	911	459	562.17	2,781	7,711
557.07	911	468	562.27	2,781	7,711
557.17	911	477	562.37	2,781	7,711
557.27	911	486	562.47	2,781	7,711
557.37	911	496	562.57	2,781	7,711
557.47	911	505	562.67	2,781	7,711
557.57	911	514	562.77	2,781	7,711
557.67	911	523	562.87	2,781	7,711
557.77	911	532	562.97	2,781	7,711
557.87	911	541			
557.97	911	550			
558.07	940	618			
558.17	981	714			
558.27	1,022	814			
558.37	1,063	918			
558.47	1,104	1,027			
558.57	1,145	1,139			
558.67	1,186	1,256			
558.77	1,227	1,376			
558.87	1,269	1,501			
558.97	1,310	1,630			
559.07	1,351	1,763			
559.17	1,392	1,900			
559.27	1,433	2,041			
559.37	1,474	2,187			
559.47	1,515	2,336			
559.57	1,556	2,490			
559.67	1,597	2,647			
559.77	1,638	2,809			
559.87	1,680	2,975			
559.97	1,721	3,145			
560.07	1,770	3,320			
560.17	1,822	3,499			
560.27	1,874	3,684			

Volume below Filter
MediaVolume at Lowest
Outlet

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Type III 24-hr 50-YR Rainfall=5.94"

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Stage-Discharge for Pond RG-2:

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
555.17	0.00	557.77	0.00	560.37	1.47	562.97	10.22
555.22	0.00	557.82	0.00	560.42	1.53		
555.27	0.00	557.87	0.00	560.47	1.59		
555.32	0.00	557.92	0.00	560.52	1.65		
555.37	0.00	557.97	0.00	560.57	1.70		
555.42	0.00	558.02	0.00	560.62	1.76		
555.47	0.00	558.07	0.01	560.67	1.81		
555.52	0.00	558.12	0.01	560.72	1.86		
555.57	0.00	558.17	0.02	560.77	1.91		
555.62	0.00	558.22	0.02	560.82	1.96		
555.67	0.00	558.27	0.03	560.87	2.01		
555.72	0.00	558.32	0.03	560.92	2.05		
555.77	0.00	558.37	0.04	560.97	2.10		
555.82	0.00	558.42	0.04	561.02	2.14		
555.87	0.00	558.47	0.04	561.07	2.19		
555.92	0.00	558.52	0.05	561.12	2.23		
555.97	0.00	558.57	0.05	561.17	2.28		
556.02	0.00	558.62	0.06	561.22	2.32		
556.07	0.00	558.67	0.06	561.27	2.36		
556.12	0.00	558.72	0.07	561.32	2.40		
556.17	0.00	558.77	0.07	561.37	2.44		
556.22	0.00	558.82	0.08	561.42	2.48		
556.27	0.00	558.87	0.08	561.47	2.52		
556.32	0.00	558.92	0.09	561.52	2.57		
556.37	0.00	558.97	0.09	561.57	2.67		
556.42	0.00	559.02	0.10	561.62	2.80		
556.47	0.00	559.07	0.10	561.67	2.95		
556.52	0.00	559.12	0.11	561.72	3.12		
556.57	0.00	559.17	0.11	561.77	3.31		
556.62	0.00	559.22	0.12	561.82	3.51		
556.67	0.00	559.27	0.12	561.87	3.72		
556.72	0.00	559.32	0.13	561.92	3.94		
556.77	0.00	559.37	0.13	561.97	4.18		
556.82	0.00	559.42	0.14	562.02	4.42		
556.87	0.00	559.47	0.14	562.07	4.67		
556.92	0.00	559.52	0.15	562.12	4.93		
556.97	0.00	559.57	0.17	562.17	5.20		
557.02	0.00	559.62	0.20	562.22	5.48		
557.07	0.00	559.67	0.26	562.27	5.77		
557.12	0.00	559.72	0.32	562.32	6.06		
557.17	0.00	559.77	0.40	562.37	6.37		
557.22	0.00	559.82	0.49	562.42	6.68		
557.27	0.00	559.87	0.59	562.47	7.00		
557.32	0.00	559.92	0.69	562.52	7.32		
557.37	0.00	559.97	0.80	562.57	7.65		
557.42	0.00	560.02	0.91	562.62	7.99		
557.47	0.00	560.07	1.02	562.67	8.34		
557.52	0.00	560.12	1.11	562.72	8.70		
557.57	0.00	560.17	1.19	562.77	9.06		
557.62	0.00	560.22	1.26	562.82	9.42		
557.67	0.00	560.27	1.33	562.87	9.80		
557.72	0.00	560.32	1.40	562.92	10.18		

Discharge at
WQV

FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.08)

Type/Node Name:

RG 3

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable.

		Check if you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.08(a).	
1.78	ac	A = Area draining to the practice	
0.73	ac	A _I = Impervious area draining to the practice	
0.41	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.42	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)	
0.75	ac-in	WQV = 1" x R _v x A	
2,709	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
677	cf	25% x WQV (check calc for sediment forebay volume)	
2,032	cf	75% x WQV (check calc for surface sand filter volume)	
		Method of Pretreatment? (not required for clean or roof runoff)	
N/A	cf	V _{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
Calculate time to drain if system IS NOT underdrained:			
3,048	sf	A _{SA} = Surface area of the practice	
N/A	iph	K _{sat} _{DESIGN} = Design infiltration rate ¹	
		If K _{sat} (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?	
Yes	Yes/No	(Use the calculations below)	
-	hours	T _{DRAIN} = Drain time = V / (A _{SA} * I _{DESIGN})	≤ 72-hrs
Calculate time to drain if system IS underdrained:			
573.77	ft	E _{WQV} = Elevation of WQV (attach stage-storage table)	
0.21	cfs	Q _{WQV} = Discharge at the E _{WQV} (attach stage-discharge table)	
7.17	hours	T _{DRAIN} = Drain time = 2WQV/Q _{WQV}	≤ 72-hrs
571.25	feet	E _{FC} = Elevation of the bottom of the filter course material ²	
570.17	feet	E _{UD} = Invert elevation of the underdrain (UD), if applicable	
	feet	E _{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
	feet	E _{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
1.08	feet	D _{FC to UD} = Depth to UD from the bottom of the filter course	≥ 1'
571.25	feet	D _{FC to ROCK} = Depth to bedrock from the bottom of the filter course	≥ 1'
571.25	feet	D _{FC to SHWT} = Depth to SHWT from the bottom of the filter course	≥ 1'
574.99	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
576.00	ft	Elevation of the top of the practice	
YES		50 peak elevation ≤ Elevation of the top of the practice	← yes
If a surface sand filter or underground sand filter is proposed:			
YES	ac	Drainage Area check.	< 10 ac
	cf	V = Volume of storage ³ (attach a stage-storage table)	≥ 75%WQV
	inches	D _{FC} = Filter course thickness	18", or 24" if within GPA
Sheet		Note what sheet in the plan set contains the filter course specification.	
Yes/No		Access grate provided?	← yes

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Stage-Area-Storage for Pond RG-3:

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
570.17	3,048	0	575.37	6,526	11,045
570.27	3,048	122	575.47	6,526	11,045
570.37	3,048	244	575.57	6,526	11,045
570.47	3,048	366	575.67	6,526	11,045
570.57	3,048	488	575.77	6,526	11,045
570.67	3,048	610	575.87	6,526	11,045
570.77	3,048	732	575.97	6,526	11,045
570.87	3,048	853	576.07	6,526	11,045
570.97	3,048	975	576.17	6,526	11,045
571.07	3,048	1,097	576.27	6,526	11,045
571.17	3,048	1,219	576.37	6,526	11,045
571.27	3,048	1,323	576.47	6,526	11,045
571.37	3,048	1,353			
571.47	3,048	1,384			
571.57	3,048	1,414			
571.67	3,048	1,445			
571.77	3,048	1,475			
571.87	3,048	1,506			
571.97	3,048	1,536			
572.07	3,048	1,567			
572.17	3,048	1,597			
572.27	3,048	1,628			
572.37	3,048	1,658			
572.47	3,048	1,689			
572.57	3,048	1,719			
572.67	3,048	1,750			
572.77	3,048	1,780			
572.87	3,048	1,811			
572.97	3,048	1,841			
573.07	3,143	2,067			
573.17	3,279	2,388			
573.27	3,415	2,723			
573.37	3,551	3,071			
573.47	3,687	3,433			
573.57	3,823	3,808			
573.67	3,959	4,198			
573.77	4,095	4,600			
573.87	4,231	5,017			
573.97	4,367	5,447			
574.07	4,556	5,892			
574.17	4,768	6,358			
574.27	4,980	6,845			
574.37	5,192	7,354			
574.47	5,403	7,884			
574.57	5,615	8,435			
574.67	5,827	9,007			
574.77	6,039	9,600			
574.87	6,251	10,215			
574.97	6,462	10,850			
575.07	6,526	11,045			
575.17	6,526	11,045			
575.27	6,526	11,045			

Volume below Filter
MediaVolume at Lowest
Outlet

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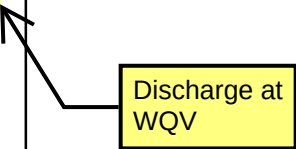
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Type III 24-hr 50-YR Rainfall=5.94"

Printed 1/29/2026

Stage-Discharge for Pond RG-3:

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
570.17	0.00	0.00	0.00	575.37	1.95	1.95	0.00
570.27	0.00	0.00	0.00	575.47	1.96	1.96	0.00
570.37	0.00	0.00	0.00	575.57	1.98	1.98	0.00
570.47	0.00	0.00	0.00	575.67	2.00	2.00	0.00
570.57	0.00	0.00	0.00	575.77	2.02	2.02	0.00
570.67	0.00	0.00	0.00	575.87	2.03	2.03	0.00
570.77	0.00	0.00	0.00	575.97	2.05	2.05	0.00
570.87	0.00	0.00	0.00	576.07	2.32	2.07	0.25
570.97	0.00	0.00	0.00	576.17	3.10	2.09	1.01
571.07	0.00	0.00	0.00	576.27	4.24	2.10	2.14
571.17	0.00	0.00	0.00	576.37	5.72	2.12	3.60
571.27	0.00	0.00	0.00	576.47	7.55	2.14	5.41
571.37	0.00	0.00	0.00				
571.47	0.00	0.00	0.00				
571.57	0.00	0.00	0.00				
571.67	0.00	0.00	0.00				
571.77	0.00	0.00	0.00				
571.87	0.00	0.00	0.00				
571.97	0.00	0.00	0.00				
572.07	0.00	0.00	0.00				
572.17	0.00	0.00	0.00				
572.27	0.00	0.00	0.00				
572.37	0.00	0.00	0.00				
572.47	0.00	0.00	0.00				
572.57	0.00	0.00	0.00				
572.67	0.00	0.00	0.00				
572.77	0.00	0.00	0.00				
572.87	0.00	0.00	0.00				
572.97	0.00	0.00	0.00				
573.07	0.02	0.02	0.00				
573.17	0.05	0.05	0.00				
573.27	0.08	0.08	0.00				
573.37	0.12	0.12	0.00				
573.47	0.15	0.15	0.00				
573.57	0.18	0.18	0.00				
573.67	0.21	0.21	0.00				
573.77	1.42	1.42	0.00				
573.87	1.65	1.65	0.00				
573.97	1.67	1.67	0.00				
574.07	1.69	1.69	0.00				
574.17	1.71	1.71	0.00				
574.27	1.73	1.73	0.00				
574.37	1.76	1.76	0.00				
574.47	1.78	1.78	0.00				
574.57	1.79	1.79	0.00				
574.67	1.81	1.81	0.00				
574.77	1.83	1.83	0.00				
574.87	1.85	1.85	0.00				
574.97	1.87	1.87	0.00				
575.07	1.89	1.89	0.00				
575.17	1.91	1.91	0.00				
575.27	1.93	1.93	0.00				

**Discharge at
WQV**



Appendix A: NRCS Web Soil Survey



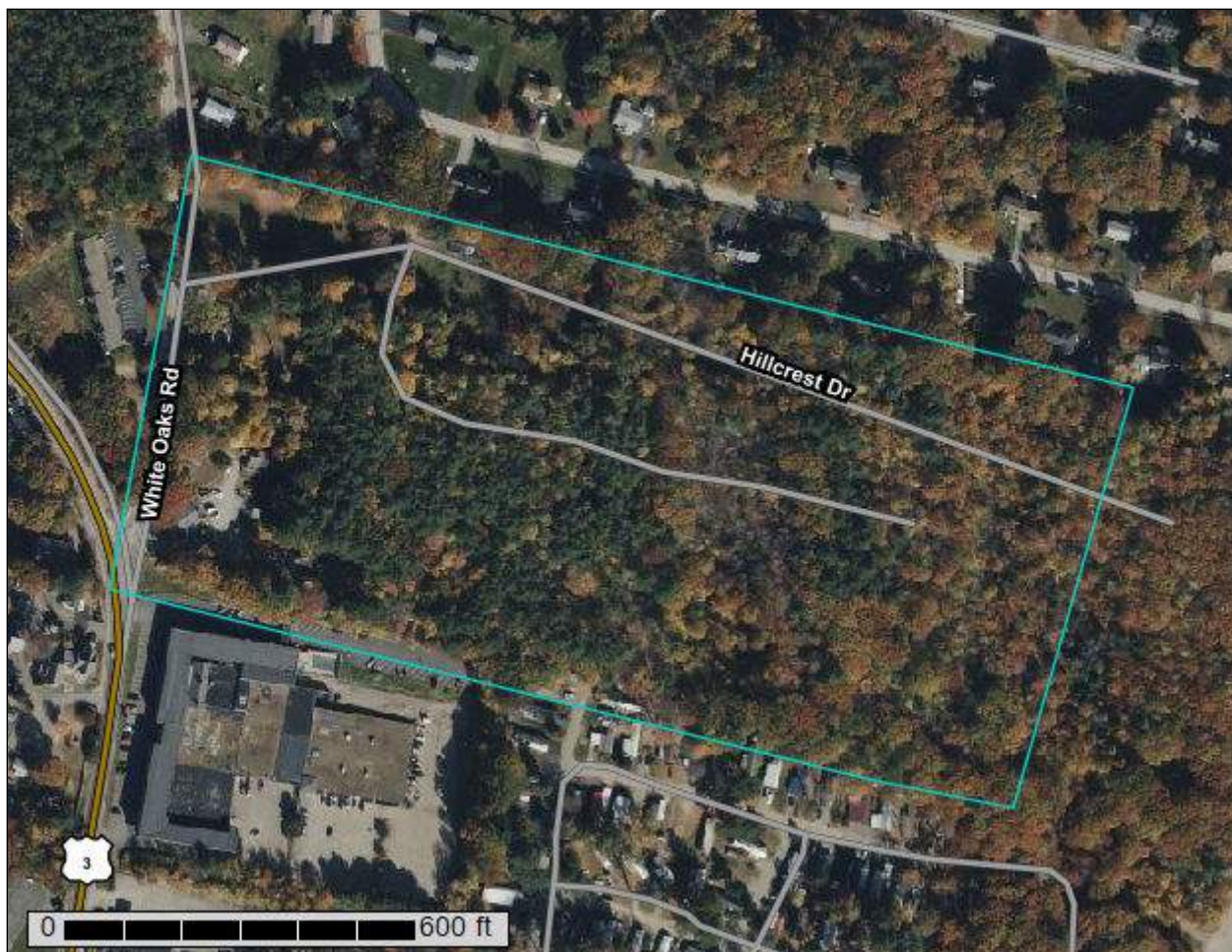
United States
Department of
Agriculture

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 Merrimack and Belknap Counties, 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

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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.

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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 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Merrimack and Belknap Counties, New Hampshire
Survey Area Data: Version 31, Sep 10, 2025

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

Date(s) aerial images were photographed: Oct 6, 2022—Oct 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

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
166B	Canterbury fine sandy loam, 3 to 8 percent slopes	6.2	21.9%
167C	Canterbury fine sandy loam, 8 to 15 percent slopes, very stony	8.3	29.3%
167D	Canterbury fine sandy loam, 15 to 25 percent slopes, very stony	8.2	28.8%
479B	Gilmanton fine sandy loam, 3 to 8 percent slopes, very stony	4.1	14.4%
680C	Henniker-Urban land complex, 0 to 15 percent slopes	0.9	3.2%
789B	Champlain-Urban land complex, 0 to 8 percent slopes	0.7	2.4%
Totals for Area of Interest		28.3	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.

Merrimack and Belknap Counties, New Hampshire

166B—Canterbury fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9dnr
Elevation: 250 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Canterbury and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canterbury

Setting

Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lodgement till derived from granite, gneiss, or schist

Typical profile

Oe - 0 to 2 inches: slightly decomposed plant material
H1 - 2 to 6 inches: fine sandy loam
H2 - 6 to 28 inches: fine sandy loam
H3 - 28 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
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 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),
F144BY601ME - Dry Sand
Hydric soil rating: No

Minor Components

Gilmanton

Percent of map unit: 5 percent
Landform: Hillslopes

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Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Henniker

Percent of map unit: 5 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Metacomet

Percent of map unit: 3 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Pillsbury

Percent of map unit: 3 percent
Landform: Ground moraines
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: Yes

Marlow

Percent of map unit: 2 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Pillsbury

Percent of map unit: 2 percent
Landform: Ground moraines
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: Yes

167C—Canterbury fine sandy loam, 8 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 9dnv
Elevation: 250 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: Farmland of local importance

Map Unit Composition

Canterbury and similar soils: 75 percent

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Minor components: 25 percent

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

Description of Canterbury

Setting

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lodgement till derived from granite, gneiss, or schist

Typical profile

Oe - 0 to 2 inches: slightly decomposed plant material

H1 - 2 to 6 inches: fine sandy loam

H2 - 6 to 28 inches: fine sandy loam

H3 - 28 to 65 inches: fine sandy loam

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.6 percent

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

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods),
F144BY601ME - Dry Sand

Hydric soil rating: No

Minor Components

Gilmanton

Percent of map unit: 5 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Henniker

Percent of map unit: 5 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Chichester

Percent of map unit: 5 percent

Landform: Hillslopes

Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear
Hydric soil rating: No

Marlow

Percent of map unit: 5 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Metacomet

Percent of map unit: 3 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Metacomet

Percent of map unit: 2 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

167D—Canterbury fine sandy loam, 15 to 25 percent slopes, very stony

Map Unit Setting

National map unit symbol: 9dnt
Elevation: 250 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: Farmland of local importance

Map Unit Composition

Canterbury and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canterbury

Setting

Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lodgement till derived from granite, gneiss, or schist

Typical profile

Oe - 0 to 2 inches: slightly decomposed plant material
H1 - 2 to 6 inches: fine sandy loam
H2 - 6 to 28 inches: fine sandy loam

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H3 - 28 to 65 inches: fine sandy loam

Properties and qualities

Slope: 15 to 25 percent

Surface area covered with cobbles, stones or boulders: 1.6 percent

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

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

*Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods),
F144BY601ME - Dry Sand*

Hydric soil rating: No

Minor Components

Gilmanton

Percent of map unit: 5 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Henniker

Percent of map unit: 5 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Marlow

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Metacomet

Percent of map unit: 4 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Chichester

Percent of map unit: 3 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Millsite

Percent of map unit: 3 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

479B—Gilmanton fine sandy loam, 3 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: bpmj

Elevation: 250 to 2,940 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 90 to 135 days

Farmland classification: Farmland of local importance

Map Unit Composition

Gilmanton and similar soils: 75 percent

Minor components: 25 percent

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

Description of Gilmanton

Setting

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lodgement till derived from granite, gneiss, or schist; lodgement till derived from granite, gneiss, or schist

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

Oa - 2 to 3 inches: slightly decomposed plant material

H1 - 3 to 8 inches: fine sandy loam

H2 - 8 to 24 inches: fine sandy loam

H3 - 24 to 65 inches: fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.6 percent

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

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 16 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

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Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C/D

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods),

F144BY602ME - Sandy Toeslope

Hydric soil rating: No

Minor Components

Pillsbury

Percent of map unit: 10 percent

Landform: Ground moraines

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: Yes

Canterbury

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Metacomet

Percent of map unit: 4 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Peacham

Percent of map unit: 2 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Henniker

Percent of map unit: 2 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Peru

Percent of map unit: 2 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

680C—Henniker-Urban land complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9dql
Elevation: 200 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Henniker and similar soils: 41 percent
Urban land: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Henniker

Setting

Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Basal melt-out till derived from granite, gneiss, or schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 4 inches: fine sandy loam
H2 - 4 to 34 inches: fine sandy loam
H3 - 34 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 18 to 38 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Becket

Percent of map unit: 5 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Canterbury

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Metacomet

Percent of map unit: 4 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Moosilauke

Percent of map unit: 4 percent

Landform: Ground moraines

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: Yes

Chichester

Percent of map unit: 2 percent

Landform: Hillslopes

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

789B—Champlain-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1hb2y
Elevation: 200 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Champlain and similar soils: 41 percent
Urban land: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Champlain

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy outwash derived mainly from granite, gneiss and schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 6 inches: loamy fine sand
H2 - 6 to 22 inches: loamy fine sand
H3 - 22 to 65 inches: loamy fine sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144BY601ME - Dry Sand
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Croghan

Percent of map unit: 5 percent

Landform: Terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Naumburg

Percent of map unit: 5 percent

Landform: Depressions

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: Yes

Ondawa

Percent of map unit: 3 percent

Landform: Flood plains

Hydric soil rating: No

Adams

Percent of map unit: 3 percent

Landform: Outwash terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Rumney

Percent of map unit: 2 percent

Landform: Flood plains

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: Yes

Colton

Percent of map unit: 2 percent

Landform: Terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

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- 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=stelpdb1043084>

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

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Appendix B: NRCC Rainfall Data

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point	
Smoothing State	Yes
Location	
Latitude	43.569 degrees North
Longitude	71.447 degrees West
Elevation	170 feet
Date/Time	Tue Dec 16 2025 09:52:32 GMT-0500 (Eastern Standard Time)

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.39	0.49	0.64	0.80	1.01	1yr	0.69	0.95	1.16	1.46	1.83	2.31	2.59	1yr	2.05	2.49	2.90	3.54	4.12	1yr
2yr	0.31	0.48	0.60	0.79	0.99	1.25	2yr	0.86	1.14	1.44	1.79	2.22	2.75	3.10	2yr	2.44	2.98	3.45	4.16	4.75	2yr
5yr	0.37	0.58	0.72	0.97	1.23	1.56	5yr	1.07	1.43	1.81	2.25	2.78	3.42	3.89	5yr	3.03	3.74	4.32	5.11	5.80	5yr
10yr	0.41	0.65	0.82	1.12	1.46	1.86	10yr	1.26	1.71	2.16	2.68	3.30	4.04	4.62	10yr	3.57	4.45	5.12	5.97	6.75	10yr
25yr	0.49	0.78	0.99	1.37	1.82	2.34	25yr	1.57	2.15	2.71	3.37	4.14	5.03	5.81	25yr	4.45	5.59	6.42	7.34	8.25	25yr
50yr	0.56	0.89	1.14	1.60	2.15	2.78	50yr	1.86	2.57	3.24	4.02	4.91	5.94	6.92	50yr	5.25	6.65	7.63	8.58	9.61	50yr
100yr	0.63	1.02	1.32	1.87	2.55	3.32	100yr	2.20	3.07	3.87	4.79	5.83	7.02	8.23	100yr	6.21	7.92	9.06	10.04	11.20	100yr
200yr	0.72	1.18	1.53	2.19	3.02	3.94	200yr	2.60	3.67	4.60	5.70	6.93	8.29	9.81	200yr	7.34	9.43	10.77	11.75	13.06	200yr
500yr	0.87	1.42	1.86	2.70	3.78	4.97	500yr	3.26	4.65	5.80	7.18	8.69	10.36	12.37	500yr	9.17	11.89	13.54	14.48	16.01	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.35	0.43	0.58	0.71	0.90	1yr	0.61	0.88	0.97	1.27	1.53	1.97	2.26	1yr	1.74	2.17	2.36	2.91	3.67	1yr
2yr	0.30	0.47	0.57	0.78	0.96	1.14	2yr	0.83	1.12	1.30	1.72	2.21	2.67	3.00	2yr	2.37	2.89	3.35	4.04	4.61	2yr
5yr	0.34	0.53	0.66	0.90	1.15	1.37	5yr	0.99	1.34	1.55	2.02	2.61	3.15	3.59	5yr	2.79	3.46	3.97	4.78	5.42	5yr
10yr	0.38	0.58	0.72	1.01	1.30	1.55	10yr	1.12	1.52	1.77	2.26	2.92	3.57	4.10	10yr	3.16	3.94	4.52	5.41	6.11	10yr
25yr	0.43	0.66	0.82	1.16	1.53	1.85	25yr	1.32	1.81	2.10	2.65	3.37	4.20	4.86	25yr	3.71	4.67	5.35	6.30	7.11	25yr
50yr	0.47	0.72	0.90	1.29	1.74	2.10	50yr	1.50	2.06	2.39	2.98	3.74	4.72	5.53	50yr	4.18	5.32	6.07	7.10	8.02	50yr
100yr	0.52	0.79	0.99	1.43	1.97	2.39	100yr	1.70	2.33	2.74	3.48	4.16	5.30	6.28	100yr	4.69	6.04	6.87	8.01	8.99	100yr
200yr	0.58	0.87	1.10	1.60	2.23	2.71	200yr	1.93	2.65	3.13	3.96	4.59	5.93	7.11	200yr	5.25	6.84	7.76	8.99	10.11	200yr
500yr	0.67	0.99	1.27	1.85	2.63	3.20	500yr	2.27	3.13	3.75	4.70	5.23	6.82	8.33	500yr	6.04	8.01	9.10	10.50	11.80	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.43	0.53	0.71	0.87	1.04	1yr	0.75	1.02	1.19	1.57	1.98	2.53	2.83	1yr	2.24	2.72	3.17	3.79	4.42	1yr
2yr	0.33	0.50	0.62	0.84	1.03	1.22	2yr	0.89	1.19	1.39	1.83	2.42	2.86	3.23	2yr	2.54	3.10	3.58	4.30	4.89	2yr
5yr	0.40	0.61	0.76	1.04	1.32	1.59	5yr	1.14	1.55	1.80	2.35	2.99	3.72	4.20	5yr	3.29	4.04	4.64	5.47	6.19	5yr
10yr	0.47	0.73	0.90	1.26	1.63	1.95	10yr	1.40	1.91	2.21	2.80	3.55	4.55	5.15	10yr	4.03	4.95	5.68	6.59	7.42	10yr
25yr	0.60	0.91	1.14	1.62	2.14	2.58	25yr	1.84	2.52	2.90	3.63	4.55	5.98	6.77	25yr	5.29	6.51	7.43	8.56	9.44	25yr
50yr	0.72	1.09	1.36	1.95	2.63	3.19	50yr	2.27	3.12	3.56	4.38	5.51	7.37	8.35	50yr	6.52	8.03	9.11	10.38	11.44	50yr
100yr	0.87	1.31	1.64	2.37	3.25	3.96	100yr	2.80	3.87	4.38	5.56	6.66	9.10	10.28	100yr	8.05	9.88	11.19	12.59	13.75	100yr
200yr	1.04	1.57	1.99	2.88	4.01	4.92	200yr	3.46	4.81	5.38	6.77	8.81	11.26	12.71	200yr	9.96	12.22	13.75	15.29	16.56	200yr
500yr	1.33	1.98	2.55	3.70	5.26	6.60	500yr	4.54	6.45	7.07	8.78	11.53	14.96	16.87	500yr	13.24	16.22	18.13	19.81	21.21	500yr



Appendix C: Full-Size Watershed Plans



Last Saved: 1/29/2026
Plotted On: Jan 29, 2026 3:46pm By: MCurrie
Tighe & Bond\33 White Oaks Rd, Laconia, NH\Drawings\AutoCAD\Sheet\5089-0278-C-HYDRO.dwg

Last Saved: 1/29/2026
Plotted On: Jan 29, 2026 3:47pm By: MCurley
Tighe & Bond\3\K\2089 Residential\0278 - 33 White Oaks Rd, Laconia, NH\Drawings\AutoCAD\Sheet\5089-0278-C-HYDRO.dwg

POST-DEVELOPMENT WATERSHED LEGEND

POST 1.0

POST POND 1

PA-1

POST-DEVELOPMENT WATERSHED BOUNDARY

POST-DEVELOPMENT LONGEST FLOW PATH

POST-DEVELOPMENT WATERSHED AREA DESIGNATION

POST-DEVELOPMENT POND DESIGNATION

POINT OF ANALYSIS

Tighe & Bond

177 Corporate Drive
Portsmouth, NH 03801
T 603.433.8818

THIS DOCUMENT IS RELEASED
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IT IS NOT INTENDED FOR BIDDING OR
CONSTRUCTION PURPOSES.

33 WHITE OAKS SUBDIVISION

33 White Oaks
Road

Laconia, New
Hampshire

1	1/30/2026	TRC Submission
MARK	DATE	DESCRIPTION
PROJECT NO: R5089-0278		
DATE: 01/30/2026		
FILE: R5089-0278-C-HYDRO.dwg		
DRAWN BY: M.CURLEY/C.KRZCUIK		
DESIGNED BY: C.KRZCUIK		
CHECKED BY: N.HANSEN		
APPROVED BY: P.CRIMMINS		

POST-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-803

R5089-0278
January 30, 2026



Mr. Rob Mora
Director of Planning Department
City of Laconia Planning Department
45 Beacon Street E
Laconia, NH 03246

**Re: Trip Generation Analysis
33 White Oaks Subdivision - 33 White Oaks Road, Laconia, NH**

Dear Rob:

Tighe & Bond has performed a trip generation analysis related to the proposed White Oaks Rise Subdivision located at 33 White Oaks Road in Laconia, New Hampshire. The project consists of a 25-lot subdivision, including 24 single-family residential building lots and one lot dedicated to drainage improvements.

The project site is located in an area characterized by single-family residential development. The surrounding roadway network includes White Oaks Road, a local residential roadway providing one lane of travel in each direction with a posted speed limit of 35 miles per hour. There are no existing sidewalks or pedestrian facilities in the vicinity of the project site, and sidewalks are not proposed as part of this subdivision, consistent with existing roadway conditions and development patterns in the area. No signalized intersections are located immediately adjacent to the site.

Vehicular access to the proposed subdivision will be provided via a new public roadway constructed within a dedicated public right-of-way, as shown on the proposed site plan. The new public street will intersect White Oaks Road and provide access to all proposed residential lots within the subdivision.

Based on the posted speed limit of 35 mph on White Oaks Road, a minimum stopping sight distance of 250 feet is required in accordance with the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets. Adequate stopping sight distance will be provided at the proposed roadway intersection to meet or exceed this requirement.

This analysis was performed utilizing the Institute of Transportation Engineers (ITE) Trip Generation Manual, latest edition. For the purposes of analysis, trip generation was calculated using ITE Land Use Code 210 - Single-Family Detached Housing. Average weekday AM and PM peak hour trip generation rates were used to estimate the number of vehicle trips anticipated to be generated by the proposed development.

Proposed 24 Residential Units - LUC 210

Weekday AM Peak Hour

Trips Entering	6
Trips Exiting	16
Total Vehicle Trips	22

Weekday PM Peak Hour

Trips Entering	16
Trips Exiting	10
Total Vehicle Trips	26

Saturday Peak Hour

Trips Entering	17
Trips Exiting	16
Total Vehicle Trips	33

Source: Institute of Transportation Engineers, Trip Generation, 12th Edition, 2025

Based on the relatively low number of peak-hour vehicle trips anticipated to be generated by the proposed subdivision, traffic impacts to White Oaks Road and nearby intersections are expected to be minimal. The projected increase in traffic is not anticipated to result in a noticeable change in overall traffic operations within the surrounding roadway network.

Given the residential nature of the surrounding area, low existing traffic volumes, and limited peak-hour trip generation associated with the proposed development, the subdivision is not anticipated to result in adverse impacts to traffic operations or roadway safety in the project vicinity.

Sincerely,
Tighe & Bond, Inc.



Patrick M. Crimmins, PE
Vice President



Neil A. Hansen, PE
Project Manager

Copy: Scot Buonopane (via email)

33 White Oaks Road, Laconia, New Hampshire Wetland Delineation Memorandum

TO: Scott Buonopane

FROM: Jeremy Degler CWB, CWS, PWS, Project Environmental Scientist, Tighe & Bond

COPY: Neil Hansen, PE, Project Manager, Tighe & Bond; Stefanie Tetreault, CWS, PWS, Project Manager, Tighe & Bond

DATE: December 2, 2025

The following technical memorandum describes the wetland delineation conducted by Tighe & Bond on November 7, 2025, in support of the initial Feasibility Study being conducted for a proposed multi-family development project at 33 White Oaks Road in Laconia, New Hampshire. A topographic site location map and wetland delineation map are provided in Attachment 1, site photographs are provided in Attachment 2, and US Army Corps of Engineers (USACE) wetland delineation datasheets are provided in Attachment 3.

Site Location and Project Background

The subject property is located at 33 White Oaks Road in the Town of Laconia, New Hampshire (Tax Map 278, Block 241, Lot 29). Tighe & Bond has been requested to provide services related to an initial Feasibility Study for a proposed multi-family development project. As part of this assessment, a wetland delineation was conducted to identify potential jurisdictional resource areas within the proposed project area, as well as classification and assessment to allow for strategic planning and informed decision making. This delineation effort encompassed approximately 10 acres surrounding the anticipated project area within the western half of the subject parcel.

The western portion of the parcel is in the Commercial Resort (CR) district, while the eastern portion of the parcel is located in the Rural Residential (RR1) district. The parcel currently consists of a single-family residential home. The proposed project would subdivide the western portion of the parcel into individual single family home lots, with appurtenant access, parking, pedestrian connections, stormwater management, utilities, and landscaping.

Local, state, and federal jurisdictions may apply to delineated wetlands and established buffer areas. Pursuant to the City of Laconia's Wetlands Conservation and Water Quality Overlay District (Zoning Ordinance, Chapter 235, Article IV, Section 235-17), the only buffer applicable to this site is the 50-foot setback from non-prime wetlands exceeding 3,000 square feet, although additional buffer requirements apply to other wetland types elsewhere in the city. Dredge and fill activities within jurisdictional wetlands are regulated by the New Hampshire Department of Environmental Services (NHDES) under RSA 482-A and by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act.

Wetland Delineation

On November 7, 2025, a NH Certified Wetland Scientist (CWS) from Tighe & Bond delineated jurisdictional resource areas within the western portion of the subject property. Weather during the delineation was overcast with a high temperature of approximately 37°F. Local

weather yielded 0.22 inches of rain in the week prior to the field delineation.¹ The site conditions were considered atypical and/or problematic at the time due to the status of Severe Drought (D2). The New Hampshire Department of Environmental Services (NHDES) declared a State of Severe Drought in Belknap County effective as of September 2025.²

The wetland delineation followed the methodologies outlined in NH Administrative Rule Env-Wt 406, the *US Army Corps of Engineers Wetland Delineation Manual Technical Report* (Y-87-1; January 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0, January 2012). Wetlands were classified based on the *Classification of Wetlands and Deepwater Habitats of the United States*.³

The wetland boundaries were located using a hand-held Eos Skadi GPS unit with sub-meter accuracy and were marked within the delineation area using sequentially numbered pink flagging tape.

Summary of Delineated Natural Resource Areas

Flag Series 1A demarcates the limits of one palustrine wetland located within the delineation area. A summary of the delineated resource area is provided below. No other jurisdictional wetland resource areas were identified during the site investigation or desktop review.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM; Panel No. 3300050002B, effective August 15, 1980) was consulted to evaluate the presence of floodplains within the vicinity of the proposed project; no portion of the subject property is within a FEMA-mapped floodplain.

Wetland 1

Wetland 1 (Flag Series 1A; Photographs 4 and 5) bisects the subject property from north to south near the parcel's east-west midpoint. The central portion of the wetland boundary generally follows the alignment of an adjacent stone wall and extends onto both neighboring properties. The western boundary of Wetland 1 was delineated in the field with pink flagging labeled 1A-1 through 1A-14. Representative wetland and upland data plots were taken near Wetland Flag 1A-8. The eastern wetland boundary was not field delineated as it is outside the scope of the delineation area.

¹ Weather Station ID: KNHGILFO37 (43.55° N, 71.42° W; Gilford, NH). Accessed via Weather Underground on September 12, 2025; <https://www.wunderground.com/weather/us/nh/gilford/KNHGILFO37>.

² National Integrated Drought Information System: <https://www.drought.gov/states/new-hampshire/county/belknap>

³ Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.

Dominant wetland vegetation consisted of winterberry (*Ilex verticillata*; FACW), sensitive fern (*Onoclea sensibilis*; FACW), several hydrophytic species of sedge (*Carex* spp.), and purpleleaf willowherb (*Epilobium coloratum*; OBL). The plant community also passes the FAC-neutral test, which is an indicator of wetland hydrology.⁴ Soils within the wetland consisted of thin organic (10YR 2/1) and depleted mineral horizons (10YR 4/1) with prominent redox concentrations throughout (5YR 3/4), overlying a restrictive layer of stony subsoils on a hummock-and-hollow landform. Observed indicators of hydrology included areas of sparsely vegetated concave surface, water-stained leaves, drainage patterns, stunted or stressed plants, geomorphic position, and microtopographic relief. Based on the prevalence of a hydrophytic plant community and observed indicators of hydrology, soil saturation is likely present during wetter months and when not in a state of Severe Drought. This wetland is classified as a mixture of palustrine emergent (persistent), scrub-shrub (broad-leaved deciduous), and forested (broad-leaved deciduous), with a seasonally flooded/saturated hydroperiod (PEM1E/PSS1E/PFO1E).² Wetland 1 is less than 3,000 square feet in size, does not contain a stream, and based on aerial imagery and site review, is not contiguous to public surface waters. The delineation occurred outside the vernal pool amphibian breeding season; however, no physical features indicative of potential vernal pools were observed during the field delineation.

Priority Resource Areas

Priority Resource Areas (PRAs) are defined in Env-Wt 103.68 (effective April 27, 2024) as bogs; wetlands located in a river floodplain with a drainage area of at least one square mile or in a tidal area; designated prime wetlands or duly-established 100-foot buffers to prime wetlands; and sand dunes, tidal wetlands, tidal waters, or undeveloped tidal buffer zones.

The delineation confirmed that none of these PRA categories apply. There are no bogs located on-site; the wetland is not situated in a river floodplain with a drainage area of at least one square mile and is not in a tidal area; the site is neither a designated prime wetland nor within a duly-established 100-foot buffer to a prime wetland; and the site does not include any sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone.

PRAs also include rare, threatened, or endangered species, or protected habitats. As a next step, we recommend completing a DataCheck request with the NHDES Ecological Review Section to determine if any of these species have been identified within or surrounding the subject property.

Summary

In November 2025, a Tighe & Bond NH Certified Wetland Scientist delineated wetlands and jurisdictional areas within the vicinity of the project area, including one palustrine wetland. Pending review for protected species or habitat by NHDES, this wetland is not classified as a Priority Resource Area, but the proposed development activities may be subject to federal, state, and local permitting jurisdiction if dredging or filling is proposed to occur within the wetland or within 50-feet of the delineated boundary.

⁴ Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0, January 2012).

Tighe&Bond

ATTACHMENT 1

FIGURE 1
SITE LOCATION
November 2025

33 White Oaks Road
Laconia, New Hampshire

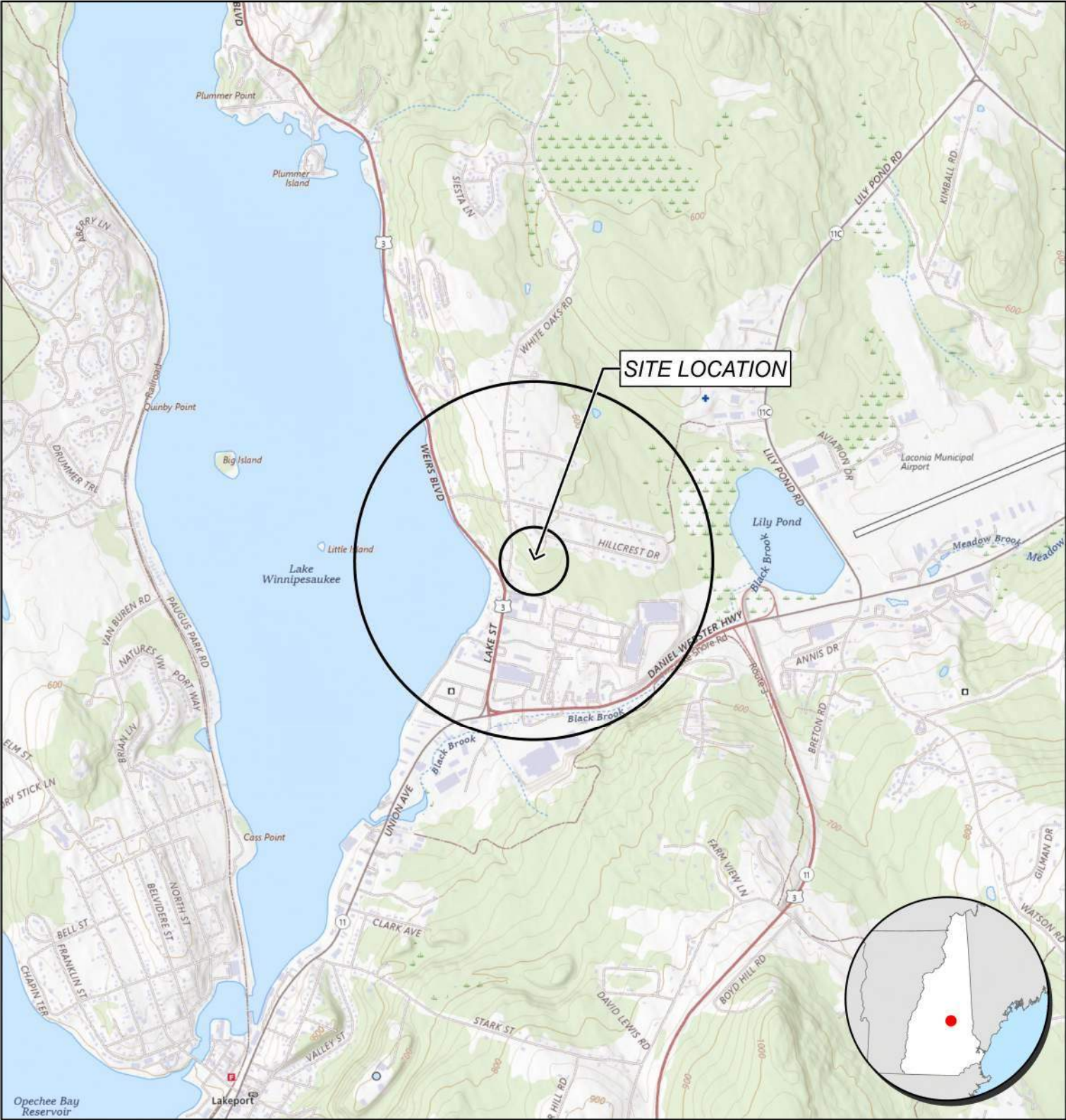
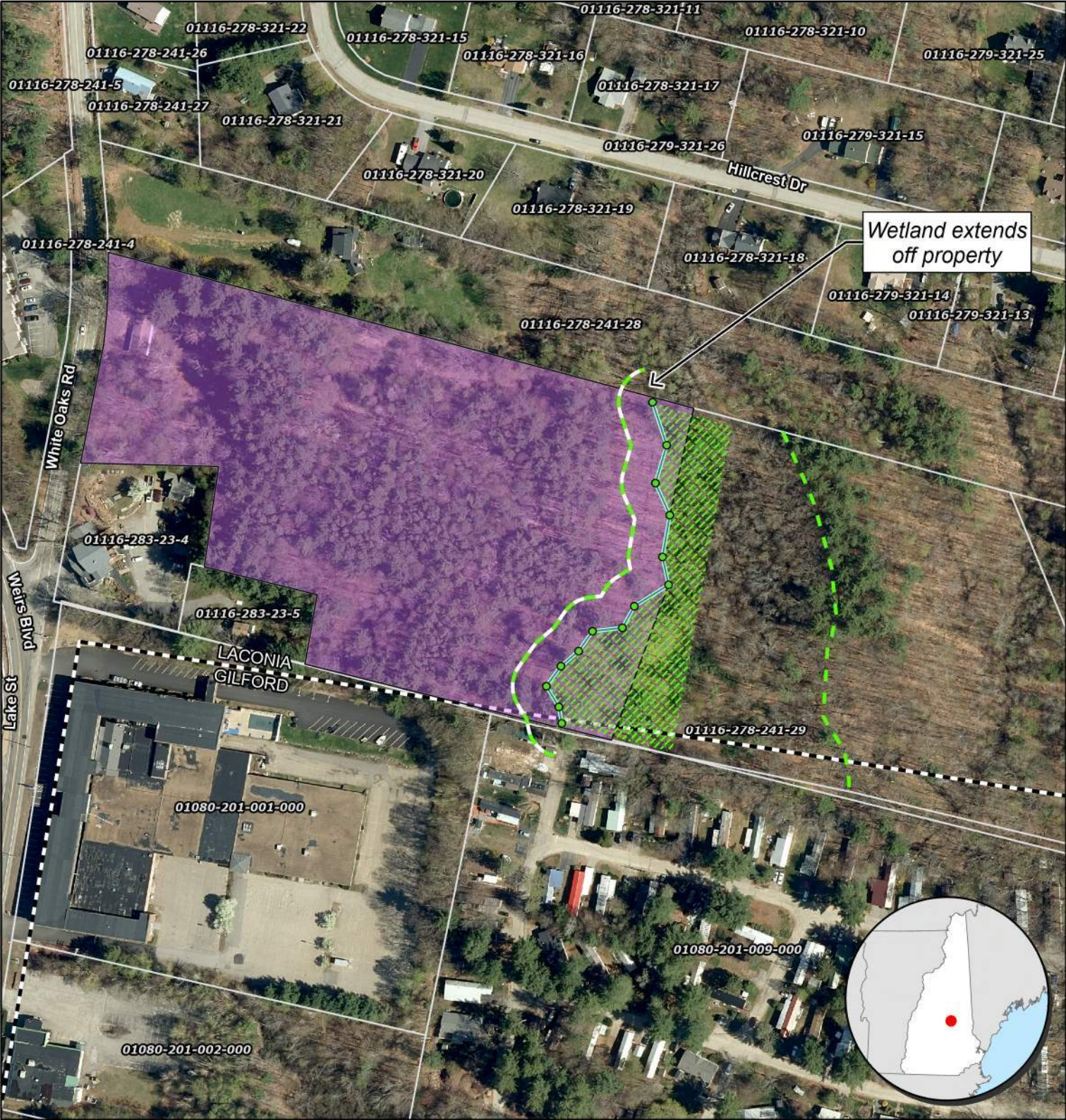


FIGURE 2
AERIAL
November 2025

33 White Oaks Road
Laconia, New Hampshire



Tighe&Bond

ATTACHMENT 2

Photographic Log

Client: Scott Buonopane

Job Number: R5089-0278

Site: 33 White Oaks Road, Laconia, New Hampshire

Photograph No.: 1	Date: 11/07/2025	Direction Taken: Southeast
Description: Overview of the western portion of the delineation area within the subject property, where the existing single-family residential home is located.		
		

Photograph No.: 2	Date: 11/07/2025	Direction Taken: South
Description: Representative overview of the upland forest located within the central portion of the delineation area, behind (east of) the existing single-family residential home.		
		

Photographic Log

Client: Scott Buonopane

Job Number: R5089-0278

Site: 33 White Oaks Road, Laconia, New Hampshire

Photograph No.: 3	Date: 11/07/2025	Direction Taken: West
Description: Representative overview of the upland forest located within the central portion of the delineation area, behind (east of) the existing single-family residential home.		
		

Photograph No.: 4	Date: 11/07/2025	Direction Taken: Northeast
Description: Overview of Wetland 1 (PEM1E/PSS1E/PFO1E), located at the eastern edge of the delineation area.		
		

Photographic Log

Client: Scott Buonopane **Job Number:** R5089-0278
Site: 33 White Oaks Road, Laconia, New Hampshire

Photograph No.: 5	Date: 11/07/2025	Direction Taken: Southeast
Description: Overview of Wetland 1 (PEM1E/PSS1E/PFO1E), located at the eastern edge of the delineation area.		
		

Tighe&Bond

ATTACHMENT 3

Project/Site: 33 White Oaks Road City/County: Laconia / Belknap Sampling Date: 11/7/2025

Applicant/Owner: Scott Buonopane State: NH Sampling Point: W1-Wet

Investigator(s): Jeremy Degler, CWB, CWS, PWS - Tighe & Bond Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope %: 8-15

Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 43.567890 Long: -71.444215 Datum: NAD83

Soil Map Unit Name: Canterbury fine sandy loam, 8 to 15 percent slopes, very stony (167C) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present?	Yes <u> X </u>	No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> X </u> No <u> </u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <u> X </u>	No <u> </u>	
Wetland Hydrology Present?	Yes <u> X </u>	No <u> </u>	
Remarks: (Explain alternative procedures here or in a separate report.) This datapoint was taken within the boundaries of Wetland 1, near flagging point 1A-8. The site conditions were considered atypical and/or problematic at the time due to the status of Severe Drought (D2). The New Hampshire Department of Environmental Services (NHDES) declared a State of Severe Drought in Belknap County effective as of September 2025.			

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)		
☐ Surface Water (A1)	☒ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)			
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)			
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)			
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)			
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)			
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☒ Saturation Visible on Aerial Imagery (C9)			
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ Stunted or Stressed Plants (D1)			
☐ Iron Deposits (B5)	☒ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)			
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)			
☒ Sparsely Vegetated Concave Surface (B8)		☒ Microtopographic Relief (D4)			
		☒ FAC-Neutral Test (D5)			
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☒ Depth (inches): (includes capillary fringe)			Wetland Hydrology Present? Yes ☒ No ☐		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Multiple wetland hydrology indicators were observed at the time of the site assessment. Soil saturation is likely present during wetter months and when not in Severe Drought status.					

VEGETATION – Use scientific names of plants.

 Sampling Point: W1-Wet

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>355</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.84</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>125</u> (A)	<u>355</u> (B)	Prevalence Index = B/A = <u>2.84</u>	
Total % Cover of:	Multiply by:																			
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FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals: <u>125</u> (A)	<u>355</u> (B)																			
Prevalence Index = B/A = <u>2.84</u>																				
_____ =Total Cover																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. <u>Ilex verticillata</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Euonymus alatus</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover																				
Herb Stratum (Plot size: _____)																				
1. <u>Onoclea sensibilis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Tiarella stolonifera</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Carex spp.</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Pinus strobus (seedlings)</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Epilobium coloratum</u>	<u>5</u>	<u>No</u>	<u>OBL</u>																	
6. <u>Unknown scenesced aster</u>	<u>5</u>	<u>No</u>	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ =Total Cover																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				

Hydrophytic Vegetation Indicators:
 _____ 1 - Rapid Test for Hydrophytic Vegetation
 _____ 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0¹
 _____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was prevalent but not dominant at the time of the site assessment.

SOIL

Sampling Point W1-Wet

[illegible]

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 33 White Oaks Road City/County: Laconia / Belknap Sampling Date: 11/7/2025
Applicant/Owner: Scott Buonopane State: NH Sampling Point: W1-Upl
Investigator(s): Jeremy Degler, CWB, CWS, PWS - Tighe & Bond Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope %: 15-25
Subregion (LRR or MLRA): LRR R, MLRA 144B Lat: 43.567991 Long: -71.444243 Datum: NAD83
Soil Map Unit Name: Canterbury fine sandy loam, 15 to 25 percent slopes, very stony (167D) NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)

This datapoint was taken upslope and outside of the boundaries of Wetland 1, near flagging point 1A-8.

The site conditions were considered atypical and/or problematic at the time due to the status of Severe Drought (D2). The New Hampshire Department of Environmental Services (NHDES) declared a State of Severe Drought in Belknap County effective as of September 2025.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
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☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ ? Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	

Field Observations:				Wetland Hydrology Present? Yes ☐ No ☒	
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	_____		
Water Table Present?	Yes ☐ No ☒	Depth (inches):	_____		
Saturation Present?	Yes ☐ No ☒	Depth (inches):	_____		
(includes capillary fringe)					

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed at the time of the site assessment.

VEGETATION – Use scientific names of plants.

 Sampling Point: W1-Upl

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. <u>Fagus grandifolia</u>	40	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">10</td> <td>x 2 =</td> <td style="text-align: center;">20</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">75</td> <td>x 4 =</td> <td style="text-align: center;">300</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">85</td> <td>(A)</td> <td style="text-align: center;">320</td> <td>(B)</td> </tr> <tr> <td colspan="5">Prevalence Index = B/A = <u>3.76</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	0	x 1 =	0		FACW species	10	x 2 =	20		FAC species	0	x 3 =	0		FACU species	75	x 4 =	300		UPL species	0	x 5 =	0		Column Totals:	85	(A)	320	(B)	Prevalence Index = B/A = <u>3.76</u>				
Total % Cover of:		Multiply by:																																										
OBL species	0	x 1 =	0																																									
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Column Totals:	85	(A)	320	(B)																																								
Prevalence Index = B/A = <u>3.76</u>																																												
2. <u>Pinus strobus</u>	15	Yes	FACU																																									
3. <u>Quercus rubra</u>	10	No	FACU																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
	65	=Total Cover																																										
Sapling/Shrub Stratum (Plot size: _____)																																												
1. _____				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																								
2. _____																																												
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Herb Stratum (Plot size: _____)																																												
1. <u>Pinus strobus (seedlings)</u>	10	Yes	FACU																																									
2. <u>Onoclea sensibilis</u>	5	Yes	FACW																																									
3. <u>Carex spp.</u>	5	Yes	FACW																																									
4. _____																																												
5. _____																																												
6. _____																																												
7. _____																																												
8. _____				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																																								
9. _____																																												
10. _____																																												
11. _____																																												
12. _____																																												
	20	=Total Cover																																										
Woody Vine Stratum (Plot size: _____)																																												
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not dominant nor prevalent at the time of the site assessment. Approximately 80% of the plot surface was unvegetated and covered with leaf litter.

SOIL

Sampling Point W1-Upl

[illegible]

33 WHITE OAKS SUBDIVISION
33 WHITE OAKS ROAD
TAX MAP 278 BLOCK 241 LOT 29
LACONIA, NEW HAMPSHIRE
DATE: JANUARY 30, 2026

LIST OF DRAWINGS		
DRAWING NO.	DRAWING TITLE	LAST REVISED
G-001	COVER SHEET	01/30/2026
C-101	GENERAL NOTES AND LEGEND	01/30/2026
C-201	EXISTING CONDITIONS AND DEMOLITION PLAN	01/30/2026
C-201.1	OVERALL SITE PLAN	01/30/2026
C-301	SITE PLAN	01/30/2026
C-301.1	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	01/30/2026
C-401	UTILITIES PLAN	01/30/2026
C-501	ROADWAY PLAN AND PROFILE	01/30/2026
C-601	ROADWAY PLAN AND PROFILE	01/30/2026
C-602	EROSION CONTROL NOTES AND DETAILS	01/30/2026
C-603	DETAILS SHEET	01/30/2026
C-604	DETAILS SHEET	01/30/2026
C-605	DETAILS SHEET	01/30/2026
C-606	DETAILS SHEET	01/30/2026

LIST OF PERMITS		
LOCAL	STATUS	DATE
SUBDIVISION PERMIT	PENDING	
STATE		
RHDES - SEWER CONNECTION PERMIT	PENDING	
RHDES - ALTERATION OF TERRAIN PERMIT	PENDING	
FEDERAL		
RHDES - CONSTRUCTION GENERAL PERMIT	PENDING	

PREPARED BY:
Tighe & Bond
117 Commerce Dr.
Pelham, NH 03076
1-603-433-8849

APPLICANT:
SCOTT BUONOPANE
217 Middlesex Turnpike
Burlington, MA 01803

OWNER:
DANIEL H GREENHALGH
18 Tenney Rd
Pelham, NH 03076



SITE LOCATION MAP
SCALE: 1" = 2,000'

CONSTRUCTION NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION, WHETHER THE PLANS BOR THE SEAL OF THE ENGINEER APPLIED HEREON EXTEND TO OR INCLUDE SYSTEMS REQUIRED FOR THE SAFETY OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND MAINTAINING THE PROPOSED CONSTRUCTION SEQUENCE AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES, INCLUDING BUT NOT LIMITED TO THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ANY STATE OR LOCAL SAFETY REGULATIONS.
3. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, ARISING FROM ANY CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION BY TIGHE & BOND.



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COMPLETE SET 15 SHEETS**



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CONSTRUCTION PURPOSES

**33 WHITE
OAKS
SUBDIVISION**

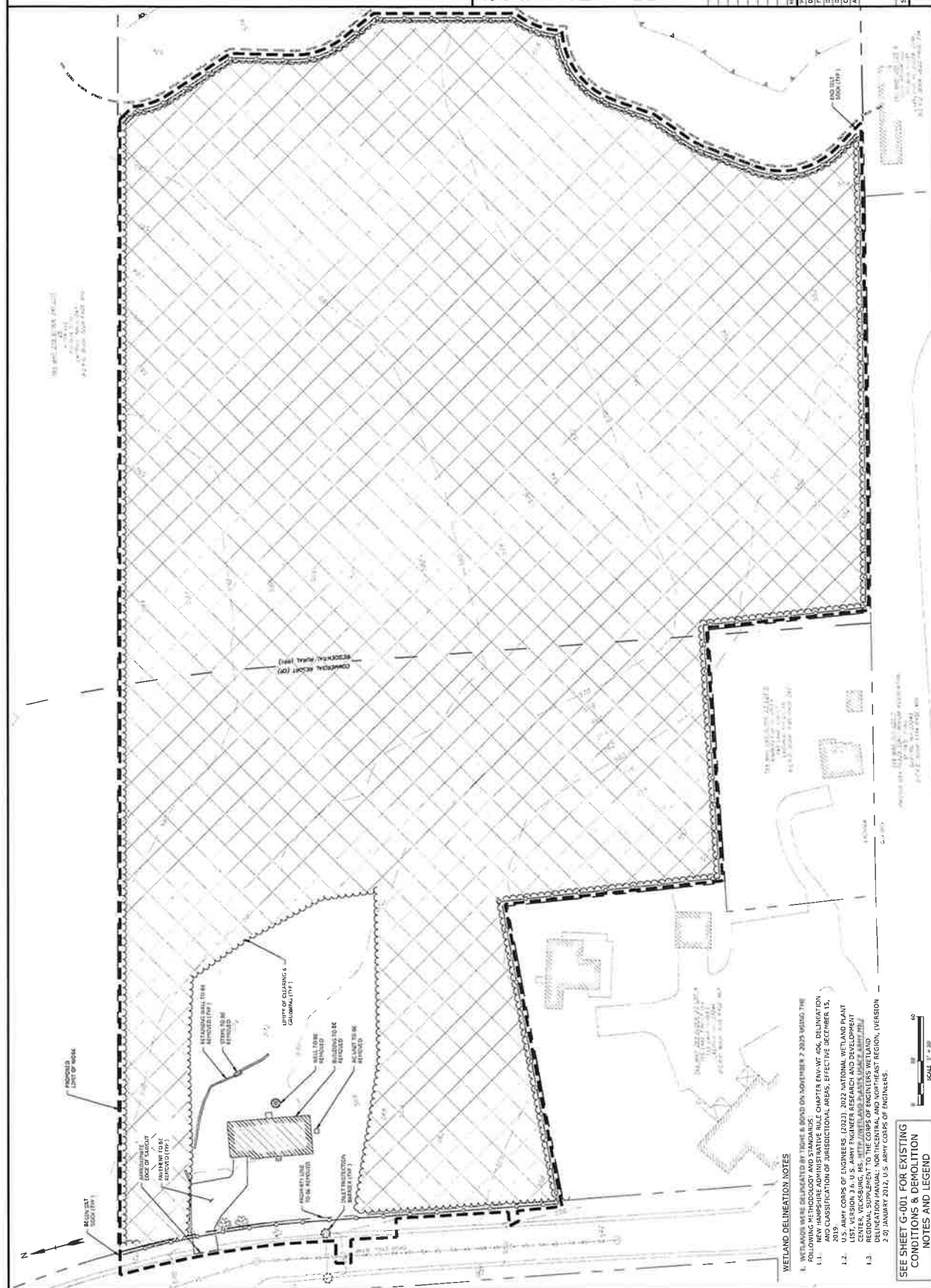
33 White Oaks
Road

Laconia, New Hampshire

[illegible]

EXISTING CONDITIONS AND DEMOLITION PLAN

C-101



WETLAND DELINEATION NOTES

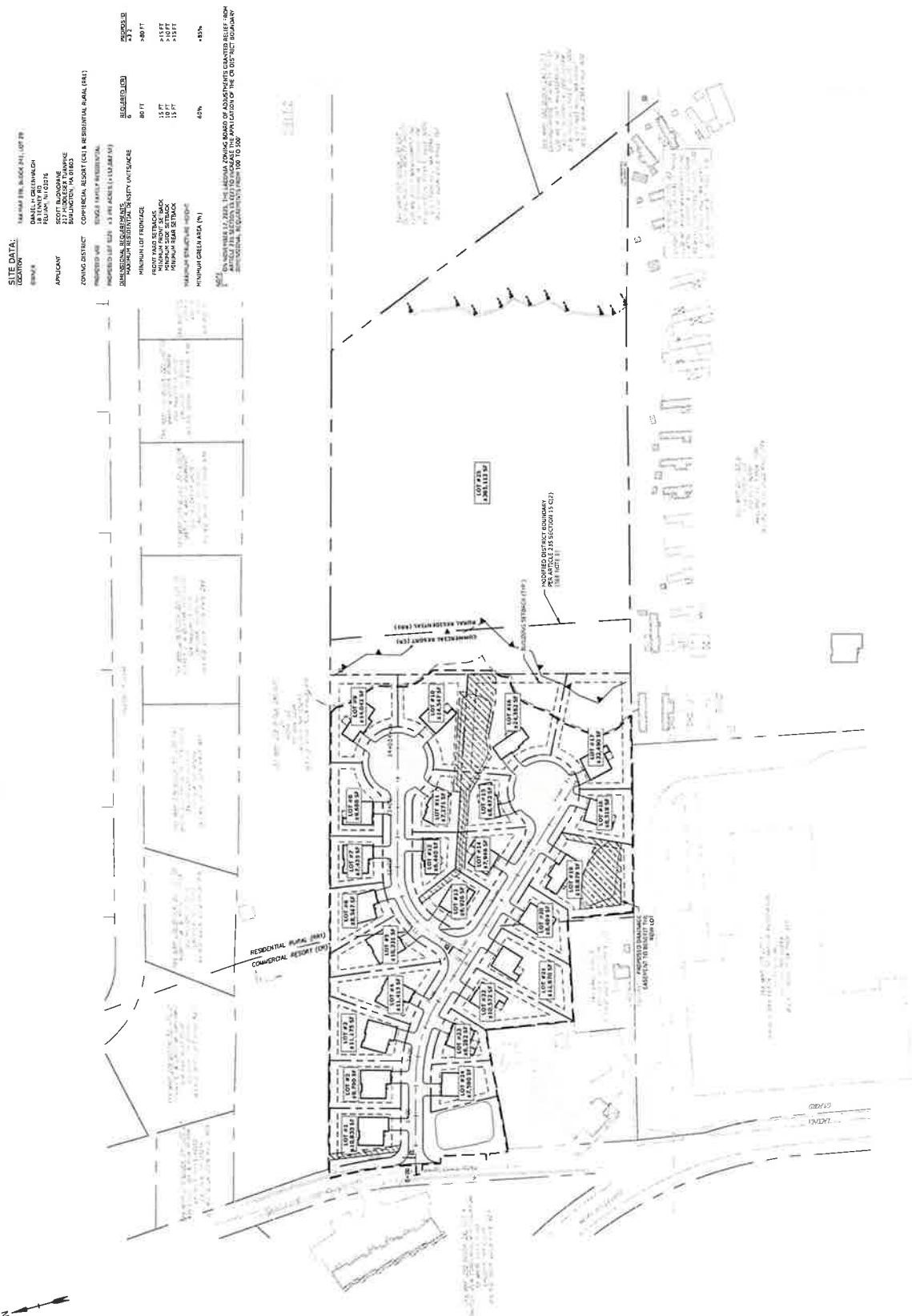
1. WETLANDS WERE DELINEATED BY TIGHE & BOND ON NOVEMBER 7 2003 USING THE FOLLOWING METHODOLOGY AND STANDARDS:
1.1. USE OF THE NATIONAL FIELD MANUAL CHAPTER FNU-97-406, DELINEATION OF WETLANDS FOR THE ARMY CORPS OF ENGINEERS, EFFECTIVE DECEMBER 15, 2019.
- 1.2. U.S. ARMY CORP'S OF ENGINEERS' (2023) 2023 NATIONAL WETLAND PLANT LIST, VERSION 3.6. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, VICKSBURG, MS. [HTTP://LAND.MWR.USACE.ARMY.MIL](http://land.mwr.usace.army.mil)
- 1.3 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DETERMINATION PROCEDURE, VERSION 2.0, REGION 2, NORTH CENTRAL REGION, VERSION 2.0, JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.

SEE SHEET G-001 FOR EXISTING
CONDITIONS & DEMOLITION
NOTES AND LEGEND



**33 WHITE
OAKS
SUBDIVISION**

Laconia, New Hampshire

[illegible]



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CONSTRUCTION SERVICES

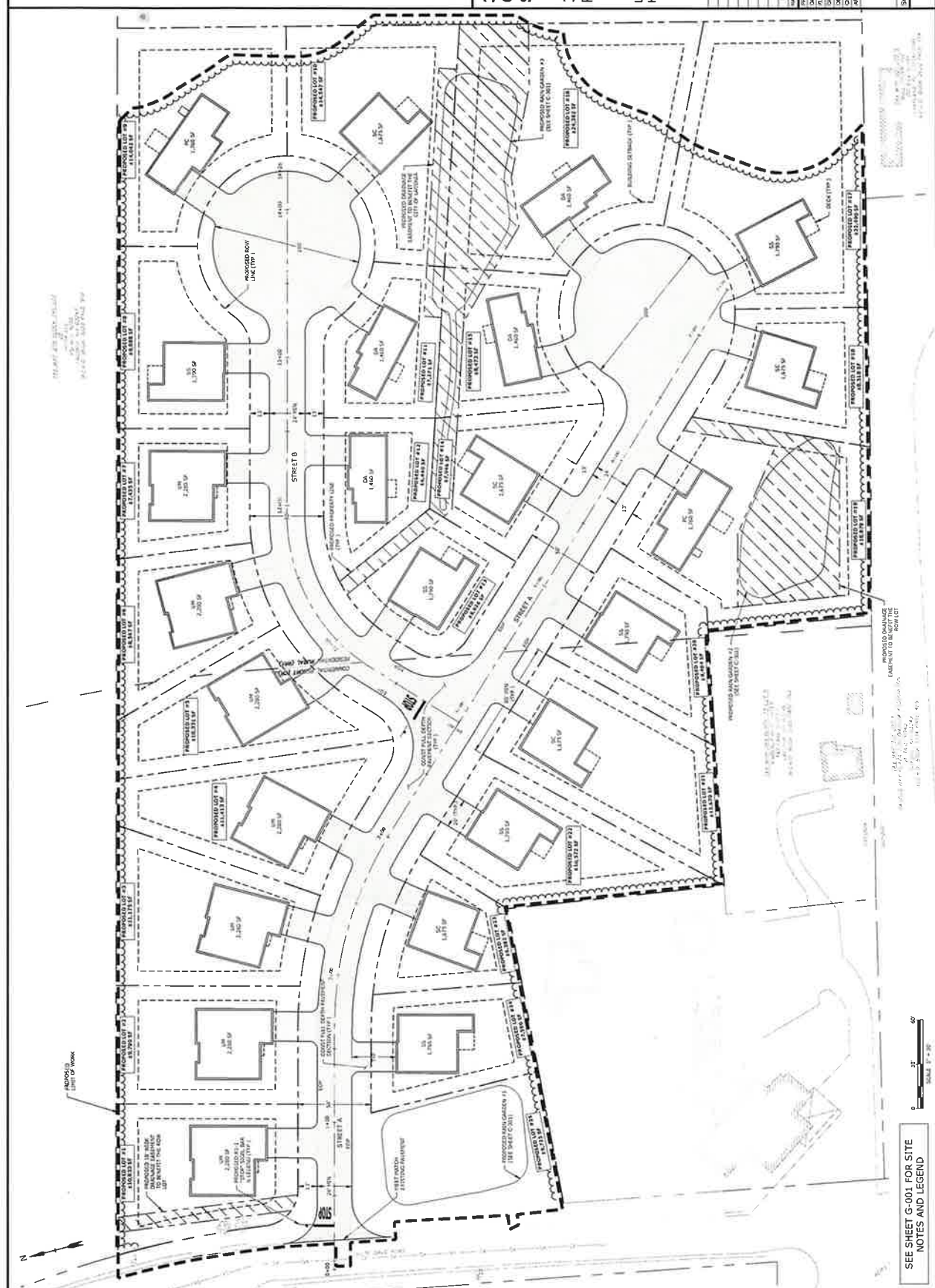
33 WHITE OAKS SUBDIVISION

33 White Oaks
Road

Laconia, New
Hampshire

1	1/10/2018	TBC Submittal
2	2/1/2018	Final Submittal
3	2/1/2018	Final Submittal
4	2/1/2018	Final Submittal
5	2/1/2018	Final Submittal
6	2/1/2018	Final Submittal
7	2/1/2018	Final Submittal
8	2/1/2018	Final Submittal
9	2/1/2018	Final Submittal
10	2/1/2018	Final Submittal
11	2/1/2018	Final Submittal
12	2/1/2018	Final Submittal
13	2/1/2018	Final Submittal
14	2/1/2018	Final Submittal
15	2/1/2018	Final Submittal
16	2/1/2018	Final Submittal
17	2/1/2018	Final Submittal
18	2/1/2018	Final Submittal
19	2/1/2018	Final Submittal
20	2/1/2018	Final Submittal
21	2/1/2018	Final Submittal
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30	2/1/2018	Final Submittal
31	2/1/2018	Final Submittal
32	2/1/2018	Final Submittal
33	2/1/2018	Final Submittal
34	2/1/2018	Final Submittal
35	2/1/2018	Final Submittal
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99	2/1/2018	Final Submittal
100	2/1/2018	Final Submittal

SITE PLAN
SCALE: AS SHOWN
C-201.1



SEE SHEET G-001 FOR SITE
NOTES AND LEGEND



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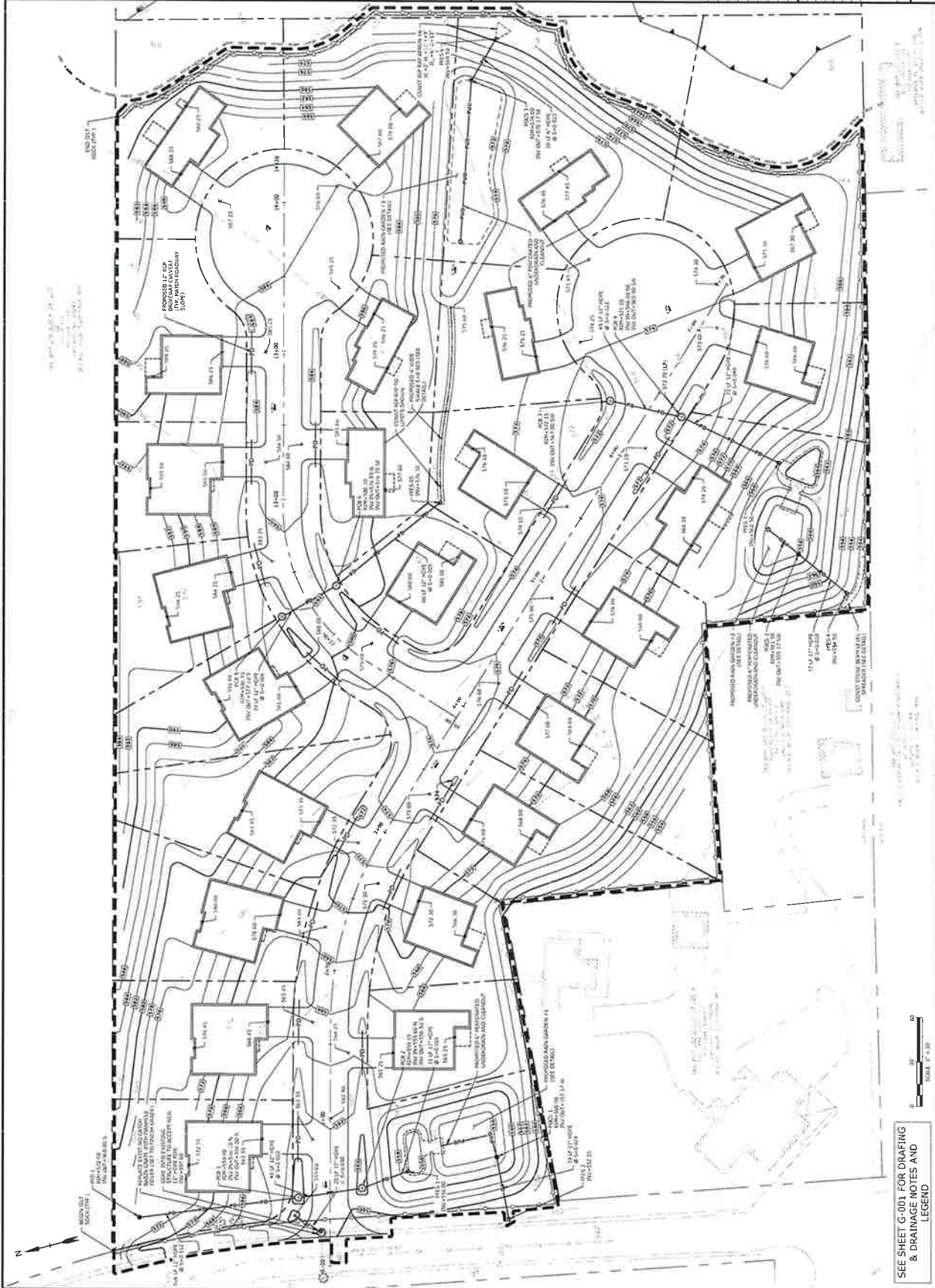
33 WHITE OAKS SUBDIVISION

33 White Oaks Road

Laconia, New Hampshire

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

C-301



SEE SHEET G-001 FOR DRAFTING & DRAINAGE NOTES AND LEGEND



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11/14/2006	100th Submittal	JB	JB



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33 WHITE OAKS SUBDIVISION

33 White Oaks
 Road

Laconia, New
 Hampshire

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33 WHITE OAKS SUBDIVISION

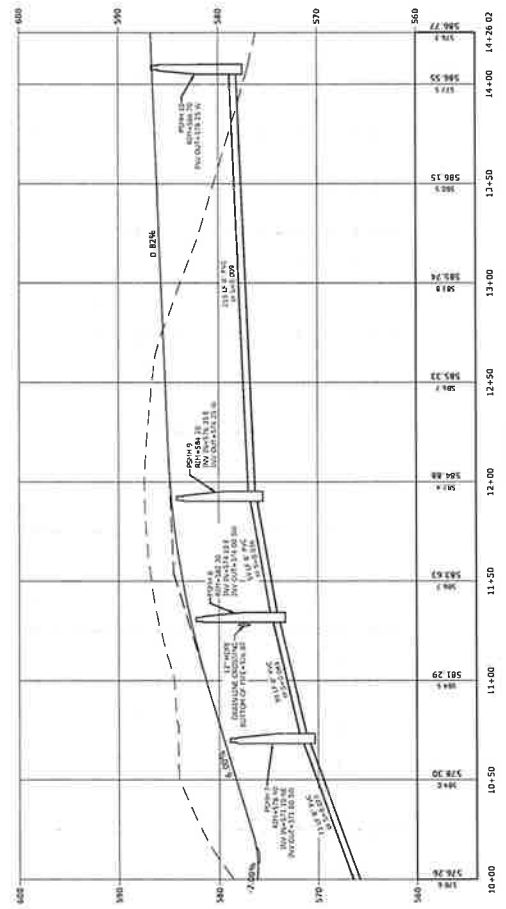
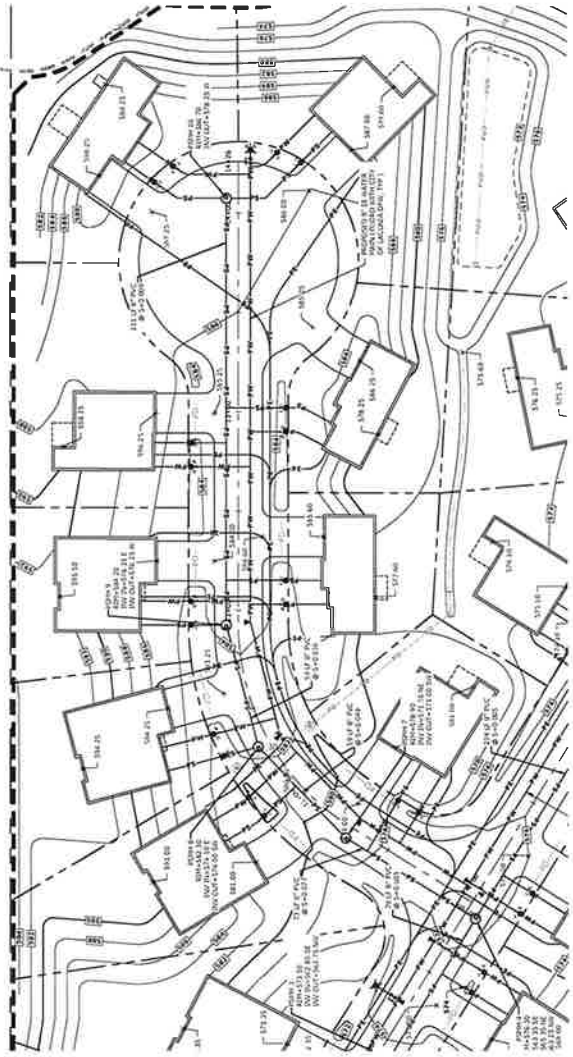
33 White Oaks
 Road

Laconia, New
 Hampshire

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DESIGNED BY	PL
CHECKED BY	PL
APPROVED BY	PL
PROJECT	33080333
PROJECT NO.	33080333
SCALE	AS SHOWN
C-502	



33 White Oaks Subdivision



HORIZONTAL SCALE 1" = 30'
 VERTICAL SCALE 1" = 4'

STREET B



33 WHITE OAKS SUBDIVISION

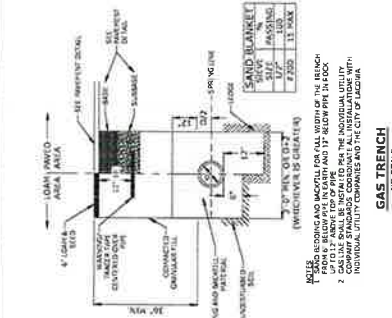
33 White Oaks
 Road

Laconia, New
 Hampshire

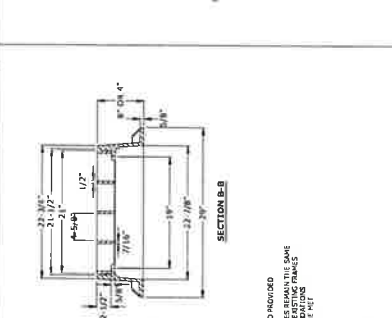
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SCALE: AS SHOWN

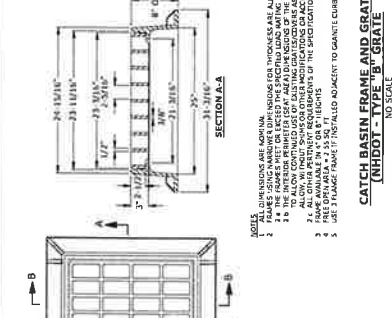
C-603



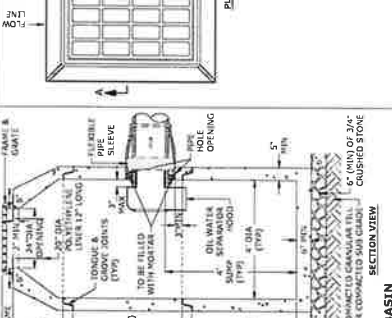
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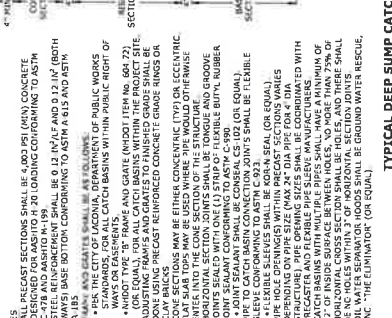
FIRE HYDRANT
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THRUST BLOCKING DETAIL
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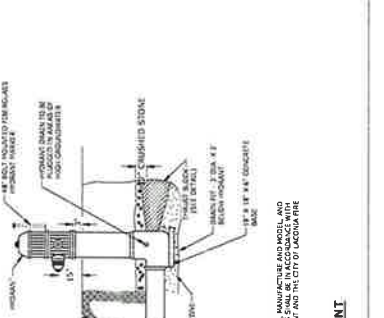
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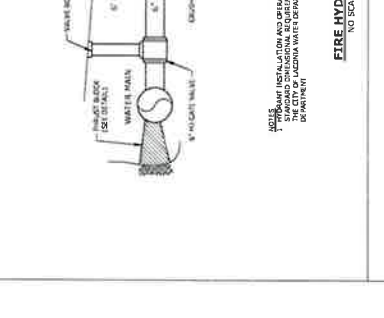
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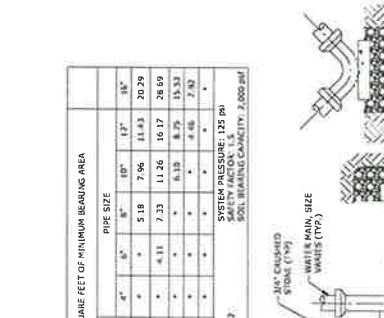
TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



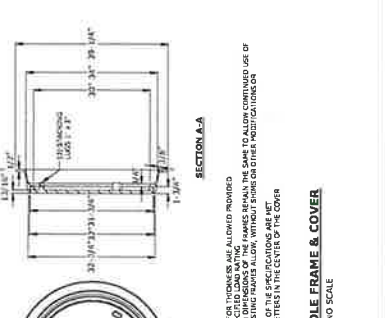
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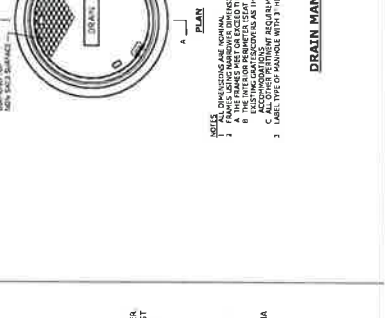
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TYPICAL DRAIN MANHOLE
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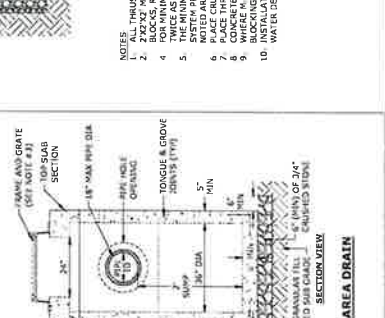
TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



TYPICAL DRAIN MANHOLE
 NO SCALE



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 FOR THE CITY OF LACONIA
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 CONSTRUCTION PURPOSES

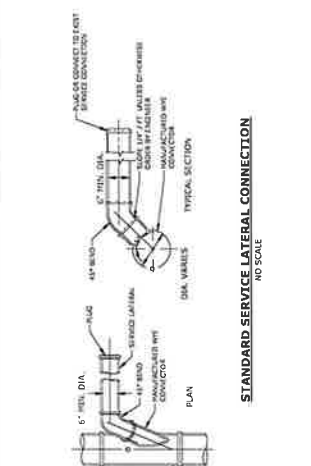
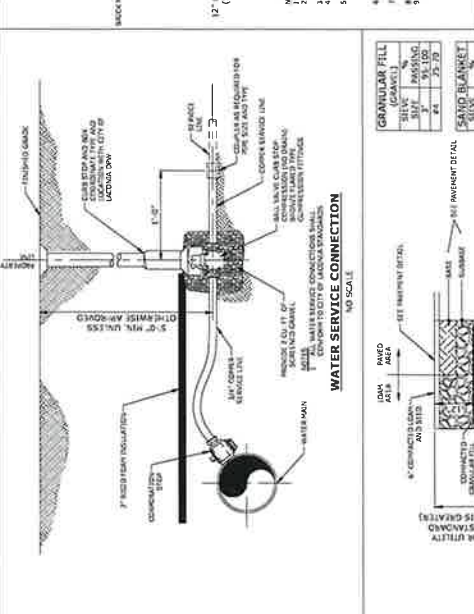
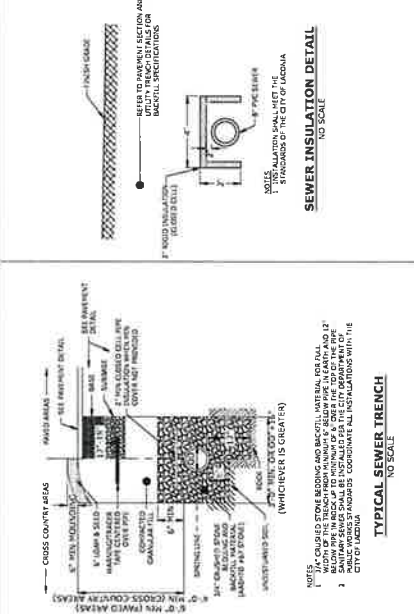
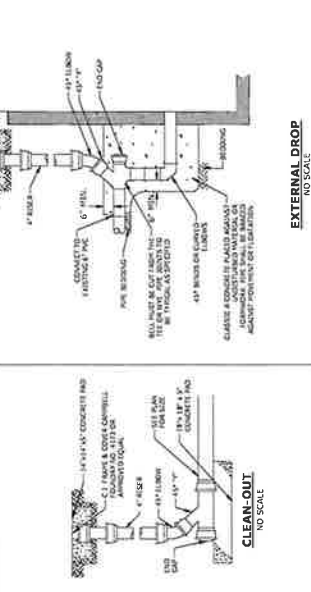
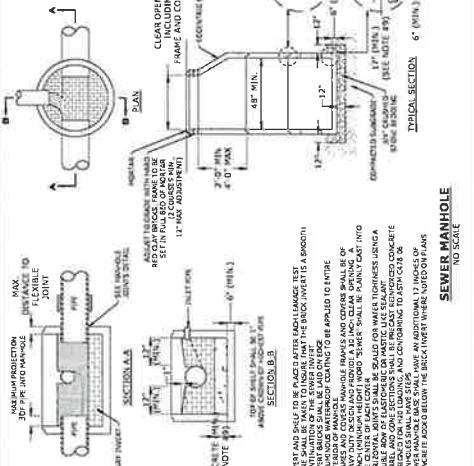
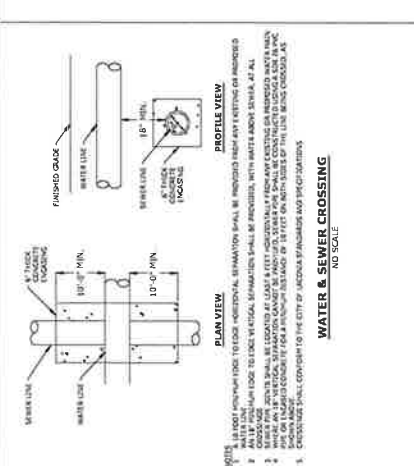
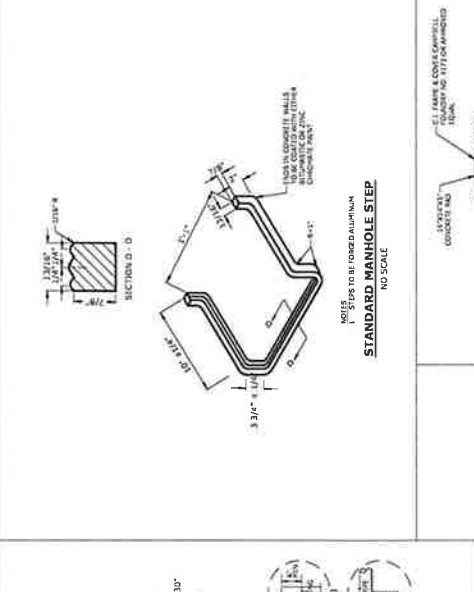
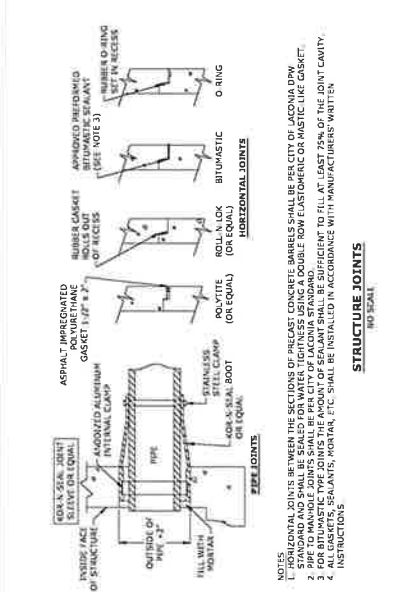
33 WHITE OAKS SUBDIVISION

33 White Oaks Road
 Laconia, New Hampshire

Laconia, New Hampshire

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03/11/2012	TEB	REVISED PER CITY OF LACONIA
05/11/2012	TEB	REVISED PER CITY OF LACONIA
07/11/2012	TEB	REVISED PER CITY OF LACONIA
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07/11/2023	TEB	REVISED PER CITY OF LACONIA
09/11/2023	TEB	REVISED PER CITY OF LACONIA
11/11/2023	TEB	REVISED PER CITY OF LACONIA
01/11/2024	TEB	REVISED PER CITY OF LACONIA
03/11/2024	TEB	REVISED PER CITY OF LACONIA
05/11/2024	TEB	REVISED PER CITY OF LACONIA
07/11/2024	TEB	REVISED PER CITY OF LACONIA
09/11/2024	TEB	REVISED PER CITY OF LACONIA
11/11/2024	TEB	REVISED PER CITY OF LACONIA
01/11/2025	TEB	REVISED PER CITY OF LACONIA
03/11/2025	TEB	REVISED PER CITY OF LACONIA
05/11/2025	TEB	REVISED PER CITY OF LACONIA
07/11/2025	TEB	REVISED PER CITY OF LACONIA
09/11/2025	TEB	REVISED PER CITY OF LACONIA
11/11/2025	TEB	REVISED PER CITY OF LACONIA
01/11/2026	TEB	REVISED PER CITY OF LACONIA
03/11/2026	TEB	REVISED PER CITY OF LACONIA
05/11/2026	TEB	REVISED PER CITY OF LACONIA
07/11/2026	TEB	REVISED PER CITY OF LACONIA
09/11/2026	TEB	REVISED PER CITY OF LACONIA
11/11/2026	TEB	REVISED PER CITY OF LACONIA
01/11/2027	TEB	REVISED PER CITY OF LACONIA
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05/11/2028	TEB	REVISED PER CITY OF LACONIA
07/11/2028	TEB	REVISED PER CITY OF LACONIA
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11/11/2029	TEB	REVISED PER CITY OF LACONIA
01/11/2030	TEB	REVISED PER CITY OF LACONIA
03/11/2030	TEB	REVISED PER CITY OF LACONIA
05/11/2030	TEB	REVISED PER CITY OF LACONIA
07/11/2030	TEB	REVISED PER CITY OF LACONIA
09/11/2030	TEB	REVISED PER CITY OF LACONIA
11/11/2030	TEB	REVISED PER CITY OF LACONIA

SCALE: AS SHOWN
 C-604



**33 WHITE
OAKS
SUBDIVISION**

33 White Oaks
Road

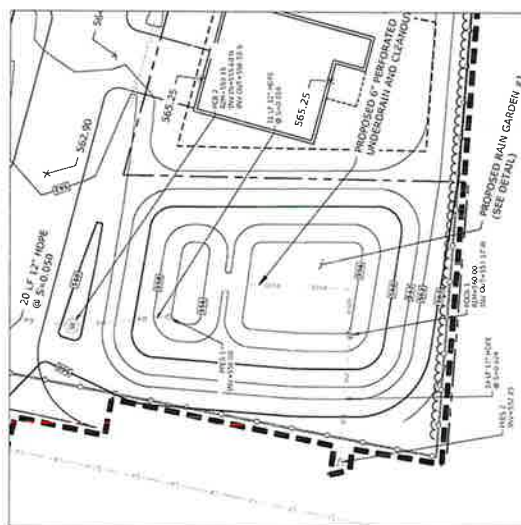
Laconia, New Hampshire

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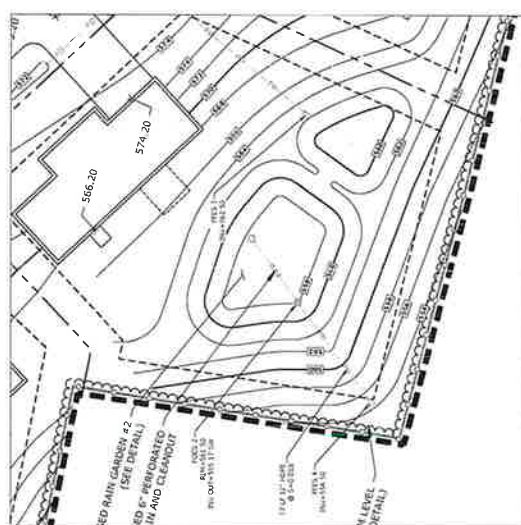
DETAILS SHEET

SCALE:	AS SHOWN
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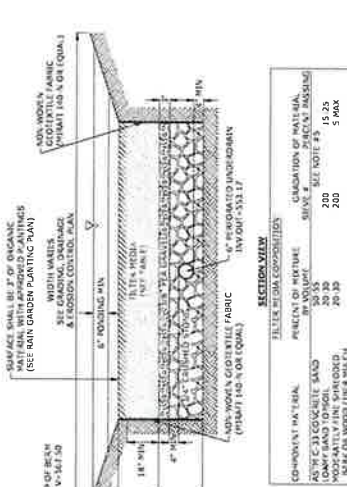
C-605



PLAN VIEW
SCALE 1" = 20'



PLAN VIEW
SCALE: 1"=20'



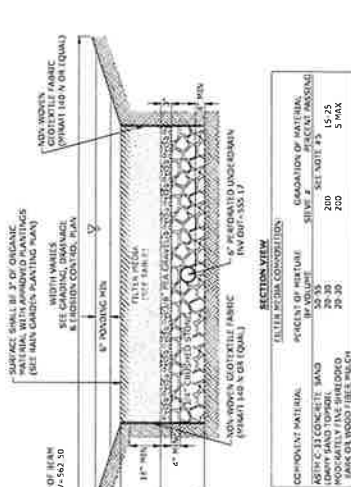
SECTION VIII

FILLER MEDIA COMPOSITION			CLASSIFICATION OF MATERIAL	
COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	S/S#	PRINCIPAL	RANGE
AS 70 C-33 COARSE SAND	20-55	200	15-25	
LOWRY BAND TOPSOIL	20-30	200	5 MAX	
WOODPATLAIN SPRINKLED	20-30	200		
BLACK OXIDE THIN MEDIA				

NOTES

- [illegible]

RAIN GARDEN 1 SECTION



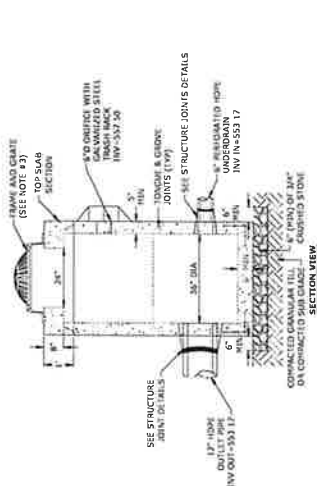
SECTION VIEW

COMPONENT MATERIAL	PERCENT BY VOLUME	GRAIN OF MATERIAL	GRAIN OF MATERIAL
		SILENT #	PERCENT PASSING
ASTH C-33 CONCRETE SAND	30-35		
LEAFY DIRT TOPSOIL	20-30	200	15-25
MOCK-BATTLE FIVE HIREDOG	20-30	200	5 MAX
SAND OR WOOD FIBER MULCH			

NOTES

- 7. FOLLOWING GRADATION (ATM C-33) SHALL BE USED:**
- | SIZE | PERCENT |
|------|---------|
| 3/8" | 100 |
| #4 | 100 |
| #8 | 80 |
| #10 | 100 |
| #20 | 25 |
| #40 | 10 |
| #60 | 5 |
| #100 | 0 |
- 8. STUDENT'S FINGER STONE WHEN MATERIAL SHALL MEET THE FOLLOWING GRADATION (Per ASTM 1508 116):**
- | SIZE | PERCENT |
|--------|---------|
| 1 1/2" | 100 |
| 3" | 100 |
| 6" | 100 |
| 12" | 100 |
| 18" | 100 |
| 24" | 100 |
| 36" | 100 |
| 48" | 100 |
| 60" | 100 |
| 72" | 100 |
| 84" | 100 |
| 96" | 100 |
| 108" | 100 |
| 120" | 100 |
| 132" | 100 |
| 144" | 100 |
| 156" | 100 |
| 168" | 100 |
| 180" | 100 |
| 192" | 100 |
| 204" | 100 |
| 216" | 100 |
| 228" | 100 |
| 240" | 100 |
| 252" | 100 |
| 264" | 100 |
| 276" | 100 |
| 288" | 100 |
| 300" | 100 |
- 9. THE FOLLOWING SHALL BE USED:**
- | ITEM | QUANTITY |
|---------------------------|----------|
| 1. 1/2" DIA. STEEL PIPES | 100 |
| 2. 3" DIA. STEEL PIPES | 100 |
| 3. 6" DIA. STEEL PIPES | 100 |
| 4. 12" DIA. STEEL PIPES | 100 |
| 5. 18" DIA. STEEL PIPES | 100 |
| 6. 24" DIA. STEEL PIPES | 100 |
| 7. 36" DIA. STEEL PIPES | 100 |
| 8. 48" DIA. STEEL PIPES | 100 |
| 9. 60" DIA. STEEL PIPES | 100 |
| 10. 72" DIA. STEEL PIPES | 100 |
| 11. 84" DIA. STEEL PIPES | 100 |
| 12. 96" DIA. STEEL PIPES | 100 |
| 13. 108" DIA. STEEL PIPES | 100 |
| 14. 120" DIA. STEEL PIPES | 100 |
| 15. 132" DIA. STEEL PIPES | 100 |
| 16. 144" DIA. STEEL PIPES | 100 |
| 17. 156" DIA. STEEL PIPES | 100 |
| 18. 168" DIA. STEEL PIPES | 100 |
| 19. 180" DIA. STEEL PIPES | 100 |
| 20. 192" DIA. STEEL PIPES | 100 |
| 21. 204" DIA. STEEL PIPES | 100 |
| 22. 216" DIA. STEEL PIPES | 100 |
| 23. 228" DIA. STEEL PIPES | 100 |
| 24. 240" DIA. STEEL PIPES | 100 |
| 25. 252" DIA. STEEL PIPES | 100 |
| 26. 264" DIA. STEEL PIPES | 100 |
| 27. 276" DIA. STEEL PIPES | 100 |
| 28. 288" DIA. STEEL PIPES | 100 |
| 29. 300" DIA. STEEL PIPES | 100 |
- 10. THE FOLLOWING SHALL BE USED:**
- | ITEM | QUANTITY |
|---------------------------|----------|
| 1. 1/2" DIA. STEEL PIPES | 100 |
| 2. 3" DIA. STEEL PIPES | 100 |
| 3. 6" DIA. STEEL PIPES | 100 |
| 4. 12" DIA. STEEL PIPES | 100 |
| 5. 18" DIA. STEEL PIPES | 100 |
| 6. 24" DIA. STEEL PIPES | 100 |
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| 29. 300" DIA. STEEL PIPES | 100 |
- 11. THE FOLLOWING SHALL BE USED:**
- | ITEM | QUANTITY |
|---------------------------|----------|
| 1. 1/2" DIA. STEEL PIPES | 100 |
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- 12. THE FOLLOWING SHALL BE USED:**
- | ITEM | QUANTITY |
|--------------------------|----------|
| 1. 1/2" DIA. STEEL PIPES | 100 |
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| 10. 72" DIA. STEEL PIPES | 100 |
| 11. 84" DIA. STEEL PIPES | 100 |
| 12. 96" DIA. STEEL PIPES | |

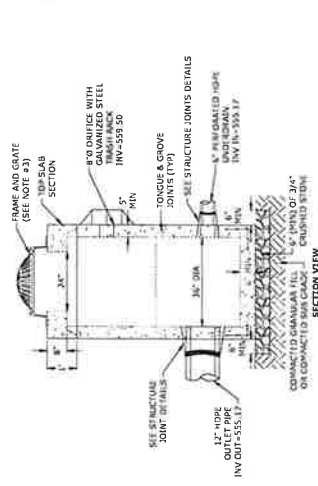
RAIN GARDEN 2 SECTION



SECTION VIEW

- [illegible]

QUALITY AND CONTROL STRUCTURE



SECTION VIEW

- [illegible]

QUALITY CONTROL STRUCTURE 3

January 30, 2026

Mr. Rob Mora
Planner Director
City of Laconia
45 Beacon Street E
Laconia, New Hampshire 03246

RE: TRC Submittal
Pickerel Pond Cluster Development
Pickerel Pond Road
TAX MAP 13 LOT 183-16

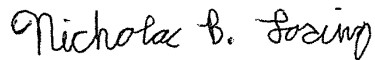
Dear Mr. Mora:

At this time we would like to submit the above reference project for discussion at the TRC meeting on February 17th. The project is for the construction of 26 single family detached condominiums serviced by two proposed public roadways. We have included the following items:

- (6) SETS OF SITE PLANS (FULL SIZE)
- PLANNING BOARD APPLICATION
- SITE PLAN & SUBDIVISION CHECKLIST
- ABUTTER LIST
- CHECK FOR APPLICATION FEES
- DIGITAL SUBMISSION (via email)

If you have any questions or if you require any additional information please feel free to contact me by phone or email.

Thank you



Nicholas Loring
Benchmark, LLC
603-437-5000
nick@benchmark-engineering.com



City of Laconia Planning Board Application Instructions

Please read these instructions carefully. Contact the Planning Department at 527-1264 if you have any questions. We recommend completing the application and checklist(s) well in advance of the submittal deadline and suggest that if you have any questions concerning specific items that you request a pre-app meeting for review.

APPLICATION SUBMITTAL REQUIREMENTS:

If you have any questions pertaining to particular documents please contact the Planning Department for assistance.

- ☒ One original signed application, appropriate fees, abutters list, abutters envelopes with correct postage or appropriate fee, one complete set of folded plans and one copy of any reports, cost estimates, studies, or other documents required for review of the proposal shall be submitted to the Planning Department, basement of City Hall by the published deadline. **No exceptions.**

One copy of the application and a complete plan set shall be submitted to the following city Departments at the following locations:

- ☒ Along with one copy of the cost estimate, drainage and watershed analysis submitted to the Assistant Director at DPW, 27 Bisson Ave.
- ☒ Along with one copy of the folded set of architectural plans submitted to the Deputy Chief of Fire Prevention, at the Central Station.
- ☒ Along with the abutter list submitted to the Assessing Department, Main Floor, City Hall
- ☒ Water Works Superintendent, 988 Union Ave
- ☒ Conservation Technician, Planning Office, Basement, City Hall
- ☒ Police Dept, New Salem Street (Minor Site Plan application only)

PLEASE PROVIDE A COVER LETTER FOR EACH DEPARTMENT'S SUBMITTAL WITH EXPECTED PLANNING BOARD MEETING DATE INCLUDED.

DEADLINE: In order to be considered for a Planning Board agenda this application and the required fees, plans and other associated documents must be filed with the appropriate City Departments as required by the official Planning Board Schedule, published by the Planning Department. Failure to do so will result in the application being postponed until a future meeting.

PLANS: Submitted Plans shall consist of a complete plan set, with original stamps and signatures of all appropriate professionals.

FEES: Refer to the fee schedule as adopted by the City Council and administered by the City Manager. The Planning Department will approve the calculation of fees. Failure to submit required fees will result in postponement of the application. Fees are calculated separately for each submittal request.

SIGNATURES: The property owner provides the official signature for an application. An agent or power of attorney may sign provided appropriate documentation of authorization is provided. In the case of a corporation, association, or other non-person ownership, the president or chief executive officer may sign provided a certification by the clerk or secretary is provided. Only one original copy of agent certification is

required with application submittal. Applications should be signed to be considered complete.

WAIVER REQUESTS: Waiver requests for submittal data must be indicated on the checklists provided by the Department. Waiver requests for standards within the regulations must reference the name and section of the regulation. All waiver requests must be accompanied by supporting documentation and be attached or enclosed with this application.

ABUTTER NOTIFICATION: Submitted abutters lists are required by state statute to be current according to the assessor's records within five days of the submittal date. We encourage you to double check for changes if you complete the application or plan prior to the five-day period. Be sure to include updates that the assessor does not yet have on record if you are aware of them.

It shall be the responsibility of the applicant to address all envelopes to abutters. The envelopes shall be business style (4" x 9 1/2") and include completed certified mail receipts with return address to the Planning Department, 45 Beacon Street E, Laconia, NH 03246.

CHECKLISTS: Checklists are required to be submitted with the application. If you are applying for both subdivision and site plan, both need to be filled out and returned. In the case of multiple page plan sets please indicate the sheet number in the 'Plan Sheet#' column.

Thank you for your co-operation.

The Planning Staff



Application(s) #: _____

Fees Paid: _____

Check #: _____

Receipt #: _____

PLANNING BOARD APPLICATION

Project Name: HERON POINT PRESERVE

Project Address: PICKEREL POND ROAD

Tax Map/ Lot # (s): 13-183-16 Zoning District (s): R1 Parcel Size Acres: 150.47

Number of Lots: 26 Total Developed Land Area: 11.5 Building(s) and/or additions Total Sq. Ft. 52,000

Submittal Request (Check all that apply):

- | | | |
|---|--|---|
| ☐ Alternative Parking CUP | ☐ Amendment | ☐ Boundary Line Adjustment |
| ☐ Boundary Line Agreement | ☐ Change of Use | ☒ Cluster Development CUP |
| ☒ Cluster Subdivision | ☒ Condominium Subdivision | ☐ Conventional Subdivision |
| ☐ Discretionary Easement | ☐ Marinas and Yacht Club CUP | ☐ Minor Site Plan |
| ☐ Performance Zoning CUP | ☐ Site Plan (Commercial) | ☐ Site Plan (Multi-family) |
| ☐ Steep Slope CUP | ☒ Wetland/Wetland Buffer CUP | ☐ Other _____ |

Proposal Description: Proposal is for the construction of 26 detached single family homes and associated improvements including two public roads, driveways, drainage improvements, utilities, etc.

The homes will be in a condominium form of ownership.

The project will be serviced by on-site septic systems and wells.

I hereby make application to the City of Laconia for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning Ordinance and land use regulations of the City, except where waivers are requested. The City of Laconia Planning Board, Minor Site Plan Committee, Technical Review Committee and/or city employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at any and all meetings before the Planning Board, Minor Site Plan Committee or Technical Review Committee.

Sign as appropriate (If agent or non-person please attach certification)

NOTE: Please attach an Applicant Contact Worksheet

PROPERTY OWNER 1

Printed Name: Peter Grenier

Signature: [Signature]

Date: 1/28/2026

PROPERTY OWNER 2

AGENT / APPLICANT

Nicholas Loring

[Signature]

1/30/26



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎603-527-1264
📠603-524-2164

APPLICANT CONTACT SHEET

Application Type: **SITE PLAN** Application #: _____

Name of Applicant: **PARADE REI, LLC**

Mailing Address: **PO BOX 1926 CONCORD, NH 03302**

Phone: **603-714-0515** E-mail: **grenierpeter@gmail.com**

Name of Agent: **NICHOLAS LORING - BENCHMARK, LLC**

Mailing Address: **50 NASHUA RD, SUITE 305 LONDONDERRY, NH 03053**

Phone: **603-437-5000** E-mail: **nick@benchmark-engineering.com**

Property Owner 1: **SAME AS OWNER**

Mailing Address: _____

Phone: _____ E-mail: _____

Property Owner 2: _____

Mailing Address: _____

Phone: _____ E-mail: _____

Emergency Contact Person: **Pete Grenier** Phone: **603-714-0515**

Parade REI LLC
PO Box 1926
Concord, NH 03302

January 28, 2026

**RE: Heron Point Preserve
TAX MAP 13 LOT 183-16
PLANNING BOARD APPLICATION**

LETTER OF AUTHORIZATION

To whom it may concern;

I hereby authorize Benchmark LLC. to represent my application relating to a Planning Board application for the above referenced property.

Thank you

Pete Grenier

Pete

Parade REI LLC



ZONING & PLANNING BOARD APPLICATION FEES

Adopted by City Council 2/10/2020

www.cityoflaconianh.org

Application Type †	Basic Fee*	Additional Fees*	
Administrative Review	\$125.00	None apply	
Administrative Review Short Term Lodging Permit	\$250	Permit must be renewed every 2 years, fee authorized at that time.	
Minor Site Plan Committee (MSPC), Minor Site Plan or Change of Use between 5,000 and 10,000 SF#	\$100.00	None apply	
Planning Board Basic Site Plan, Site Plan Amendment or Change of Use over 10,000 SF#	\$200.00	Construction of new commercial structures, and additions	+ \$50 per each 1,000 SF# of new structure footprint
		Construction of new <u>industrial</u> structures and additions	+ \$30 per each 1,000 SF# of new structure footprint
		Construction of new residential units	+ \$50 per unit
		Principal Outdoor Uses	+ \$100 per acre (or portion over .5 acre) of developed area
		Parking or paving	+ \$20 per 1,000 SF#
Basic Subdivision (of Lots or Sites)	\$200.00	For 1-3 lots/sites (includes the original lot)	\$50 per lot/site
NEW RESIDENTIAL UNITS: \$200 + 26 X \$75 = 2,150 2,150 X 25% REDUC.= \$1,612.50		For over 3 lots/sites (including original lot)	\$75 per lot/site
		Lot Line Adjustments	\$50 for each adjustment between every two lots
		Boundary Line Agreements	\$50 for each adjustment between every two lots
Basic Site Plan for establishment or expansion of parking lots over 25 spaces	\$500.00	None apply	
Design Review	\$100.00	None apply	
Conceptual Review	No Fee	None apply	
As-built Site Plan	\$100.00	None apply	
Miscellaneous Items/Fees			
Request for a continued hearing	\$25.00 for the first request, \$50. for each request after		
Request for extension of approval	\$25.00 for the first request, \$50. for each request after		
Request for Street Acceptance	\$100.00 Flat fee		
Conditional Use Permits	X 2 = \$200	\$100.00 Per requirement	
Zoning Petitions	\$100.00		
Zoning Applications, Zoning Re-Hearings	\$125.00		
Lot Merger Applications	\$25.00		
Sign Permits	\$30.00 per sign		
Banner Sign Permits	\$50.00 per banner per week		
After-the-fact Applications	\$500 or double the regular application fee, whichever is greater, plus the normal application fee		
Abutter Notification	21 X \$10 = \$210 \$1,612.50 + \$210 + \$200 = \$2,022.50	\$10 per abutter, includes postal fees. Applicants wishing to pay the postal fees will be credited that amount. Applicant must prepare the mailing envelopes including affixing certified slip (return receipt not required).	
Recording Fees	Make payable to Belknap Country Registry of Deeds – amounts will vary depending on what is being recorded		

*Application fees do not include recording fees.

†Submission of an application fee must accompany a complete application in order for that application to be placed on an agenda for review and/or public hearing.

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SITE PLAN

Applicant Name Parade REI, LLC
Heron Pnt. Preserve

Office Use Only

Tax Map ____ Block ____ Lot ____

Date Reviewed _____

For Staff Use Only

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Site #	Waiver Req.	None Found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Application Properly Executed	/									
Filing Fee	/									
Abutter Information	/									
Authorization from Property Owner	/									
Plans (properly distributed)	/									
Existing Conditions	/									
Proposed Site Plan	/									
Architectural Plan										
Landscape Plan										
Reduced Plan Set (After PRC II for PB distribution)					/					
PLAN FORMAT										
Size (11" x 17" to 24" x 36")	/									
Scale: (No greater than 1" = 150')	/									
Bound if More than One Page	/									
Locus (No Greater than 1" = 1000')	/									
Legend	/									
Title Box	/									
(Lower Right Hand Corner)	/									
Owner Name and Address	/									
Project Name	/									
Project Location and Address	/									
Tax Map Number(s)	/									
Deed Book and Page Numbers	/									
Zone Designation/Boundaries	/									
Draft Date & Revision Dates	/									
Preparer Name & Address	/									
Original P.E./LLS Stamp & Signature	/									
North Arrow	/									

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Measurements	/	3,4								
Bearings	/	3,4								
Error of Closure Statement	/	3,4								
Signature Block (lower right hand corner)	/	1,2								

5-9

NATURAL FEATURES

8-9

Topographic Contours (2 ft. intervals)	/	3,4								
Wetland Delineation/CSS Stamp & Signature	/	3,4								
Water Bodies & Water Courses	/	3,4								
Ledge Outcroppings				/						
Significant Tree Stands	/	3,4								
FEMA Floodplain Boundary	/	3,4								
Steep Slope Areas > 25%				/						

Existing Condition Plan

Lot Sizes in Square Feet	/									
Lot Lines/Monumentation - Location	/									
Green Space Calculation	/	2								
Easements or Rights-of-way/Location & Width	/									
Structures - Location, Footprint & Use	/									
Curb Cuts & Driveways - location, layout & dimen.	/									
Access Street - location, pavement, & Row widths	/									
Sewer/Septic Disposal Facilities-location, line size				/						
Water Supply - location, line size				/						
Non-municipal utilities, elect., cable, alarm etc.	/									
Signage - location & size				/						
Outdoor Lighting -location & type				/						
Dock or Mooring Sites				/						

PROPOSED LAYOUT

5/6

Lot Lines	/									
Easements & Rights of Way	/									
Structures & Additions - location, footprint & use	/									
Building Dimensions/Height	/									
Parking & Loading areas -location, layout & dimen.				/						
Curb Cuts & Driveways - location, layout & dimen.	/									

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Handicapped spaces - location, layout & dimensions					/					
Parking Requirement Calculation based on Use (s)	/	2								
Signs - Location & Size					/					
Finished First Floor Elevations	/									
Solid Waste Disposal - location & type										
Outdoor Lighting - location & type										
Fire Lanes & Other Emergency Access	/									
Walkways - location & width					/					
Fences, walls - location, type & height					/					
Phasing Delineation					/					
Street Improvements - plans, profiles & cross-section	/									
911 Street Name Designation (DPW)	/									
Non-municipal Utility Connection Locations:	/									
I.e. electric, fire alarm										
Well Location	/									
Septic Disposal Facilities										
Drainage Improvements - location & Layout	/									
Grading Plan - contours @ 2 ft. intervals with	/									
finished grade elevations	/									
Municipal Utility Extensions - plan & profiles					/					
Sewer - locations, size & invert elevations of manhole					/					
Water Mains - location/size & invert of hydrants,					/					
gates, valves & blowoffs					/					
Pump Station Locations					/					
Erosion & Sediment Control Plan View & Detail	/									
Dock or Mooring Sites					/					

LANDSCAPE PLAN

TRC#2

Plan View & Planting Schedule										
Location, site & type of new, retained & relocated plantings										
Street Tree Layout										
Greenspace/Landscape Calculations										

ARCHITECTURAL PLAN

TRC#2

Preparer of plan										
All Elevations Shown										
Scale (minimum 1/8" = 1')										

PLAT REQUIREMENTS FOR SITE PLAN

	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Building Colors										
Roof Type & Pitch										
Location of Windows & Doors										
Towers, Antennas - size, type & location										
Bulk/Height Relationship to Abutting Structures										
Building Height										
ABUTTING PROPERTIES										
Owner Name & Address	/									
Tax Map Number	/									
Location & Use of Buildings/Property	/									
OFF-SITE PROPOSED IMPROVEMENTS										
Streets					/					
Utilities					/					
Parks					/					
Others					/					
DOCUMENTS										
Articles of Agreement					/					
Association By-Laws					/					
Restrictive Covenants					/					
Construction Estimates					/					
Easements					/					
Consultant Review Agreement					/					
Declaration of Condominium					/					
Traffic Impact Study					/					
Wetlands/Watercourse Impact Analysis					/					
Drainage Analysis for 10-Year Flow					/					
Groundwater Analysis					/					
TOWN, STATE & FEDERAL APPROVALS										
Dredge and Fill (482-A)					/					
Army Corp. of Engineers					/					
Significant Alteration of Terrain (485-A:17)					/					
Energy Facility (162h)					/					
State Public Works and Highways (236:13) - Driveway					/					
Condominium Development (356-B)					/					
Land Disclosure (356-A) if over 16 Lots					/					
HUD Land Disclosure (15 USC 1701), if over 50 Lots					/					
Conditional Use Permit for Wetlands Crossing					/					
Shoreline Protection (483-B)					/					

SUBDIVISION PLAN

Applicant Name Parade REI, LLC

Office Use Only

Tax Map _____ Block _____ Lot _____

Date Reviewed _____

PLAT REQUIREMENTS FOR SUBDIVISION PLAN

	Enclosed	Plan Sht #	Waiver Req.	None Found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Application Properly Executed	/									
Filing Fee	/									
Abutter Information	/									
Authorization from Property Owner	/									
Plans (distributed properly)	/									
Reduced Plan Set (After PRC II for PB distribution)	/									
PLAN FORMAT										
Size (11" x 17" to 24" x 36")	/									
Scale: (No greater than 1" = 100')	/									
Bound if More than One Page	/									
Locus (No Greater than 1" = 1000')	/									
Legend	/									
Title Box - Subdivision/Lot Line Adjustment	/									
(Lower Right Hand Corner)	/									
Owner Name and Address	/									
Project Name	/									
Project Location	/									
Tax Map Number(s)	/									
Deed book and page	/									
Zone Designation/Boundaries	/									
Draft Date & Revision Dates	/									
Preparer Name & Address	/									
Original Surveyor Stamp & Signature	/									
North Arrow	/									
Measurements	/									
Bearings	/									
Error of Closure	/									
Planning Board Signature Block	/									
(Lower Right Hand Corner)	/									

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
NATURAL FEATURES										
Topographic Contours (2 ft. intervals)	/									
Wetland Delineation/CSS Stamp & Signature	/									
Water Bodies & Water Courses	/									
Ledge Outcroppings	/				/					
Significant Tree Stands	/									
FEMA Floodplain Boundary	/									
Steep Slope Areas > 25%	/				/					
EXISTING CONDITIONS PLAN										
Lot Sizes in Square Feet	/									
Lot Lines	/				/					
Easements or Rights-of-way/Location & width	/									
Septic Disposal Facilities	/									
Water Supply	/									
Buildings	/									
Roads	/									
Driveways	/									
Drainage Improvements	/									
PROPOSED LAYOUT										
Lot Lines	/				/					
Setback Lines	/									
Easements or Rights-of-way/Location & Width	/									
Septic Disposal Facilities/Sewer Design/Plan-Profile	/				/					
Water Supply/Water System Design/Plan & Profile	/				/					
Buildings	/									
Driveways	/									
Drainage Improvements/Plan & Profile	/									
Road Engineering/Road Cross Section/Plan & Profile	/									
911 Street Name Designation (DPW)	/									
Street Design	/									
Sidewalks	/			/						
Curbing	/									
Street Lighting	/									

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
Street Trees										
Street Grades	TRC-2									
Erosion & Sediment Control Plan/View & Detail	///									
Dock Site/Mooring Locations	///									
Topography/Grading Plan	///									
Monumentation	///									
Common/Limited Common Areas	///									
Open Space/Public Sites	///									
Conservation Easements	///									
ABUTTING PROPERTIES										
Owner Name & Address	///									
Tax Map Number	///									
Wells within 75 feet	///									
Subdivision Names	///									
Roads/Road Names	///									
Building Lines within 200 Feet	///									
OFF-SITE PROPOSED IMPROVEMENTS										
Streets										
Utilities										
Parks										
Other										
DOCUMENTS										
Articles of Agreement	SEE SITE CHECKLIST									
Association By-Laws										
Restrictive Covenants										
Construction Estimates										
Easements										
Consultant Review Agreement										
Declaration of Condominium										

PLAT REQUIREMENTS FOR SUBDIVISION PLAN	Enclosed	Plan Sht #	Waiver Req.	None found	N/A	Submitted	Rec. Waiver	Not Submitted	Acceptable	Required
STUDIES	SEE SITE CHECKLIST									
Traffic Impact Study > 10 Lots										
Wetlands/Watercourse Impact Analysis										
Master Plan Compatability Statement										
Drainage Analysis for 50 Year Flow										
Groundwater Analysis										
TOWN, STATE & FEDERAL APPROVALS	SEE SITE CHECKLIST									
Dredge and Fill (482-A)										
Army Corp. of Engineers										
Significant Alteration of Terrain (485-A:17)										
Subdivision Approval (485-A:29)										
Energy Facility (162h)										
State Public Works and Highways (236:13) - Driveway										
Condominium Development (356-B)										
Land Disclosure (356-A) if over 16 Lots										
HUD Land Disclosure (15 USC 1701), if over 50 Lots										
Conditional Use Permit for Wetland Crossings										
Shoreland Protection (483-B)										



CITY OF LACONIA
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
45 Beacon Street East
Laconia, NH 03246
Phone: (603) 527-1264
Fax: (603) 524-2167
Email: Planning@Laconianh.gov



NOTICE OF ACTION
MEETING September 15th, 2025
CITY OF LACONIA
ZONING BOARD OF ADJUSTMENT

Parade REI LLC
160 Bouchard St
Manchester, NH 03103

RE: Variance Road Length (Cul De Sac) (13/183/16)

This is to certify that at the meeting held on **September 15, 2025**, the City of Laconia Zoning Board of Adjustment voted to **Approved** Application **ZB2025-010**, request for **Variance** from **Article VII §235-40 B (6)(n)[1][c]** to allow for a Cul De Sac that will be longer than the prescribed 1000 Feet at this property. The criteria below were used as a finding of fact.

1. Granting the variance would not be contrary to the public interest because: The standard for prongs one and two of the variance criteria is whether the requested relief, if granted, will alter the essential character of the neighborhood or negatively impact the health, welfare, and safety of the surrounding area and mere conflict with the terms of the ordinance is insufficient as all variance requests are somewhat averse to an ordinance, hence why the relief is sought in the first instance. *Harborside associates, L.P. v. Parade Residence Hotel, LLC*. 162 N.H. 508 (2011). Furthermore, it is important to note that prong 1 is in the negative. That is to say that it does not require the Applicant to prove that the proposed use is in the public interest. But only to prove that it is not contrary to the public's interest. Here, the immediate question is to allow for a road length of 1300 feet where 1000 feet is required. The public interest in limiting the length of dead-end streets is based on safety. In years gone by, fire apparatus had a pump and hose limit of 1000 feet. In modern times fire equipment has improved with pump and hose limits being far greater than 1000 feet. The maximum length of a Cul De Sac lengths up to 3000 feet. In many cases, Cisterns are provided to enhance safety and facilitate fire safety. Safety is not a concern in this development. The applicant met with Fire Department Officials to discuss the road length and cisterns. It is expected a letter from the fire chief will be on record prior to the hearing stating the Department is satisfied with the road length and cistern locations. The relief requested does not alter the essential character of the neighborhood because the road only services the lots within the cluster subdivision and will have no different impact on abutting properties than a loop road or connector roads.

2. If the variance were granted, the spirit of the ordinance would be observed because: As a matter of law, the analysis for both Prongs one and two of the variance criteria are the same. As such, the applicant incorporates and repeats the narrative of prong 1 and reiterates the same for prong 2. *Harborside Associates. L.P. v. Parade residence hotel, LLC* 162 N.H. 508(2011)



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3. Granting the variance would do substantial justice because: Perhaps the only guiding rule [on this standard] is that any loss to the individual that is not outweighed by a gain to the public is an injustice. *Malachy Glen Assocs. V Town of Chichester*, 155 N.H. 102, 109 (2007). Here the loss to the Applicant in not approving this variance would far outweigh any benefit to the public. By granting the variance the Applicant can make the most of their investment and improve the property in cluster development which maintains the bulk of the land as open space. The concentration of lots in a cluster development reduces impervious cover, facilitates storm water management, reduces wetland impacts and benefits the environment. If denied, the public gains nothing as the property can be developed as a conventional subdivision where there will be more impacts, greater impervious cover, longer roads and greater wetland impacts. Idle properties are deemed to be against the best interest of the public. Reasonable development of property and generation of tax revenue is a benefit to the public. This use is being market rate single family housing, is a benefit to the public who need housing in this community. Approval of the variance requested will benefit the Applicant, owner, Abutters, and the public.

4.If the variance were granted, the values of the surrounding properties would not be diminished because: The project will not alter the essential character of the neighborhood and will take an idle property and increase its value to the tax rolls. For that reason, the variance will not diminish the value of surrounding properties but rather enhance said values. The road length does not have an impact on abutting property owners. Very plainly, there is no evidence to suggest that granting this relief would negatively impact surrounding property values.

5.Unnecessary Hardship: "Hardship" under NH RSA 674:33, I (b) (1) (A) and (B) is a straightforward three step analyses: a. What are the special conditions of the property, if any; b. 'no fair and substantial relationship exists between the public purposes of the ordinance provisions and the specific application of that provision to the property. Which can be said another way that if the variance is granted would it unreasonably frustrate the purpose ordinance and is the proposed use reasonable? The property has special features including its size topography and wetland locations. The purpose of the cul-de-sac length limitation is for safety. Here it has been determined that the 1,300-foot length with the addition of cisterns will not impair public safety or access to emergency vehicles. Lastly the proposed use for the site is residential and there is a high public demand in the community and the state in general for housing. As such the project will benefit the public in fulfilling this role. The site otherwise meets the cluster subdivision regulations and is therefore reasonable.

a. Owing to special conditions of the property that distinguish it from other properties in the area, denial of the variance would result in unnecessary hardship because:

i. No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property because:

ii. The proposed use is a reasonable one because:

b. If the criteria in subparagraph (a) are not established, an unnecessary hardship will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it



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from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, and a variance is therefore necessary to enable a reasonable use of it.

CERTIFICATION

I hereby attest that the foregoing is a true and accurate record of the action of the Zoning Board.

ROBERT A. MORA
Director, Planning and Community Development

9/24/25
DATE



100 feet Abutters List Report

Laconia, NH
January 28, 2026

Subject Property:

Parcel Number: 13-183-16
CAMA Number: 13-183-16
Property Address: PICKEREL POND RD

Mailing Address: PARADE REI LLC
PO BOX 1926
CONCORD, NH 03302

Abutters:

Parcel Number: 12-183-13
CAMA Number: 12-183-13
Property Address: PICKEREL POND RD

Mailing Address: OUELLETTE DAVE
298 PICKEREL POND ROAD
LACONIA, NH 03246

Parcel Number: 13-183-15
CAMA Number: 13-183-15
Property Address: 140 PICKEREL POND RD

Mailing Address: LABRANCHE FAMILY REV TRUST
LABRANCHE BRUCE & SOFIA
TRUSTEES
38 S CATHERINE ST
LACONIA, NH 03246

Parcel Number: 13-183-17
CAMA Number: 13-183-17
Property Address: 298 PICKEREL POND RD

Mailing Address: OUELLETTE DAVE J & TAMMY L
298 PICKEREL POND RD
LACONIA, NH 03246

Parcel Number: 13-183-2
CAMA Number: 13-183-2
Property Address: 285 PICKEREL POND RD

Mailing Address: MACIE RENE & RYAN SHEILA
285 PICKEREL POND RD
LACONIA, NH 03246

Parcel Number: 13-183-5
CAMA Number: 13-183-5
Property Address: 273 PICKEREL POND RD

Mailing Address: COOK ARTHUR J & NANCY E
273 PICKEREL POND RD
LACONIA, NH 03246

Parcel Number: 13-183-6
CAMA Number: 13-183-6
Property Address: 255 PICKEREL POND RD

Mailing Address: TISBIN LLC
396 LAKESIDE AV
LACONIA, NH 03246

Parcel Number: 13-183-7
CAMA Number: 13-183-7
Property Address: 219 PICKEREL POND RD

Mailing Address: GAUDET FAMILY CAMP LLC C/O DAVID
BUCKLEY
1193 BUNGY RD
COLUMBIA, NH 03576

Parcel Number: 13-183-8
CAMA Number: 13-183-8
Property Address: 203 PICKEREL POND RD

Mailing Address: PATERSON BRIAN J
203 PICKEREL POND RD
LACONIA, NH 03246

Parcel Number: 14-154-2
CAMA Number: 14-154-2
Property Address: 53 PARSONAGE DR

Mailing Address: MARCHIONE FREDERICK & DELLA M
53 PARSONAGE DR
LACONIA, NH 03246

Parcel Number: 14-154-3
CAMA Number: 14-154-3
Property Address: 43 PARSONAGE DR

Mailing Address: COOPER BRYON C
43 PARSONAGE DR
LACONIA, NH 03246



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.



100 feet Abutters List Report

Laconia, NH
January 28, 2026

Parcel Number: 14-154-4 CAMA Number: 14-154-4 Property Address: PARSONAGE DR	Mailing Address: LACONIA CITY OF VAC/ LAND LOCKED 45 BEACON ST EAST LACONIA, NH 03246
Parcel Number: 18-154-5 CAMA Number: 18-154-5 Property Address: 96 PARSONAGE DR	Mailing Address: OTTESEN BRYAN A & KAREN A 2022 REV TRUST/TRUSTEES 96 PARSONAGE DR LACONIA, NH 03246
Parcel Number: 18-154-6 CAMA Number: 18-154-6 Property Address: 85 PARSONAGE DR	Mailing Address: FARIS SETH EDWIN & RACHEL L 85 PARSONAGE DR LACONIA, NH 03246
Parcel Number: 18-154-7 CAMA Number: 18-154-7 Property Address: 71 PARSONAGE DR	Mailing Address: HENDRICKS A & R 2004 TRUST HENDRICKS GERALD & STACE DICKER TRUSTEES 71 PARSONAGE DR LACONIA, NH 03246
Parcel Number: 18-155-1 CAMA Number: 18-155-1 Property Address: PARADE RD	Mailing Address: RICE JANE P REV TRUST OF 2008 RICE JANE P TRUSTEE PO BOX 5 MOULTONBORO, NH 03254
Parcel Number: 18-155-2 CAMA Number: 18-155-2 Property Address: 2676 PARADE RD	Mailing Address: BEHAN JOHN W 2676 PARADE RD LACONIA, NH 03246
Parcel Number: 24-153-6 CAMA Number: 24-153-6 Property Address: MERE CENTER RD	Mailing Address: WALLACE LINDA L & WALLACE BRADLEY L SR ESTATE OF 158 SARAH CR LACONIA, NH 03246
Parcel Number: 26-155-1 CAMA Number: 26-155-1 Property Address: PARADE RD	Mailing Address: N H STATE OF DNCR 172 PEMBROKE RD CONCORD, NH 03301

ATTORNEY:
JOHN G. CRONIN, ESQ.
722 CHESTNUT STREET
MANCHESTER, NH 03104

ENGINEER:
BENCHMARK, LLC
50 NASHUA ROAD, SUITE 305
LONDONDERRY, NH



www.cai-tech.com

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NOTES:
1. SEE SHEET 2 FOR ADDITIONAL NOTES AND INFORMATION.
2. WETLANDS MAPPED ON-SITE BY BLUEMOON ENVIRONMENTAL CONCORD, NEW HAMPSHIRE 03301 NANCY B RENDALL CWS, CSS
3. BOUNDARY SURVEY COMPLETED BY: RANGEWAY LAND SURVEY & DESIGN 252 DANIEL PLUMMER ROAD GOFFSTOWN, NEW HAMPSHIRE 03045

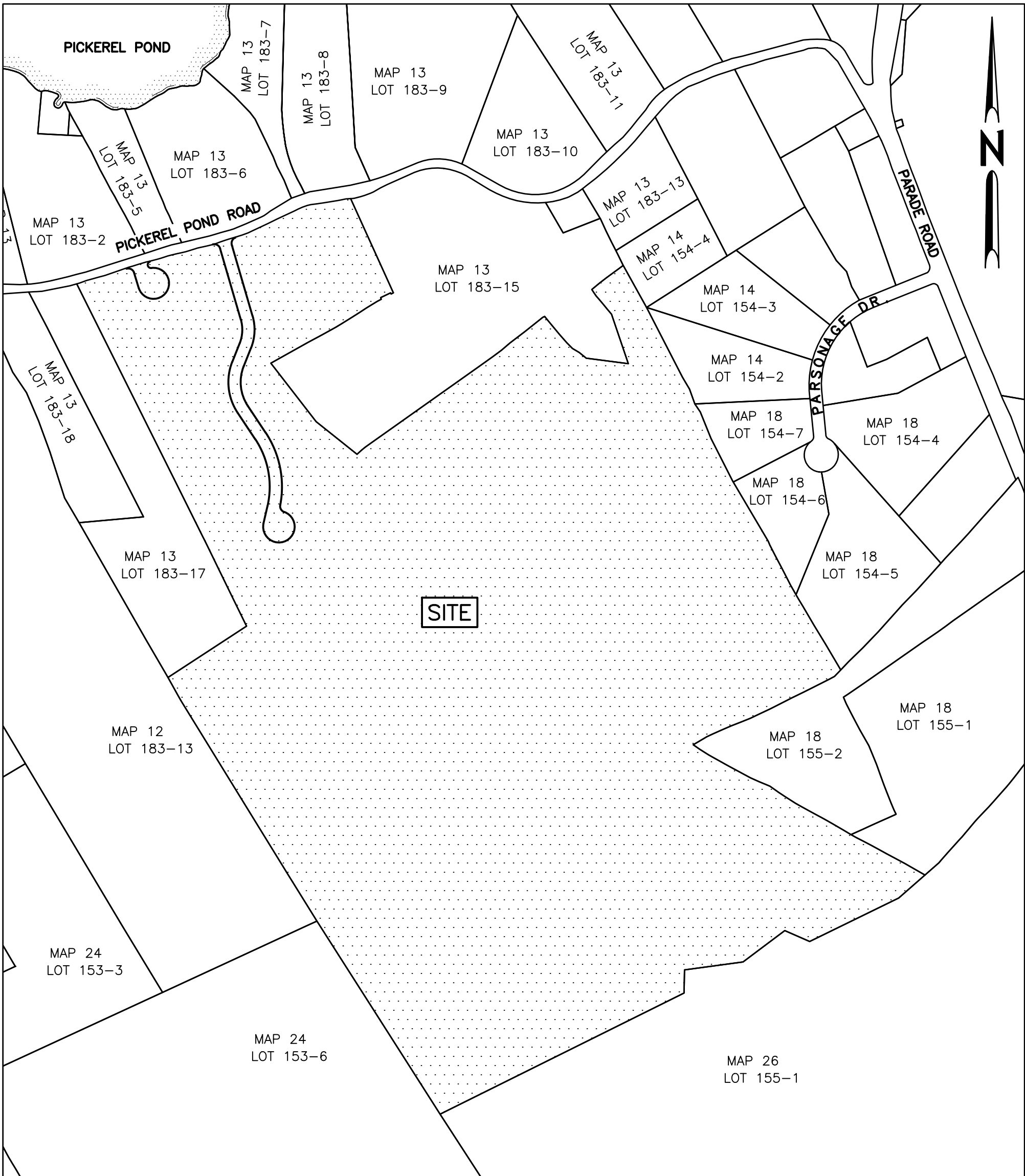
- PLAN REFERENCES
- BCRD PLAN L36 PAGE 47
 - SEE PLAN TITLED "SITE PLAN, LAND OF BARRY LUKATCH WATSON ROAD AND US ROUTE 3, LACONIA NH" DATED SEPTEMBER 14, 1991 BY BRYAN BAILEY LLC #576
 - SEE PLAN TITLE "SUBDIVISION OF LAND FOR BARRY LUKATCH 1048 WATSON ROAD ENDICOTT STREET NORTH/US ROUTE 3 AND HAYES ROAD LACONIA, BELKNAP COUNTY, NEW HAMPSHIRE" DATED JANUARY 03, 2000, SCALE 1"=40' AS PREPARED BY STEVEN J SMITH
 - BCRD PLAN L36 PAGE 99
 - BCRD PLAN L34 PAGE 48
 - BCRD BOOK 3700 PAGE 131 - LOT MERGER

- LEGEND:
- | | | | |
|-----------|--|----------------------------------|---|
| ● | IRON PIPE / REBAR | ~~~~~ | TREELINE |
| ○ | DRILL HOLE/ REBAR TO BE SET | ===== | STONE WALL |
| ■ | STONE BOUND FOUND/ CONC BOUND FOUND | <u>VGC</u> <u>SGE</u> <u>CCB</u> | VERTICAL GRANITE CURB/ SLOPED GRANITE EDGE/ CAPE COD BERM |
| □ | BOUND TO BE SET | --- EOG --- | EDGE OF GRAVEL |
| △TBM | TEMPORARY BENCHMARK | EOP _____ EOC | EDGE OF PAVEMENT/ EDGE OF CONCRETE |
| ⊕ | WELL | ___ DYL ___ | DOUBLE YELLOW LINE |
| —+— | SIGNS/SINGLE & DOUBLE POST | ===== | RETAINING WALL |
| ⊕ | TEST PIT | CLF _____ PVC | CHAIN LINK/PVC FENCE |
| ☆ | LIGHT POLE | | |
| - - - - - | LIMITS OF DRAINAGE SWALE BY BLUE MOON ENV. | | |

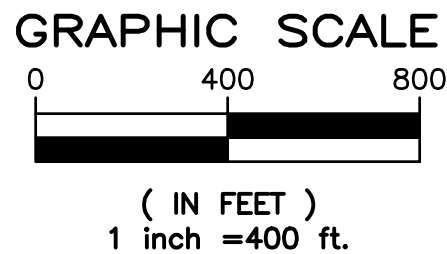
I HEREBY CERTIFY THAT THE WORK PERFORMED IN THE PREPARATION OF THIS PLAN HAS AN ERROR OF CLOSURE OF 1 IN 10,000 OR BETTER.

RANGEWAY LAND SURVEY & DESIGN LLC
PAUL W ZARNOWSKI





TAX MAP PLAN
1 inch = 400 ft. (APPROX.)



HERON POINT PRESERVE RESIDENTIAL CLUSTER DEVELOPMENT

PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

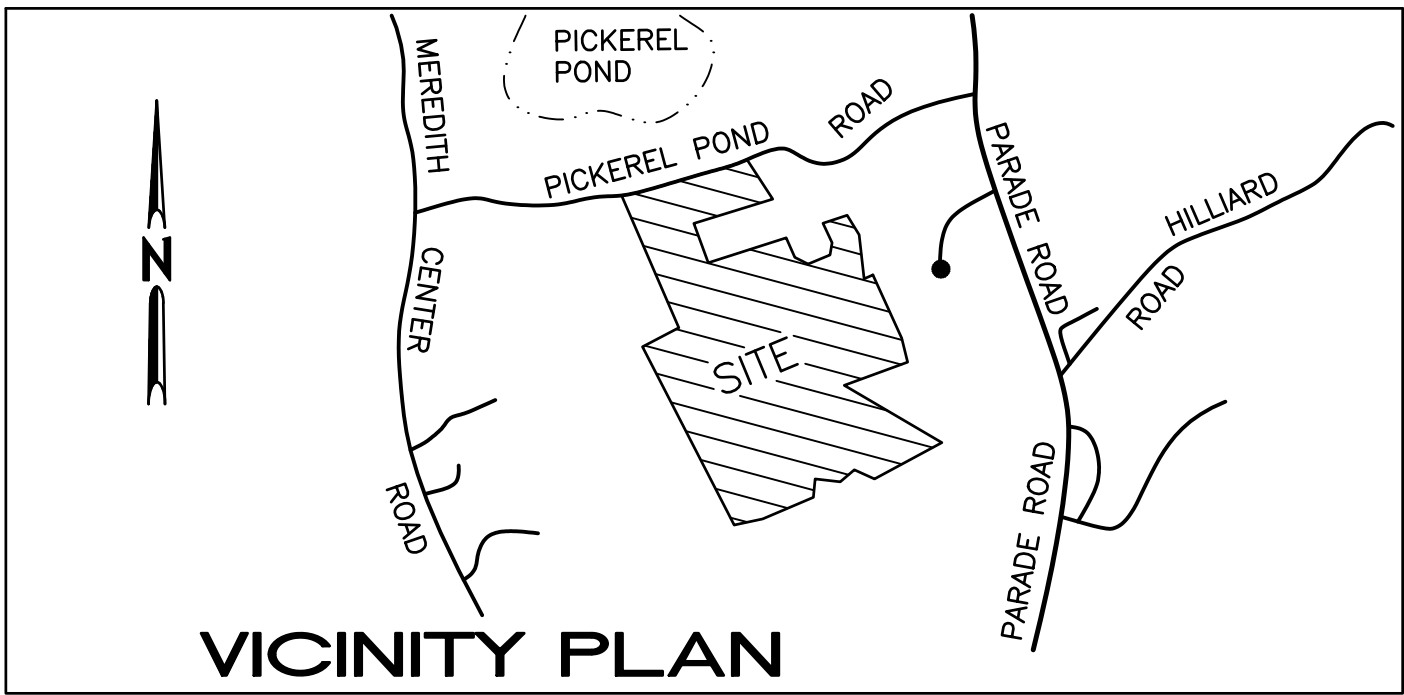
OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
160 BOUCHARD STREET
MANCHESTER, NH 03103
BCRD BOOK 3694/PAGE 459

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY

CHAIRMAN: _____ AND

SECRETARY _____



VICINITY PLAN

SHEET INDEX:

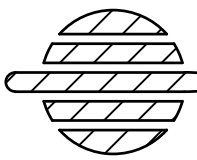
SHEET 1.....	COVER SHEET
SHEET 2.....	NOTES
SHEET 3.....	EXISTING CONDITIONS
SHEET 4.....	EXISTING CONDITIONS
SHEET 5.....	SITE PLAN
SHEET 6.....	SITE PLAN
SHEET 7.....	CONDOMINIUM SITE PLAN
SHEET 8.....	GRADING, UTILITIES & EROSION CONTROL
SHEET 9.....	GRADING, UTILITIES & EROSION CONTROL
SHEET 10.....	ROAD 1 PLAN & PROFILE
SHEET 11.....	ROAD 1 PLAN & PROFILE
SHEET 12.....	ROAD 2 PLAN & PROFILE
SHEET 13.....	DETAILS
SHEET 14.....	DETAILS
SHEET 15.....	DETAILS

COVER SHEET
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: AS NOTED SHEET 1 of 21 DECEMBER 10, 2025

#	DATE	DESCRIPTION

 **BENCHMARK LLC**
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000

GENERAL NOTES:

1. THE PURPOSE OF PLAN IS:
- A.) TO SHOW THE PROPOSED IMPROVEMENTS TO TAX MAP 13 LOT 186-16 NECESSARY TO PERMIT AND CONSTRUCT (26) SINGLES FAMILY HOMES AS A CLUSTER DEVELOPMENT
- B.) TO CONSTRUCT TWO (2) PUBLIC ROADS WITHIN THE HERON POINT PRESERVE PROJECT
2. OWNER OF RECORD: PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459
3. PARCEL ZONE: RR1 (RURAL RESIDENTIAL 1)
4. ZONING REQUIREMENTS
- | | | | |
|---------------------|---|-----|-------|
| LOT SIZE | - | 2 | ACRES |
| MIN FRONTAGE | - | 250 | FEET |
| MIN FRONT SETBACK | - | 40 | FEET |
| MIN SIDE SETBACK | - | 25 | FEET |
| MIN REAR SETBACK | - | 40 | FEET |
| MAX BUILDING HEIGHT | - | 35 | FEET |
| MIN. GREEN AREA | - | 65% | |
5. PARCEL ID: TAX MAP 13 LOT 186-16
6. TOTAL PARCEL AREA: 6,854,500 SQUARE FEET = 150.47 ACRES
7. EXISTING USE: UNDEVELOPED
8. PROPOSED USE: 26 SINGLE FAMILY DETACHED HOMES
9. EXISTING CONDITIONS AND TOPOGRAPHY SHOWN BASED ON AN ON-SITE SURVEY CONDUCTED BETWEEN JANUARY TO APRIL 2025 AND JULY/AUGUST 2025. HORIZONTAL DATUM IS NH STATE PLANE GRID NAD83. ELEVATION DATUM IS NAVD88.
10. BOUNDARY SHOWN FROM BCRD PLAN REFERENCE L 91 PAGE 37 & 38
11. BOUNDARY & FIELD LOCATION OF WETLAND FLAGS IN CONJUNCTION WITH: RANGEWAY LAND SURVEY AND DESIGN
252 DANIEL PLUMMER ROAD
GOFFSTOWN NH 03045
12. WETLAND AND SOIL MAPPING PROVIDED BY: BLUE MOON ENVIRONMENTAL, INC.,
CONCORD, NH
NANCY RENDALL CWS, CSS
13. A PORTION OF THIS PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD HAZARD ZONE-A AS SHOWN ON THE FEDERAL FLOOD INSURANCE MAPS (F.I.R.M) FOR LACONIA, NEW HAMPSHIRE, COMMUNITY PANEL #3300050003B (EFFECTIVE AUGUST 15, 1980)
COMMUNITY PANEL #3300050004B (EFFECTIVE AUGUST 15, 1980)
14. PICKEREL POND ROAD IS A PUBLIC - CLASS V CITY OWNED AND MAINTAINED ROAD
15. ALL SHEETS TO BE ON FILE AT THE TOWN OF LACONIA PLANNING DEPARTMENT.
16. DENSITY CALCULATIONS:
- | | | |
|-----------------------------|---|--------------------|
| MAXIMUM RESIDENTIAL DENSITY | = | 1 HOME PER 2 ACRES |
| 150 ACRES X 1 HOME/ 2-ACRES | = | 75 HOMES |
| PROPOSED UNIT COUNT | = | 26 HOMES |
17. GREEN SPACE CALCULATION:
- | | | |
|--------------------------|---|-----------|
| REQUIRED: 60% OF 150 AC. | = | 90 ACRES |
| PROVIDED: 97% | = | 146 ACRES |
18. PARKING REQUIREMENTS:
- | | | |
|--|---|--------------------|
| 1.5 PARKING SPACES/UNIT X 26 UNITS | = | 39 SPACES REQUIRED |
| 26 UNITS W/ GARAGE & EXTERIOR SPACE EACH | = | 52 SPACES PROVIDED |
19. PROPOSED DWELLINGS WILL BE SERVICED BY ON-SITE SEPTIC SYSTEMS AND ON-SITE WELLS
20. PERMITS:
- NH DES ALTERATION OF TERRAIN PERMIT #: PENDING
- NHDES SUBDIVISION APPROVAL #: PENDING
- SEPTIC SYSTEM DESIGNS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT
- EPA CONSTRUCTION GENERAL PERMIT WILL ALSO BE REQUIRED PRIOR TO THE START OF CONSTRUCTION
21. PLANNING BOARD WAIVERS: SIDEWALKS
PERIMETER BUFFER REDUCTION ALONG PICKEREL POND ROAD
22. CONDITIONAL USE PERMIT REQUESTS:
- A) TO ALLOW A CLUSTER DEVELOPMENT PER ZONING ORDINANCE ARTICLE VII SECTION 235-40 (B)
- B) WETLAND CONSERVATION & WATER QUALITY (WC) OVERLAY DISTRICT IMPACTS
23. VARIANCES: CASE# ZB2025-010 GRANTED ON SEPTEMBER 15, 2025
- VARIANCE FROM ARTICLE VI SECTION 235-40 B (6)(n)[1][c] TO ALLOW FOR A CUL-DE-SAC THAT WILL BE LONGER THAN THE PRESCRIBED 1,000 FEET AT THIS PROPERTY.
24. ALL SIGNAGE SHALL CONFORM TO THE CITY OF LACONIA ZONING ORDINANCE.
25. TRASH COLLECTION TO BE CURB SIDE PICK UP
26. UTILITY INFORMATION SHOWN IS BASED ON BOTH EXISTING PLANS OF RECORD AND A FIELD SURVEY THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS ARE APPROXIMATE ONLY. BEFORE PLANNING ANY FUTURE CONNECTIONS THE PROPER UTILITY ENGINEERING DEPARTMENTS SHOULD BE CONSULTED AND THE ACTUAL LOCATIONS OF SUBSURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD. CALL DIG-SAFE CALL CENTER 1-800-DIG-SAFE, A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
27. LOCATION OF UNDERGROUND UTILITIES SUBJECT TO CHANGE UPON FINAL REVIEW BY GOVERNING UTILITY PROVIDERS.
28. ALL GRADING AROUND UNITS SHALL NOT EXCEED 3:1 (H:V) SLOPES. IN STEEPER AREAS EROSION CONTROL MATS ARE STRONGLY RECOMMENDED.
29. ALL BLASTING SHALL COMPLY WITH NHDOT REQUIREMENTS AND SHALL MEET THE APPROVAL OF THE CITY OF LACONIA FIRE DEPARTMENT.
30. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. EROSION CONTROL SHALL BE MONITORED AND REPAIRED AS NECESSARY UNTIL DISTURBED AREAS BECOME FULLY ESTABLISHED WITH VEGETATION.
31. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF LACONIA AND THE STATE OF NEW HAMPSHIRE STANDARDS AND SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION, 2016 EDITION, AND ALL SUBSEQUENT AMENDMENTS.
32. ALL PROPOSED STORM DRAINS TO BE ADS-N-12 OR REINFORCED CONCRETE (RCP) PIPE OR APPROVED EQUAL

ALTERATION OF TERRAIN NOTES:

- Env-Wq 1504.06(j) FUGITIVE DUST GENERATED ON SITE SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.
- Env-Wq 1504.06(k) THIS PROJECT SHALL MEET THE REQUIREMENTS AND INTENT OF RSA 430:51-57 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- Env-Wq 1504.06(l) CONSTRUCTION PHASING: ALL WORK SHALL BE COMPLETED IN THREE PHASES.
- Env-Wq 1505.03 MAXIMUM OPEN AREA ALLOWED: 5 ACRES
- (A) ALL AREAS OF UNSTABILIZED SOIL SHALL BE:
1. TEMPORARILY STABILIZED AS SOON AS PRACTICAL BUT IN ALL CASES WITHIN 45 DAYS OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT, OR AN INDEPENDENT MONITOR; AND
2. PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT IN ALL CASES WITHIN 3 DAYS OF FINAL GRADING.
- (B) THE AREA OF UNSTABILIZED SOIL SHALL NOT EXCEED 5 ACRES. SEE THE CONSTRUCTION SEQUENCE NOTES.
- Env-Wq 1505.06 COLD WEATHER SITE STABILIZATION:
- (A) TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED BELOW SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
- (B) SUBJECT TO (C), BELOW, THE AREA OF EXPOSED, UNSTABILIZED SOILS SHALL BE:
- (1) LIMITED TO ONE ACRE; AND
- (2) PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT.
- (C) THE ALLOWED AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE-ACRE LIMIT.
- (D) SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE AND SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(b). (SEE BELOW)
- (E) SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF 15% OR GREATER THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH A LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(b). (SEE BELOW)
- (F) ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-WQ 1506.05(b) SHALL NOT BE INSTALLED OVER SNOW OF GREATER THAN ONE (1) INCH IN DEPTH.
- (G) EROSION CONTROL BLANKETS SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE (1) INCH IN DEPTH OR ON FROZEN GROUND.
- (H) ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- (I) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- (J) AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, TABLE 304-1, ITEM NO. 304.1, 304.2, OR 304.3.
- Env-Wq 1506.05 (b): EROSION CONTROL MIX SHALL:
1. HAVE AN ORGANIC PORTION BETWEEN 25% AND 65%, DRY WEIGHT BASIS THAT IS:
- a. FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS; AND
- b. NOT COMPRISED OF WOOD CHIPS, BARK CHIPS, GROUND CONTROL DEBRIS, OR REPROCESSED WOOD PRODUCTS;
2. NOT CONTAIN SILTS, CLAYS, OR FINE SANDS;
3. HAVE A PARTICLE SIZE BY WEIGHT OF 100% PASSING A 3-INCH SCREEN, 90% TO 100% PASSING A 1-INCH SCREEN, 70% TO 100% PASSING A 0.75-INCH SCREEN, AND 30% TO 75% PASSING A 0.25-INCH SCREEN; AND
4. HAVE A pH BETWEEN 5.0 AND 8.0.
- TURF ESTABLISHMENT NOTES:
1. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
- C. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP AS BEEN INSTALLED.
- D. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.03.
2. STABILIZATION SHALL BE ACCOMPLISHED BY LOAMING, FERTILIZING, SEEDING AND MULCHING ALL DISTURBED AREAS OTHER THAN UNDER THE PAVEMENT AS FOLLOWS:
- A. LOAM - SCREENED LOAM WITH A MINIMUM DEPTH OF 6"
- B. LIME AND FERTILIZER SHALL BE APPLIED PRIOR TO, OR AT THE TIME OF PERMANENT SEEDING AND INCORPORATED INTO THE SOIL AT THE FOLLOWING RATES:
- | | |
|--|----------------|
| LIMESTONE (AGRICULTURAL) | 3,000 LBS/ACRE |
| COMMERCIAL TURF STARTER FERTILIZER (10-18-10) FOR ESTABLISHMENT ONLY AT 150LBS/ACRE (SUCH AS "GREEN GOLD RENEW") | |
- C. SEED SELECTION (OR EQUIVALENT) & SEEDING RATES:
- | | | |
|------------|--------------------------------------|-------------|
| TEMPORARY: | ANNUAL RYE GRASS | 50 LBS/ACRE |
| PERMANENT: | "ROCKINGHAM COUNTY CONSERVATION MIX" | 50 LBS/ACRE |
- CONSISTING OF:
- | | |
|----------------------|-----|
| CREeping RED FESCUE | 35% |
| TALL FESCUE | 25% |
| ANNUAL RYE GRASS | 15% |
| PERENNIAL RYE GRASS | 12% |
| KENTUCKY BLUE GRASS | 10% |
| WHITE CLOVER(LEGUME) | 3% |
- D. MULCHING SHALL BE APPLIED (FROM MAY TO SEPTEMBER ONLY) AT THE RATE OF 1-1/2-2 TONS/ACRE.
- E. THE RECOMMENDED GRASS MIXTURES AND FERTILIZERS SPECIFIED HEREIN ARE AVAILABLE AT BLUE SEAL FEEDS, NASHUA, NH (603-883-9531)

ENV-WQ 1510 BEST MANAGEMENT PRACTICES FOR BLASTING

ENV-WQ 1510.01 PURPOSE. THE PURPOSE OF THIS PART IS TO ESTABLISH BEST MANAGEMENT PRACTICES FOR BLASTING TO MINIMIZE THE POTENTIAL FOR GROUNDWATER CONTAMINATION, TO ENSURE THAT THE GROUNDWATER CAN BE USED FOR EXISTING AND FUTURE DRINKING WATER SUPPLY SOURCES.

ENV-WQ 1510.02 APPLICABILITY. THIS PART SHALL APPLY TO ALL PROJECTS FOR WHICH AN AOT PERMIT IS REQUIRED THAT WILL INVOLVE BLASTING OF BEDROCK.

- ENV-WQ 1510.03 LOADING PRACTICES. THE FOLLOWING BLAST HOLE LOADING PRACTICES SHALL BE IMPLEMENTED:
- (a) THE DRILLER SHALL MAINTAIN DRILLING LOGS TO DOCUMENT:
- (1) THE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED; AND
- (2) GROUNDWATER CONDITIONS;
- (b) THE DRILLER SHALL COMMUNICATE THE CONTENTS OF THE DRILLING LOGS DIRECTLY TO THE BLASTER;
- (c) EXPLOSIVES PRODUCTS SHALL BE MANAGED ON SITE SUCH THAT THEY ARE:
- (1) USED IN THE BOREHOLE;
- (2) RETURNED TO THE DELIVERY VEHICLE; OR
- (3) PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL;
- (d) SPILLAGE AROUND THE BOREHOLE SHALL BE:
- (1) PLACED IN THE BOREHOLE; OR
- (2) CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL;
- (e) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND NOT LEFT IN THE BLAST HOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED;
- (f) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT; AND
- (g) EXPLOSIVES SHALL BE LOADED IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION.

ENV-WQ 1510.04 EXPLOSIVE SELECTION. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE:

- (a) APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION; AND
- (b) HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT.

ENV-WQ 1510.05 PREVENTION OF MISFIRES. INDUSTRY-STANDARD PRACTICES SHALL BE IMPLEMENTED TO PREVENT MISFIRES.

ENV-WQ 1510.06 MUCK AND ROCK MANAGEMENT.

- (a) FOR PURPOSES OF THIS PART, THE FOLLOWING DEFINITIONS APPLY:
- (1) "BLASTED MATERIAL" MEANS ALL OF THE EARTH MATERIAL LOOSENED AS A RESULT OF THE BLASTING;
- (2) "MUCK" MEANS THE BLASTED MATERIAL REMAINING AFTER THE ROCKS HAVE BEEN REMOVED; AND
- (3) "ROCKS" MEANS THE LARGER PIECES OF BLASTED MATERIAL THAT ARE SEPARATED FROM THE MUCK FOR USE ELSEWHERE, INCLUDING FOR FEEDSTOCK OF A ROCK CRUSHING OPERATION.
- (b) MUCK SHALL BE REMOVED FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
- (c) ROCKS SHALL BE MANAGED SO AS TO PREVENT WATER SUPPLY WELLS OR SURFACE WATERS FROM BEING CONTAMINATED BY RUNOFF.

ENV-WQ 1510.07 SPILL PREVENTION MEASURES AND SPILL MITIGATION.

- (a) FUEL AND OTHER REGULATED SUBSTANCES SHALL BE MANAGED AS REQUIRED BY ENV-WQ 401.04.
- (b) PERSONNEL WORKING AT THE BLAST SITE SHALL BE TRAINED IN HOW TO RESPOND TO A SPILL OF THE REGULATED SUBSTANCES BEING USED AT THE SITE.

ENV-WQ 1510.08 FUELING AND MAINTENANCE OF CONSTRUCTION EQUIPMENT.

- (a) IF ANY CONSTRUCTION EQUIPMENT, INCLUDING BUT NOT LIMITED TO EARTHMOVING, EXCAVATION, AND BORING EQUIPMENT, WILL BE FUELED FROM A TANK TRUCK OR OTHER CONTAINER THAT IS MOVED AROUND THE SITE, THE FOLLOWING SHALL APPLY:
- (1) PORTABLE CONTAINMENT EQUIPMENT THAT IS SIZED TO CONTAIN THE MOST LIKELY VOLUME OF FUEL TO BE SPILLED DURING A FUEL TRANSFER SHALL BE USED, WHERE THE MOST LIKELY VOLUME TO BE SPILLED IS DETERMINED BASED ON THE FUEL TRANSFER RATE, THE AMOUNT OF FUEL BEING TRANSFERRED, THE DISTANCE BETWEEN THE HOSE NOZZLE AND PUMP SHUT OFF SWITCH, AND THE RESPONSE TIME OF PERSONNEL AND EQUIPMENT AVAILABLE AT THE FACILITY;
- (2) THE CONTAINMENT EQUIPMENT SHALL BE POSITIONED TO CATCH ANY FUEL SPILLS DUE TO OVERFILLING OF THE EQUIPMENT AND ANY OTHER SPILLS THAT MIGHT OCCUR AT OR NEAR THE FUEL FILLER PORT TO THAT EQUIPMENT;
- (3) THE TYPE OF CONTAINMENT EQUIPMENT USED AND ITS POSITIONING AND USE SHALL ACCOUNT FOR ALL OF THE DRIP POINTS ASSOCIATED WITH THE FUEL FILLING PORT AND THE HOSE FROM THE FUEL DELIVERY TRUCK; AND
- (4) PERSONNEL SHALL NOT LEAVE THE IMMEDIATE AREA WHILE FUEL IS BEING TRANSFERRED, TO ENSURE THAT ANY SPILLS WILL BE OF LIMITED VOLUME.
- (b) IF THE SITE WILL HAVE A FIXED LOCATION FOR FUELING CONSTRUCTION EQUIPMENT, THE FOLLOWING SHALL APPLY:
1. ALL FUEL CONTAINERS, INCLUDING BUT NOT LIMITED TO SKID-MOUNTED TANKS, DRUMS, AND FIVE GALLON CANS, SHALL HAVE SECONDARY CONTAINMENT THAT:
- a. IS CAPABLE OF CONTAINING 110% OF THE VOLUME OF THE LARGEST FUEL STORAGE CONTAINER; AND
- b. HAS AN IMPERVIOUS FLOOR;
2. SECONDARY CONTAINMENT FOR TANKS MAY COMPRISE A METAL, PLASTIC, POLYMER OR PRECAST CONCRETE VAULT PROVIDING 110 PERCENT OF THE VOLUME OF THE LARGEST FUEL STORAGE CONTAINER.
3. FOR FUEL CONTAINERS, SECONDARY CONTAINMENT MAY COMPRISE CONTAINMENT PALLETES;
4. THE AREA WHERE FUEL IS TRANSFERRED SHALL BE A FLAT, IMPERVIOUS AREA THAT:
- a. IS ADJACENT TO THE FUEL CONTAINER(S); AND
- b. EXTENDS BEYOND THE FULL REACH, OR LENGTH, OF THE FUEL HOSE; AND
5. SECONDARY CONTAINMENT AREAS MAY BE IN THE FORM OF A BASIN THAT IS:
- a. SLOPED DOWN TO A CENTRAL LOW POINT OR BERMED ALONG THE PERIMETER;
- b. LINED WITH A CONTINUOUS SHEET OF 20 MIL OR THICKER POLYMER MATERIAL OR APPROPRIATE GEOMEMBRANE LINER; AND
- c. BACKFILLED WITH AT LEAST 6 INCHES OF SAND.

ENV-WQ 1504.17 WILDLIFE PROTECTION NOTES

1. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHF&G NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER (NHB24-1226), THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION;
2. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE;
3. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04; AND
4. THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY

CHAIRMAN: _____ AND

SECRETARY _____

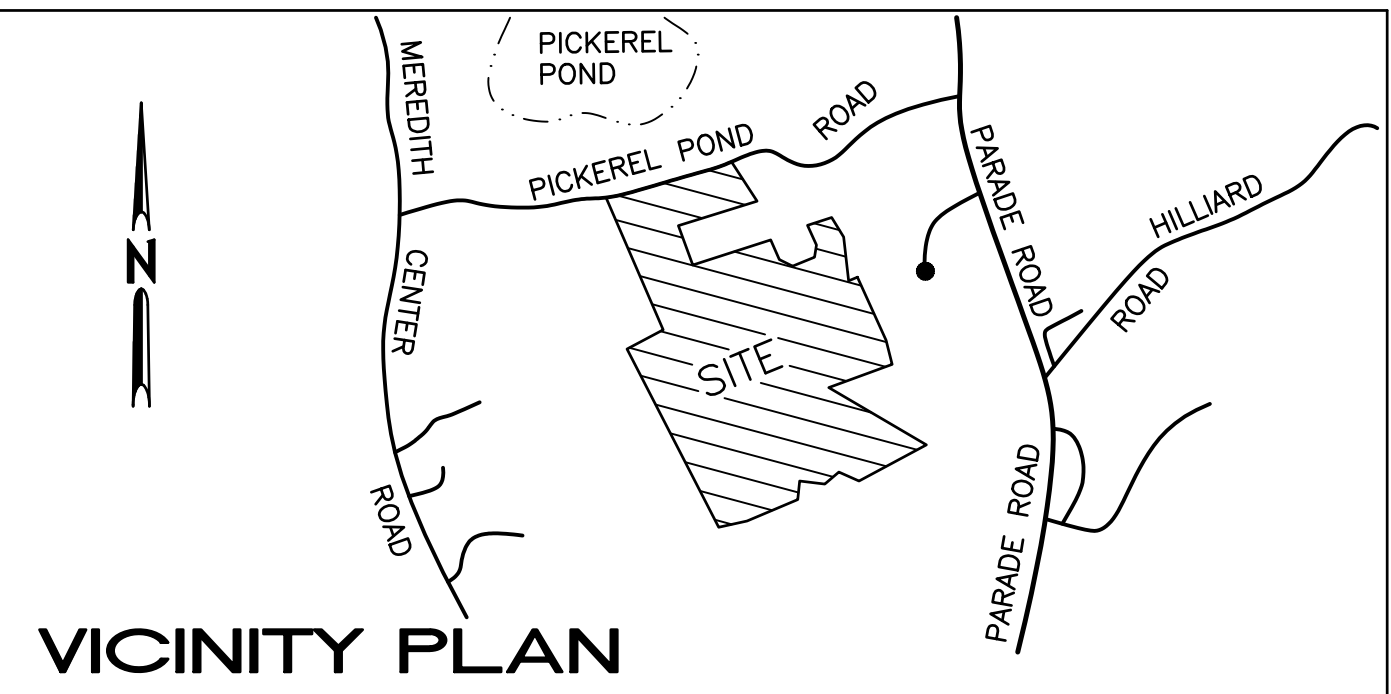
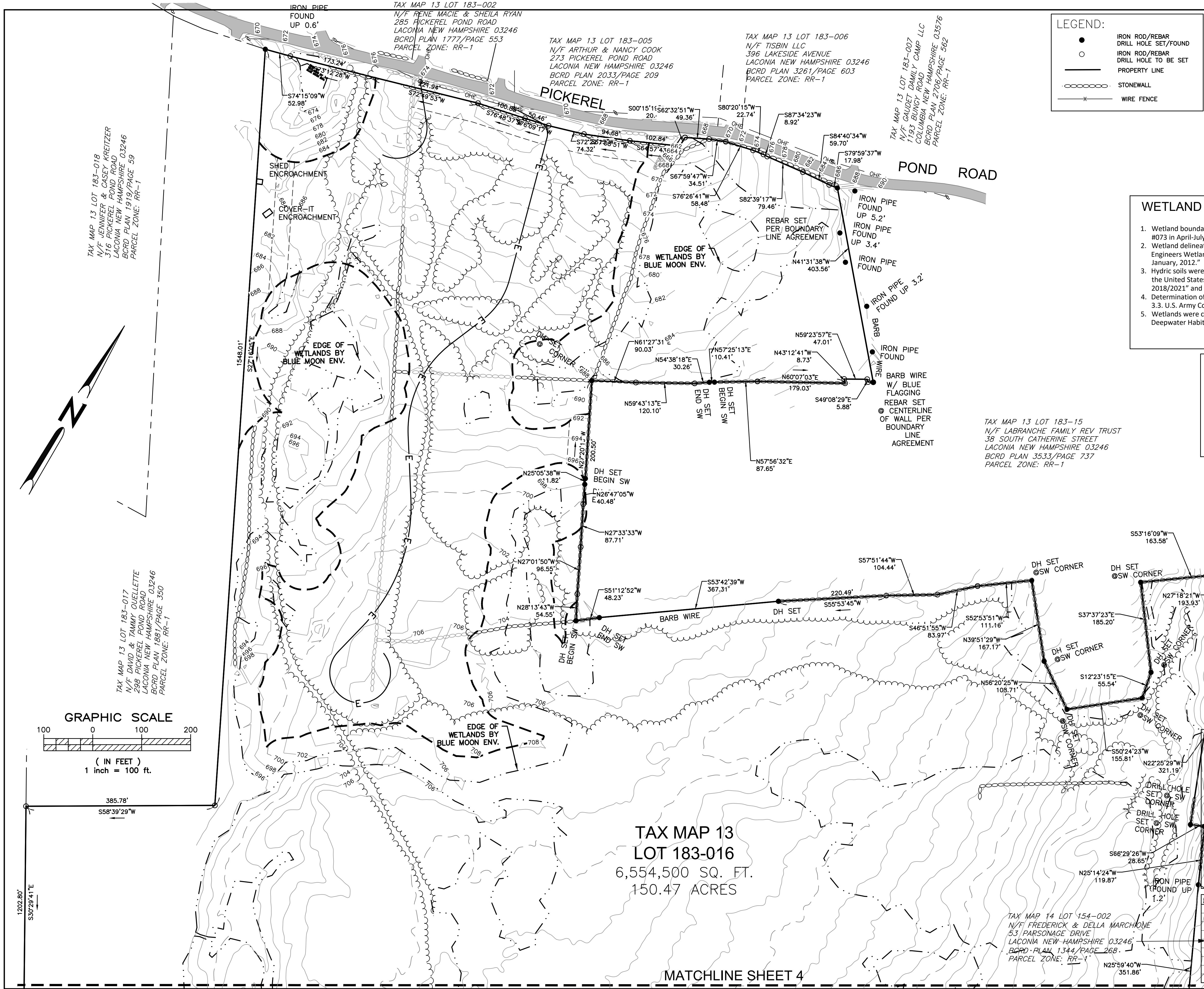
NOTES
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=30'
SHEET 2 of 21 DECEMBER 10, 2025

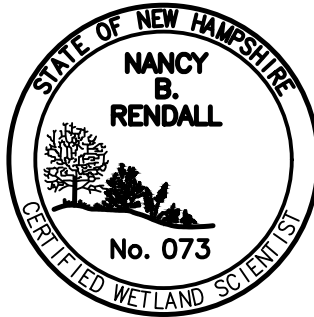
#	DATE	DESCRIPTION





WETLAND NOTES:

1. Wetland boundaries as flagged were delineated by Nancy B. Rendall, Certified Wetland Scientist, #073 in April-July, 2025 and represent site conditions at that time.
2. Wetland delineation was performed to the standards in the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region (Version 2.0), USACE, January, 2012."
3. Hydric soils were determined in accordance with the protocol in "Field Indicators of Hydric Soils in the United States - A Guide for Identifying and Delineating Hydric soils, NRCS, Version 8.2, 2018/2021" and "Version 4 of the Field Indicators for Identifying Hydric Soils in New England."
4. Determination of wetland vegetation was assessed using the National Wetland Plant List, Version 3.3. U.S. Army Corps of Engineers 2019.
5. Wetlands were classified using the USFWS Methodology, "Classification of Wetlands and Deepwater Habitats, Cowardin, et al, 1979."



I HEREBY CERTIFY THAT THE WORK PERFORMED IN THE PREPARATION OF THIS PLAN HAS AN ERROR OF CLOSURE OF 1 IN 10,000 OR BETTER.



RANGEWAY LAND SURVEY & DESIGN LLC
PAUL W. ZARNOWSKI

NOTES:

1. SEE SHEET 2 FOR ADDITIONAL NOTES AND INFORMATION.
2. WETLANDS MAPPED ON-SITE BY BLUEMOON ENVIRONMENTAL CONCORD, NEW HAMPSHIRE 03301 NANCY B. RENDALL CWS, CSS
3. BOUNDARY SURVEY COMPLETED BY: RANGEWAY LAND SURVEY & DESIGN 252 DANIEL PLUMMER ROAD GOFFSTOWN, NEW HAMPSHIRE 03045
4. HORIZONTAL DATUM IS NH STATE PLANE GRID NAD83. ELEVATION DATUM IS NAVD88.

EXISTING CONDITIONS PLAN
HERON POINT PRESERVE

TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

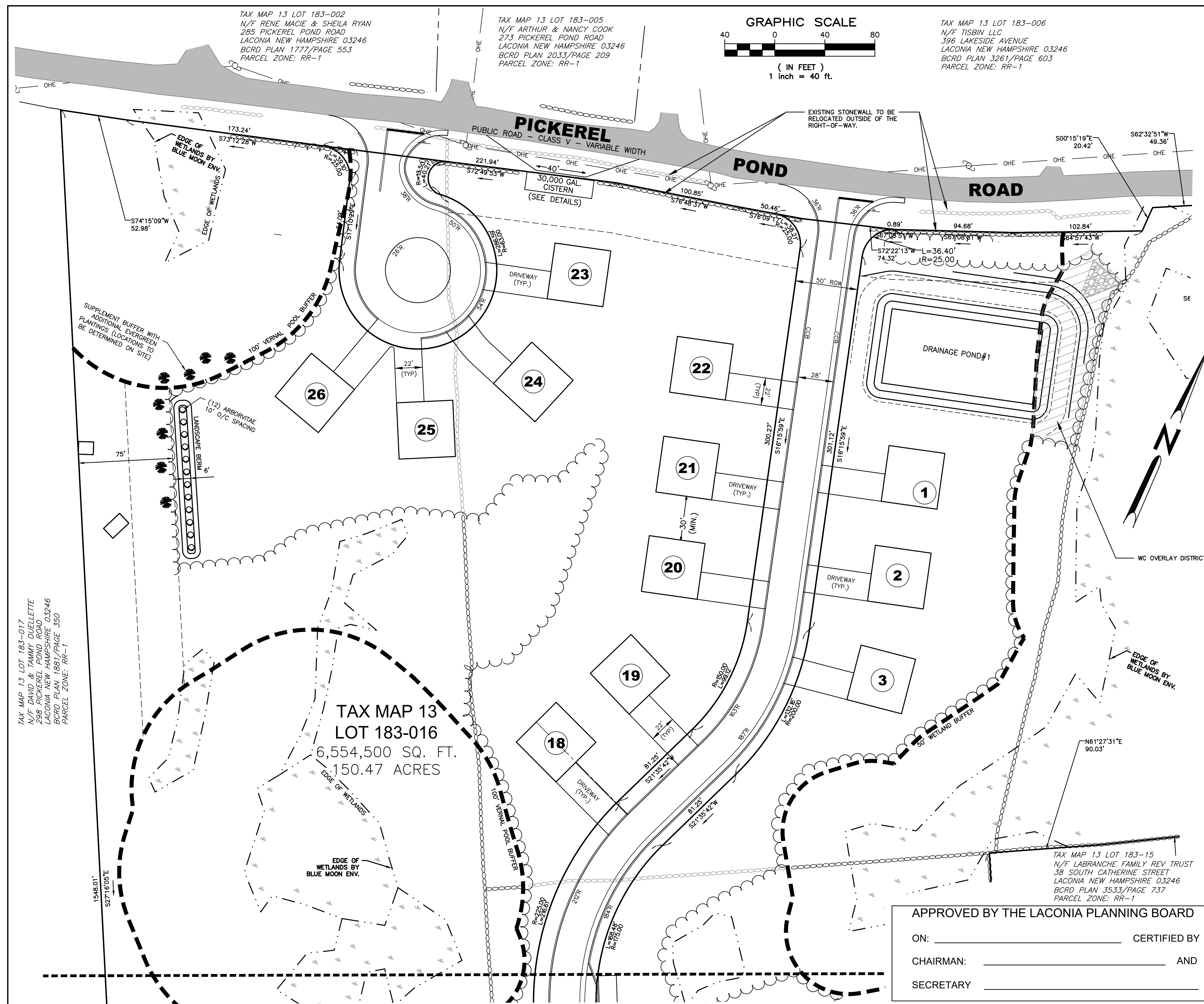
OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=100'
SHEET 3 of 15 DECEMBER 10, 2025

#	DATE	DESCRIPTION

BENCHMARK LLC
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000

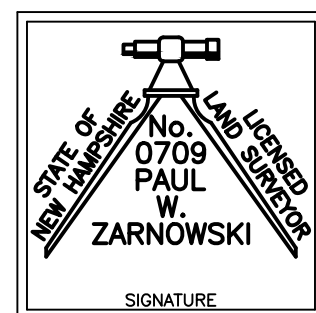
MATCHLINE SHEET 4



NOTES:

1. SEE SHEET 2 FOR ADDITIONAL NOTES AND INFORMATION.
2. WETLANDS MAPPED ON-SITE BY BLUEMOON ENVIRONMENTAL
CONCORD, NEW HAMPSHIRE 03301
NANCY B. RENDALL CWS, CSS
3. BOUNDARY SURVEY COMPLETED BY: RANGEWAY LAND SURVEY & DESIGN
252 DANIEL PLUMMER ROAD
GOFFSTOWN, NEW HAMPSHIRE 03045

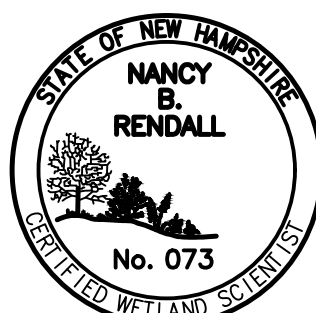
I HEREBY CERTIFY THAT THE WORK PERFORMED IN THE PREPARATION OF THIS PLAN HAS AN ERROR OF CLOSURE OF 1 IN 10,000 OR BETTER.



RANGEWAY LAND SURVEY & DESIGN LLC
PAUL W ZARNOWSKI

LEGEND:

- | | | | |
|---|--|---|---|
|  | IRON PIPE / REBAR
DRILL HOLE FOUND |  | STONE LINE |
|  | DRILL HOLE / REBAR TO BE SET |  | STONE WALL |
|  | STONE BOUND FOUND/
CONC BOUND FOUND | <u>VGC</u> <u>SGE</u> <u>CCB</u> | VERTICAL GRANITE CURB/
SLOPED GRANITE EDGE/
CAPE COD BERM |
|  | BOUND TO BE SET | — — <u>EOG</u> — — | EDGE OF GRAVEL |
|  | TEMPORARY BENCHMARK | <u>EOP</u> <u>EOC</u> | EDGE OF PAVEMENT/
EDGE OF CONCRETE |
|  | WELL | — — <u>DYL</u> — — | DOUBLE YELLOW LINE |
|  | SIGNS/SINGLE
OR DOUBLE POST |  | RETAINING WALL |
|  | TEST PIT | <u>CLF</u> — <u>PVC</u> | CHAIN LINK/PVC FENCE |
|  | LIGHT POLE | | |
|  | EDGE OF WETLAND
BY BLUE MOON ENV. | | |



SITE PLAN
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40' SHEET 5 of 21 DECEMBER 10, 2025

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY _____

CHAIRMAN: _____ AND _____

SECRETARY _____

[illegible]

TAX MAP 13 LOT 183-017
N/F DAVID & TAMMY OUELLETTE
298 PICKEREL POND ROAD
LACONIA NEW HAMPSHIRE 03246
BCRD PLAN 1881/PAGE 350
PARCEL ZONE: RR-1

TAX MAP 13
LOT 183-016
6,554,500 SQ. FT.
150.47 ACRES

TAX MAP 13 LOT 183-15
N/F LABRANCHE FAMILY REV TRUST
38 SOUTH CATHERINE STREET
LACONIA NEW HAMPSHIRE 03246
BCRD PLAN 3533/PAGE 737
PARCEL ZONE: RR-1

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

- NOTES:
- SEE SHEET 2 FOR ADDITIONAL NOTES AND INFORMATION.
 - WETLANDS MAPPED ON-SITE BY BLUEMOON ENVIRONMENTAL CONCORD, NEW HAMPSHIRE 03301 NANCY B RENDALL CWS, CSS
 - BOUNDARY SURVEY COMPLETED BY: RANGEWAY LAND SURVEY & DESIGN 252 DANIEL PLUMMER ROAD GOFFSTOWN, NEW HAMPSHIRE 03045

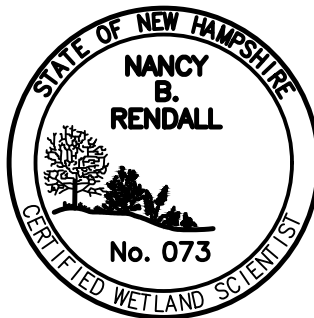
I HEREBY CERTIFY THAT THE WORK PERFORMED IN THE PREPARATION OF THIS PLAN HAS AN ERROR OF CLOSURE OF 1 IN 10,000 OR BETTER.

RANGEWAY LAND SURVEY & DESIGN LLC
PAUL W ZARNOWSKI



LEGEND:

- IRON PIPE / REBAR
- DRILL HOLE/ REBAR TO BE SET
- STONE BOUND FOUND/ CONC BOUND FOUND
- BOUND TO BE SET
- TEMPORARY BENCHMARK
- WELL
- SIGNS/SINGLE & DOUBLE POST
- TEST PIT
- LIGHT POLE
- LIMITS OF DRAINAGE SWALE BY BLUE MOON ENV.
- TREELINE
- STONE WALL
- VERTICAL GRANITE CURB/ SLOPED GRANITE EDGE/ CAPE COD BERM
- EDGE OF GRAVEL
- EDGE OF PAVEMENT/ EDGE OF CONCRETE
- DOUBLE YELLOW LINE
- RETAINING WALL
- CHAIN LINK/PVC FENCE



SITE PLAN
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40'
SHEET 6 of 21
DECEMBER 10, 2025

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY
CHAIRMAN: _____ AND
SECRETARY _____

#	DATE	DESCRIPTION

BENCHMARK LLC
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000

LEGEND:

CONDOMINIUM UNITS
(NOT YET BEGUN)

CONDOMINIUM UNITS
(NOT YET COMPLETED)

LIMITS OF LIMITED
CONDOMINIUM
AREA (LCA)

CONDOMINIUM UNITS
(NOT YET COMPLETED)

CONDOMINIUM UNITS
(COMPLETED)

36'R RADIAL DIMENSION

GRAPHIC SCALE



(IN FEET)
1 inch = 60 ft.

TAX MAP 13 LOT 183-017
N/F DAVID & TAMMY OUELLETTE
298 PICKEREL POND ROAD
LACONIA NEW HAMPSHIRE 03246
BCRD PLAN 1881/PAGE 350
PARCEL ZONE: RR-1

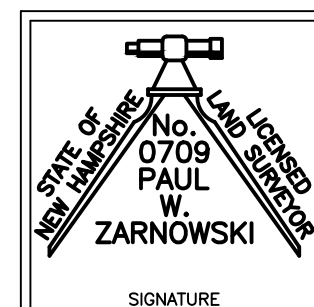
LAND SURVEYORS CERTIFICATION

THIS PLAN IS A CONDOMINIUM INSTRUMENT UNDER
R.S.A. CHAPTER 356-B AND IS NOT A SUBDIVISION OF LAND.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION
PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND
WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR
WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN
(R.S.A. 676:18).

I CERTIFY THAT THIS SURVEY PLAN IS ACCURATE AND IN
COMPLIANCE UNDER R.S.A. 356-B.20.I AND THAT UNITS AS
SHOWN ARE COMPLETED TO THE EXTENT DEPICTED THEREON

RANGWAY LAND SURVEYING & DESIGN, INC. DATE
BY: PAUL W. ZARNOWSKI LLS.



VICINITY PLAN

- NOTES:
- PURPOSE OF PLAN:
A. TO SHOW THE LOCATION OF THE 26 SINGLE FAMILY DETACHED HOMES.
 - THIS PLAN IS NOT A SUBDIVISION OF LAND.
 - LIMITED COMMON AREAS ARE PROPOSED.
 - UNITS 1-26 DEPICTED HEREON ARE NOT YET BEGUN.
 - POND #1 AND #2 WITHIN THE COMMON AREAS ARE NOT YET COMPLETE.
 - PROJECT ACCESS DRIVES ARE NOT YET COMPLETE.
 - PARCEL ID: TAX MAP 13 LOT 183-16
 - TOTAL PARCEL AREA: 161,290 SQUARE FEET OR 3.70 ACRES
 - PARCEL ZONE: CR (COMMERCIAL/RESORT)
 - ALL PROPOSED BUILDINGS WILL BE SERVICED BY ON SITE WELLS AND ON SITE SEPTIC SYSTEMS.
 - PRIMARY ACCESS TO HERON POINT PRESERVE WILL BE FROM PICKEREL POND ROAD.
 - PERMITS:
NH DES ALTERATION OF TERRAIN PERMIT #: PENDING
NHDES SUBDIVISION APPROVAL #: PENDING

CONDOMINIUM SITE PLAN
HERON POINT PRESERVE

TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=60' SHEET 7 of 15 DECEMBER 10, 2025

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY

CHAIRMAN: _____ AND

SECRETARY _____

#	DATE	DESCRIPTION

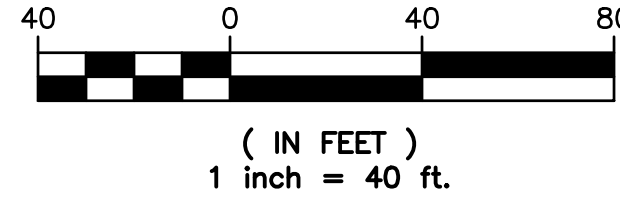
BENCHMARK LLC
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000

TAX MAP 13 LOT 183-017
N/F DAVID & TAMMY OUELLETTE
298 PICKEREL POND ROAD
LACONIA NEW HAMPSHIRE 03246
BCRD PLAN 1881/PAGE 350
PARCEL ZONE: RR-1

TAX MAP 13
LOT 183-016
6,554,500 SQ. FT.
150.47 ACRES

RIM=694.19
STA 6+50.00, 15.0' LT
INV.=688.40 (CB#8)

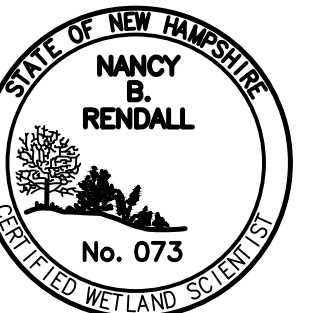
GRAPHIC SCALE



TAX MAP 13 LOT 183-15
N/F LABRANCHE FAMILY REV TRUST
38 SOUTH CATHERINE STREET
LACONIA NEW HAMPSHIRE 03246
BCRD PLAN 3533/PAGE 737
PARCEL ZONE: RR-1

NOTES:

- SEE SHEET 2 FOR ADDITIONAL NOTES AND INFORMATION.
- WETLANDS MAPPED ON-SITE BY BLUEMOON ENVIRONMENTAL
CONCORD, NEW HAMPSHIRE 03301
NANCY B. RENDALL CWS, CSS
- BOUNDARY SURVEY COMPLETED BY: RANGEWAY LAND SURVEY & DESIGN
252 DANIEL PLUMMER ROAD
GOFFSTOWN, NEW HAMPSHIRE 03045



GRADING & UTILITIES PLAN
HERON POINT PRESERVE

TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40'
SHEET 9 of 15 DECEMBER 10, 2025

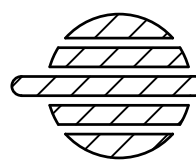
APPROVED BY THE LACONIA PLANNING BOARD

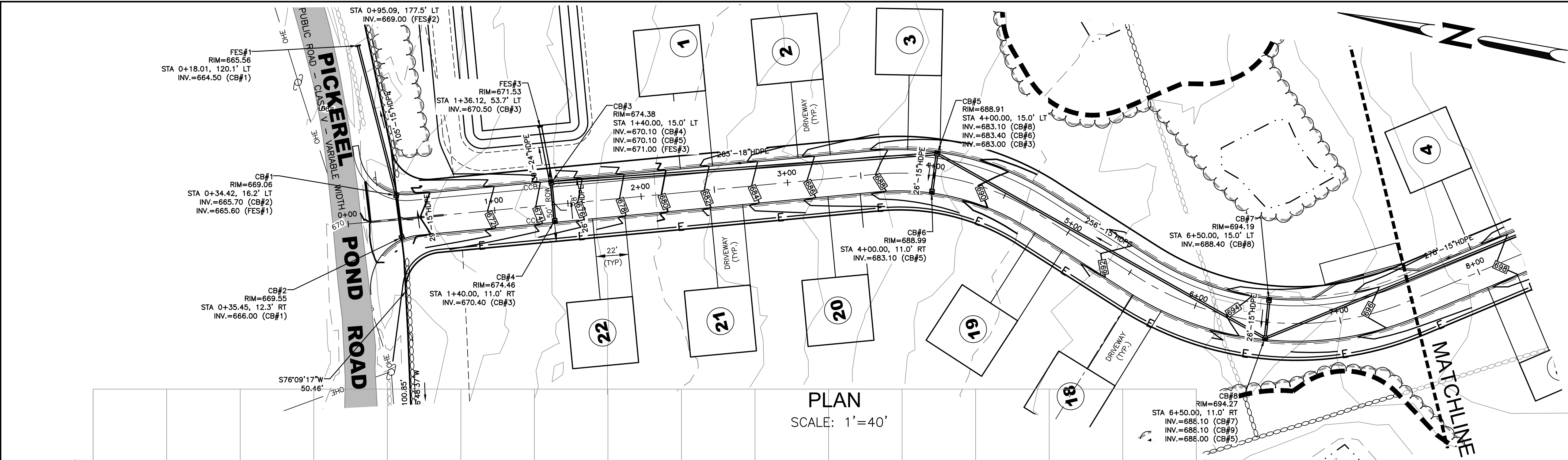
ON: _____ CERTIFIED BY

CHAIRMAN: _____ AND

SECRETARY _____

#	DATE	DESCRIPTION

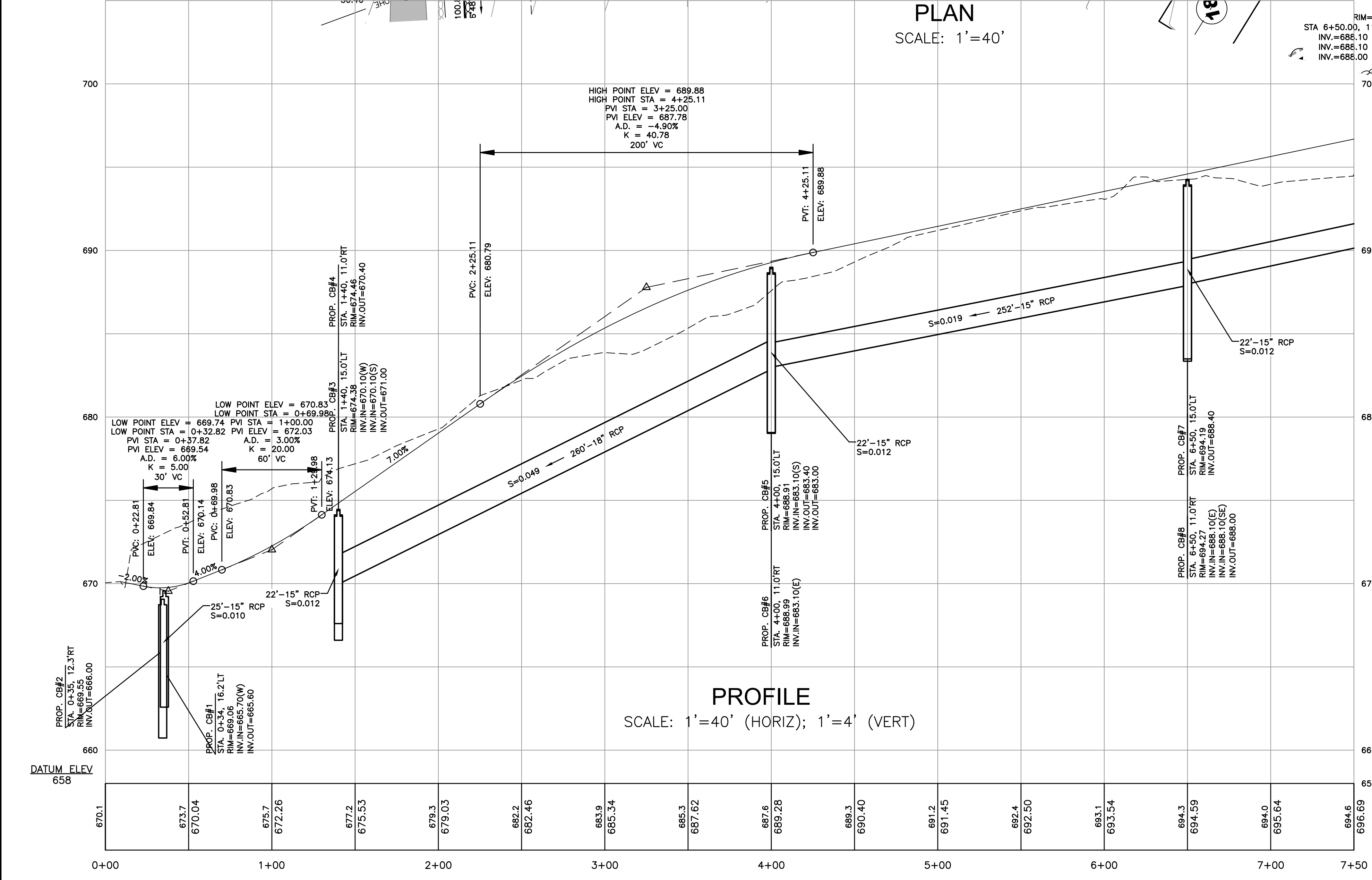
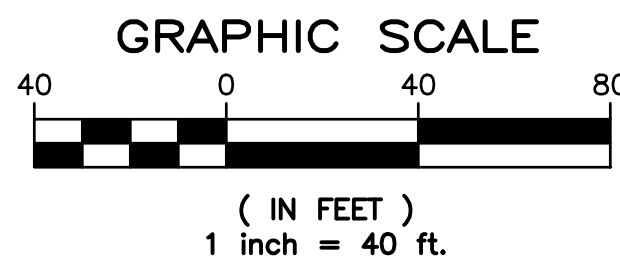
 **BENCHMARK LLC**
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000



PLAN
SCALE: 1"=40'

LEGEND:

- PROPERTY LINE
- EASEMENT LINE
- EDGE OF WETLANDS BY BLUE MOON ENV.
- UNDERGROUND UTILITIES
- OVERHEAD WIRES w/ UTILITY POLE/GUY WIRE
- DRAIN LINE/MANHOLE/ CATCH BASIN w/FLOW DIRECTION
- UNDERDRAIN
- TREELINE
- STONE WALL
- EDGE OF GRAVEL
- EDGE OF PAVEMENT/ EDGE OF CONCRETE
- DOUBLE YELLOW LINE
- RETAINING WALL
- CHAIN LINK/PVC FENCE
- SILT FENCE
- BUILDING SETBACK LINE
- 2 FT CONTOUR (EXISTING)
- 10 FT CONTOUR (EXISTING)
- SPOT ELEVATION (EXISTING)
- CONTOUR (PROPOSED)
- SPOT ELEVATION (PROPOSED)



PROFILE
SCALE: 1"=40' (HORIZ); 1"=4' (VERT)

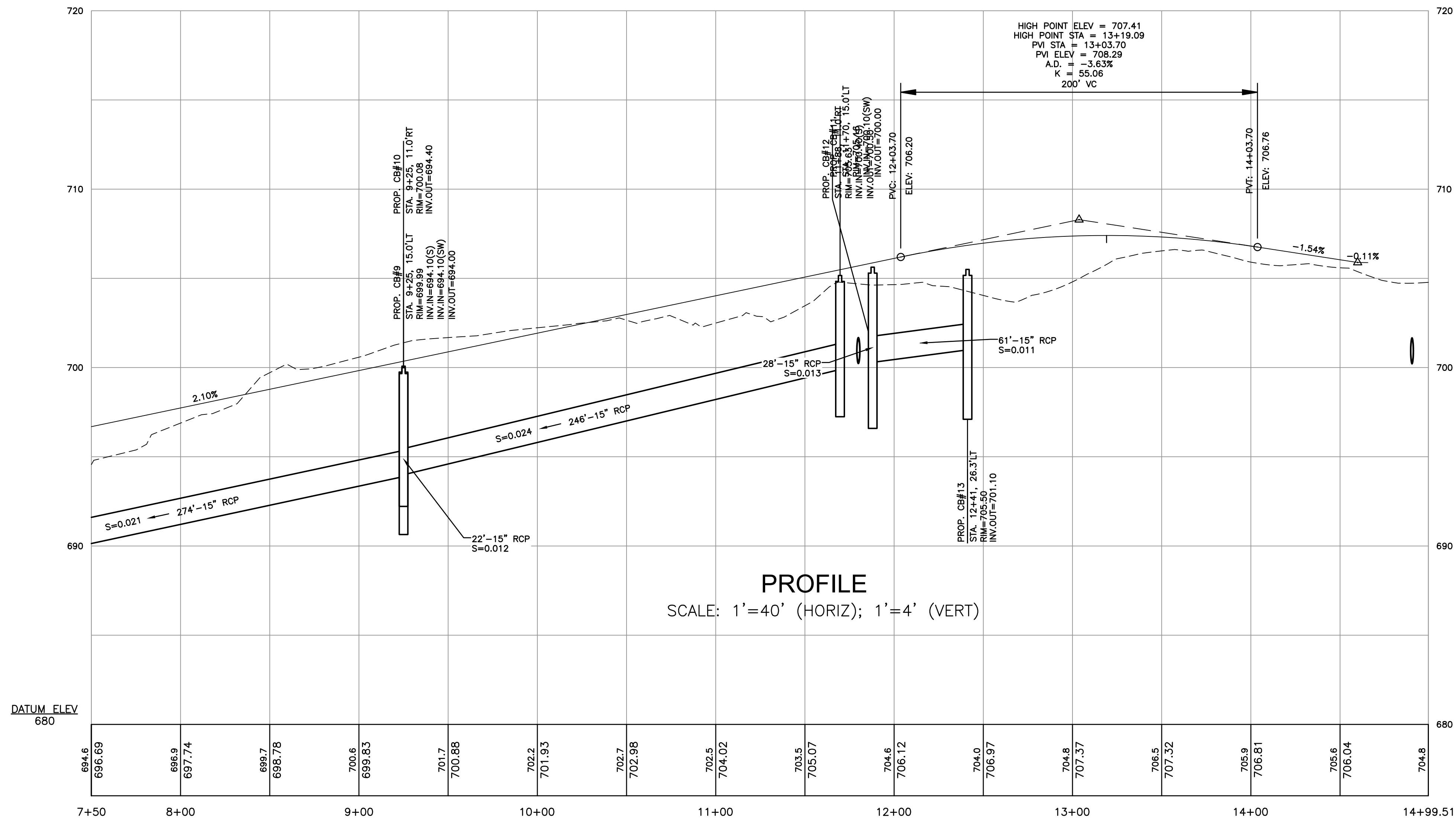
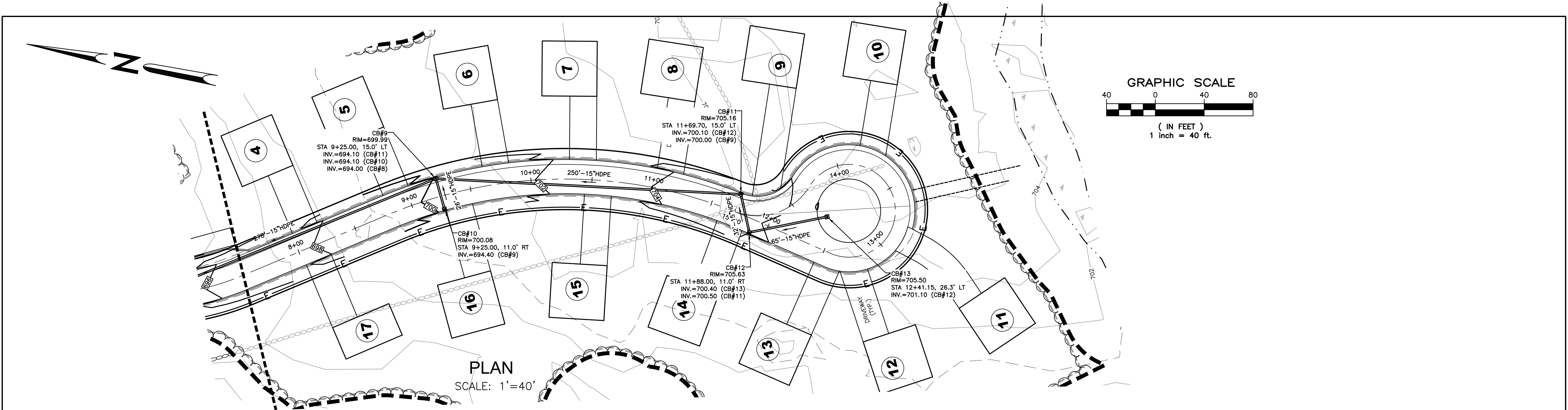
ROADWAY PLAN & PROFILE
DUCK POND LANE
STA. 0+00 - 7+50
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40'
SHEET 10 of 15
DECEMBER 10, 2025

#	DATE	DESCRIPTION

BENCHMARK LLC
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000



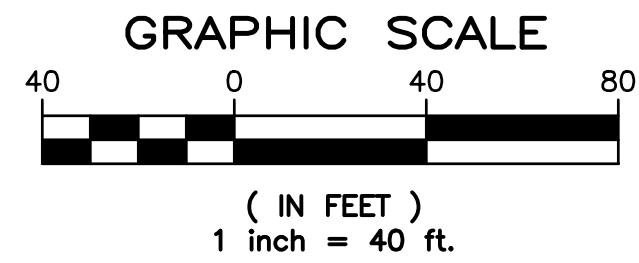
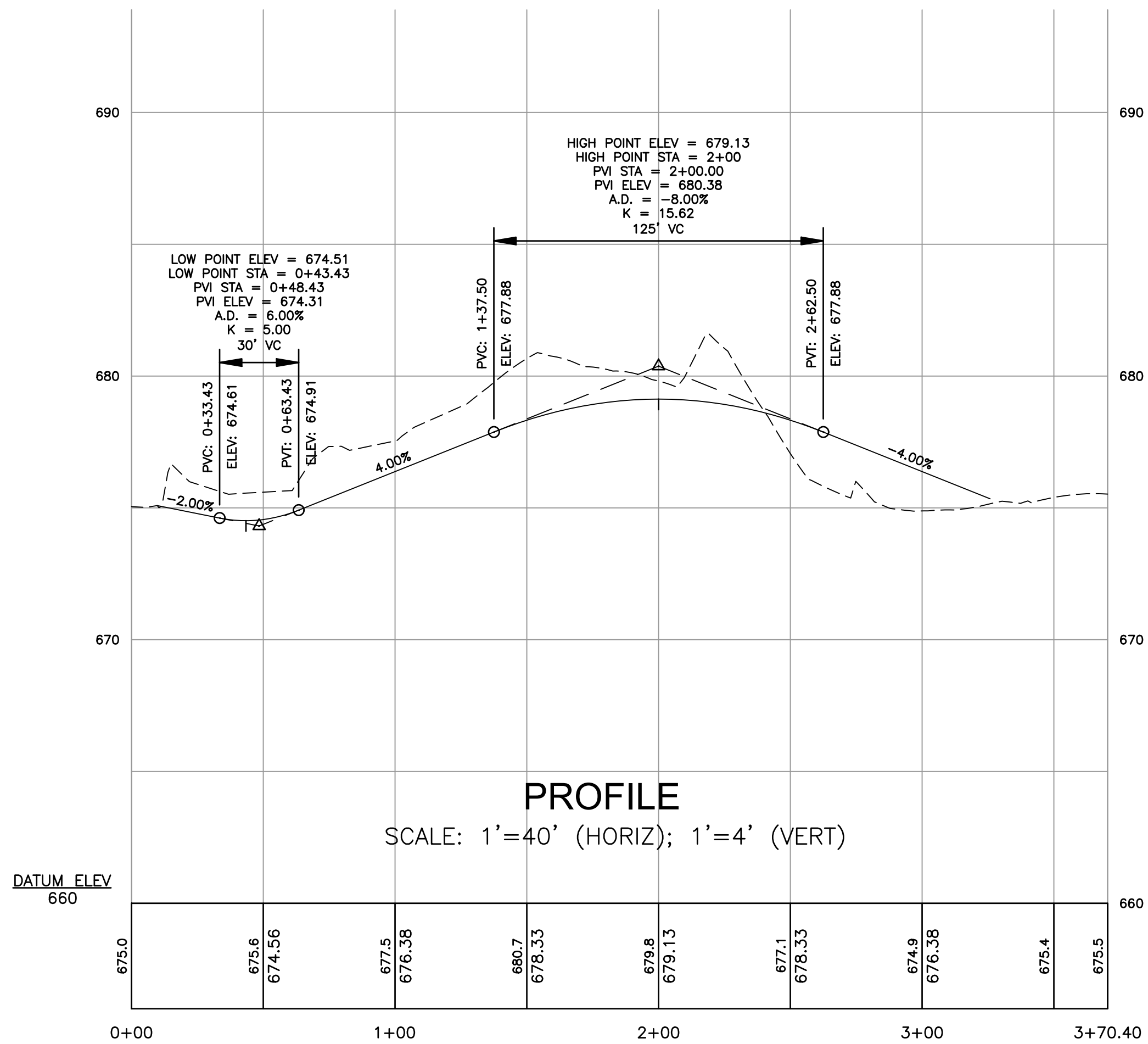
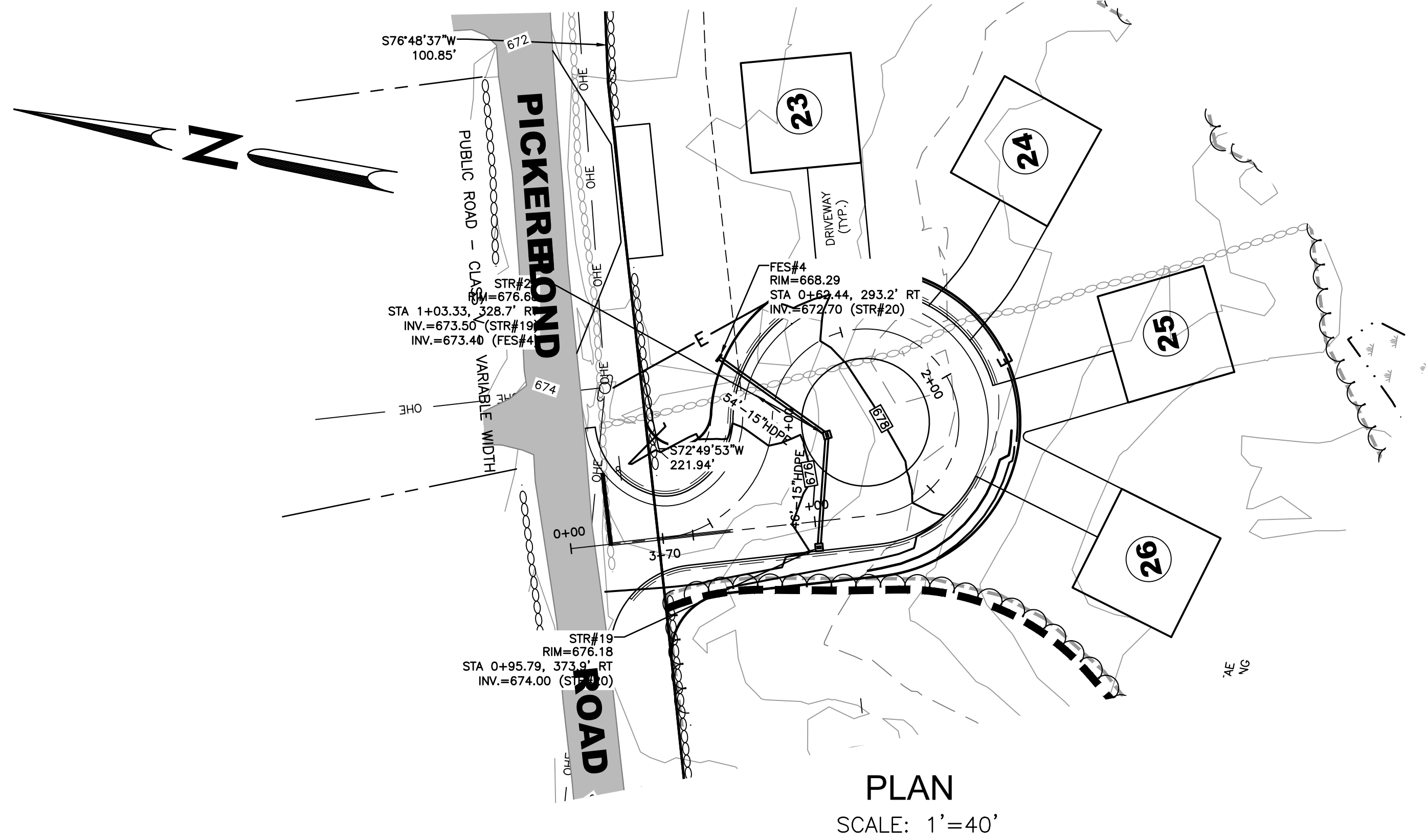
ROADWAY PLAN & PROFILE
DUCK POND LANE
STA. 7+50 - 15+00
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40'
SHEET 11 of 15
DECEMBER 10, 2025

#	DATE	DESCRIPTION

BENCHMARK LLC
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000



ROADWAY PLAN & PROFILE
OAK KNOLL CIRCLE
STA. 0+00 - 3+70
HERON POINT PRESERVE
TAX MAP 13 LOT 183-16
PICKEREL POND ROAD
LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
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PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: 1"=40'
SHEET 12 of 15 DECEMBER 10, 2025

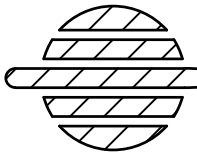
APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY _____

CHAIRMAN: _____ AND _____

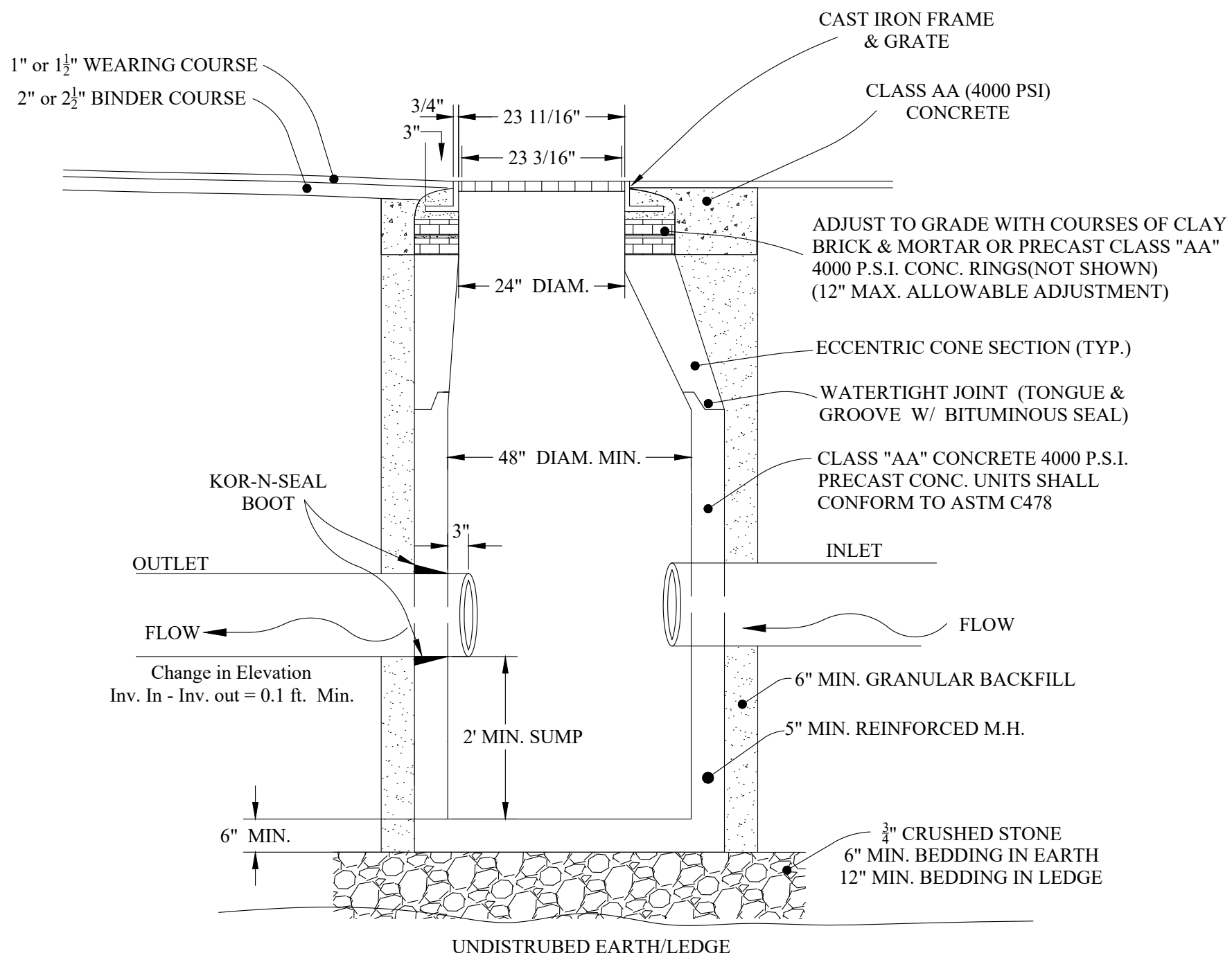
SECRETARY _____

#	DATE	DESCRIPTION

 **BENCHMARK LLC**
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000

D15-Typical Catch Basin/Drop Inlet

(not to scale)

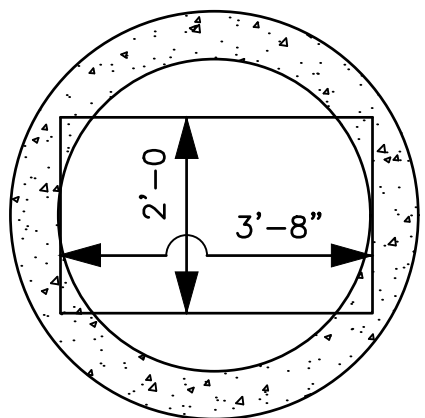


NOTE:
ALL CATCH BASINS SHALL BE IN ACCORDANCE WITH THE CITY OF LACONIA DPW STANDARDS

POLYETHYLENE LINER NOTES:

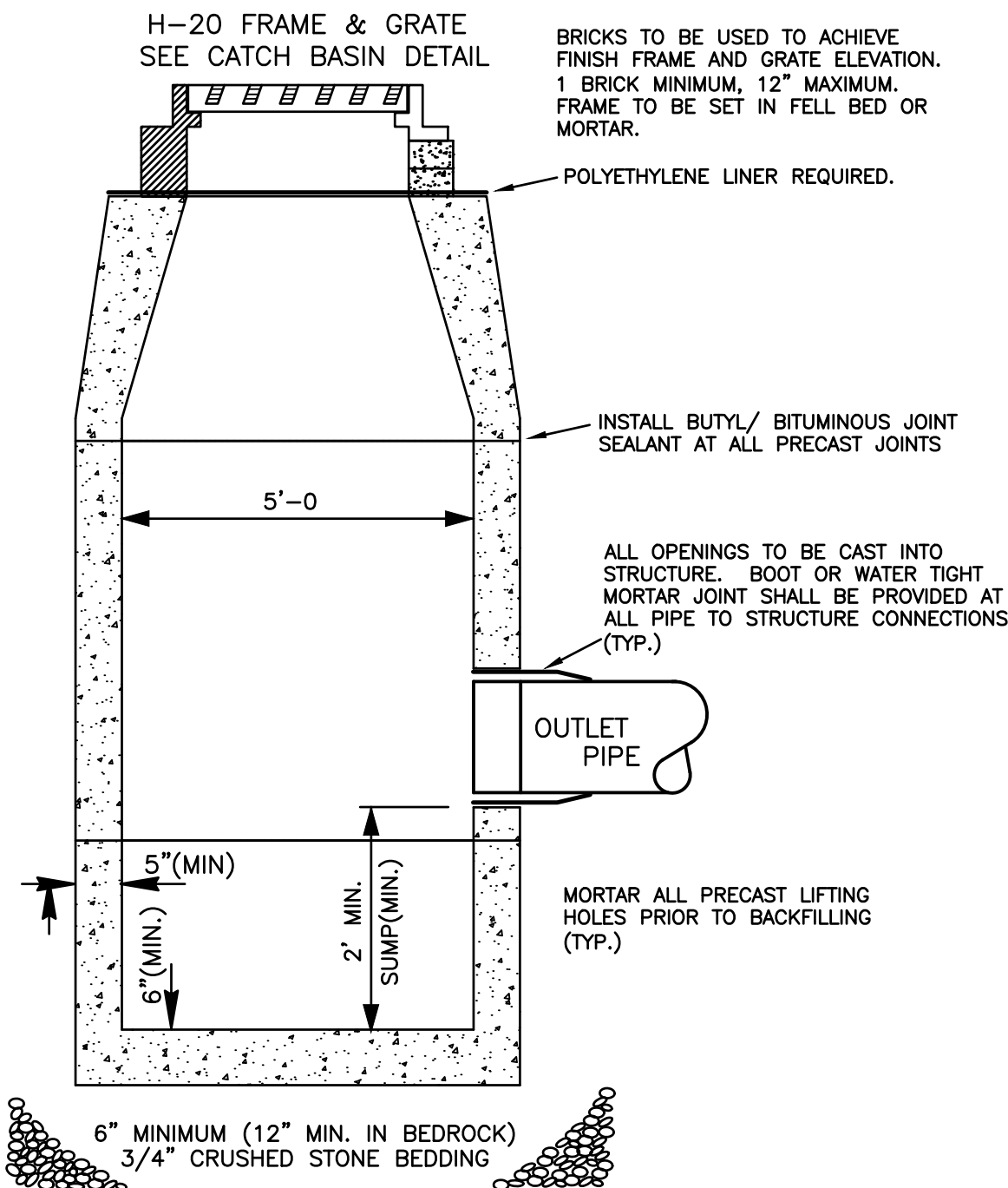
ALL CATCH BASINS TO BE OUTFITTED WITH A POLYETHYLENE LINER DOWNSPOUT. POLYETHYLENE LINER (NHDOT ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT BETWEEN THE FRAME AND POLYETHYLENE SHEET.

PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE) TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE. (EXCEPT AS SHOWN WHEN USED WITH CURB). CENTER OF THE GRATE AND FRAME MAY BE SHIFTED A MAXIMUM OF 3" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.



DOUBLE
FRAME & GRATES

PROPOSED
STRUCTURE SHALL
CONFORM TO
ASTM C478
(H-20 LOADING)



DOUBLE GRATE CATCH BASIN DETAIL

(NOT TO SCALE)

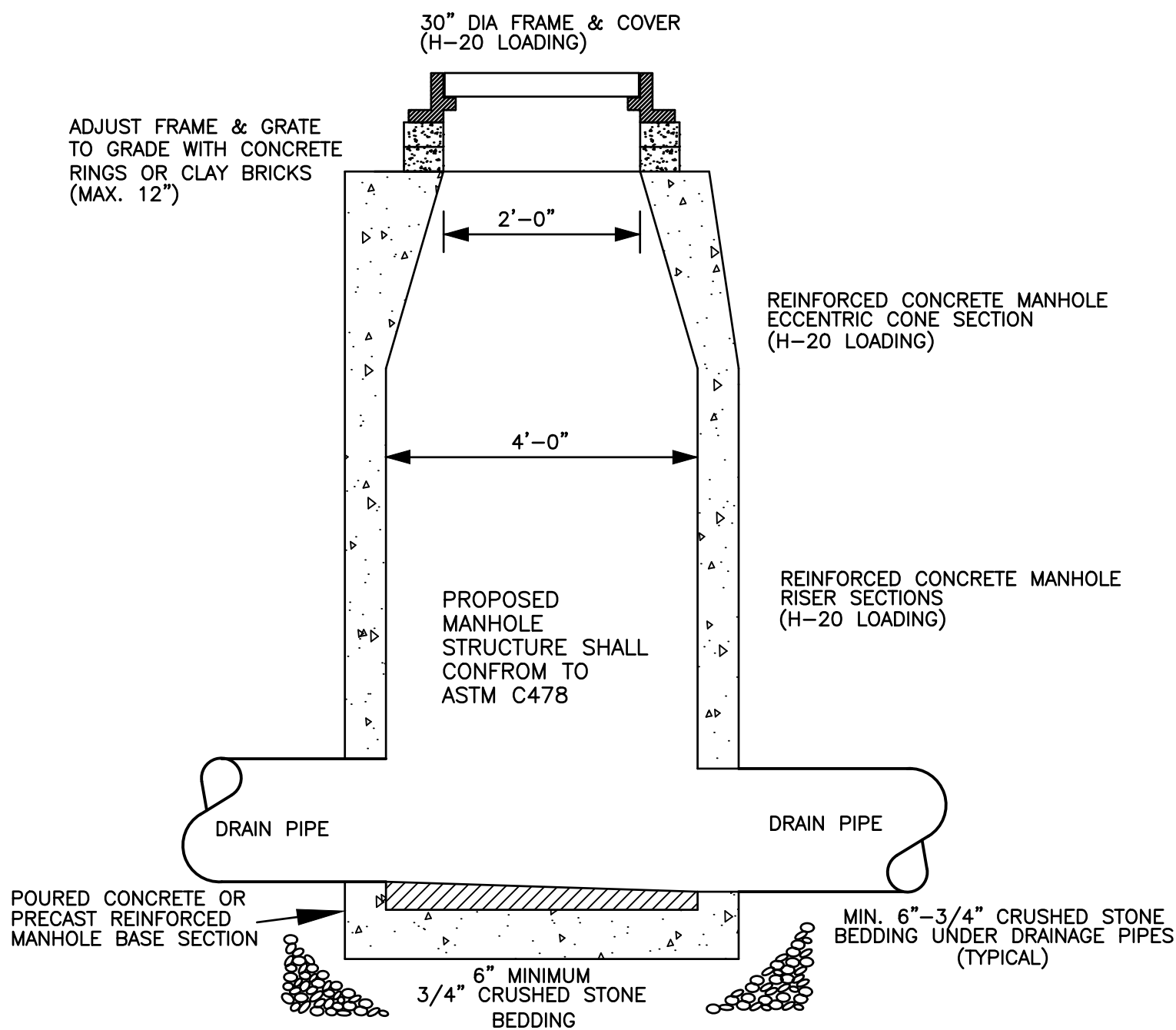
FIRE CISTERN NOTES:

DESIGN & INSTALLATION REQUIREMENTS:

1. THE DESIGN OF THE CISTERN SHALL BE SUBMITTED TO THE FIRE DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION. ALL PLANS SUBMITTED MUST BE SIGNED AND STAMPED BY A NEW HAMPSHIRE LICENSED/REGISTERED PROFESSIONAL ENGINEER.
2. THE ENTIRE CISTERN SHALL BE RATED H-20 HIGHWAY LOADING.
3. BEDDING FOR THE CISTERN SHALL CONSIST OF A MINIMUM OF 12 INCHES OF 3/4 INCH CRUSHED, WASHED STONE, COMPACTED IN A WORKMAN LIKE MANNER. NO FILL SHALL BE UNDER THE STONE.
4. THE BASE OF THE CISTERN SHALL BE DESIGNED IN A MANNER THAT THE CISTERN WILL NOT FLOAT WHEN EMPTY.
5. CISTERNS SHALL BE CONSTRUCTED OUT OF CONCRETE, GUNITE, FIBERGLASS, OR OTHER MATERIAL WITH PRIOR APPROVAL OF THE FIRE DEPARTMENT.
6. NO CISTERN SHALL HAVE A GASKET OR SEAM BELOW THE WATER LEVEL, BASED ON CALCULATED CAPACITY.
7. THE CONCRETE OR GUNITE IS TO BE MIXED, PLACED, AND CURED WITHOUT THE USE OF CALCIUM CHLORIDE (CAC12). WINTER PLACEMENT AND CURING MUST FOLLOW ACI CODES AS AMENDED.
8. ALL SUCTION PIPING SHALL BE ASTM SCHEDULE 40 STEEL, 6 OR 8 INCHES IN DIAMETER.
9. ALL STEEL PIPING JOINTS ARE TO BE WELDED. ALL PVC PIPE JOINTS ARE TO BE GLUED.
10. THE SUCTION PIPE SHALL BE CONNECTED TO THE BOTTOM OF THE CISTERN WITH A 6-INCH SPACE ABOVE THE FLOOR OF THE TANK.
11. THE MAXIMUM LENGTH OF THE SUCTION PIPE FROM THE BOTTOM OF THE CISTERN TO THE FIRE DEPARTMENT CONNECTION (FDC) IS 18 FEET.
12. THE SUCTION PIPE SHALL BE NO MORE THAN 8 FEET FROM THE EDGE OF THE FINISHED PAVEMENT AND SHALL BE SUPPORTED TO PREVENT THE PIPE FROM BREAKING WHEN FILLED WITH WATER.
13. THERE SHALL BE NO LANDSCAPING INSTALLED THAT MAY INTERFERE WITH THE USE OF THE CISTERN.
14. THE SUCTION PIPING SYSTEM SHALL BE CAPABLE OF DELIVERING A MINIMUM OF 1,000 GALLONS PER MINUTE FOR THREE QUARTERS OF THE CAPACITY OF THE CISTERN.
15. THE BOTTOM THREADS OF THE SUCTION PIPING CONNECTION SHALL BE INSTALLED AT A LEVEL OF 20 TO 24 INCHES ABOVE FINAL GRADE.
16. THE FINISHED SUCTION CONNECTION SHALL HAVE A 6-INCH MALE CONNECTION NH THREADS COMPLETE WITH HYDRANT CAP AND CHAIN.
17. THE SUCTION PIPE SHALL BE SUPPORTED EITHER AT THE TOP OF THE TANK OR AT THE LEVEL BELOW FROST.
18. THE SUCTION PIPE SHALL BE PITCHED SLIGHTLY BACK TOWARD THE TANK FOR PROPER DRAINAGE.
19. THE FILL PIPE SHALL BE ASTM SCHEDULE 40 STEEL AND HAVE A 4-INCH STORZ CONNECTOR WITH CAP AND 90-DEGREE ELBOW. A DOWNWARD ELBOW FOR THE STORZ CONNECTOR OF NO MORE THAN 45 DEGREES IS ACCEPTABLE.
20. ALL THE CISTERN APPURTENANCES, INCLUDING THE PIPE BOLLARDS, SHALL BE PAINTED RED.
21. THE CISTERN SHALL HAVE A VISUAL FLOAT INDICATOR FOR THE WATER LEVEL.
22. A PERMANENT, WEATHERPROOF SIGN SHALL BE INSTALLED INDICATING THE CAPACITY OF THE CISTERN IN GALLONS.
23. TO PREVENT DAMAGE FROM VEHICLES, CEMENT FILLED PIPE BOLLARDS ARE TO BE INSTALLED 2 FEET FROM EACH SIDE AND 12 INCHES IN FRONT OF THE SUCTION PIPE. THESE COLUMNS SHALL BE SET IN CONCRETE 4 FEET BELOW GRADE AND SHALL EXTEND 12 INCHES ABOVE THE SUCTION PIPE. ADDITIONAL PROTECTION MAY BE REQUIRED FOR OTHER CISTERN APPURTENANCES AS NEEDED.

TESTING & ACCEPTANCE

1. THE ENTIRE CISTERN IS TO BE INSPECTED BY THE FIRE DEPARTMENT PRIOR TO BACKFILLING.
2. THE DEVELOPER IS RESPONSIBLE FOR FILLING THE CISTERN.
3. A WRITTEN AGREEMENT MUST BE ON FILE WITH THE FIRE DEPARTMENT AS TO WHO WILL BE RESPONSIBLE FOR MAINTENANCE AND ENSURING THE WATER LEVEL OF THE CISTERN.
4. FLOW TEST OF THE CISTERN MUST BE ON FILE WITH THE FIRE DEPARTMENT PRIOR TO ACCEPTANCE.
5. NO OCCUPANCY PERMITS WILL BE ISSUED UNTIL THE CISTERN IS INSPECTED, TESTED, AND APPROVED BY THE FIRE DEPARTMENT.

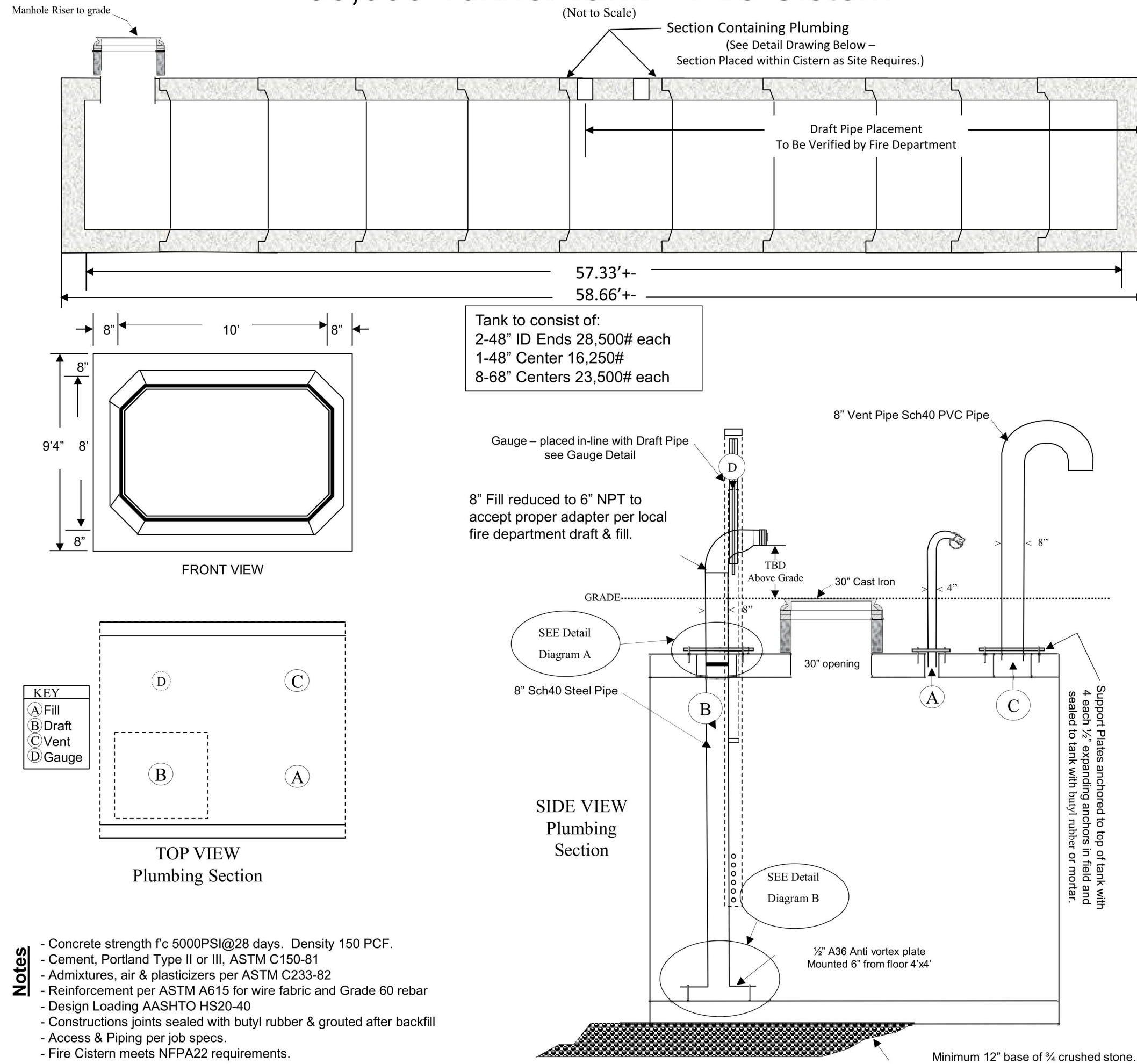


DRAINAGE MANHOLE DETAIL

(NO SCALE)

As Proposed 30,000 Tunnel Tank Fire Cistern

SAMPLE PIPE PLACEMENT
30,000 Tunnel Tank – Fire Cistern



Notes

- Concrete strength f'c 5000PSI@28 days. Density 150 PCF.
- Cement, Portland Type II or III, ASTM C150-81
- Admixtures, air & plasticizers per ASTM C233-82
- Reinforcement per ASTM A615 for wire fabric and Grade 60 rebar
- Design Loading AASHTO HS20-40
- Construction joints sealed with butyl rubber & grouted after backfill
- Access & Piping per job specs.
- Fire Cistern meets NFPA22 requirements.

DETAILS

HERON POINT PRESERVE

TAX MAP 13 LOT 183-16

PICKEREL POND ROAD

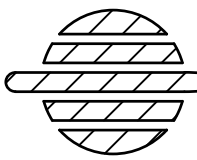
LACONIA, NEW HAMPSHIRE 03246

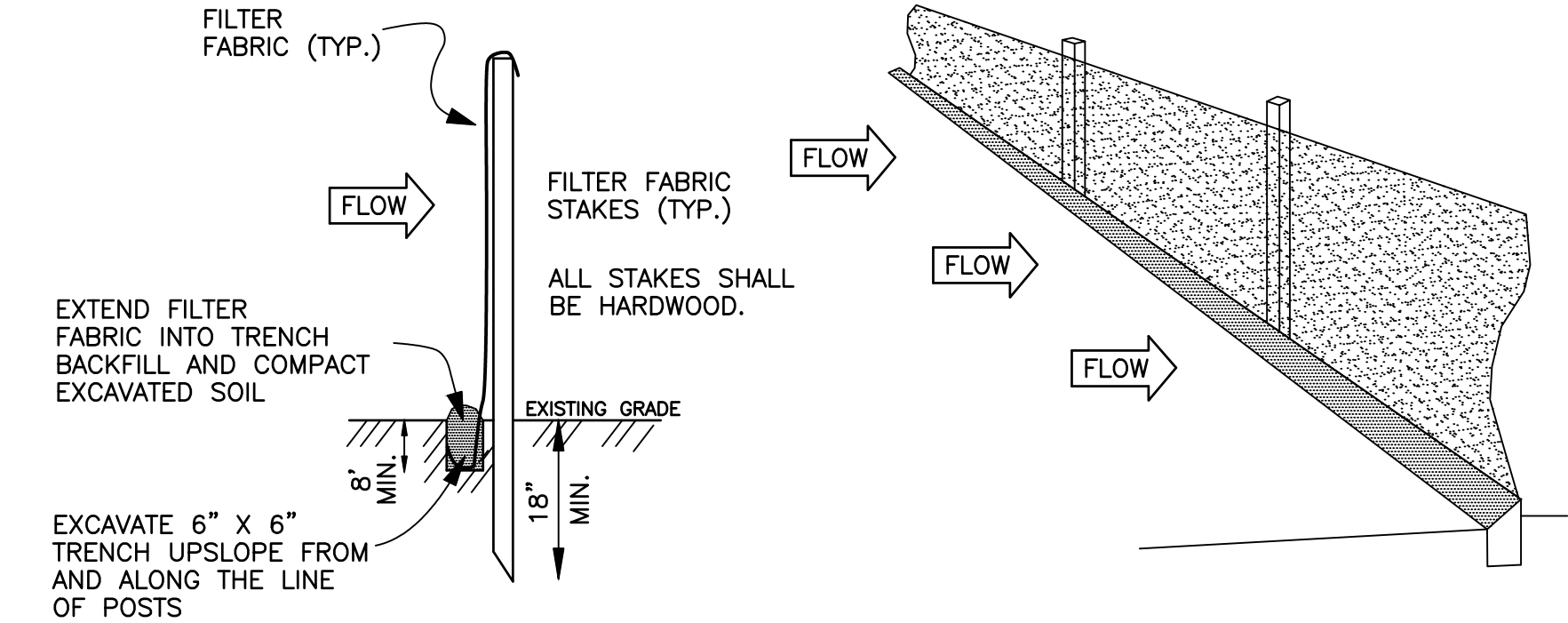
OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: NONE

SHEET 13 of 15 DECEMBER 10, 2025

#	DATE	DESCRIPTION

 **BENCHMARK LLC**
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000



ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE BMP (*BEST MANAGEMENT PRACTICES*) AS SPECIFIED IN THE "STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE" AS PREPARED BY THE ROCKINGHAM COUNTY CONSERVATION DISTRICT.

SILT FENCE MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

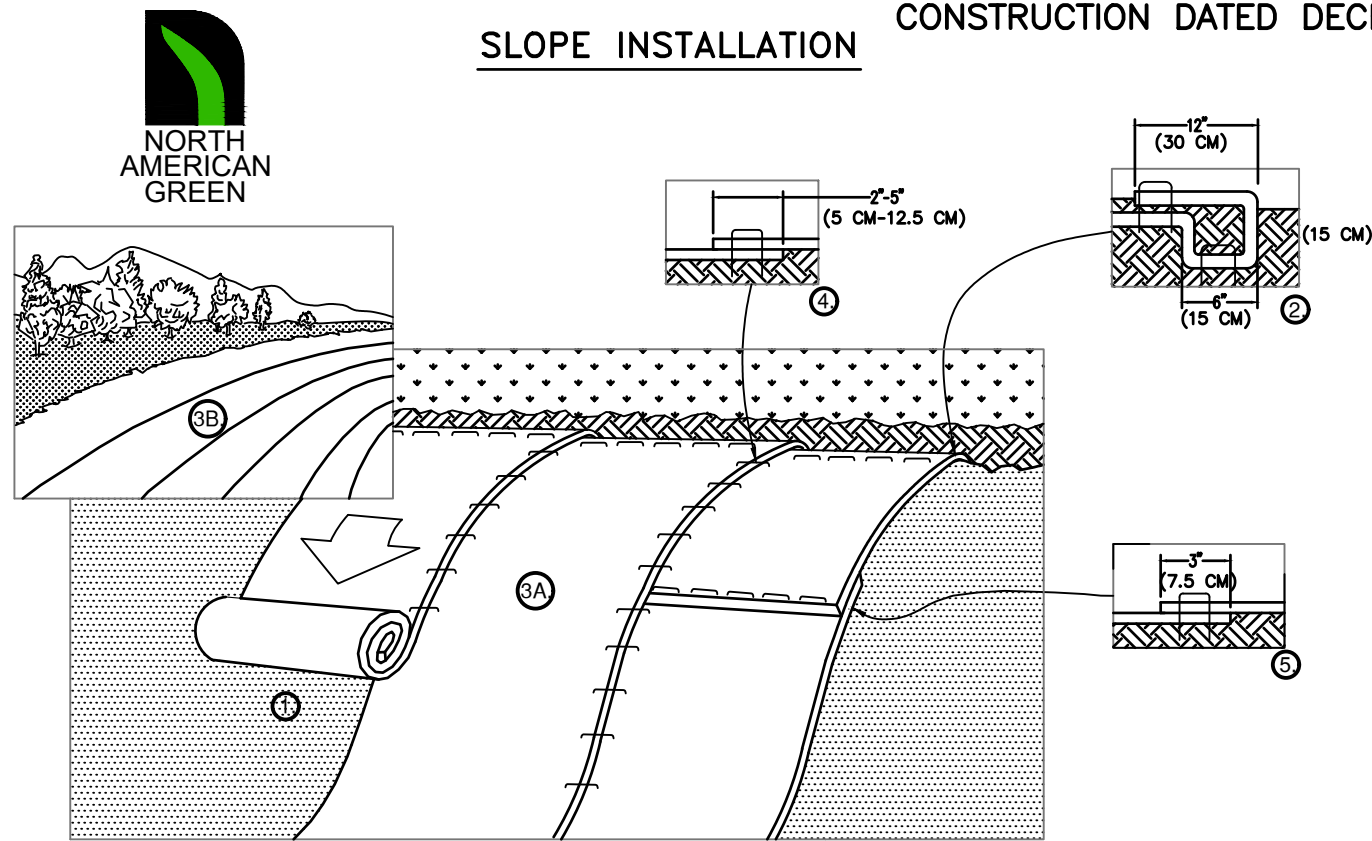
CONSTRUCTION SPECIFICATIONS

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION AND BOTTOM.
5. WHEN 2 SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.
6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.

SILT FENCE DETAIL

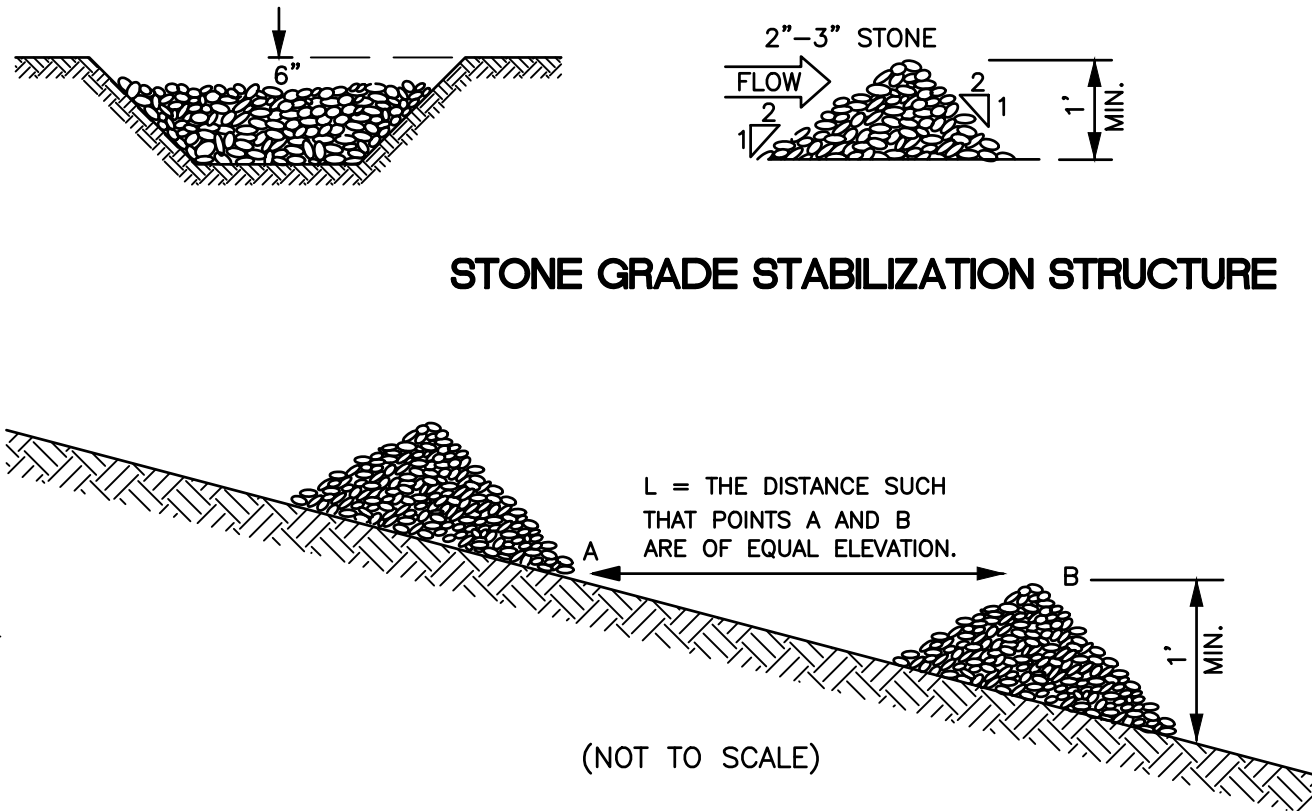
(NO SCALE)

ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE NH STORMWATER MANUAL VOLUME 3 EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION DATED DECEMBER 2008



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
 5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.
- NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
6. USE NORTH AMERICAN GREEN SC150BN EROSION CONTROL BLANKET (OR APPROVED EQUAL) DISTRIBUTED BY EJ PRESCOTT, INC 210 SHEEP DAVIS ROAD CONCORD, NH PHONE: (603) 224-9545

EROSION CONTROL BLANKET (NOT TO SCALE)



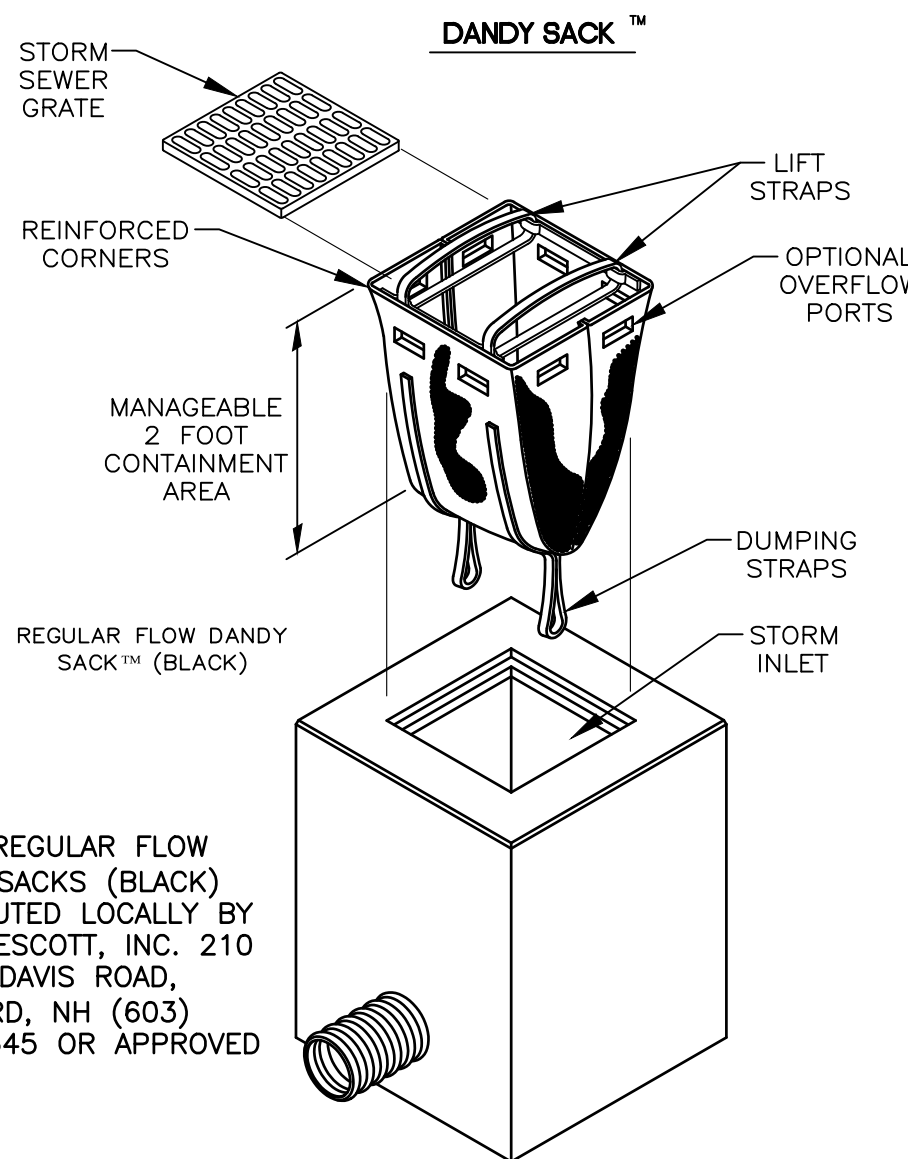
MAINTENANCE

TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

CONSTRUCTION SPECIFICATIONS

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. WHEN HAYBALES ARE USED, THE BALES SHALL BE EMBEDDED AT LEAST 4 INCHES INTO THE SOIL. WHEN TIMBER STRUCTURES ARE USED, THE TIMBER SHALL EXTEND AT LEAST 18 INCHES INTO THE SOIL.
4. HAY OR STRAW BALES SHALL BE ANCHORED INTO THE SOIL USING 2" X 2" HARDWOOD STAKES DRIVEN THROUGH THE BALES AT LEAST 18 INCHES INTO THE SOIL.
5. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATE VEGETATIVE BMP.
6. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

TEMPORARY EROSION CONTROL CHECK DAM WITHIN DRAINAGE CHANNEL

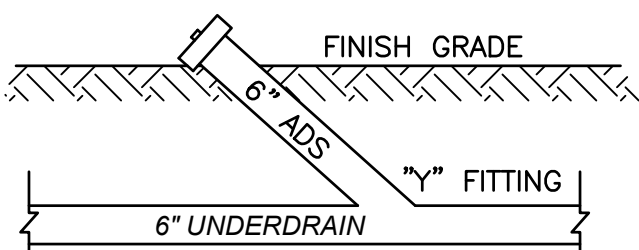


NOTE: REGULAR FLOW DANDY SACKS (BLACK) DISTRIBUTED LOCALLY BY E.J. PRESCOTT, INC. 210 SHEEP DAVIS ROAD, CONCORD, NH (603) 224-9545 OR APPROVED EQUAL.

DETAIL OF INLET SEDIMENT CONTROL DEVICE

(NOT TO SCALE)

NOTE: INLET SEDIMENT CONTROL DEVICES TO BE REMOVED FROM THE STRUCTURES LOCATED IN PAVED AREAS UPON INSTALLATION OF THE BINDER COURSE.



UNDERDRAIN CLEAN-OUT DETAIL

(NO SCALE)

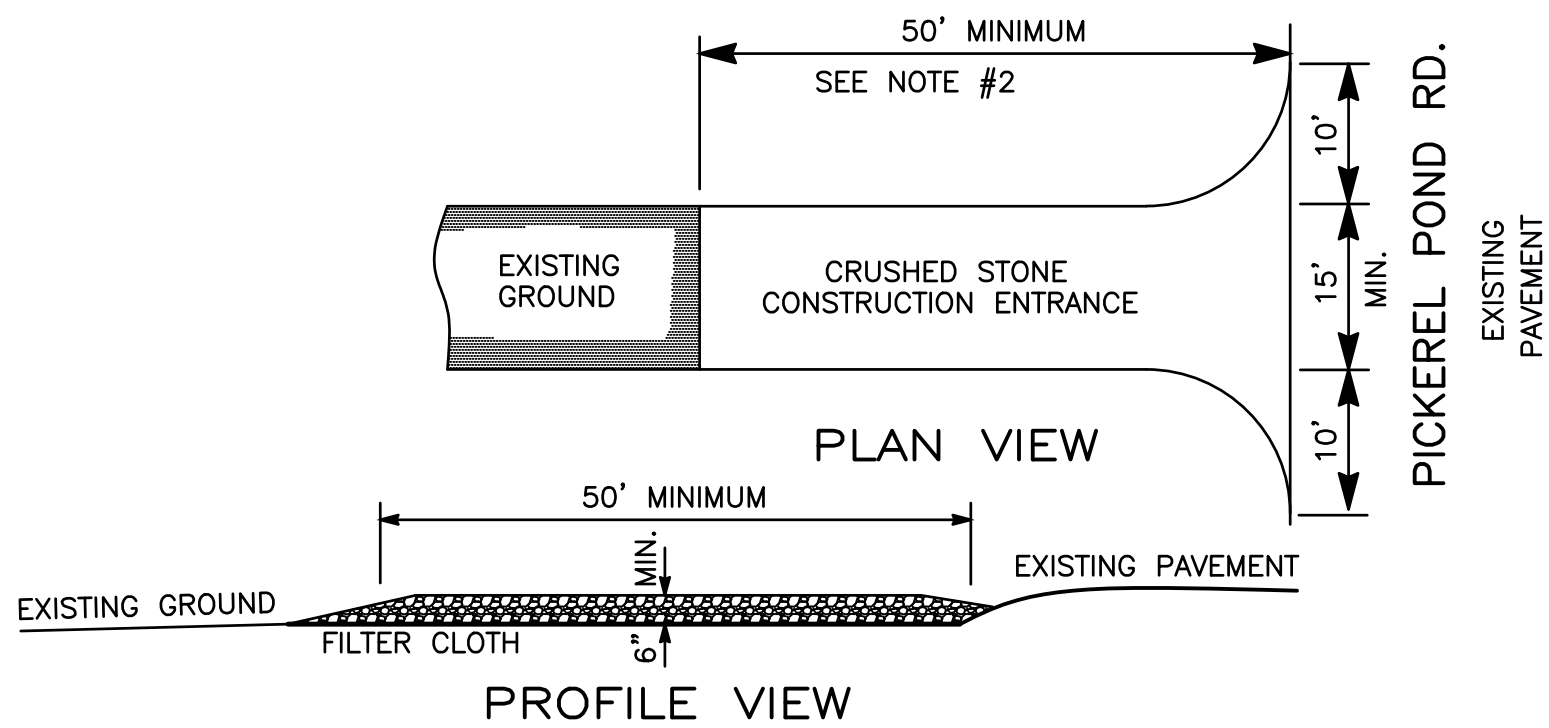
NOTES:

1. THE TRAP SHOULD BE EXCAVATED AROUND THE INLET TO PROVIDE 67 CUBIC FEET OF STORAGE PER ACRE OF DRAINAGE AREA TO THE INLET. THE TRAP SHOULD BE NO LESS THAN 1 FOOT DEEP OR NO MORE THAN 2 FEET DEEP WHEN MEASURED FROM THE TOP OF THE INLET. SIDESLOPES SHOULD BE 3:1 OR FLATTER.
2. THE DIMENSIONS OF THE EXCAVATION SHOULD BE BASED ON THE SITE CONDITIONS. NORMALLY THE TRAPS ARE SQUARE, HOWEVER IF THERE IS CONCENTRATED FLOW BEING DIRECTED INTO THE TRAP THEN THE TRAP SHOULD BE RECTANGULAR WITH THE LONG DIMENSION ORIENTATED IN THE DIRECTION OF THE FLOW

TEMPORARY STORM DRAIN INLET PROTECTION

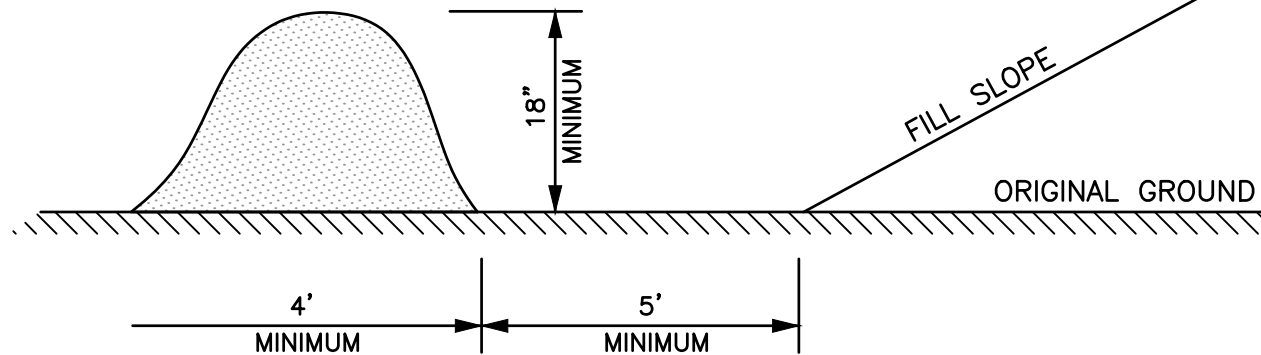
DETAIL (ALTERNATE METHOD)

(NO SCALE)



NOTE:

WOOD WASTE COMPOST/BARK MULCH FILTER BERMS MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE WOOD WASTE COMPOST/BARK BERM FILTER BY LARGER SEDIMENT PARTICLES. (SILT FENCE PLACED TO FILTER RUN-OFF BEFORE WOOD WASTE COMPOST/BARK BERM.



INSPECTION AND MAINTENANCE

MAINTENANCE OF A CONTINUOUS BERM REQUIRES MINIMAL EFFORT. IF EVIDENCE OF PIPING IS DETECTED, COMPACTING LOOSE SOIL IN THE AREA OF FAILURE RESULTS IN MITIGATING THE PROBLEM. IF VEHICLES RUN OVER THE BERM CAUSING DAMAGE, THE DAMAGED AREA SHALL BE REPAIRED BY RE-STAPLING THE FABRIC. IN THE EVENT OF MAJOR DAMAGE, A NEW SECTION OF BERM CAN BE EASILY PLACED IN FRONT OF THE DAMAGED SECTION. WHEN THE BERM IS NO LONGER NECESSARY REMOVAL IS COMPLETED BY SLITTING THE BERM, SLITTING THE FILL MATERIAL AND INCORPORATING IT INTO THE EXISTING SOIL, AND REMOVING THE FABRIC. FILTER BERM SHALL BE CLEANED WHEN THE DEPTH OF SEDIMENT REACHES HALF THE HEIGHT OF THE BERM (9 INCHES) RESHAPE THE BERM AS NECESSARY.

MULCH BERM DETAIL

(NO SCALE)

CONSTRUCTION SPECIFICATIONS

1. MINIMUM STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH CRUSHED STONE
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT THAT THE MINIMUM MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE
3. THE WIDTH OF THE CONSTRUCTION ENTRANCE SHALL EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
4. THE PAD SHALL SLOPE AWAY FROM THE EXISTING ROAD
5. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
6. GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD
7. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF SITE
8. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
9. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED PROMPTLY.
10. IF NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION ENTRANCE

TO BE CONSTRUCTED AT ALL SITE ENTRANCES AT THEIR INTERSECTION WITH EXISTING ROADS (NO SCALE)

MULCH BERM

CONSTRUCTION SPECIFICATIONS:

- THE WOOD WASTE COMPOST/BARK FILTER SHALL CONSIST OF A WOOD WASTE COMPOST/ BARK MULCH MIX OR RECYCLED, COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER FLUME LOG HANDLING SYSTEMS.
 - A) THE MIX SHALL HAVE THE FOLLOWING STANDARDS:
 - B) MOISTURE CONTENT - 30% TO 60%
 - C) pH - 5.0 TO 8.0
 - D) SCREEN SIZE - 100% LESS THAN 75MM, MAXIMUM 70% LESS THAN 25 MM,
 - E) NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSE OF IGNITION,
 - F) NO STONES GREATER THAN 2 INCHES IN DIAMETER.
- BERM MAY BE FORMED WITH A BARK BLOWER OR WITH OTHER EQUIPMENT. BERM SHALL BE 18 INCHES MINIMUM AT THE BASE AND SHALL BE AT LEAST 12" IN HEIGHT.
- FILTER BERM MAY BE PLACED DIRECTLY ON THE GROUND, NO TRENCHING OR STAKING IS REQUIRED. MATERIAL.
- FILL CONTINUOUS BERM WITH SAND, AGGREGATE ROCK, OR SOIL AS SPECIFIED.
- DRAINAGE OF PONDED WATER IS DEPENDENT UPON FABRIC FLOW RATES AND THE INFILL
- WHEN A CONTINUOUS BERM IS TO FUNCTION AS A SEDIMENT TRAP, AT LEAST 3 FEET (0.9M) OF THE STRUCTURE MUST BE FILLED WITH 3/4"-1 1/2" (20MM TO 38MM) DIAMETER ROCK TO SERVE AS A DRAINAGE CHAMBER. IN ADDITION THE ROCK DRAINAGE CHAMBER MUST BE LOCATED AT A LOW SPOT FOR ADEQUATE DRAINAGE OF PONDED WATERS.
- NONWOVEN FABRIC CAN BE DRAINED BY CUTTING VERTICAL SLITS IN THE UPSTREAM SIDE OF THE FABRIC SURROUNDING THE DRAINAGE CHAMBER TO ALLOW FOR THE PASSAGE OF WATER. OPTIONALLY, INSERT A 2 INCH (51MM) PVC PIPE THROUGH THE DOWNSIDE OF THE BERM, INTO THE ROCK CHAMBER APPROXIMATELY 4-6 INCHES (101-152MM) TO DISCHARGE THE PONDED WATER.
- ONCE A BERM HAS BEEN DEVELOPED, ADDITIONAL SEALING OF THE BOTTOM OCCURS BY HAVING SOMEONE "WALK" ALONG THE TOP.

APPROVED BY THE LACONIA PLANNING BOARD

ON: _____ CERTIFIED BY

CHAIRMAN: _____ AND

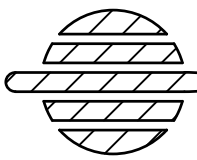
SECRETARY _____

DETAILS HERON POINT PRESERVE TAX MAP 13 LOT 183-16 PICKEREL POND ROAD LACONIA, NEW HAMPSHIRE 03246

OWNER OF RECORD/PREPARED FOR
PARADE REI, LLC
PO BOX 1926
CONCORD, NH 03302
BCRD BOOK 3694/PAGE 459

SCALE: NONE SHEET 15 of 15 DECEMBER 10, 2025

#	DATE	DESCRIPTION

 **BENCHMARK LLC**
Consulting Engineers Land Planners
50 Nashua Road, Suite 305
Londonderry, New Hampshire 03053
Phone: (603) 437-5000



Application(s) #:

PB2026-033

Fees Paid:

370.00

Check #:

144

Receipt #:

PLANNING BOARD APPLICATION

Project Name: ANDERSON & SONS AUTO

Project Address: 631 Union Ave # 1

Tax Map/ Lot # (s): 371-220-21 Zoning District (s): UC Parcel Size Acres: _____

Number of Lots: 1 Total Developed Land Area: _____ Building(s) and/or additions Total Sq. Ft. _____

Submittal Request (Check all that apply):

- | | | |
|--|--|---|
| ☐ Alternative Parking CUP | ☐ Amendment | ☐ Boundary Line Adjustment |
| ☐ Boundary Line Agreement | ☐ Change of Use | ☐ Cluster Development CUP |
| ☐ Cluster Subdivision | ☐ Condominium Subdivision | ☐ Conventional Subdivision |
| ☐ Discretionary Easement | ☐ Marinas and Yacht Club CUP | ☐ Minor Site Plan |
| ☐ Performance Zoning CUP | ☒ Site Plan (Commercial) | ☐ Site Plan (Multi-family) |
| ☐ Steep Slope CUP | ☐ Wetland/Wetland Buffer CUP | ☐ Other _____ |

Proposal Description: Car Dealer, Retail Sale's only no
Mechanic

I hereby make application to the City of Laconia for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning Ordinance and land use regulations of the City, except where waivers are requested. The City of Laconia Planning Board, Minor Site Plan Committee, Technical Review Committee and/or city employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at any and all meetings before the Planning Board, Minor Site Plan Committee or Technical Review Committee.

Sign as appropriate (If agent or non-person please attach certification)

NOTE: Please attach an Applicant Contact Worksheet

PROPERTY OWNER 1

PROPERTY OWNER 2

AGENT / APPLICANT

Printed Name: ETHAN ANDERSON

Signature: _____

Date: _____



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎603-527-1264
☎603-524-2164

CERTIFIED LIST OF ABUTTERS

RSA 672:3 "Abutter" means any person whose property is located in New Hampshire and adjoins or is directly across the street or stream from the land under consideration by the local land use board. For purposes of receiving testimony only, and not for purposes of notification, the term "abutter" shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration. For purposes of receipt of notification by a municipality of a local land use board hearing, in the case of an abutting property being under a condominium or other collective form of ownership, the term abutter means the officers of the collective or association, as defined in RSA 356-B:3, XXIII. For purposes of receipt of notification by a municipality of a local land use board hearing, in the case of an abutting property being under a manufactured housing park form of ownership as defined in RSA 205-A:1, II, the term "abutter" includes the manufactured housing park owner and the tenants who own manufactured housing which adjoins or is directly across the street or stream from the land under consideration by the local land use board.

The following information must be completed by the applicant in order to begin the application process to the Planning Board or Zoning Board of Adjustment. Below, list the verified names and mailing addresses of the applicant, authorized agent(s), engineer, architect, land surveyor, soil scientist, consultant, abutter, holders of conservation easements or restrictions on adjacent lands, municipal/regional planning commissions (if a regional notice is required), associations, etc., not more than five (5) days prior to submission, per RSA 676:4, I(b). Abutters' names and mailing addresses must be verified against the records kept in the Laconia Assessor's Office. Attach additional copies of this form if necessary. Include an addressed #10 envelope and certified mail receipt for each person/professional listed below.

Map/Block/Lot	Name of Property Owner/Professional	Mailing Address of Owner/Professional
371/220/20	Matthew Spellissy	30 OAK ST Franklin NH 03235
371/152/26	Russell Scott S. Spears Sarah Gaudette	168 Parade Rd, Meredith
371/220/22	CK I IV, LLC	59 Bisson Ave, Laconia NH 03246
388-371/220/6	"	"
371/220/6	Laconia Area Community L	193 Court St Laconia, NH 03246
371/220/7	Belknap Tire Co Inc	670 Union Ave, Laconia NH 03246
371/152/58	City of Laconia Hill Side Cemetery	45 Beacon St Laconia, NH 03246
	SEE ATTACHED	

Name of Person Preparing List _____ Date Prepared _____
Preparer's Signature _____ Date _____

*Fee per Abutter \$10.00



DEPARTMENT OF PLANNING, ZONING & CODE
45 BEACON STREET, EAST
☎ 603-527-1264
☎ 603-524-2164

General Conditional Use Permits Requirements

1. The Use is authorized in the Table of Permitted Uses as a conditional use. yes
2. Any specific conditions or standards are met. All
3. Public safety or health will not be materially endangered. No
4. The value of adjoining or abutting properties will not be substantially affected. No
5. Compatibility with uses of adjoining or abutting properties and the neighborhood. yes
6. Highway or pedestrian safety will not be substantially adversely impacted. No
7. Natural resources of the city will not be substantially adversely impacted. be impacted ~~yes~~ No they won't
8. Adequate public facilities and utilities are available or will be provided by the applicant. yes



5 feet Abutters List Report

Laconia, NH
February 05, 2026

Subject Property:

Parcel Number: 371-220-21
CAMA Number: 371-220-21
Property Address: 651 UNION AV

Mailing Address: OPEN DOOR PRESCHOOL &
CHILDCARE CENTER LLC
651 UNION AV
LACONIA, NH 03246

Abutters:

Parcel Number: 371-152-26
CAMA Number: 371-152-26
Property Address: 76 MECHANIC ST

Mailing Address: SPEARS RUSSELL SCOTT & GAIL JO
ABBOTT GAUDETTE SARAH
MACKENZIE
168 PARADE RD
MEREDITH, NH 03253

Parcel Number: 371-152-58
CAMA Number: 371-152-58
Property Address: MECHANIC ST

Mailing Address: LACONIA CITY OF HILLSIDE CEMETERY
45 BEACON ST EAST
LACONIA, NH 03246

Parcel Number: 371-220-20
CAMA Number: 371-220-20
Property Address: 661 UNION AV

Mailing Address: SPELLISSY MATTHEW S
30 OAK ST
FRANKLIN, NH 03235

Parcel Number: 371-220-22
CAMA Number: 371-220-22
Property Address: 645 UNION AV

Mailing Address: CKI IV LLC
59 BISSON AV
LACONIA, NH 03246

Parcel Number: 371-220-3
CAMA Number: 371-220-3
Property Address: 644 UNION AV

Mailing Address: ADSC REAL ESTATE LLC
2 IRISH SETTER LN
GILFORD, NH 03249

Parcel Number: 371-220-6
CAMA Number: 371-220-6
Property Address: 658 UNION AV

Mailing Address: LACONIA AREA COMMUNITY LAND
TRUST INC
193 COURT ST
LACONIA, NH 03246

Parcel Number: 388-152-10
CAMA Number: 388-152-10
Property Address: 49 MECHANIC ST

Mailing Address: CKI IV LLC
59 BISSON AV
LACONIA, NH 03246

Parcel Number: 388-220-6
CAMA Number: 388-220-6
Property Address: 623 UNION AV

Mailing Address: CKI IV LLC
59 BISSON AV
LACONIA, NH 03246



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2/5/2026

Page 1 of 1

651 UNION AV

Location 651 UNION AV

Mblu 371/ 220/ 21/ /

Acct# 5446

Owner OPEN DOOR PRESCHOOL &
CHILDCARE CENTER LLC

Assessment \$927,900

1094

Building Count 1

Current Value

Assessment			
Valuation Year	Improvements	Land	Total
2025	\$744,300	\$183,600	\$927,900

Owner of Record

Owner OPEN DOOR PRESCHOOL & CHILDCARE CENTER LLC

Sale Price \$0

Co-Owner

Book & Page 3480/0482

Address 651 UNION AV

Sale Date 01/12/2022

LACONIA, NH 03246

Instrument 40

Ownership History

Ownership History				
Owner	Sale Price	Book & Page	Instrument	Sale Date
OPEN DOOR PRESCHOOL & CHILDCARE CENTER LLC	\$0	3480/0482	40	01/12/2022
HUGHES AUTOMOTIVE LLC	\$0	3453/0028	31	09/29/2021
HUGHES AUTOMOTIVE LLC	\$190,500	2657/0624	81	08/23/2010
LAKES REGION TOWING INC	\$175,000	0976/0173	00	11/01/1986

Building Information

Building 1 : Section 1

Year Built: 2010

Living Area: 5,264

Building Attributes	
Field	Description
Style:	Schools-Public

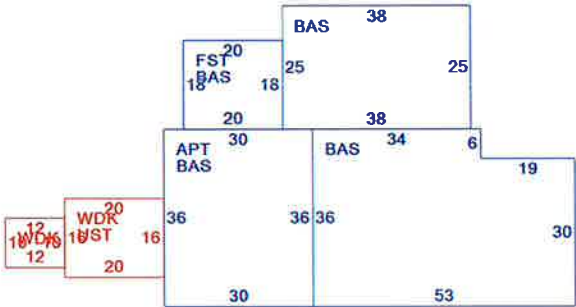
Model	Commercial
Grade	Average
Stories:	1.25
Occupancy	1.00
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Vinyl Siding
Roof Structure	Shed
Roof Cover	Rolled Compos
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Lino/Vinyl
Interior Floor 2	Concr-Finished
Heating Fuel	Gas
Heating Type	Floor Furnace
AC Type	None
Struct Class	
Bldg Use	DAY CARE MDL-94
Total Rooms	03
Total Bedrms	0
Total Baths	2
1st Floor Use:	0332
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	-DESCRIPTION-
Rooms/Prtns	AVERAGE
Wall Height	18.00
% Corn Wall	0.00

Building Photo



(https://images.vgsi.com/photos/LaconiaNHPhotos/\0030\5446_30502.jpg)

Building Layout



(ParcelSketch.ashx?pid=1094&bid=1136)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,184	4,184
APT	Apartment	1,080	1,080
FST	Utility, Finished	360	0
UST	Utility, Storage, Unfinished	320	0
WDK	Deck, Wood	440	0
		6,384	5,264

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Description

Zone

Neighborhood

Category

DAY CARE MDL-94

UC

UNION AVE RT 3

No

Frontage

Depth

Assessed Value

0

0

\$183,600

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Assessment			
Valuation Year	Improvements	Land	Total
2025	\$744,300	\$183,600	\$927,900
2024	\$717,500	\$176,600	\$894,100
2023	\$425,900	\$151,200	\$577,100



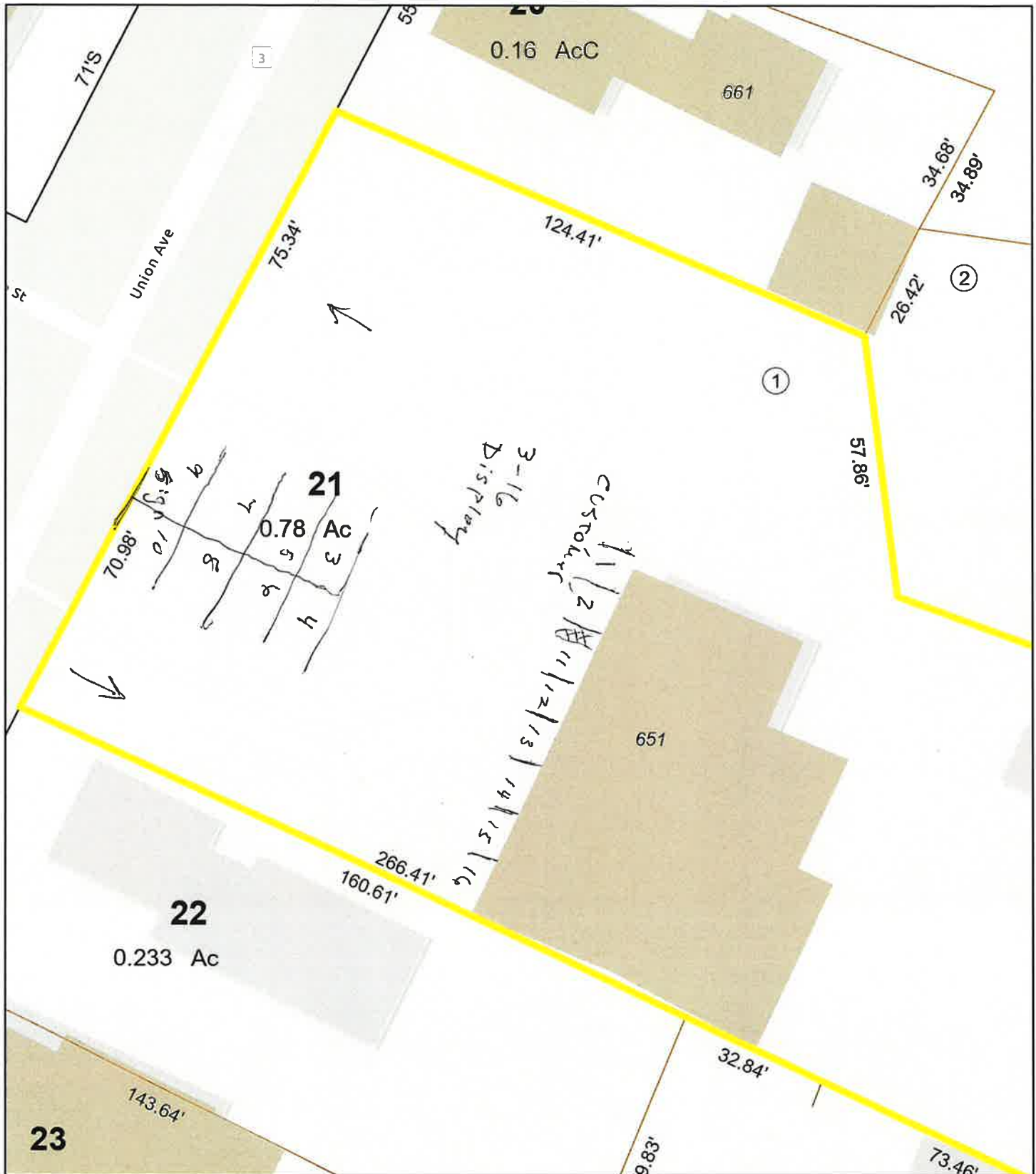
City of Laconia, NH

1 inch = 30 Feet



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February 4, 2026



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Garage

Exit

UTILITY

Boothroom

Office

Stairs

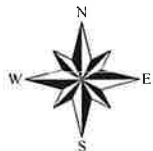
55 Ft

21 Ft

Parking

TREES

Signage
↓
Greenspace



City of Laconia, NH

1 inch = 40 Feet



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February 4, 2026



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