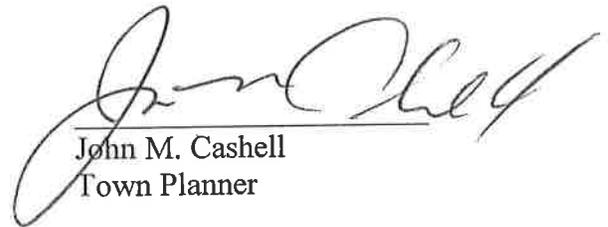


XVI. ADJOURNMENT

All plans and applications are available for review in the Planning Office. Comments may be submitted in writing until 10:00 a.m. on the Tuesday prior to the day of the meeting.

The public is invited to attend.



John M. Cashell
Town Planner

POSTED: Town Hall, Library, Post Office – 05-31-13

63 Derry Street/Ledge Road Subdivision Plan

Staff Report

June 12, 2013

SITE: 63 Derry Street/Ledge Rd Map -- 165/Lot 159 -- SB# 04-13

ZONING: T-R (Minimum lot size 10,000 sf and 90 ft. of frontage)

PURPOSE OF PLAN: to subdivide the 2.48 acre subject property into seven single-family residential lots. Application Acceptance & Hearing.

SUBDIVISION PLAN UNDER REVIEW ENTITLED: Proposed Residential Development Map 165, Lot 159 63 Derry Street – Hudson, NH, prepared by RJB Engineering, LLC 15 Pleasant St., Suite 5, Concord, NH 03301, dated: April 5, 2013, latest revised May14, 2013, consisting of Sheets 1 – 13 and Notes 1 – 12 (Plans attached).

ATTACHMENTS:

- 1) Project Narrative, Subdivision Application, Waiver Request Forms and Aerial Photo, date stamped 04/22/13 – Attachment “A”.
- 2) CLD Comments Report dated May 7, 2013 -“B”.
- 3) Comments from: Zoning Administrator, Bill Oleksak’s, Asst. Assessor, Jim Michaud and Road Agent, Kevin Burns, Deputy Fire Chief, John O’Brien and Town Eng., Patrick Colburn – “C”.

OUTSTANDING ISSUES:

1. For this initial hearing, this subdivision involves the proposed subdivision of 2.48 acres, having an existing single-family house, located at the corner of Derry St. and Ledge Rd., into seven single-family residential lots. The property, in its entirety, is located in a TR zone, requiring a minimum lot size of 10,000 sf and 90 ft. of frontage. Each of the proposed lots meets or exceeds said minimum lot size requirements. With the foregoing being stated, together with the application being complete and the plans revised in accordance with the initial comments of CLD (attachment “B”), staff recommends for the initial hearing Wednesday night for the board to accept the application and conduct the hearing.
2. CLD’s second Comments Report will not be submitted until June 13th. This is taking into consideration, CLD received the 1st set of revised plans on Fri., May 31st, and by contract with the Town, have 10 business days to submit their comments. In any event, the revised plans submitted with this report address CLD’s attached initial Comments Report, as well as the comments received by the Zoning Administrator, Bill Oleksak’s, Asst. Assessor, Jim Michaud and Road Agent, Kevin Burns, Deputy Fire Chief, John O’Brien and Town Eng., Patrick Colburn (each is included in attachment “C”). The project Eng., Jeffery

Burd, will address each issue raised by Town Staff and CLD in their respective comments reports.

3. Some of the particulars of the subdivision, and as shown on the plans, each lot will be served by Town water and sewer, and the stormwater drainage will be controlled, retained, treated and then flow into the Town's existing drain system. See the Drain Easement shown on Sheet 3 of 13, Map 165, Lots 159, 159-1 and 159-2.

NOTE: as you can see in staff and CLD's comments, these infrastructure issues are being reviewed, analyzed and the applicant's engineer has either completed addressing their concerns or is in the process of completing them.

4. The plan and profile for safe sight distance conditions are shown on Sheet 6. Also on this sheet, please see the details for the landscaped island in the turnaround, as well as a clear depiction of the proposed dwelling and driveway footprints, with each meeting setback requirements.
5. The Hall chart, shown on Sheet 3 of 13, indicates 0 sf of wetlands and 0 sf of slope area > 25%.
6. There are only two requested waivers, neither of which concern street construction requirements or other infrastructure requirements concerning this proposed subdivision.
7. Concerning the existing dwelling at the corner of Derry St. and Ledge Rd., no new lot lines are proposed, i.e., except for the rear lot line. This latter changed lot line does not create setback encroachments concerning existing structures on the subject lot, as such, no variance issues are involved. This is to state that the existing encroachments concerning the front and side lot line abutting Ledge Rd. are pre-existing, non-conforming, and as such, do not require setback variances.

REQUESTED WAIVERS:

289-6(D) -- Fiscal Impact
289-6 (D) -- Traffic Study

RECOMMENDATION: For this initial hearing, staff recommends: application acceptance, conduct the hearing and hear from abutters. If the board considers approving this plan, the appropriate DRAFT MOTIONS are provided. Otherwise, a suggested deferral dates are June 26 or July 10th.

APPLICATION TRACKING:

04/22/13 application submitted.
06/10/13 initial public hearing scheduled.

DRAFT MOTIONS:

I move to accept the Subdivision Plan application for 63 Derry St./Ledge Rd.- Map 165/Lot 159.

Motion by: _____ Second: _____ Carried/Failed: _____

I move to defer further review of this Subdivision application, date specific, to the June 26 or July 10, 2013 Planning Board meeting.

Motion by: _____ Second: _____ Carried/Failed: _____

REQUESTED WAIVER:

I move to grant the requested waiver - HTC 289-6(D) - Traffic Study - because the traffic volume associated with the addition of 6 new single-family dwelling will not substantially impact the associated streets of Ledge Rd. and Derry St., and as such, the granting of this waiver is not contrary to the spirit and intent of the Subdivision Regulations.

Motion by: _____ Second: _____ Carried/Failed: _____.

I move to grant the requested waiver: HTC 289-6(D) - Fiscal Impact Study - because said study (in addition to the submitted plans, CAP fee provisions and other submitted application materials) is not necessary in order to evaluate the fiscal impact of this development, and as such, the granting of this waiver is not contrary to the spirit and intent of the Subdivision Regulations.

Motion by: _____ Second: _____ Carried/Failed: _____

DRAFT MOTION TO APPROVE:

I move to approve the subdivision plan entitled: Proposed Residential Development Map 165, Lot 159 63 Derry Street – Hudson, NH, prepared by RJB Engineering, LLC 15 Pleasant St., Suite 5, Concord, NH 03301, dated: April 5, 2013, latest revised May 14, 2013, consisting of Sheets 1 – 13 and Notes 1 – 12, in accordance with the following terms and conditions:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the above Site Plan-of-Record (hereafter referred to as the Plan).

2. Prior to Planning Board endorsement of the Plan, Town Counsel shall favorably recommend on the Development Agreement and Drain Easement Deed pertaining to Map 165, Lots 159, 159-1 and 159-2, as shown on the Plan.
3. A CAP amount of \$1,208.59, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
4. A public school impact fee in the amount of \$3,578.00, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
5. A recreation contribution in the amount of \$400.00, per residential unit, shall be paid prior to the issuance of a Certificate of Occupancy.
6. All monumentation shall be set or bonded prior to the Planning Board endorsing the Plan.
7. This approval is subject to final engineering review.
8. Maintenance of the onsite drainage system shall be constructed and maintained in compliance with NHDES requirements for such systems.
9. The number of dwelling lots for this subdivision shall be limited to 7, including the existing dwelling on Map 165, Lot 159.
10. All monumentation shall be set or bonded prior to the Planning Board endorsing the Plan-of-Record.
11. If lot development involves blasting and/or ramming of bedrock materials, said activities shall be limited to the hours between 7:00 A.M. and 5:00 P.M. Monday through Friday only. Said blasting/ramming activities shall be prohibited on Saturday and Sunday.
12. Construction activities involving the lots shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Saturday. Said activities shall be prohibited on Sunday.
13. Above terms and conditions of approval, 1 through 12, shall be inscribed on the Plan prior to Planning Board endorsement of same; thus, creating a total of 21 notes on Sheet 3 of 13 of the Plan.

Motion by: _____ Second: _____ Carried/Failed: _____

April 6, 2013

vl A ↗



**Subdivision Application for:
63 Derry Street, Tax Map 165, Lot 159**

Description of the Project:

This project is a 7 lot single-family residential subdivision on a 2.47 acre parcel. The property is located on the southeast corner of Derry Street (NH Route 102), and Ledge Road. Approximately one-half acre of the property is currently improved with an existing single-family house and several out-buildings. The remainder of the property is undeveloped and wooded. The site is gently sloping towards Derry Street. There are no wetlands on the property. Surrounding properties consist of a mix of commercial and residential uses on Derry Street, and residential properties on Ledge Road. The property is zoned Town Residence (TR).

The existing house will remain on the corner lot. A new road is proposed to provide access to and frontage for six new building lots. Each lot will exceed 10,000 s.f. in size and will be served by public sewer and water. The proposed road length is less than 300 linear feet and terminates in a cul-de-sac. The road will be curbed with a closed drainage system in accordance with Town standards. The existing driveway on Ledge Road will be eliminated. A sidewalk will be constructed on Ledge Road along the frontage of the subject property. Whereas this is a small subdivision, there will be negligible impact on traffic, schools, and utilities.

"A"

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: _____ Tax Map # 165 Lot # 159

Name of Project: 63 Derry Street / Ledge Rd Subdiv

Zoning District: _____ General SB# 04-13
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

Name: Nellie D. Lindsay Rev. Trust
Address: 14 Beaver Brook Drive
Address: Merrimack NH 03054
Telephone # _____
Fax # _____
Email: _____

DEVELOPER:

Greenscape Property & Building, LLC
66 Gilcrest Rd
Londonderry NH 03053
603-425-2200
603-425-7861
JNaughton@InnovativeRealtyTeam.com

PROJECT ENGINEER

Name: RJB Engineering, LLC
Address: 15 Pleasant St. Suite 5
Address: Concord NH 03301

Telephone # 603-219-0194
Fax # NA
Email: Jburd91@Comcast.net

PURPOSE OF PLAN:

To subdivide the 2.48 Acre subject property into seven single-family residential lots.

(FOR TOWN USE)

Plan Routing Date: _____ Sub/Site Date: _____

_____ I have no comments _____ I have comments (attach to form)

_____ Title: _____ Date: _____

(Initials)

DEPT: _____ Zoning _____ Engineering _____ Assessor _____ Police _____ Fire _____ Planning _____

_____ Consultant _____ Highway Department

Fees Paid _____

SITE DATA SHEET

Plan Name: 63 Derry Street

Plan Type: Subdivision Plan

Legal Description: Map 165 Lot 159

Map _____ Lot _____

Date: _____

Location: 63 Derry St. - At the corner of Ledge Rd

Total Area: S.F. 107,907 Acres: 2.477

Area in Wetlands: None

Zoning: Town Residence

Lots Not Meeting Required Dimensions: NA

Required Area: 10,000 SF

Required Frontage: 90 ft.

Water and Waste System Proposed: Municipal

Number of Lots With Existing Buildings: One

Existing Buildings To Be Removed: NA

Flood Zone Reference: Zone X

Proposed Linear Feet Of New Roadway: 500'

LOT AREA CALCULATION TABLE

LOT #	TOTAL AREA	WETLAND AREA	AREA > 25% SLOPE	BUILDABLE AREA (net contiguous upland useable)	FRONTAGE
1.	19048	0	0	19048	259.50
2.	10979	0	0	10979	207.51
3.	10370	0	0	10370	119.41
4.	11450	0	0	11450	127.26
5.	10865	0	0	10865	119.09
6.	10089	0	60	10029	115.18
7.	10307	0	0	10307	198.78
8.					
9.					
10.					

Data Sheets Checked By: _____ Date: _____

SUBDIVISION PLAN DATA SHEET

Dates/Case #/Description/
Stipulations of ZBA,
Conservation Commission,
NH Wetlands Board Action:

(Attach Stipulations on
Separate Sheet)

List Permits Required:

<u>*Waivers Requested:</u>	<u>Hudson Town Code Reference</u>	<u>Regulation Description</u>
----------------------------	---------------------------------------	-------------------------------

	1.	
	2.	
	3.	
	4.	
	5.	
	6.	
	7.	

**(Left Column for Town Use)*

	<u>Amount</u>	<u>Account</u>
Impact Fees	_____	_____
	_____	_____
	_____	_____
Cap Fees	_____	_____
	_____	_____

Development Agreement
Proposed:
If Yes Endorsed

Yes No
 Yes Date _____ No

**APPLICATION FOR SUBDIVISION PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

Twenty one (21) days prior to Planning Board Meeting, a complete subdivision plan to include all supporting materials/documents must be submitted in final form. The subdivision plan shall comply with the following specifications/requirements:

Applicant Initials		Staff Initials
<u>RJB</u>	a) Submission of eight (8) full sets of Site Plans (sheet size: 22" x 34") shall be submitted at the time of application filing, followed by the submission of seventeen (17) 11" X 17" plan sets (revised if applicable) to the Community Development Department no later than 10:00 A.M. Tuesday the week prior to the scheduled public hearing/conceptual review date.	_____
<u>RJB</u>	b) Seventeen (17)-subdivision narratives, describing the project.	_____
<u>RJB</u>	c) Plan scale at not less than one inch equals fifty feet (example: 1" = 50' acceptable).	_____
<u>RJB</u>	d) Locus plan with 1,000 minimum radius of site to surrounding area.	_____
<u>RJB</u>	e) Plan dated by day/month/year.	_____
<u>RJB</u>	f) Revision block.	_____
<u>RJB</u>	g) Planning Board approval block.	_____
<u>RJB</u>	h) Title of project inscribed on plan.	_____
<u>RJB</u>	i) Name(s) and address of property owner(s) and signature(s) shall be inscribed on plan.	_____
<u>RJB</u>	j) North point shall be inscribed on plan.	_____
<u>RJB</u>	k) Property lines-exact locations and dimensions.	_____
<u>RJB</u>	l) Acreage/sq. ft. of entire subdivision.	_____
<u>RJB</u>	m) Proposed lots, with lot numbers and area of each lot. Note: each proposed Lot shall be listed on the plan, in chart form, indicating in square feet/ acreage the total lot area, wetland, slope area greater than 25% and total net contiguous useable upland area.	_____

Applicant
Initials

Staff
Initials

- RJB n) Certified list of names and addresses of bordering abutters, shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on plan. _____
- RJB o) Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve area, floodways/floodplains, driveways, travel areas, parking areas, natural features within 200 feet of the tract. _____
- RJB p) Locations of existing and proposed permanent monuments and benchmarks within 200 feet of the tract. _____
- _____ q) Pertinent highway projects. _____
- RJB r) Assessor map and lot number. _____
- RJB s) Waiver application form shall be submitted with subdivision application, Note on plan listing waivers requested/granted; and all waivers granted to the subdivision regulations shall be listed on the final plan. _____
- RJB t) Delineate zoning. _____
- RJB u) Storm water drainage plan. _____
- RJB v) Topographical contours at 2-foot intervals existing and proposed. _____
- RJB w) Utilities: existing and proposed. _____
- RJB x) Building and wetland setback lines. _____
- RJB y) Rights of way, existing and proposed. _____
- NA z) Location of dedicated recreational public use land(s) proposed. _____
- RJB aa) Detailed designs of bridges and culverts. _____
- RJB ab) Typical roadway cross-section, road profile, stationing, and curve data, etc. _____

Applicant
Initials

Staff
Initials

- RJB ac) Proposed location of water supply and sewage disposal systems, including perk test data, test-pit logs and locations; wells, (proposed and existing) 75' protective well radii and attached copies of any required well protection easements. _____
- RJB ad) All notes from plats. _____
- NA ae) Buffers as required by subdivision regulations. _____
- RJB af) Soil types and boundaries, Note: If site contains marginal or questionable soils, a High Intensity Soil Survey (HISS) may be deemed necessary to submit as part of the application. Said HISS, if required, shall be performed by a State of New Hampshire Certified Soil Scientist, who shall affix his/her stamp and signature and this shall be inscribed on the plan. _____
- RJB ag) Wetlands (and poorly-drained and very poorly-drained soils), also identified as Class 5 and Class 6 High Intensity Soil Survey (HISS soils), and permanent and seasonal wetlands shall be identified on the plan by a New Hampshire Certified Wetland or Soil Scientist, who shall affix his/her stamp and signature to the respective plan. _____
- RJB ah) Easements, existing and proposed. _____
- RJB ai) State of New Hampshire Engineer's seal and signature. Surveyor's seal and signature. _____
- RJB aj) Error of closure (1 in 10,000 or better). _____
- RJB ak) Drafting errors/omissions. _____
- NA al) Note outlining phasing schedule. _____
- RJB am) Narrative description stating the purpose, location, long range plans impacts on traffic, schools, and utilities. _____
- RJB an) Aerial photograph of site and area within 200 feet of the subdivision parcel. _____
- WAIVER ao) Fiscal impact study. _____
- WAIVER ap) Traffic study. _____
- RJB aq) Drainage calculations and supporting data. _____

Applicant
Initials

Staff
Initials

RJB ar) Copies of any proposed or existing easements, covenants, deed restrictions, right of way agreements or other similar documents. _____

RJB as) Copy of applicable town, state, federal approval/permits to include but not limited to the following: _____

- sewer applications
- flood plain permit
- wetlands special exception
- variance
- erosion control permit (149:8a)
- WSPCC subdivision approval (septic)
- dredge and fill permit
- curb cut/driveway permit
- shore land protection certification in accordance with RSA483-B.
- if applicable, review application with Lower Merrimack River Local Advisory Committee (LMRLAC) and attach LMRLAC project comments hereto.

NA at) Off-site agreement(s). _____

RJB au) Presentation plan (colored, with color-coded bar chart). _____

RJB av) Fees paid to clerk. _____

RJB aw) Plans that include relocation of lot lines shall clearly delineate the former (old) lot lines from proposed (new) lot lines. _____

- Any or all items may be waived under the purview of the Planning Board.

**APPLICATION FOR SUBDIVISION PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

I hereby apply for Subdivision Plan Review and acknowledge I will comply with all of the Ordinances of the Town of Hudson, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the items listed under the Subdivision Plan specifications or application form are incomplete, the application will be considered rejected.

Pursuant to RSA 674:1-IV, the owner(s), by the filing of this application as indicated above, hereby give permission for any member of the Hudson Planning Board, the Town Engineer, the Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, tests and inspections as may be appropriate. The owner(s) release(s) any claim or right he/she (they) may now or hereafter possess against any of the above individuals as a result of any examinations, surveys, tests and inspections conducted on his (their) property in connection with this applications.

Signature of Owner: _____

Robert J. T. F. E.

- ❖ If other than an individual, indicate name of organization and its principal owner, partners, or corporate officers.

Signature of Developer: _____

J. M. O.

- ❖ The developer/individual in charge must have control over all project work and be available to the Code Enforcement Officer/Building Inspector during the construction phase of the project. The Code Enforcement Officer/Building Inspector must be notified within two (2) working days of any change by the individual in charge of the project.

Technical Review Signature: _____

CLD

Planner Approval Signature: _____

Janet Kelly

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: 63 Derry Street

Street Address: 63 Derry Street

I Jeffrey Burd hereby request that the Planning Board waive

the requirements of item 90 of the Subdivision/Site Plan Checklist in reference

to a plan presented by RJB Engineering, LLC & Joseph M. Wickert, LLS, Inc.

(name of surveyor and engineer) dated April 5

2013 for property tax map(s) 165 and lot(s) 159

in the Town of Hudson, NH.

As the aforementioned applicant, I, herein, acknowledge that this waiver is requested in accordance with the provisions set forth in RSA 674:36, II (n), i.e., without the Planning Board granting said waiver, it would pose an unnecessary hardship upon me (the applicant), and the granting of this waiver would not be contrary to the spirit and intent of the Subdivision/Site Plan regulations.

Hardship reason(s) for granting this waiver (if additional space is needed please attach the appropriate documentation hereto):

Whereas this is a fairly minor subdivision creating 6 new house lots, preparing a fiscal impact study would not provide additional substantial information to support the Subdivision Application and is therefore immaterial and would be an unnecessary hardship on the applicant.

Reason(s) for granting this waiver, relative to not being contrary to the Spirit and Intent of the Subdivision/Site Plan regulations: (if additional space is needed please attach the appropriate documentation hereto):

Since this subdivision is only creating only 6 new lots and each lot will contribute to the Town the required impact fees, there would be minimal additional impacts on Town services. Therefore the spirit and intent of the Regulations will be met.

Signed:

RJBurd
Applicant or Authorized Agent

Planning Board Action:

Waiver Granted _____

Waiver Not Granted _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: 63 Derry Street

Street Address: 63 Derry Street

I Jeffrey Burd hereby request that the Planning Board waive the requirements of item ap - Traffic Study of the Subdivision/Site Plan Checklist in reference to a plan presented by RJB Engineering LLC & Joseph M. Wichert LLC, Inc.

(name of surveyor and engineer) dated April 5

2013 for property tax map(s) 165 and lot(s) 159

in the Town of Hudson, NH.

As the aforementioned applicant, I, herein, acknowledge that this waiver is requested in accordance with the provisions set forth in RSA 674:36, II (n), i.e., without the Planning Board granting said waiver, it would pose an unnecessary hardship upon me (the applicant), and the granting of this waiver would not be contrary to the spirit and intent of the Subdivision/Site Plan regulations.

Hardship reason(s) for granting this waiver (if additional space is needed please attach the appropriate documentation hereto):

Whereas this is a fairly minor subdivision, creating 6 new house lots, there will be minimal impacts on Traffic and providing a Traffic Study would not provide additional substantial information to support the Application and is therefore immaterial and would be an unnecessary hardship.

Reason(s) for granting this waiver, relative to not being contrary to the Spirit and Intent of the Subdivision/Site Plan regulations: (if additional space is needed please attach the appropriate documentation hereto):

Since this subdivision is only creating 6 new lots, there will be minimal traffic added to the existing Roads in Town and therefore minimal impact on the Road network efficiency. Since there would be little to no impact on the local traffic, the spirit and intent of the regulations has been met.

Signed:

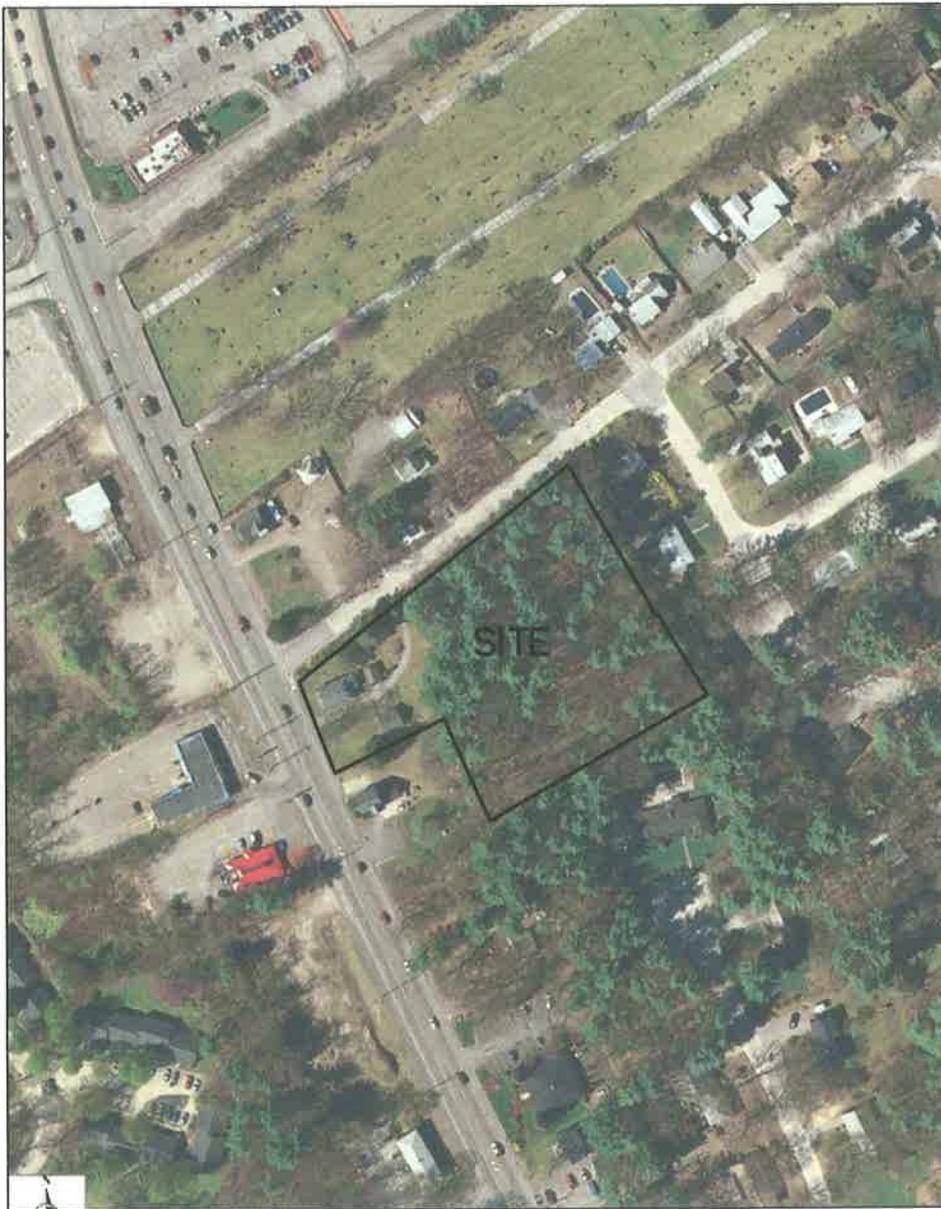
RJBurd

Applicant or Authorized Agent

Planning Board Action:

Waiver Granted _____

Waiver Not Granted _____



SOURCE:
NH GRANIT WEB GIS MAP
April 5, 2013



SCALE: 1" = 300'

AERIAL MAP
63 DERRY STREET
MAP 165, LOT 159
HUDSON, NH

PREPARED BY:
RJB ENGINEERING
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH. 603-219-0194



"B"

May 7, 2013

Mr. John Cashell, Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Town of Hudson Planning Board Review
Ledge Road Subdivision, 63 Derry Street/Ledge Road
Tax Map 165, Lot 159; PO #1350-821
CLD Reference No. 03-0249.1260

Dear Mr. Cashell:

CLD has reviewed the first submission of materials related to the above-referenced project received on April 24, 2013. A list of items reviewed is enclosed. The scope of our review is based on the Subdivision Plan Review Codes, Driveway Review Codes, Stormwater Management Codes, and criteria outlined in the CLD Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007 and September 3, 2008.

We have included a copy of CLD's evaluation of the checklist for your reference. We did not receive a copy of the applicant's checklist. We note that several items could not be verified by CLD and require action by the Town.

The project consists of creating a 7-lot, single-family, residential subdivision (one existing lot, 6 proposed lots). The 2.47-acre site is located on Ledge Road. All lots are proposed to be serviced by municipal water and sewer.

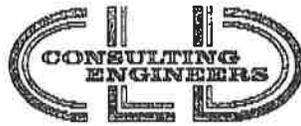
The following items are noted:

1. Subdivision Review Codes

- a. Hudson Regulations (HR) 289-15& HR 289-20.A. The proposed subdivision is not located within the 100-year flood zone.
- b. HR 289-26.B.(5) The applicant has not provided a plan that shows the location of all intersecting roads, driveways, wetlands, hydrants, septic systems, and natural features within 200 feet of the parcel.
- c. HR 289-27.B.(10) The applicant has provided a locus plan at a scale of 1" = 1,000' +/- . The Town should confirm that the scale is close enough to fulfill the intent of ability to overlay on Town Mapping.

2. Driveway Review Codes (HR 193-10)

- No comment at this time.



Mr. John Cashell
CLD Reference No. 03-0249.1260
May 7, 2013
Page - 2

3. Roadway Design

- a. HR 289-18.B. The applicant should review with the Town whether a circular cul-de-sac island is acceptable.
- b. HR 289-18.B.(3) The applicant has proposed a cul-de-sac radius to edge of pavement (or curb) of 64 feet instead of the 65-foot minimum required by the Regulation.
- c. HR 289-18.B.(4) The applicant has not shown an intent of providing landscaping within the cul-de-sac island.
- d. HR 289-18.B.(5) The applicant should provide a "Dead-End" sign location and detail for use at the proposed cul-de-sac entrance. The applicant has provided a stop sign detail; however, we were unable to find the proposed location on a plan view sheet in the plan set.
- e. HR 289-18.D. The applicant should clarify that the intent for the maximum side slope outside of the right-of-way will be 3:1 **maximum**.
- f. HR 289-18.H. The applicant should label the proposed edge-of-pavement radii on the plan set.
- g. HR 289-18.M.(1) The applicant has provided a profile with a scale of 1" = 40' (H) and 1" = 4' (V) instead of 1" = 50' (H) and 1" = 5' (V) required by the Regulation.
- h. HR 289-18.O. The applicant should provide a street name sign detail and proposed location on the plan set. Notations should be included requiring coordination with the Road Agent.
- i. HR 289-27.B.(3) The applicant has only provided one street typical section. Regular-interval cross sections are not included. (The intent for curbing on the cul-de-sac island should be clarified.)
- j. HR 289-28.A. The applicant has shown Iron Rods to be set at the right-of-way property corners instead of the required monuments.
- k. HR 289-28.G. The applicant should label the proposed sidewalk width on the typical roadway section. Also, the application should coordinate with the sidewalk typical.

4. Drainage Design /Stormwater Management (HR 289-20.C. /Chapter 290)

- a. HR 289-19.A. and HR 289-21. The applicant should provide easement documentation for the proposed drainage easement on the northwestern side of the site.
- b. HR 289-19.B. and HR 289-27.B.(4) The applicant should clarify the existence of the proposed CB 6 and CB 8 on the drainage profile.



Mr. John Cashell
CLD Reference No. 03-0249.1260
May 7, 2013
Page - 3

- c. HR 289-20.A.(1) The applicant should confirm whether any of the proposed houses will have basements. If so, the applicant should clarify the intent to use mechanical or natural drains.
- d. HR 289-20.B.(2) The applicant has not provided the required catch basin on the western corner of the proposed street intersection.
- e. HR 289-26.B.(3) The applicant should provide existing and proposed tree line limits of cutting for the existing residence lot and the proposed lots.
- f. HR 290-4.C. (k) The applicant should illustrate the Pipe Outlet Protection Apron dimensions and thickness on the plan set to correspond with the calculations within the drainage report. We note the detail provided references the Grading and Drainage Plan for size and location; however we are unable to find this information on the plans received for review.
- g. HR 290-5.B.(2)(b) The applicant should provide Inspection and Maintenance schedule within the Stormwater Management Report as outlined in the Regulation.
- h. The applicant should provide node labels (Ponds are NOT labeled) to correspond with the drainage area plans.
- i. The applicant should provide reasoning for the area discrepancies in the pre- and post-drainage area calculations. We note there is approximately 5% difference (0.124-acres difference) between the pre- and post- drainage area calculations. Typically these numbers match or are within a 1% difference. The applicant should also provide drainage paths, flows, and calculations for the remaining 0.124-acres.
- j. The applicant should provide the Tc path for Subcatchment 8S:DA 8 since it is the only subcatchment with non-direct entry Tc.
- k. The applicant should confirm corresponding outlet pipe diameters match. The plan set show the outlet for OS2 listed as a 36 LF 12" HDPE, while the Stormwater Management Report states the outlet for Pond 2P:X-Basin is a 40 LF 15" pipe. We also note that the outlet pipe from DMH1 is an existing 12" pipe.
- l. The applicant should coordinate the dimensions of the infiltration Basin Outlet Structure. We note the infiltration Basin Outlet Structure Detail on sheet 9 of 11 illustrates a 48" diameter top grate per noted Haala Industries specifications (#PS48-58SWH), this contradicts the Stormwater Management Report for Pond 2P:X-Basin which shows a 24" horizontal orifice/grate.



Mr. John Cashell
CLD Reference No. 03-0249.1260
May 7, 2013
Page - 4

5. Sewer/Septic Design/Conflicts & Utility Design/Conflicts

- a. HR 289-19.B. The applicant has proposed to utilize new water and sewer connections to the existing infrastructure in Ledge Road. The applicant should confirm that adequate capacity is available.
- b. The applicant should show the intent for the minimum horizontal separation between water and sewer connections on a plan view sheet.

6. Erosion Control/Wetland Impacts

- a. HR 290-4.A.(4) The plan notes that disturbed areas should be stabilized within 45 days of being idle. The applicant should revise this time frame to 30 days as required by the Regulations.
- b. HR 290-5.B.(1)(n) The applicant should identify any stockpile locations on-site on the plan and provide specific erosion control measures for the stockpile(s).
- c. The applicant has indicated that there are 60 square feet of wetlands on Lot 59-5 but has not shown the location on the plan set.
- d. The applicant should note the location of the proposed stabilized construction entrance on the plan set.
- e. The applicant has proposed silt fence nearly perpendicular to the contour lines. We recommend that this be reviewed. Use of fence in this fashion tends to concentrate flow and causes excess rilling.
- f. The Town should reserve the right to require additional erosion control during construction, if needed.

7. State and Local Permits

- a. HR 290-9.B. The applicant should note the need for a Stormwater Pollution Prevention Plan and filing an NOI in accordance with the NPDES General Construction Permit.
- b. The applicant should note the need for a Sewer Connection Permit on the plan set.
- c. Additional local permitting may be required.

8. Other

- a. The applicant should revise the American Disability Act (ADA) sidewalk detail to include detectable warning devices for use at the intersection of Ledge Road.



Mr. John Cashell
CLD Reference No. 03-0249.1260
May 7, 2013
Page - 5

- b. The applicant should confirm the correct lot numbers are referenced on the plan set. We note the cover references Lot 159, whereas the rest of the plan set makes references to Lot 59, or Lot 59-1, Lot 59-2, etc. The applicant also varies the numbering scheme from sheet to sheet. For example on the Subdivision Plan the existing developed lot is noted only at Lot 59, whereas on the Sheet 4 of 10 [sic], the existing site is labeled Lot 1, changing each of the lot number suffixes.

Please feel free to call if you have any questions.

Very truly yours,

Handwritten signature of Heidi J. Marshall in cursive.

Heidi J. Marshall, P.E.

Handwritten signature of Paul Konieczka in cursive.

Paul Konieczka, AICP

HJM/PK:lk

Enclosure

cc: Town of Hudson Engineering Division – File
RJB Engineering, LLC
15 Pleasant St, Suite 5
Concord, NH 03301
Phone (603) 219-0194



340 Commercial Street Manchester, NH 03101
(603) 668-8223 • Fax: (603) 668-8802
cld@cldentengineers.com • www.cldengineers.com
New Hampshire • Vermont • Maine

TO: File
FROM: Kelsey M. Gagnon *KMG*
DATE: May 7, 2013
RE: Town of Hudson Planning Board Review
Ledge Road Subdivision, 63 Derry Street/Ledge Road
Tax Map 165, Lot 159; PO #1350-821
CLD Reference No. 03-0249.1260

The following list itemizes the documents reviewed related to the Ledge Road Subdivision Plan review comments.

- Various emails between Town of Hudson and CLD, from April 29, 2013 to May 6, 2013.
- Letter from the Town of Hudson to CLD, dated April 22, 2013 and received April 24, 2013, including the following:
 1. Copy of *Description of the Project*, dated April 6, 2013.
 2. Copy of *Subdivision Plan Application for Plan Review, Town of Hudson, New Hampshire*, not dated.
 3. *Stormwater Management Report, Proposed Residential Subdivision*, prepared by Greenscape Property & Building, LLC, dated April 5, 2013, including the following:
 - a. *Pre-development Drain Areas Plan*, Sheet 1 of 1, dated April 5, 2013.
 - b. *Post-development Drain Areas Plan*, Sheet 1 of 1, dated April 5, 2013.
 4. Copy of *Proposed Residential Development, Map 165; Lot 159, 63 Derry Street, Hudson, New Hampshire*, prepared by RJB Engineering, LLC, dated April 5, 2013, including the following:
 - a. *Cover Sheet*.
 - b. *Recordable Subdivision Plan*, Sheet 2 of 11.
 - c. *Topographic Subdivision Plan*, Sheet 3 of 11.
 - d. *Roadway Plan and Profile*, Sheet 4 of 10[sic].
 - e. *Sight Distance Plan and Profile*, Sheet 5 of 10[sic].
 - f. *Erosion Control Details*, Sheet 6 of 11.
 - g. *Erosion Control Notes*, Sheet 7 of 11.
 - h. *Construction Details*, Sheets 8 through 9 of 11.
 - i. *Water System Details*, Sheet 10 of 11.
 - j. *Sewer System Details*, Sheet 11 of 11.

KMG:lk

cc: John Cashell -- Town of Hudson Planner
Town of Hudson Engineering Division -- File

APPLICATION FOR SUBDIVISION PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Ledge Road Subdivision
Town of Hudson
CLD Reference No. 03-0249.1260
Reviewed May 7, 2013

Twenty one (21) days prior to Planning Board Meeting, a complete subdivision plan to include all supporting materials/documents must be submitted in final form. The subdivision plan shall comply with the following specifications/requirements:

Applicant
Initials

Staff
Initials

a) Submission of eight (8) full sets of Site Plans (sheet size: 22" x 34") shall be submitted at the time of application filing, followed by the submission of seventeen (17) 11" X 17" plan sets (revised if applicable) to the Community Development Department no later than 10:00 A.M. Tuesday the week prior to the scheduled public hearing/conceptual review date.

b) Seventeen (17) subdivision narrative, describing the project.

c) Plan scale at not less than one inch equals fifty feet (example: 1" = 50' acceptable).

d) Locus plan with 1,000 minimum radius of site to surrounding area.

e) Plan dated by day/month/year.

f) Revision block.

g) Planning Board approval block.

h) Title of project inscribed on plan.

i) Name(s) and address of property owner(s) and signature(s) shall be inscribed on plan.

j) North point shall be inscribed on plan.

k) Property lines, exact locations and dimensions.

l) Acreage/sq. ft. of entire subdivision.

m) Proposed lots, with lot numbers and area of each lot. Note: each proposed lot shall be listed on the plan, in chart form, indicating in square feet/acreage the total lot area, wetland, slope area greater than 25% and total net contiguous useable upland area.

CLD/KMG

CLD/KMG

CLD/KMG

CLD/KMG

CLD/KMG

CLD/KMG

CLD/KMG

CLD/KMG

b) One subdivision narrative was received for review.

c) Scale is at 1" = 40'.

e) Plan date by month/day/year.

i) Owners name is shown on the plan set, however no signature is inscribed.

m) The applicant should coordinate the lot numbers. The cover sheet states Lot 159 whereas the plans show Lot 59 and proposed Lot 59-1, Lot 59-2, etc. Also, the use of Lot 59-1, Lot 59-2, etc. varies by sheet (Lot 59-1 is not the same lot on all sheets.)

Applicant
Initials

Staff
Initials

o) Certified list of names and addresses of bordering abutters, shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on plan.

CLD/KMG

n) Unable to verify the date of most recent update.

p) Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve area, floodways/ floodplains, driveways, travel areas, parking areas, natural features within 200 feet of the tract.

CLD/KMG

q) Locations of existing and proposed permanent monuments and bench marks within 200 feet of the tract.

CLD/KMG

r) Pertinent highway projects.

CLD/KMG

o) No highway projects noted.

s) Assessor map and lot number.

CLD/KMG

s) No waiver requests noted on the plan set or received for review.

t) Waiver application form shall be submitted with subdivision application, note on plan listing waivers requested/granted; and all waivers granted to the subdivision regulations shall be listed on the final plan.

CLD/KMG

t) Zoning noted on plan; not delineated.

u) Delinear zoning.

CLD/KMG

v) Storm water drainage plan.

CLD/KMG

w) Topographical contours at 2-foot intervals existing and proposed.

w) No underground or overhead utilities (electric and communication) connections to the individual houses are depicted.
x) No wetlands shown. Buildable Area Table implies wetlands on-site.

x) Utilities: existing and proposed.

CLD/KMG

y) Building and wetland setback lines.

CLD/KMG

z) Rights of way, existing and proposed.

CLD/KMG

aa) Location of dedicated recreational public use land(s) proposed.

ab) Detailed designs of bridges and culverts.

ac) Typical roadway cross-section, road profile, stationing and curve data, etc.

Applicant
Initials

Staff
Initials

___ acj) Proposed location of water supply and sewage disposal systems, including perc test data, test pit logs and locations; wells, (proposed and existing) 75' protective well radii and attached copies of any required well protection easements.

CLD/KMG

___ adj) All notes from plats.

CLD/KMG

___ aej) Buffers as required by subdivision regulations.

CLD/KMG

___ ajj) Soil types and boundaries, Note: If site contains marginal or questionable soils, a High Intensity Soil Survey (HISS) may be deemed necessary to submit as part of the application. Said HISS, if required, shall be performed by a State of New Hampshire Certified Soil Scientist, who shall affix his/her stamp and signature shall be inscribed on the plan.

CLD/KMG

ajj) Regulation was repealed in 2010. Soil types indicated, no HISS was provided.

___ agj) Wetlands (and poorly-drained and very poorly-drained soils, also identified as Class 5 and Class 6 High Intensity Soil Survey (HISS) soils), and permanent and seasonal wetlands shall be identified on the plan by a New Hampshire certified wetland or soil scientist, who shall affix his/her stamp and signature to the respective plan.

CLD/KMG

agj) Plan notes no wetlands on site; however Buildable Area Table should be corrected.

___ ahj) Easements, existing and proposed.

CLD/KMG

___ aij) State of New Hampshire Engineer's seal and signature. Surveyor's seal and signature.



aij) Engineer seal and signature was not provided on all detail sheets.

___ aij) Error of closure (1 in 10,000 or better).

CLD/KMG

___ akj) Drafting errors/omissions.

CLD/KMG

___ alj) Note outlining phasing schedule.

CLD/KMG

___ amj) Narrative description stating the purpose, location, long range plans impacts on traffic, schools, and utilities.

CLD/KMG

amj) None received for review.

___ anj) Aerial photograph of site and area within 200 feet of the subdivision parcel.

___ aoj) Fiscal impact study.



aoj) Not received.

Applicant Initials

ap) Traffic study.

aq) Drainage calculations and supporting data.

ar) Copies of any proposed or existing easements, covenants, deed restrictions, right of way agreements or other similar documents.

as) Copy of applicable Town, State, Federal approval/permits to include but not limited to the following:

- sewer applications
- flood plain permit
- wetlands special exception
- variance
- erosion control permit (149:8a)
- W/SPCC subdivision approval (septic)
- dredge and fill permit
- curb cut/driveway permit
- shoreline protection certification in accordance with RSM483-B.
- if applicable, review application with Lower Merrimack River Local Advisory Committee (LMRLAC) and attach LMRLAC project comments hereto.

Staff Initials
W. Miller

ap) Not received.

CLD/KMG

aq) Not received.

KL

as) No permit or permit applications received for review.

✓

at) Off-site agreement(s).

au) Presentation plan (colored, with color coded bar chart).

av) Fees paid to clerk.

aw) Plans that include relocation of lot lines shall clearly delineate the former (old) lot lines from proposed (new) lot lines.

at) Not received.

au) Requires Town action.

av) Requires Town action.

n/a
KL
CLD/KMG

• Any and all items may be waived under the purview of the Planning Board.

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**



Date of Application: _____ Tax Map # 165 Lot # 159
Name of Project: 63 Derry Street / Ledge Rd Sub.
Zoning District: _____ General SB# 04-13
(For Town Use) (For Town Use)

C

ZBA Action: _____

PROPERTY OWNER:

Name: Nellie D. Lindsay Rev. Trust
Address: 14 Beaver Brook Drive
Address: Merrimack NH 03054
Telephone # _____
Fax # _____
Email: _____

DEVELOPER:

Greenscape Property & Building, LLC
66 Gilcrest Rd
Londonderry NH 03053
603-425-2200
603-425-7861
JNaughton@InnovativeRealtyTeam.com

PROJECT ENGINEER

Name: RJB Engineering, LLC
Address: 15 Pleasant St. Suite 5
Address: Concord NH 03301

Telephone # 603-219-0194
Fax # NA
Email: Jburd91@Comcast.net

PURPOSE OF PLAN:

To subdivide the 2.48 Acre subject property into
seven single-family residential lots.

(FOR TOWN USE)

Plan Routing Date: 4-22-13 Sub/Site Date: 5-7-13 @ 10:00 AM

I have no comments I have comments (attach to form)

MAO Title: Z.A. LOTS MEET TR REQUIRE Date: 4/23/13
(Initials)

DEPT: Zoning Engineering Assessor Police Fire Planning
Consultant Highway Department

Fees Paid _____

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**



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PROPERTY OWNER:
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Address: 14 Beaver Brook Drive
Address: Merrimack NH 03054
Telephone # _____
Fax # _____
Email: _____

DEVELOPER:
Greenscape Property & Building, LLC
66 Gilcrest Rd
Londonderry NH 03053
603-425-2200
603-425-7861
JNaughton@InnovativeRealtyTeam.com

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(Initials) Jm Title: Asst. Assessor Date: 4-23-13

DEPT: _____

Zoning Engineering Assessor Police Fire Planning
 Consultant Highway Department

Fees Paid _____

** Am in agreement with suggested map/lot #'s submitted on*
Page 3 of 16
Rev: Feb. 2013
Jm



**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

Date of Application: _____ Tax Map # 165 Lot # 159

Name of Project: 63 Derry Street / Ledge Rd Sub.

Zoning District: _____ General SB# 04-13
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

Name: Nellie D. Lindsay Rev. Trust

Address: 14 Beaver Brook Drive

Address: Merrimack NH 03054

Telephone # _____

Fax # _____

Email: _____

DEVELOPER:

Greenscape Property & Building, LLC

66 Gilcrest Rd

Londonderry NH 03053

603-425-2200

603-425-7861

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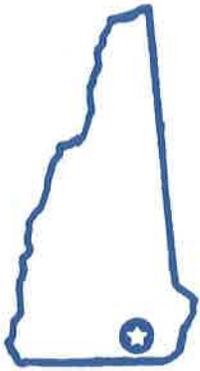
I have no comments I have comments (attach to form)

RB Title: ROAD AGENT Date: 4/24/13
(Initials)

DEPT:

Zoning Engineering Assessor Police Fire Planning
 Consultant Highway Department

Fees Paid _____



TOWN OF HUDSON

Highway Department

2 Constitution Drive Hudson, New Hampshire 03051 603/886-6018 Fax 603/594-1143



To: John Cashell, Town Planner
From: Kevin Burns, Road Agent *KB*
Date: April 24, 2013
Re: 63 Derry Street/Ledge Road Sub Division, 04-13



I have reviewed the sub division plans and make the following suggestions for changes.

1. DMH 4 is planned to be in the grass strip between the sidewalk and curbing. This structure should be moved to the curb line and made a catch basin.
2. The sewer services to lot 3 and 6 are under the driveway which would place the clean out at the property line in the driveway. Sewer clean outs in the driveway are often damaged or buried. The Highway Department needs access in case of a plugged sewer. We don't want to have to jack hammer driveways to access them. Sewer lines, and water lines, should not be under the driveways if possible to save the future home owners and/or the town great expense for repairs and replacement.
3. Stop bar and crosswalk should be eliminated. The town does not add or maintain crosswalks or stop bars on small residential dead end streets.
4. "Dead end" street sign should be installed at the entrance of the street.

**SUBDIVISION PLAN APPLICATION FOR PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**



Date of Application: _____ Tax Map # 165 Lot # 159
Name of Project: 63 Derry Street / Ledge Rd Sub.
Zoning District: _____ General SB# 04-13
(For Town Use) (For Town Use)
ZBA Action: _____

PROPERTY OWNER:

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603-425-2200
603-425-7861
JNaughton@InnovativeRealtyTeam.com

PROJECT ENGINEER

Name: RJB Engineering, LLC
Address: 15 Pleasant St. Suite 5
Address: Concord NH 03301

Telephone # 603-219-0194
Fax # NA
Email: Jburd91@Comcast.net

PURPOSE OF PLAN:

To subdivide the 2.48 Acre subject property into seven single-family residential lots.

(FOR TOWN USE)

Plan Routing Date: 4-22-13 Sub/Site Date: 5-7-13 @ 10:00 Am

I have no comments I have comments (attach to form)

IOB Title: Deputy Fire Chief Date: _____
(Initials)

DEPT: _____ Zoning _____ Engineering _____ Assessor _____ Police Fire _____ Planning _____
_____ Consultant _____ Highway Department _____

Fees Paid _____

RECEIVED
APR 23 2013

BY:



HUDSON FIRE DEPARTMENT

Deputy Fire Chief

John O'Brien



To: Town of Hudson N.H
Planning Board

Subj: Proposed Residential Development Ledge Rd Sub Division
Map 165;Lot 159

Att: John Cashell Town Planner

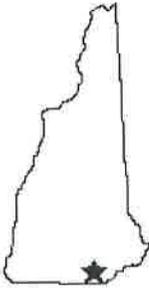
The Fire Department has reviewed the subject subdivision plan . The purpose of this review is to insure compliance with the State of New Hampshire Fire Code and The Town of Hudson Fire Prevention Code.

The proposed subdivision shall meet the requirements of NFPA-1 Uniform Fire Code,2009 Edition and NFPA-1141, Standard for Fire Protection in Planned Building Groups,2008 Edition As well as all other codes and standards that may apply.

- 1) Addressing is required to be approved by by The Fire Prevention Division upon approval Signature , and recorded.
- 2) NFPA-1 Annex H.5.1 – requires a minimum fire flow of 1000 GPM. This would be for the hydrant at the end of the cul-de-sac.
- 3) NFPA 1141 section 9.2.6 specifically states “ Fire Hydrants shall be supplied by not less than 6 inch main installed in a **looped system** or by **NOT LESS THAN** 8 inch main on a dead end main exceeding 300 feet in length.

If I can be of further assistance please call at 886-6021 or email jobrien@hudsonnh.gov

Deputy Fire Chief John J. O'Brien
Hudson Fire Prevention Bureau



TOWN OF HUDSON

Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-816-1291

INTEROFFICE MEMORANDUM

TO: John Cashell, Town Planner
Planning Board

FROM: Patrick Colburn, P.E. - Town Engineer 

DATE: April 25, 2013

RE: Proposed Residential Development
Map 165; Lot 159



The Engineering Department has reviewed the subject Subdivision Plan and offers the following comments:

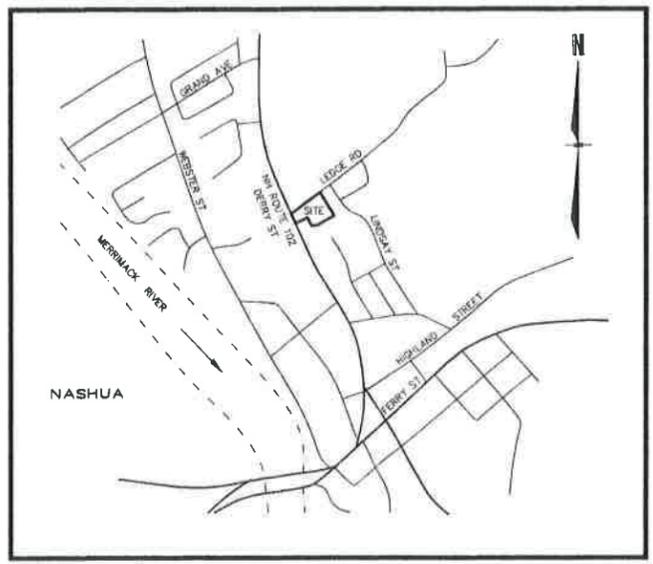
1. It appears that the water main under Ledge Road is 6" in diameter. I have forwarded the subject plan set to Pennichuck Water Works for their review relative to adequate water service for the development, and will forward their remarks upon receipt;
2. The project will be subject to a request for additional sewer allocation. The applicant is encouraged to visit the Engineering Department early-on in the process to get the allocation request started and to review applicable allocation and connection fees;
3. We ask that the applicant provide the data associated with the test pit shown on sheet 4 of 10 adjacent to the proposed infiltration pond;
4. The applicant shall provide the Town with a draft Drainage Easement document for review and approval prior to recording;
5. The applicant shall add notes to the plan requiring compliance with the USEPA NPDES Phase II requirements for a Stormwater Pollution Prevention Plan and Notices of Intent.
6. The applicant shall depict limits of saw cutting along Ledge Road associated with construction of proposed granite curbing and installation of utility connections. As well, the applicant shall provide a construction detail for trench patches along Ledge Road. The Road Agent should confirm the limits of work following trench patching are satisfactory to the Highway Department; and
7. The Engineering Department did not receive a drainage report with this submittal. We assume the Town's consultant review engineer will review the drainage calculation for compliance with Town requirements.

Please feel free to call with any questions regarding the content of this brief memorandum.

PROPOSED RESIDENTIAL DEVELOPMENT MAP 165, LOT 159 63 DERRY STREET - HUDSON, NH

SYMBOLS LEGEND

EXISTING	PROPOSED
--- SETBACK LINE	--- SILT FENCE
--- EDGE OF PAVEMENT	⊙ CATCH BASIN
⊙ TEST PIT	--- P7 DRAIN LINE
--- 2' CONTOUR INTERVAL	● DRAIN MANHOLE
--- 10' CONTOUR INTERVAL	--- RUN-OFF FLOW DIRECTION
● IRON ROD FOUND	--- F122 PROPOSED GRADE CONTOUR
● BOUND FOUND	--- STONE CHECK DAM
● UTILITY POLE	⊙ BENCHMARK
● SEWER MANHOLE	▽ HANDICAP RAMP AT STREET CORNER
● DRAIN MANHOLE	--- PROPOSED CURB
○ CATCH BASIN	--- EXISTING PAVEMENT
--- OH OVERHEAD WIRE	--- PROPOSED CURB
--- D DRAIN LINE	--- PROPOSED PAVEMENT
--- W WATER LINE	--- SPOT GRADE
--- S SEWER LINE	--- RIP-RAP STONE
--- HYDRANT	--- PAVED SIDEWALK
--- WATER VALVE	--- INFILTRATION BASIN BERM
--- GAS VALVE	--- CHECKDAM (INFILTRATION BASIN)
	--- RIP RAP OUTLET APRON
	--- W WATER LINE
	--- S SEWER LINE



LOCUS MAP
NOT TO SCALE

OWNER:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLY D. LINDSAY, TRUSTEE

PREPARED FOR:
GREENSCAPE PROPERTY & BUILDING
88 GILCREAST ROAD
LONDONDERRY, NH 03053

SHEET INDEX

- 1 TITLE SHEET
- 2 OVERVIEW PLAN
- 3 RECORDABLE SUBDIVISION PLAN
- 4 TOPOGRAPHIC SUBDIVISION PLAN
- 5 ROADWAY PLAN AND PROFILE
- 6 ROADWAY GENERAL PLAN
- 7 EROSION CONTROL DETAILS
- 8 EROSION CONTROL NOTES
- 9 CONSTRUCTION DETAILS
- 10 CONSTRUCTION DETAILS
- 11 WATER SYSTEM DETAILS
- 12 SEWER SYSTEM DETAILS
- 13 ROADWAY CROSS SECTIONS

THE LOCATION OF ANY UTILITY INFORMATION SHOWN IN THIS PLANSET IS APPROXIMATE. RJB ENGINEERING, LLC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY UTILITIES WHETHER THEY BE ABOVE OR BELOW GROUND. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1-800-DIG-SAFE.



APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

CHAIRPERSON _____ DATE _____

SECRETARY _____ DATE _____

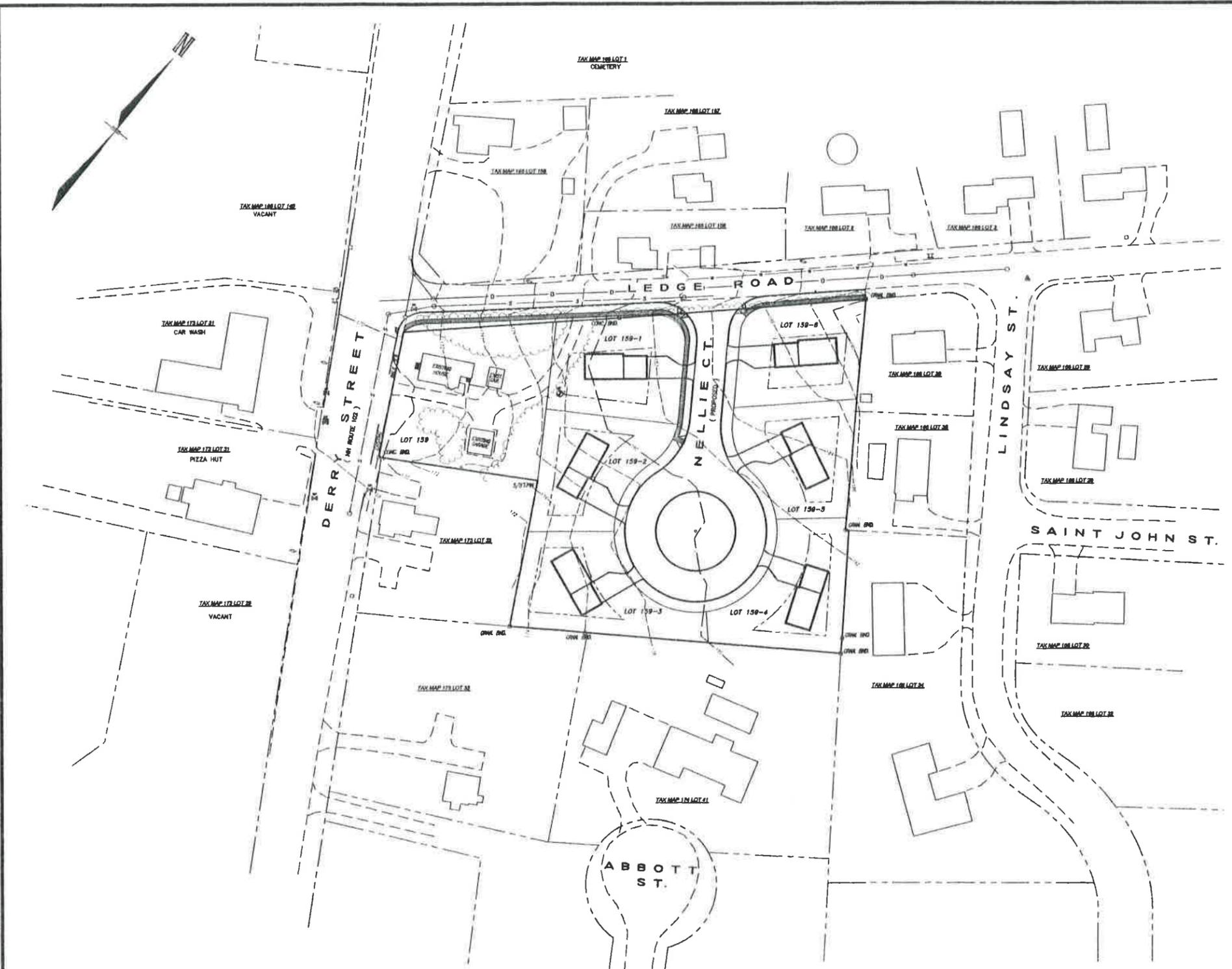
SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE RSA 874:39.

THIS PLANSET CONTAINS A TOTAL OF 13 SHEETS
SHEET 3 IS TO BE RECORDED AT THE H.C.R.D.
THE REMAINDER ARE ON FILE AT TOWN OF HUDSON

NO.	DESCRIPTION	DATE
1	REVISIONS PER TOWN REVIEW - ADDED SHEETS 2 & 13	05/14/2013

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH. 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH. 603-647-4282



- ABUTTERS**
- TAX MAP 165 LOT 156**
MARIO & DENYSE PLANTE, TRUSTEES
9 OLD DERRY ROAD
HUDSON, NH 03061
V. 7107 P. 1196
 - TAX MAP 165 LOT 158**
CARYN M. NOONAN
8 LEDGE ROAD
HUDSON, NH 03061
V. 6630 P. 174
 - TAX MAP 166 LOT 2**
FRED F. & PATRICIA M. BURKE
12 LEDGE ROAD
HUDSON, NH 03061
V. 7644 P. 2099
 - TAX MAP 166 LOT 30**
JANICE ALTMAN & BETTY M. ALTMAN
18 LEDGE ROAD
HUDSON, NH 03061
V. 7772 P. 259
 - TAX MAP 166 LOT 30**
GERALD R. & DENISE J. DESMARAIS
3 LINDSAY STREET
HUDSON, NH 03061
V. 7007 P. 1698
 - TAX MAP 166 LOT 34**
ALVIN H. & BETTY A. RODGERS
48 GALEMONT ROAD
WINDHAM, NH 03087
V. 2781 P. 233
 - TAX MAP 174 LOT 41**
STEVEN F. & LEE ANN MIDDLEMISS
22 ABBOTT STREET
HUDSON, NH 03061
V. 5343 P. 906
 - TAX MAP 173 LOT 33**
ELIZABETH G. CENTER HEIRB
C/O BARBARA MANN
8716 FALKSTONE LANE
ALEXANDRIA, VA 22309
V. 1776 P. 204
 - TAX MAP 173 LOT 32**
DAVID M. & ELAINE B. RUGH
84 ENGLISH RANGE ROAD
DERRY, NH 03036
V. 8865 P. 2866
 - TAX MAP 173 LOT 31**
CAPITAL PIZZA OF NEW HAMPSHIRE
3448 N. WEBBS
WICHITA, KS 67200
V. 6792 P. 2076
 - TAX MAP 173 LOT 31**
DERRY STREET LLC
115 FIELDSTONE LANE
ATKINSON, NH 03811
V. 7774 P. 1030
- ADDITIONAL ABUTTERS WITHIN 200'**
- TAX MAP 165 LOT 1**
ST. PATRICK'S CEMETERY
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03061
 - TAX MAP 165 LOT 197**
ANDREW C. CORMIER
8 LEDGE ROAD
HUDSON, NH 03061
 - TAX MAP 166 LOT 3**
DANIEL & TRIBIAH MURPHY
14 LEDGE ROAD
HUDSON, NH 03061
 - TAX MAP 166 LOT 4**
PAUL L. & SANDRA J. CHAPMAN
16 LEDGE ROAD
HUDSON, NH 03061
 - TAX MAP 166 LOT 28**
STEPHEN R. GANNON
17 LEDGE ROAD
HUDSON, NH 03061
 - TAX MAP 166 LOT 29**
KAREN & SCOTT A. SMITH
4 LINDSAY STREET
HUDSON, NH 03061
 - TAX MAP 166 LOT 30**
ROBERT H. & LYDIA L. HAEFNER
1 ST. JOHN STREET
HUDSON, NH 03061
 - TAX MAP 166 LOT 31**
ERVIN EICHENWALD, TR & ESTHER WAISMAN, TR
11 WHITMAN ROAD
NASHUA, NH 03082
 - TAX MAP 173 LOT 29**
STEVE B. PAN & HWA A. HSIANG
13 KING HENRY DRIVE
LONDONDERRY, NH 03063
 - TAX MAP 174 LOT 42**
DANIEL & JEAN M. HAYES
19 ABBOTT STREET
HUDSON, NH 03061
 - TAX MAP 174 LOT 40**
BARRY KAPLAN
16 ABBOTT STREET
HUDSON, NH 03061

REV	DESCRIPTION	DATE
1	REVISIONS PER TOWN REVIEW - ADDED THIS SHEET	06/04/13

OVERVIEW PLAN
MAP 165, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013

SCALE: 1"=50' (H) 5'(V)

PREPARED BY:
RJB ENGINEERING, LLC
 15 PLEASANT ST, SUITE 5
 CONCORD, NH 03301
 PH. 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, L.L.C. INC.
 802 AMHERST STREET
 MANCHESTER, NH 03104
 PH. 603-647-4282

SHEET: 2 of 13

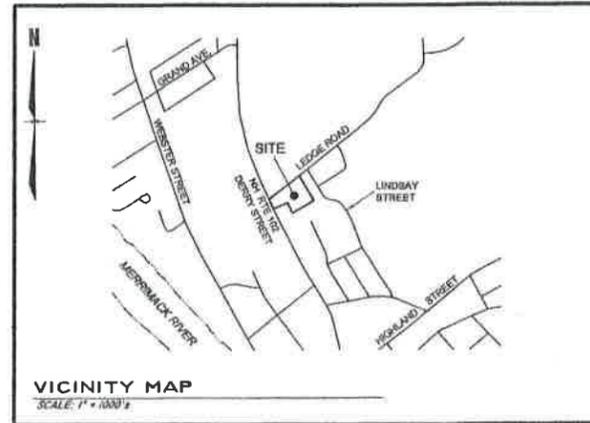
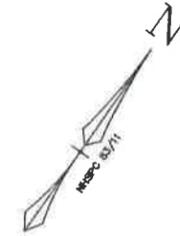


PLAN REFERENCES:

- 1.) PROPOSED HOUSE LOT LAYOUT OF A. CHARLES & NELLIE G. LINDSAY, HUDSON, N.H. DATED 1957 BY G.R. HYDE, EXTERNAL BOUNDARY AND COPIED BY GOODWIN & KING. SEE H.C.R.D. PLANS 1957 & 292.
- 2.) "EASEMENT PLAN MAP 55/ LOTS 28 & 29, 5 & 8 LEDGE ROAD, HUDSON, NEW HAMPSHIRE, PREPARED FOR JOANNE L. KENNA, 25 DAHL ROAD, MERRIMACK, NH AND JOHN J. & CARYN M. MASTROGIACOMO" DATED JUNE 23, 1997 BY MAYNARD & PAQUETTE, INC. SEE H.C.R.D. PLAN 29277.
- 3.) "SUBDIVISION PLAN MAP 55/ LOT 29, MASTROGIACOMO SUBDIVISION, 8 LEDGE ROAD, HUDSON, NEW HAMPSHIRE, PREPARED FOR JOHN J. & CARYN M. MASTROGIACOMO" DATED FEBRUARY 9, 2002 AND LAST REVISED ON 4-8-02 BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC. SEE H.C.R.D. PLAN 31711.
- 4.) "SUBDIVISION PLAN LINDSAY STREET, HUDSON, N.H. FOR ANTHONY & NELLIE LINDSAY - OWNERS, NORMAN LAPLANTE - OPTION HOLDER" DATED JUNE 1979 AND LAST REVISED ON 9-30 BY A.E. MAYNARD CIVIL ENGINEER. SEE H.C.R.D. PLAN 13558.
- 5.) "CONSOLIDATION & SUBDIVISION PLAN DERRY STREET, HUDSON, N.H. FOR EARL BURTON, CUTLER ROAD, HUDSON, N.H." DATED JUNE 1978 AND PREPARED BY A.E. MAYNARD CIVIL ENGINEER. SEE H.C.R.D. PLAN 11484.
- 6.) "SUBDIVISION PLAN OF WILLIAM ABBOTT, DERRY STREET, HUDSON, N.H." DATED FEBRUARY 1966 AND PREPARED BY A.E. MAYNARD. SEE H.C.R.D. PLAN 3278.
- 7.) "PLAN OF LAND OF D. EUGENE & MARGARET CENTER, HUDSON, N.H." DATED SEPTEMBER 1945 AND PREPARED BY NED SPAULDING. SEE H.C.R.D. PLAN 743.



LOT #	LOT AREA	AREA > 25%	WETLAND AREA	BUILDABLE AREA
158	19,048 SF	0 SF	0 SF	19,048 SF
159-1	10,979 SF	0 SF	0 SF	10,979 SF
159-2	10,370 SF	0 SF	0 SF	10,370 SF
159-3	11,480 SF	0 SF	0 SF	11,480 SF
159-4	10,865 SF	0 SF	0 SF	10,865 SF
159-5	10,089 SF	80 SF	0 SF	10,029 SF
159-6	10,307 SF	0 SF	0 SF	10,307 SF

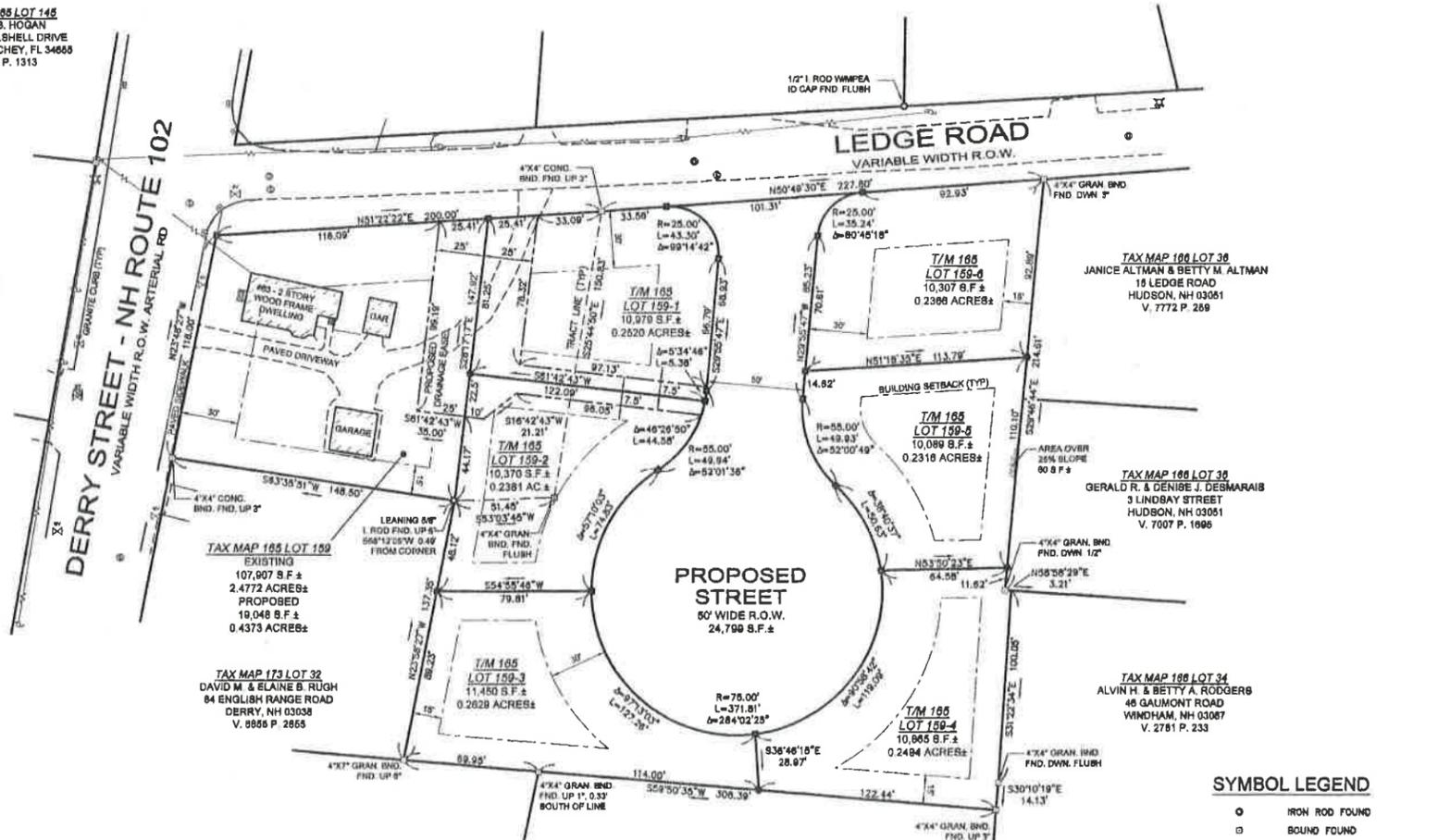


NOTES:

- 1.) THE SUBJECT PARCEL IS LOT 159 ON THE TOWN OF HUDSON TAX MAP 166, THE OWNER OF RECORD IS NELLIE D. LINDSAY, TRUSTEE OF THE NELLIE D. LINDSAY REV. TRUST OF SEPTEMBER 23, 1999 OF 14 BEAVER BROOK DRIVE, MERRIMACK, NEW HAMPSHIRE 03054. SEE HCRD V. 6151 P. 282. THE APPLICANT IS GREENSCAPE PROPERTY AND BUILDING, LLC OF 86 GILCREST ROAD, LONDONDERRY, NEW HAMPSHIRE 03055.
- 2.) THE SUBJECT PARCEL IS ZONED TR. MINIMUM LOT SIZE IS 10,000 SQ. FT. MINIMUM LOT FRONTAGE = 90'. SETBACKS ARE AS FOLLOWS: FRONT = 30', SIDE = 15' AND REAR = 15'. THE SETBACKS SHOWN ARE FOR REFERENCE ONLY AND NEED TO BE VERIFIED WITH THE ZONING COMPLIANCE OFFICER.
- 3.) THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN MARCH & APRIL OF 2013. I, JOSEPH M. WICHERT, NHLS #783, CERTIFY THAT THE WORK WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.
- 4.) THE INTENT OF THIS PLAN IS TO SHOW THE SUBDIVISION OF THE SUBJECT PARCEL INTO 7 RESIDENTIAL BUILDING LOTS (6 NEW LOTS AND THE REMAINDER PARCEL WITH THE EXISTING HOUSE). SEE THE PLAN VIEW FOR DIMENSIONS, DETAILS AND AREAS.
- 5.) THE UTILITY INFORMATION SHOWN IS BASED ON THE ABOVE GROUND LOCATION OF VISIBLE UTILITIES AND INFORMATION FROM THE TOWN OF HUDSON AND VARIOUS UTILITIES. THE CONTRACTOR NEEDS TO FIELD VERIFY ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THIS OFFICE DOES NOT GUARANTEE THE LOCATION AND ACCURACY OF THE UTILITY DATA. DIG SAFE SHALL BE CONTACTED 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION (1-866-344-7233).
- 6.) THE SUBJECT PARCEL IS WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE HILLSBOROUGH COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS) FLOOD INSURANCE RATE MAP, MAP NUMBER 33011C0514E, MAP REVISED APRIL 18, 2011.
- 7.) TOPOGRAPHY SHOWN ON THIS PLAN IS BASED ON FIELD SURVEY PERFORMED BY THIS OFFICE IN MARCH OF 2013. THE DATUM IS NAVD 1988 AS ESTABLISHED BY ON SITE BATIC GPS OBSERVATIONS.
- 8.) THIS PLAN IS PART OF AN 11 SHEET PLAN SET. SHEET 2 OF 11 IS TO BE RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. ALL THE OTHER SHEETS WILL BE KEPT ON FILE AT THE HUDSON PLANNING DEPARTMENT.
- 9.) A C.A.P. FEE OF \$_____ SUBJECT TO THE ANNUAL INFLATION INDEXING, AS PERMITTED BY THE IMPACT FEE METHODOLOGY, SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- 10.) A PUBLIC SCHOOL IMPACT FEE OF \$3578.00 SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR EACH RESIDENCE.
- 11.) A RECREATION CONTRIBUTION OF \$400.00 SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH RESIDENCE.
- 12.) NHDES SEWER CONNECTION PERMIT # - PENDING.

ADDITIONAL ABUTTERS WITHIN 200'

- TAX MAP 166 LOT 1**
ST. PATRICK'S CEMETERY
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051
- TAX MAP 166 LOT 157**
ANDREW C. CORMIER
8 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 166 LOT 3**
DANIEL & TRIBAH MURPHY
14 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 166 LOT 4**
PAUL L. & SANDRA J. CHAPMAN
16 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 166 LOT 28**
STEPHEN R. GANNON
17 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 166 LOT 29**
KAREN & SCOTT A. SMITH
4 LINDSAY STREET
HUDSON, NH 03051
- TAX MAP 166 LOT 30**
ROBERT H. & LYDIA L. HAEFNER
1 ST. JOHN STREET
HUDSON, NH 03051
- TAX MAP 166 LOT 31**
ERVIN EICHENWALD, TR & ESTHER WAISMAN, TR
11 WHITMAN ROAD
NASHUA, NH 03082
- TAX MAP 173 LOT 28**
STEVE S. PAN & HWA A. HSIANG
13 KING HENRY DRIVE
LONDONDERRY, NH 03063
- TAX MAP 174 LOT 42**
DANIEL & JEAN M. HAYES
19 ABBOTT STREET
HUDSON, NH 03051
- TAX MAP 174 LOT 40**
BARRY KAPLAN
18 ABBOTT STREET
HUDSON, NH 03051
- TAX MAP 166 LOT 148**
SHAWN B. HOGAN
4729 MUSSELSHELL DRIVE
NEW PORT RICHEY, FL 34665
V. 7562 P. 1313
- TAX MAP 173 LOT 31**
DERRY STREET LLC
116 FIELDSTONE LANE
ATKINSON, NH 03811
V. 7774 P. 1030
- TAX MAP 165 LOT 159**
EXISTING
107,907 S.F. ±
2.4772 ACRES ±
PROPOSED
19,048 S.F. ±
0.4373 ACRES ±
- TAX MAP 173 LOT 32**
DAVID M. & ELAINE B. RUGH
84 ENGLISH RANGE ROAD
DERRY, NH 03058
V. 8856 P. 2855
- TAX MAP 173 LOT 33**
ELIZABETH G. CENTER HEIRS
C/O BARBARA MANN
8716 FALKSTONE LANE
ALEXANDRIA, VA 22309
V. 1775 P. 204
- TAX MAP 174 LOT 41**
STEVEN F. & LEE ANN MIDDLEMBR
22 ABBOTT STREET
HUDSON, NH 03051
V. 6343 P. 808
- TAX MAP 166 LOT 2**
FRED F. & PATRICIA M. BURKE
12 LEDGE ROAD
HUDSON, NH 03051
V. 7544 P. 2099
- TAX MAP 166 LOT 38**
JANICE ALTMAN & BETTY M. ALTMAN
18 LEDGE ROAD
HUDSON, NH 03051
V. 7772 P. 259
- TAX MAP 166 LOT 39**
GERALD R. & DENISE J. DESMARAIS
3 LINDSAY STREET
HUDSON, NH 03051
V. 7007 P. 1996
- TAX MAP 166 LOT 34**
ALVIN H. & BETTY A. RODGERS
48 GAIMONT ROAD
WINDHAM, NH 03087
V. 2781 P. 233



OWNER'S SIGNATURE:

THE NELLIE D. LINDSAY REV. TRUST OF SEPTEMBER 23, 1999

APPLICANT'S SIGNATURE:

GREENSCAPE PROPERTY AND BUILDING, LLC

WAIVERS REQUESTED
1.) HTC-286-BD: TRAFFIC STUDY
2.) HTC-286-BD: FISCAL IMPACT STUDY

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

CHAIRPERSON	SIGNATURE	DATE
SECRETARY <td>SIGNATURE DATE <td></td> </td>	SIGNATURE DATE <td></td>	

SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS AND CHANGES TO THE ZONING ORDINANCE. SEE NH RSA 874:39

I CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE WITH A TOPCON GPT 3103V. THE ERROR OF CLOSURE ON ALL LOT LINES WITHIN AND BORDERING THE SUBJECT PROPERTY IS BETTER THAN 1 IN 10,000

JOSEPH M. WICHERT, NHLS #783
DATE: 17 MAY 2013

SYMBOL LEGEND

- IRON ROD FOUND
- BOUND FOUND
- IRON ROD W/D CAP TO BE SET
- GRANITE BOUND W/DISK TO BE SET
- UTILITY POLE
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- OVERHEAD WIRE
- WATER LINE
- SEWER LINE
- HYDRANT
- WATER VALVE
- GAS VALVE

No.	DESCRIPTION	DATE
1	REVISED PER TOWN COMMENTS	05/04/13

RECORDABLE SUBDIVISION PLAN
TAX MAP 166, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 6, 2013

SCALE: 1"=40'

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH: 603-647-4282
PCL: 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH: 603-647-4282
JOB #2013113

HUDSON COMMUNITY DEVELOPMENT
JUN 06 2013

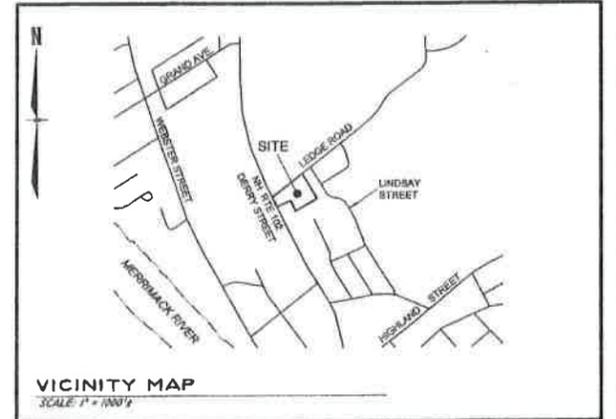
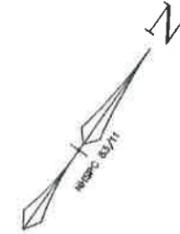
SHEET: 3 of 13

PLAN REFERENCES:

- 1) PROPOSED HOUSE LOT LAYOUT OF A. CHARLES & NELLIE G. LINDSAY, HUDSON, N.H. DATED 1987 BY G.R. HYDE, EXTERNAL BOUNDARY BY NED SPAULDING AND COPIED BY GOODWIN & KING, SEE H.C.R.D. PLANS 1687 & 2602.
- 2) "EASEMENT PLAN MAP 55/ LOTS 28 & 29, 6 & 8 LEDGE ROAD, HUDSON, NEW HAMPSHIRE, PREPARED FOR JOANNE L. KENNA, 25 DAHL ROAD, MERRIMACK, NH AND JOHN J. & CARYN M. MASTROGIACOMO" DATED JUNE 23, 1987 BY MAYNARD & PAQUETTE, INC. SEE H.C.R.D. PLAN 20277.
- 3) "SUBDIVISION PLAN MAP 55/ LOT 29, MASTROGIACOMO SUBDIVISION, 6 LEDGE ROAD, HUDSON, NEW HAMPSHIRE, PREPARED FOR JOHN J. & CARYN M. MASTROGIACOMO" DATED FEBRUARY 6, 2002 AND LAST REVISED ON 4-8-02 BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC. SEE H.C.R.D. PLAN 31711.
- 4) "SUBDIVISION PLAN LINDSAY STREET, HUDSON, N.H. FOR ANTHONY & NELLIE LINDSAY - OWNERS, NORMAN LAPLANTE - OPTION HOLDER" DATED JUNE 1979 AND LAST REVISED ON 9-30 BY A.E. MAYNARD CIVIL ENGINEER. SEE H.C.R.D. PLAN 13668.
- 5) "CONSOLIDATION & SUBDIVISION PLAN DERRY STREET, HUDSON, N.H. FOR EARL BURTON, CUTLER ROAD, HUDSON, N.H." DATED JUNE 1978 AND PREPARED BY A.E. MAYNARD CIVIL ENGINEER. SEE H.C.R.D. PLAN 11484.
- 6) "SUBDIVISION PLAN OF WILLIAM ABBOTT, DERRY STREET, HUDSON, N.H." DATED FEBRUARY 1995 AND PREPARED BY A.E. MAYNARD. SEE H.C.R.D. PLAN 3278.
- 7) "PLAN OF LAND OF D. EUGENE & MARGARET CENTER, HUDSON, N.H." DATED SEPTEMBER 1946 AND PREPARED BY NED SPAULDING. SEE H.C.R.D. PLAN 743.



LOT #	LOT AREA	AREA > 20%	WETLAND AREA	BUILDABLE AREA
169	10,048 SF	0 SF	0 SF	10,048 SF
150-1	10,070 SF	0 SF	0 SF	10,070 SF
150-2	10,370 SF	0 SF	0 SF	10,370 SF
150-3	11,450 SF	0 SF	0 SF	11,450 SF
150-4	10,865 SF	0 SF	0 SF	10,865 SF
150-5	10,089 SF	80 SF	0 SF	10,009 SF
150-6	10,307 SF	0 SF	0 SF	10,307 SF



NOTES:

- 1) THE SUBJECT PARCEL IS LOT 150 ON THE TOWN OF HUDSON TAX MAP 166. THE OWNER OF RECORD IS NELLIE D. LINDSAY, TRUSTEE OF THE NELLIE D. LINDSAY REV. TRUST OF SEPTEMBER 23, 1999 OF 14 BEAVER BROOK DRIVE, MERRIMACK, NEW HAMPSHIRE 03054. SEE HCRD V. 0161 P. 262. THE APPLICANT IS GREENSCAPE PROPERTY AND BUILDING, LLC OF 66 GILCREST ROAD, LONDONDERRY, NEW HAMPSHIRE 03053.
- 2) THE SUBJECT PARCEL IS ZONED TR. MINIMUM LOT SIZE IS 10,000 SQ. FT. MINIMUM LOT FRONTAGE = 90'. SETBACKS ARE AS FOLLOWS: FRONT = 30', SIDE = 15' AND REAR = 15'. THE SETBACKS SHOWN ARE FOR REFERENCE ONLY AND NEED TO BE VERIFIED WITH THE ZONING COMPLIANCE OFFICER.
- 3) THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE IN MARCH & APRIL OF 2013. I, JOSEPH M. WICHERT, NHLS #783, CERTIFY THAT THE WORK WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION.
- 4) THE INTENT OF THIS PLAN IS TO SHOW THE SUBDIVISION OF THE SUBJECT PARCEL INTO 7 RESIDENTIAL BUILDING LOTS (6 NEW LOTS AND THE REMAINDER PARCEL WITH THE EXISTING HOUSE). SEE THE PLAN VIEW FOR DIMENSIONS, DETAILS AND AREAS.
- 5) THE UTILITY INFORMATION SHOWN IS BASED ON THE ABOVE GROUND LOCATION OF VISIBLE UTILITIES AND INFORMATION FROM THE TOWN OF HUDSON AND VARIOUS UTILITIES. THE CONTRACTOR NEEDS TO FIELD VERIFY ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THIS OFFICE DOES NOT GUARANTEE THE LOCATION AND ACCURACY OF THE UTILITY DATA. DIG SAFE SHOULD BE CONTACTED 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION (1-888-344-7233).
- 6) THE SUBJECT PARCEL IS WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE HILLSBOROUGH COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS) FLOOD INSURANCE RATE MAP, MAP NUMBER 33011C0614E. MAP REVISED APRIL 18, 2011.
- 7) TOPOGRAPHY SHOWN ON THIS PLAN IS BASED ON FIELD SURVEY PERFORMED BY THIS OFFICE IN MARCH OF 2013. THE DATUM IS NAVD 1988 AS ESTABLISHED BY ON SITE STATIC GPS OBSERVATIONS.
- 8) THIS PLAN IS PART OF AN 11 SHEET PLAN SET. SHEET 2 OF 11 IS TO BE RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. ALL THE OTHER SHEETS WILL BE KEPT ON FILE AT THE HUDSON PLANNING DEPARTMENT.
- 9) A C.A.P. FEE OF \$_____ SUBJECT TO THE ANNUAL INFLATION INDEXING, AS PERMITTED BY THE IMPACT FEE METHODOLOGY, SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- 10) A PUBLIC SCHOOL IMPACT FEE OF \$3878.00 SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR EACH RESIDENCE.
- 11) A RECREATION CONTRIBUTION OF \$400.00 SHALL BE PAID TO THE TOWN OF HUDSON PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH RESIDENCE.
- 12) NHDES SEWER CONNECTION PERMIT # - PENDING.

ADDITIONAL ADJUTERS WITHIN 200'

- TAX MAP 165 LOT 1**
ST. PATRICK'S CEMETERY
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051
- TAX MAP 165 LOT 167**
ANDREW C. CORMIER
6 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 165 LOT 3**
DANIEL & TRIBIAN MURPHY
14 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 165 LOT 4**
PAUL L. & SANDRA J. CHAPMAN
18 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 165 LOT 28**
STEPHEN R. OANNON
17 LEDGE ROAD
HUDSON, NH 03051
- TAX MAP 165 LOT 29**
KAREN & SCOTT A. SMITH
4 LINDSAY STREET
HUDSON, NH 03051
- TAX MAP 165 LOT 30**
ROBERT H. & LYDIA L. HAEPNER
1 ST. JOHN STREET
HUDSON, NH 03051
- TAX MAP 165 LOT 31**
ERWIN EICHENHARDT, TR & ESTHER WAINMAN, TR
11 WHITMAN ROAD
NASHUA, NH 03082
- TAX MAP 173 LOT 29**
STEVE B. PAN & HWA A. HSANG
13 KING HENRY DRIVE
LONDONDERRY, NH 03053
- TAX MAP 174 LOT 42**
DANIEL & JEAN M. HAYES
19 ABBOTT STREET
HUDSON, NH 03051
- TAX MAP 174 LOT 40**
BARRY KAPLAN
18 ABBOTT STREET
HUDSON, NH 03051

TAX MAP 165 LOT 140
SHAWN B. HOGAN
4729 MUSSELBELL DRIVE
NEWPORT RICHEY, FL 34065
V. 7562 P. 1313

TAX MAP 173 LOT 31
DERRY STREET LLC
115 FIELDSTONE LANE
ATKINSON, NH 03811
V. 7774 P. 1030

TAX MAP 173 LOT 30
CAPITAL PIZZA OF NEW HAMPSHIRE
3446 N. WEBB
WICHITA, KS 67200
V. 0782 P. 2078

TAX MAP 165 LOT 159
EXISTING
107,907 S.F. ±
2.4772 ACRES ±
PROPOSED
19,048 S.F. ±
0.4373 ACRES ±

TAX MAP 173 LOT 32
DAVID M. & ELAINE S. RUGH
84 ENGLISH RANGE ROAD
DERRY, NH 03058
V. 0850 P. 2685

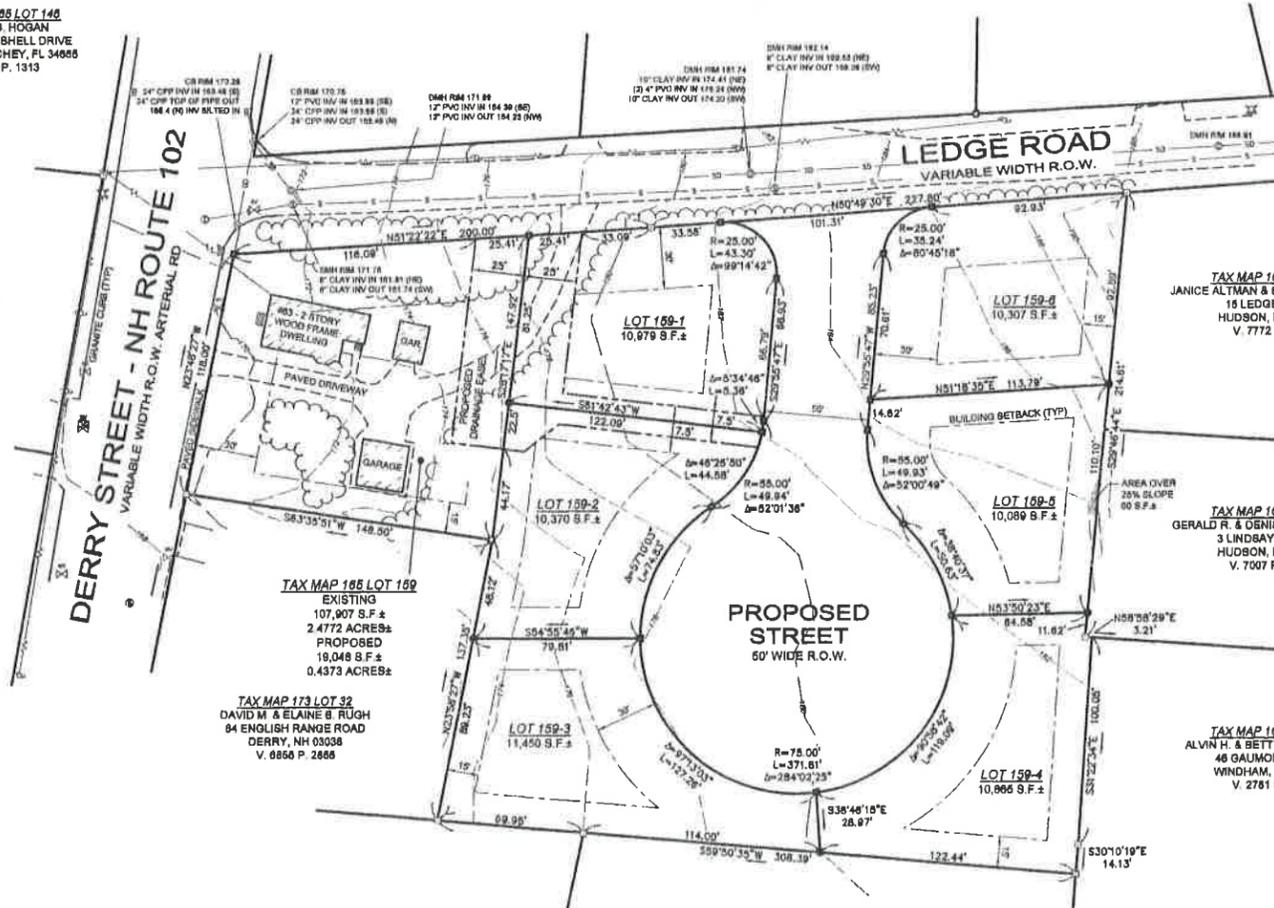
TAX MAP 173 LOT 33
ELIZABETH G. CENTER HEIR
C/O BARBARA MANN
8718 FALKSTONE LANE
ALEXANDRIA, VA 22309
V. 1775 P. 204

TAX MAP 174 LOT 41
STEVEN P. & LEE ANN MIDDLEBROOK
22 ABBOTT STREET
HUDSON, NH 03051
V. 5543 P. 908

TAX MAP 166 LOT 38
JANICE ALTMAN & BETTY M. ALTMAN
16 LEDGE ROAD
HUDSON, NH 03051
V. 7772 P. 258

TAX MAP 166 LOT 36
GERALD R. & DENISE J. DESMARAIS
3 LINDSAY STREET
HUDSON, NH 03051
V. 7007 P. 1898

TAX MAP 166 LOT 34
ALVIN H. & BETTY A. RODGER
48 GAUMONT ROAD
WINDHAM, NH 03087
V. 2781 P. 233



SYMBOL LEGEND

- IRON ROD FOUND
- ◊ BOUND FOUND
- IRON ROD W/ID CAP TO BE SET
- GRANITE BOUND W/DISK TO BE SET
- ⊕ UTILITY POLE
- ⊙ SEWER MANHOLE
- ⊙ DRAIN MANHOLE
- ⊙ CATCH BASIN
- OVERHEAD WIRE
- WATER LINE
- SEWER LINE
- HYDRANT
- WATER VALVE
- GAS VALVE

I CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE WITH A TOPCON GPT 3103W. THE ERROR OF CLOSURE ON ALL LOT LINES WITHIN AND BORDERING THE SUBJECT PROPERTY IS BETTER THAN 1 IN 10,000.

JOSEPH M. WICHERT, NHLS 783

17 MAY 2013

DATE



SOILS DATA:

WSA - WINDSOR LOAMY SAND, 0-3% SLOPES
WSB - WINDSOR LOAMY SAND, 3-8% SLOPES
SOILS INTERPOLATED FROM NRCS WEB SOIL SURVEY

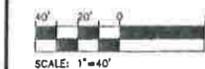
NO.	DESCRIPTION	DATE
1	REVISED PER TOWN COMMENTS	05/16/13

TOPOGRAPHIC SUBDIVISION PLAN

TAX MAP 165, LOT 150
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

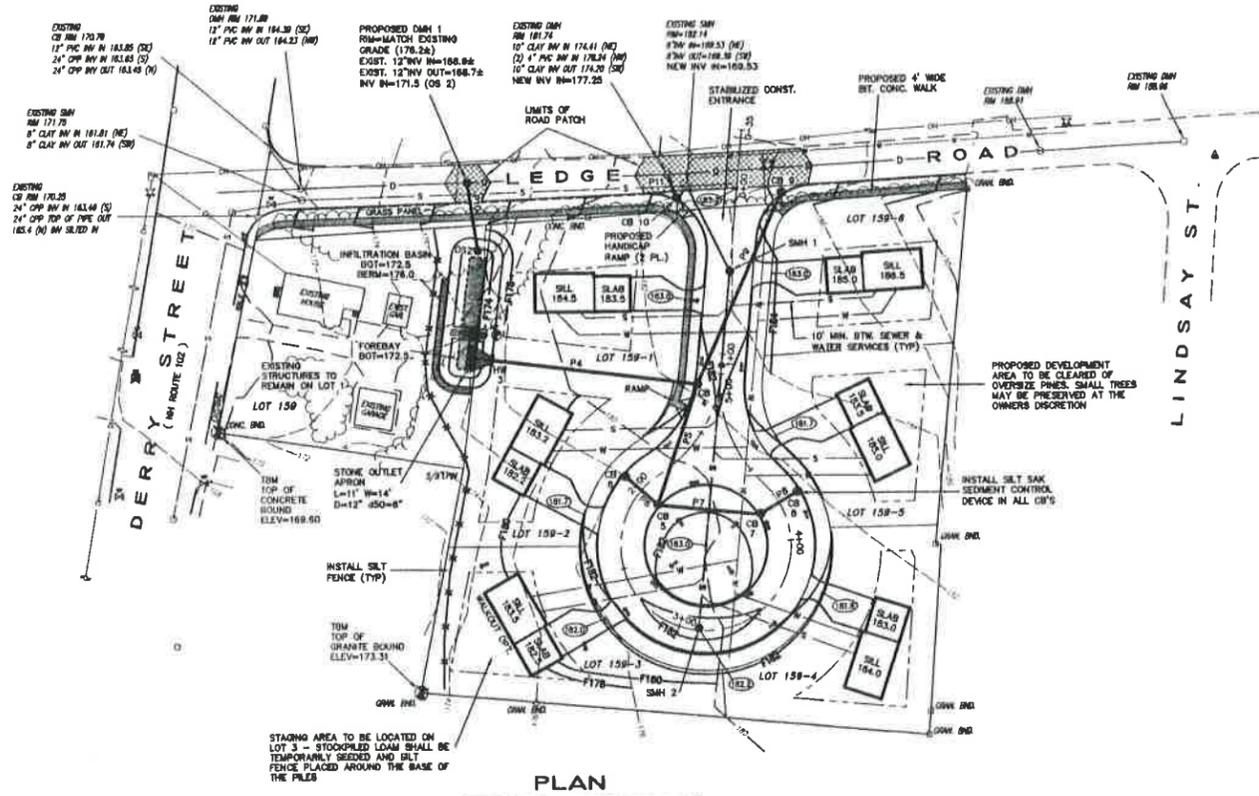
DATE: APRIL 5, 2013



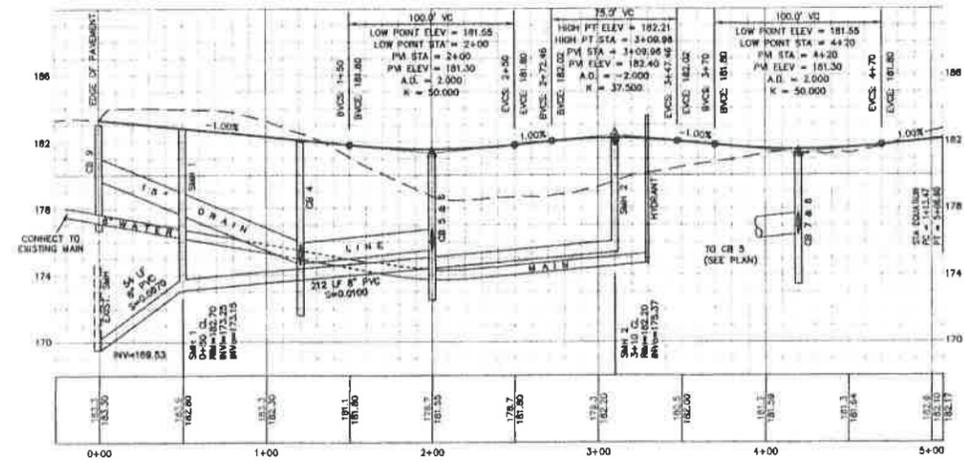
PREPARED BY:
RJB ENGINEERING, LLC
15 PLASANT ST, SUITE 5
CONCORD, NH 03301
PH: 603-647-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, L.L.S., INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH: 603-647-4282
JOB #2013113





PLAN



PROFILE

LEGEND

EXISTING	PROPOSED
--- SETBACK LINE	--- SILT FENCE
--- EDGE OF PAVEMENT	● CATCH BASIN
○ TEST PIT	--- P7 DRAIN LINE
--- 172' 2" CONTOUR INTERVAL	○ DRAIN MANHOLE
--- 150' 10" CONTOUR INTERVAL	○ RUN-OFF FLOW DIRECTION
○ IRON ROD FOUND	--- F122 PROPOSED GRADE CONTOUR
○ BOUND FOUND	○ STONE CHECK DAM
○ UTILITY POLE	○ BENCHMARK
○ SEWER MANHOLE	○ HANDBICAP RAMP AT STREET CORNER
○ DRAIN MANHOLE	○ PROPOSED CURB
○ CATCH BASIN	○ PROPOSED CURB
○ OVERHEAD WIRE	○ PROPOSED PAVEMENT
○ DRAIN LINE	○ SPOT GRADE
○ WATER LINE	○ RIP-RAP STONE
○ SEWER LINE	○ PAVED SIDEWALK
○ HYDRANT	○ INFILTRATION BASIN BERM
○ WATER VALVE	○ CHECKDAM (INFILTRATION BASIN)
○ GAS VALVE	○ RIP-RAP OUTLET APRON
	○ WATER LINE
	○ SEWER LINE

SEWER HOUSE SERVICES

LOT	INV. AT MAIN	MIN. * LENGTH/SLOPE	MIN. INV. AT HOUSE
LOT 1	EXIST.	EXIST.	EXIST.
LOT 2	173.45	90'/2.0%	178.25
LOT 3	174.25	92'/2.0%	177.09
LOT 4	175.07	100'/2.0%	178.07
LOT 5	175.17	120'/2.0%	178.57
LOT 6	174.23	85'/2.0%	178.93
LOT 7	173.41	94'/2.0%	178.29

* PROVIDES FOR AN ADDL 1 FT DROP INTO THE MAIN

DRAINAGE STRUCTURES

OS2 CONG. OUTLET STRUCTURE	CB7 STA 4+25, 13'L RIM=181.00 INV IN=176.22 INV OUT=176.12
HW3 INV OUT=173.5	CB8 STA 4+25, 13'R RIM=181.00 INV OUT=176.44
CB4 STA 1+20.5, 13'R RIM=181.80 INV IN=174.74 (BOTH) INV OUT=174.84	CB9 STA 0+00.4, 28.7'L RIM=184.2± INV OUT=179.70
CB5 STA 2+00, 13'L RIM=181.00 INV IN=175.56 (BOTH) INV OUT=175.48	CB10 STA 0+09, 35.3'R RIM=182.0± INV OUT=177.50
CB8 STA 2+00, 13'R RIM=181.00 INV OUT=175.78	

DRAINAGE PIPE RUNS

P4	114 LF 15"HDPE S=0.010 FT/FT
P5	72 LF 15"HDPE S=0.010 FT/FT
P6	22 LF 15"HDPE S=0.010 FT/FT
P7	56 LF 15"HDPE S=0.010 FT/FT
P8	22 LF 15"HDPE S=0.010 FT/FT
P9	123 LF 15"HDPE S=0.040 FT/FT
P10	36 LF 12"HDPE S=0.025 FT/FT
P11	10 LF 12"HDPE S=0.025 FT/FT

NOTE: ALL PIPE LENGTHS ARE MEASURED FROM INVERT TO INVERT
ALL CATCH BASINS TO HAVE 3 FT SUMPS
STRUCTURE OFFSETS FROM CENTERLINE ARE TO CENTER OF GRATE OR RIM

- NOTES**
- THE PURPOSE OF THIS PLAN IS TO SHOW CONSTRUCTION OF A NEW ROAD, UTILITIES, AND RELATED IMPROVEMENTS TO PROVIDE ACCESS TO 6 NEW SINGLE FAMILY RESIDENTIAL BUILDING LOTS.
 - PROPERTY BOUNDARIES AND TOPOGRAPHY SHOWN HEREON FROM AN ON GROUND SUEVEY PERFORMED BY JOSEPH M. WICHERT, LLS, INC. SEE SHEET 2 OF THIS PLAN SET FOR EXISTING CONDITIONS INFORMATION.
 - THERE ARE NO WETLANDS ON THE PROPERTY.
 - THE PROPERTY IS NOT IN THE DESIGNATED FLOOD ZONE.
 - THE SITE TO BE SERVICED BY MUNICIPAL SEWER AND WATER.
 - ALL WORK SHALL CONFORM TO THE LATEST TOWN OF HUDSON REGULATIONS AND THE NHDOT STANDARD ROAD AND BRIDGE SPECIFICATIONS.
 - CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. UTILITIES SHOWN HEREON ARE FROM REFERENCE PLANS OR FROM OBSERVATIONS MADE IN UTILITY STRUCTURES. THIS OFFICE DOES NOT GUARANTEE THE LOCATION AND ACCURACY OF THE UTILITY DATA. CONTRACTOR TO NOTIFY GIG SAFE 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
 - HOUSES MAY BE CONSTRUCTED WITH BASEMENTS. SUMP PUMPS WILL BE REQUIRED FOR DRAINAGE, IF NECESSARY.
 - THE TOWN MAY REQUIRE ADDITIONAL EROSION CONTROL DURING CONSTRUCTION AS DEEMED APPROPRIATE.
 - THE TOTAL AREA OF DISTURBANCE FOR THE CONSTRUCTION OF THE NEW ROAD AND IMPROVEMENTS TO THE EXISTING PUBLIC ROAD IS APPROXIMATELY 62,000 S.F. IT IS THE CONTRACTORS RESPONSIBILITY TO FILE A NOTICE OF INTENT (NOI) WITH THE U.S.E.P.A. UNDER THE NPDES CONSTRUCTION GENERAL PERMIT 14 DAYS PRIOR TO INITIATING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PREPARING A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE FEDERAL STORMWATER PERMIT REQUIREMENTS.

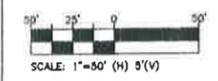
- TEST PIT LOG**
- 0"-6" DARK BROWN (10YR 3/2) LOAM (TOPSOIL), FRIABLE
 - 6"-30" BROWN YELLOW (10YR 6) FINE LOAMY SAND, LOOSE, FRIABLE, GRANULAR, LITTLE GRAVEL
 - 30"-120" VERY PALE BROWN (10YR 8) FINE LOAMY SAND, LOOSE, FRIABLE, GRANULAR, LITTLE GRAVEL
- ESHW: NONE OBSERVED
ROOTS: TO 36"
WATER: NONE OBSERVED
LEDGE: NONE OBSERVED
TERMINATED AT 10'
PERCOLATION RATE: <2 MIN/INCH @ 30"

NO.	DESCRIPTION	DATE
1.	REVISIONS PER TOWN REVIEW	05/04/2013

ROADWAY PLAN AND PROFILE
MAP 165, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

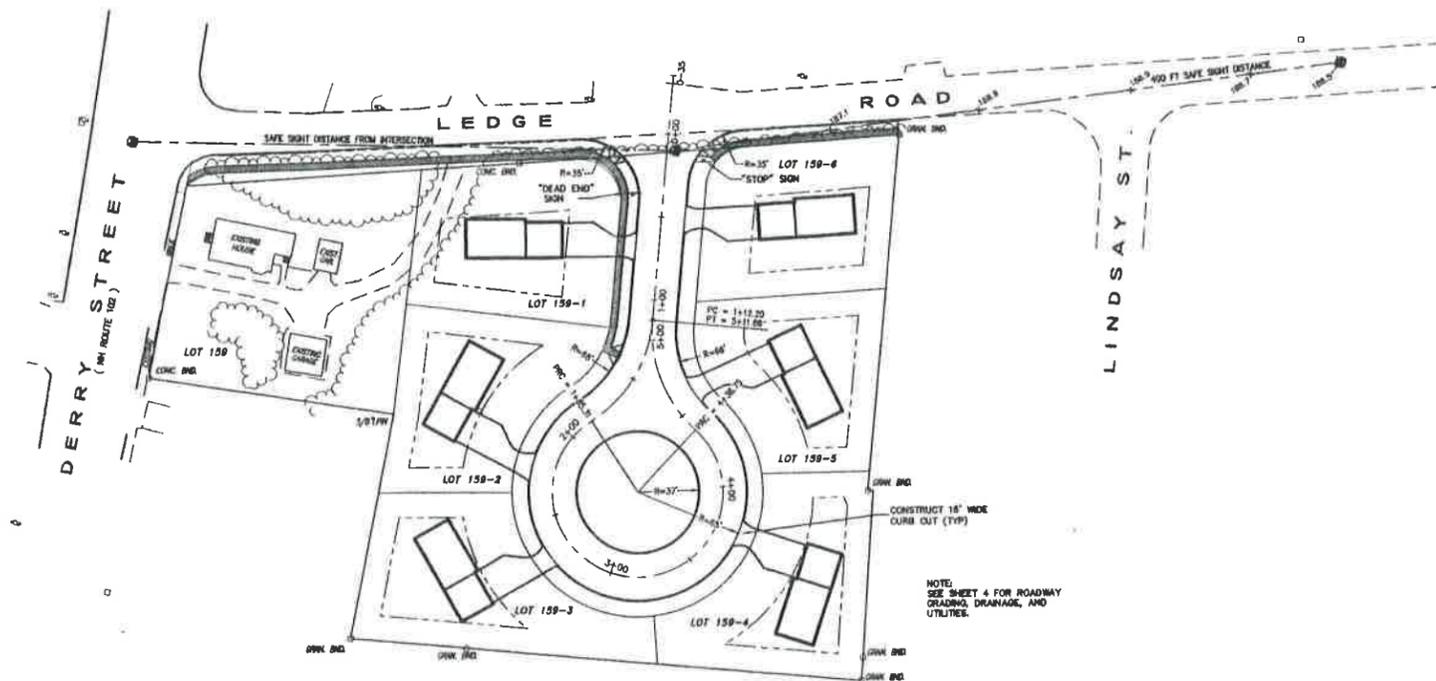
DATE: APRIL 5, 2013



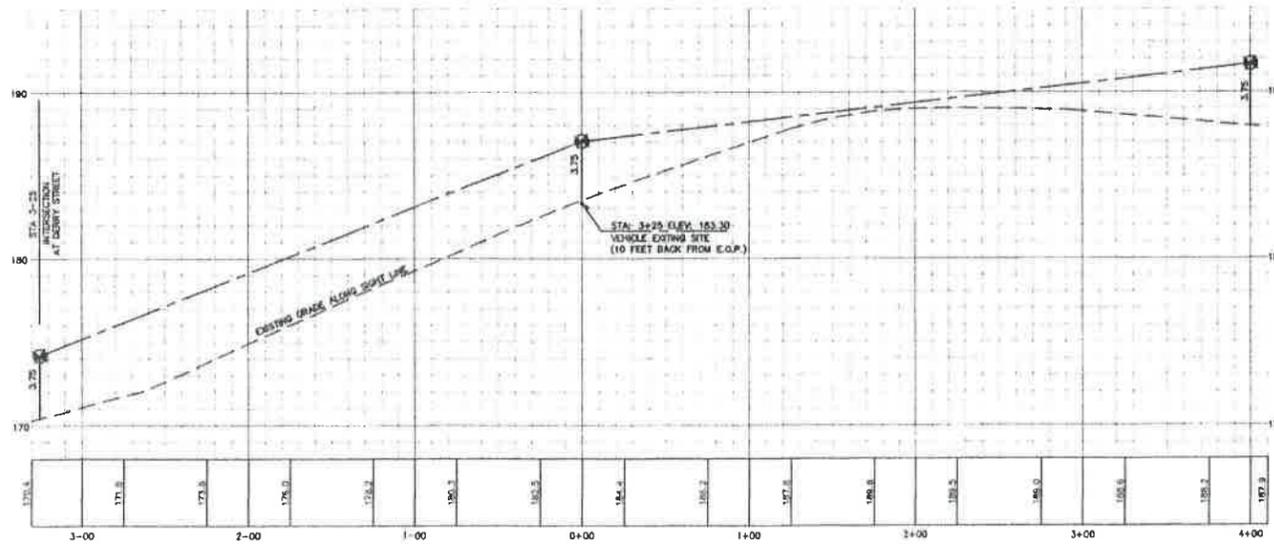
PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH. 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH. 603-647-4282





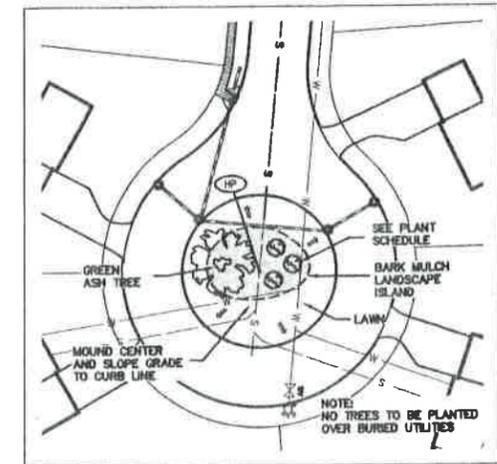
PLAN



SIGHT DISTANCE PROFILE

COMMON NAME	SCIENTIFIC NAME	SIZE	QTY
WINTERBERRY	ILEX VERTICILLATE 'SPARKLEBERRY'	3-4' B+B	1
ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	4-5' B+B	2

PLANT SCHEDULE



CUL-DE-SAC LANDSCAPE DETAIL

SCALE: 1"=40'



NO	DESCRIPTION	DATE
1.	REVISIONS PER TOWN REVIEW	06/11/13

ROADWAY GENERAL PLAN

MAP 185, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013

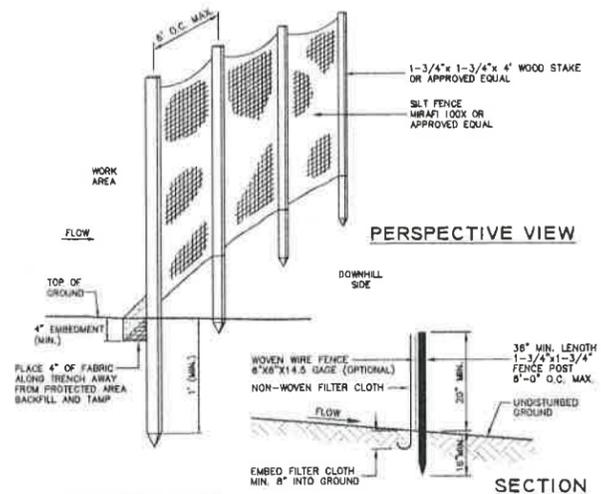


SCALE: 1"=50' (H) 5'(V) UNLESS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH: 603-219-0194

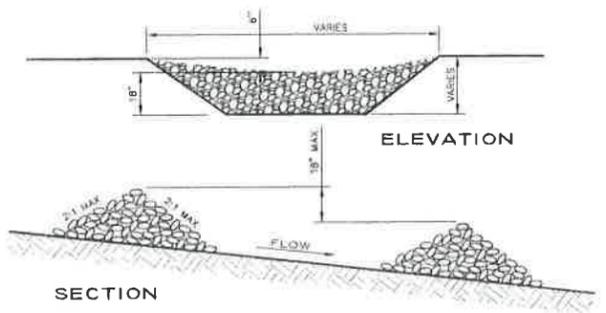
IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHURST STREET
MANCHESTER, NH 03104
PH: 603-647-4282





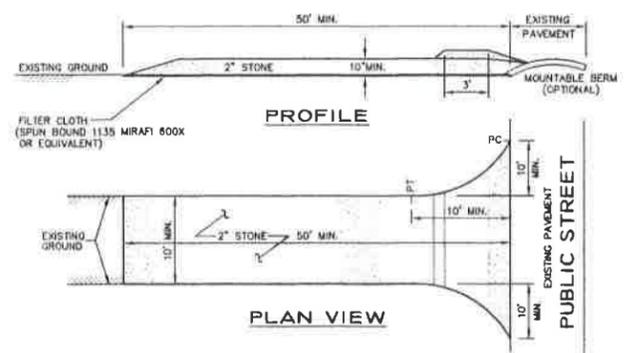
- MAINTENANCE**
- SILT FENCES ARE TO BE INSPECTED IMMEDIATELY AFTER EVERY RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
 - IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF OF THE BARRIER.
 - 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.

SILT FENCE DETAIL NOT TO SCALE



- NOTE**
- STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
 - CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION WILL BE MINIMIZED.
 - WHEN STRAW BALES ARE USED, THEY ARE TO BE EMBEDDED INTO THE SOIL 4 INCHES. WHEN TIMBERS ARE TO BE USED, THE TIMBER SHALL EXTEND AT LEAST 18 INCHES INTO THE SOIL.
 - STRAW OR STRAW BALES SHALL BE ANCHORED INTO THE SOIL USING 2"x2" STAKES DRIVEN THROUGHOUT THE BALES AT LEAST 18 INCHES INTO THE SOIL.
 - SEEDING, FERTILIZING AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATE BMP.
 - STRUCTURES ARE TEMPORARY AND ARE TO BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS EXPIRED, WHEN A SOLID STAND OF GRASS HAS GROWN AND STABILIZED.

STONE CHECK DAM NOT TO SCALE

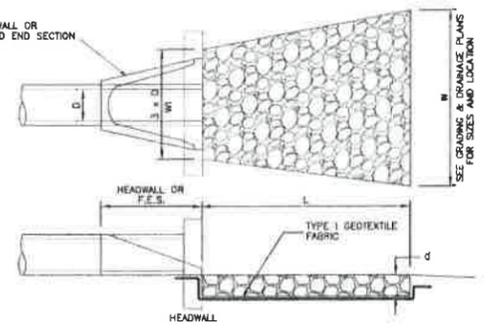


- NOTE**
- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
 - THE LENGTH OF THE STABILIZED ENTRANCE SHALL BE NOT LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
 - THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 8 INCHES.
 - THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
 - GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
 - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD 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.
 - 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 AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
 - 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 NOT TO SCALE

RIP-RAP GRADATION

STONE SIZE	% FINER BY WEIGHT				
	D ₅₀ = 8"	D ₅₀ = 8"	D ₅₀ = 12"	D ₅₀ = 18"	D ₅₀ = 24"
2"	0-15%	0%	-	-	-
4"	20-35%	10-20%	0-10%	-	-
6"	35-50%	25-35%	10-20%	0-10%	-
8"	50-65%	30-50%	20-30%	10-20%	0-10%
10"	60-80%	40-60%	30-40%	15-30%	5-15%
12"	75-100%	-	-	-	-
15"	-	70-100%	45-60%	25-40%	20-30%
20"	-	-	70-100%	40-60%	30-45%
30"	-	-	-	70-100%	50-70%



- NOTE**
- THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
 - THE ROCK USED FOR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 - STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

- MAINTENANCE**
- THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP-RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS AND SEDIMENT THAT COULD CHANGE THE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

GRAVEL FILTER GRADATION

SIEVE SIZE	% PASSING BY WEIGHT
3/8"	100
3"	85-100
1 1/2"	60-80
3/4"	40-70
3/8"	20-50
NO. 4	10-40
NO. 200	0-5

PIPE OUTLET PROTECTION APRON NOT TO SCALE

NO.	DESCRIPTION	DATE
1	REVISIONS PER TOWN REVIEW	05/14/2013

EROSION CONTROL DETAILS

MAP 165, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013
SCALE: AS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
 15 PLEASANT ST, SUITE 5
 CONCORD, NH 03301
 PH: 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
 802 AMHERST STREET
 MANCHESTER, NH 03104
 PH: 603-617-4282



GENERAL NOTES:

- PROJECT ENGINEER: RJB ENGINEERING, LLC
- PROJECT SURVEYOR: JOSEPH M. WICHERT, LLS, INC.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN REGULATIONS AND THE LATEST EDITION OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
- IF, DURING CONSTRUCTION IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR, DEVELOPER OR OWNER ARE RESPONSIBLE TO DOCUMENT THE APPARENT DEFICIENCIES AND NOTIFY THE DESIGN ENGINEER PRIOR TO CONTINUING CONSTRUCTION ACTIVITIES. THE DESIGN ENGINEER, IN COOPERATION WITH THE CONTRACTOR, DEVELOPER OR OWNER WILL RESOLVE THE APPARENT DEFICIENCIES TO MEET APPLICABLE TOWN REGULATIONS.
- IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED, THE CONTRACTOR, DEVELOPER OR OWNER SHALL BE REQUIRED TO INSTALL ADDITIONAL EROSION PROTECTION MEASURES.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO VERIFY THE LOCATION OF ALL UTILITIES OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR. (CONTACT DIG SAFE)
- THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AT ALL TIMES.
- NO EXCAVATED AREA SHALL BE LEFT UNATTENDED AND SHALL BE THOROUGHLY SECURED ON A DAILY BASIS.
- THE TOTAL AREA OF DISTURBANCE FOR THE PROJECT IS APPROXIMATELY 82,000 S.F. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE A NOTICE OF INTENT (NOI) WITH THE U.S.E.P.A. UNDER THE NPDES CONSTRUCTION GENERAL PERMIT 14 DAYS PRIOR TO INITIATING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PREPARING A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE FEDERAL STORMWATER PERMIT REQUIREMENTS.

CONSTRUCTION SEQUENCE:

- CUT AND CLEAR TREES WITHIN LIMIT OF WORK (PROPOSED TREE LINE), UNLESS OTHERWISE NOTED. ALL STUMPS, BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF, PREFERABLY OFF SITE.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AS SHOWN AND DETAILED IN THIS PLAN SET.
- CONSTRUCT TEMPORARY (SILT FENCE) AND PERMANENT EROSION CONTROL FACILITIES (STORMWATER BASINS, TREATMENT SWALES, GRASS SWALES AND INFILTRATION BASINS) PRIOR TO ANY EARTH MOVING OPERATION.
- ALL SWALES AND DITCH LINES SHALL BE PROTECTED FROM EROSION. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL STORM DRAINAGE SYSTEMS SUCH AS DETENTION/INFILTRATION BASINS, TREATMENT SWALES AND LEVEL SPREADERS (IF ANY) SHALL BE PROTECTED FROM EROSION. ALL STORM DRAINAGE SYSTEMS SHALL BE STABILIZED PRIOR TO DIRECTING FLOW INTO THEM.
- NO CATCH BASIN FRAME AND GRATE (IF APPLICABLE) SHALL BE INSTALLED PRIOR TO PAVING. ALL DRAINAGE STRUCTURES ARE TO BE "PLATED" AND CUT OUT FOLLOWING PAVING OPERATIONS, ONLY IF ALL DOWNSTREAM DRAINAGE ELEMENTS ARE STABLE, INCLUDING, BUT NOT LIMITED TO OUTLET PROTECTION, ALL SLOPE GRADING, VEGETATED OR RIPRAP SWALES, DETENTION / INFILTRATION BASINS AND TREATMENT SWALES.
- IF FRAME AND GRATES ARE INSTALLED, SPECIFIC SOIL EROSION MEASURES MUST BE INSTALLED SUCH AS SILT BAK PRETENTION DEVICES, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER OR BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER.
- CONSTRUCT TEMPORARY CULVERTS, DIVERSION DITCHES/SWALES OR BERMS AS REQUIRED TO MINIMIZE THE EROSION AFFECTS OF STORMWATER RUNOFF DURING ALL CONSTRUCTION ACTIVITIES.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND DEBRIS SHALL BE PROPERLY DISPOSED OF, PREFERABLY OFF SITE.
- ALL MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLANDS AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND IF NECESSARY, SURROUNDED WITH SILT FENCE AND/OR STRAW BALES, IN ORDER TO PREVENT OR CONTAIN SOIL EROSION.
- ALL MATERIAL SUITABLE FOR FILL OR SELECT MATERIAL SHALL BE STOCKPILED IN UPLANDS AREAS. ALL STOCKPILES SHALL BE SURROUNDED WITH SILT FENCE AND/OR STRAW BALES, IN ORDER TO CONTAIN SOIL EROSION.
- REMOVE ALL IMPROPER ROADWAY/SITE FOUNDATION MATERIAL WITHIN 18" OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL ACCEPTABLE TO THE STATE/TOWN SPECIFICATIONS. ALL SUITABLE FILL MATERIAL SHALL BE COMPACTED TO AT LEAST 95% OF THE DRY WEIGHT AS DETERMINED BY MODIFIED PROCTOR TESTING (ASTM D-1558) REQUIREMENTS.
- CONSTRUCT ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO SEWER, WATER, DRAIN, GAS, DATA, CABLE AND POWER.
- ROUGH GRADE ROADWAY/SITE WITHIN LIMIT OF WORK AND COMMENCE CONSTRUCTION OF ROADWAYS AND PARKING AREAS.
- COMPLETE ROADWAY SLOPE GRADING/EMBANKMENT CONSTRUCTION. ALL SLOPES SHALL BE STABILIZED AND SEEDED IMMEDIATELY AFTER GRADING. THE CONTRACTOR SHALL STABILIZE SLOPES WITH APPROPRIATE SEEDING PROGRAM OR JUTE MAT, WHEREVER SPECIFIED.
- APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED AS TO BE FREE FROM ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LIMED, SEEDED, AND MULCHED. THE CONTRACTOR SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
- PERFORM FINAL PAVING OPERATIONS, INSTALL GUARDRAIL (IF APPLICABLE) AND MONUMENTATION AS SHOWN ON THE APPROVED PLANS.
- MAINTAIN, REPAIR, AND REPLACE TEMPORARY EROSION CONTROL MEASURES AS NECESSARY FOR A MINIMUM PERIOD OF 12 MONTHS FOLLOWING SUBSTANTIAL COMPLETION.
- AFTER STABILIZATION (12 MONTHLY FOLLOWING SUBSTANTIAL COMPLETION), REMOVE AND PROPERLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES, PREFERABLY OFF SITE.
- FOLLOWING SUBSTANTIAL COMPLETION OF ALL ROADWAY ACTIVITIES AND ONCE STABLE CONDITIONS ARE ACHIEVED, CAREFULLY AND REGULARLY MONITOR CONSTRUCTION ACTIVITIES ON ALL INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES.

NOTE: LOT DISTURBANCE, OTHER THAN SHOWN ON THESE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO THE DESIGN ELEVATION AND ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

WINTER CONSTRUCTION NOTES

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

SEEDING SPECIFICATIONS

MIXTURE	POUNDS/ACRE	POUNDS/1,000 SF
TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDSFOOT TREFOL	8	0.20
TOTAL	48	1.10

- SEEDBED PREPARATION
 - SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - STONES LARGER THAN FOUR INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT FOUR INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED WHEREVER PRACTICAL.
- ESTABLISHING A STAND
 - LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE: 2 TONS PER ACRE OR 0.08 LBS. PER SQ. FT.
 - NITROGEN (N): 50 LBS. PER ACRE OR 1.1 LBS. PER 1000 SQ. FT.
 - PHOSPHATE (P₂O₅): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - POTASH (K₂O): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10)
 - SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH 0.25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
 - REFER TO TABLE 7-35 OF "STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE" FOR APPROPRIATE SEED MIXTURES AND TABLE 7-36 FOR RATES OF SEEDING. ALL LEGUMES (CROWNFETCH, BIRDSFOOT TREFOL, AND FLATPEA), MUST BE INOCULATED WITH THEIR SPECIFIC INNOCULANT.
 - WHEN SEEDS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
- MULCH
 - STRAW, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - MULCH WILL BE HELD IN PLACE USING TECHNIQUES FROM THE "BEST MANAGEMENT PRACTICE FORMULCHING", AS SHOWN IN "STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
- MAINTENANCE TO ESTABLISH A STAND
 - PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
 - IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

EROSION CONTROL NOTES

ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED FOR THE DURATION OF THE PROJECT IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS (EPA, NHDES AND TOWN REGULATIONS). THE GENERAL NOTES AND DETAILS CONTAINED IN THIS PLAN SERVE AS A GUIDE ONLY.

- PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS. INSTALLATION OF STRAWBALE BARRIERS AND SILTATION FENCES SHALL BE COMPLETED PRIOR TO THE START OF SITE WORK IN ANY SPECIFIC AREA. PREFABRICATED SILTATION FENCES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- STRAWBALE BARRIERS AND SILTATION FENCES SHALL BE KEPT CLEAN DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATIVE COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES.
- EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEREVER POSSIBLE.
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE. CUT AND FILL SLOPES SHALL BE LOADED & SEEDED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE. TEMPORARY AND/OR PERMANENT STABILIZATION SHALL BE INSTALLED WITHIN 60 DAYS OF INITIAL CONSTRUCTION.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
- A MINIMUM OF 80% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED
- OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

TIME LIMIT: ALL AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE.

- ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4" OF LOAM INSTALLED WITH NOT LESS THAN 1.1 POUNDS OF SEED MIX PER 1,000 SQ. FT. SEE SEEDING SPECIFICATIONS ON THIS SHEET

- LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE SOIL PRIOR TO OR AT THE TIME OF AT THE TIME OF SEEDING A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. SEEDING PRACTICES SHALL COMPLY WITH LOCAL USDA SOIL CONSERVATION SERVICES RECOMMENDATIONS.

- STRAW MULCH OR JUTE MATTING SHALL BE USED IF/WHERE INDICATED ON THE PLANS. A MINIMUM OF 1.5 TONS OF MULCH PER ACRE SHALL BE APPLIED. MULCH SHALL BE ANCHORED IN PLACE WHERE NECESSARY. JUTE MATTING SHALL BE LAID IN THE DIRECTION OF RUNOFF FLOW AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS.



NO	DESCRIPTION	DATE
1	REVISIONS PER TOWN REVIEW	05/14/2013

EROSION CONTROL NOTES

MAP 165, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

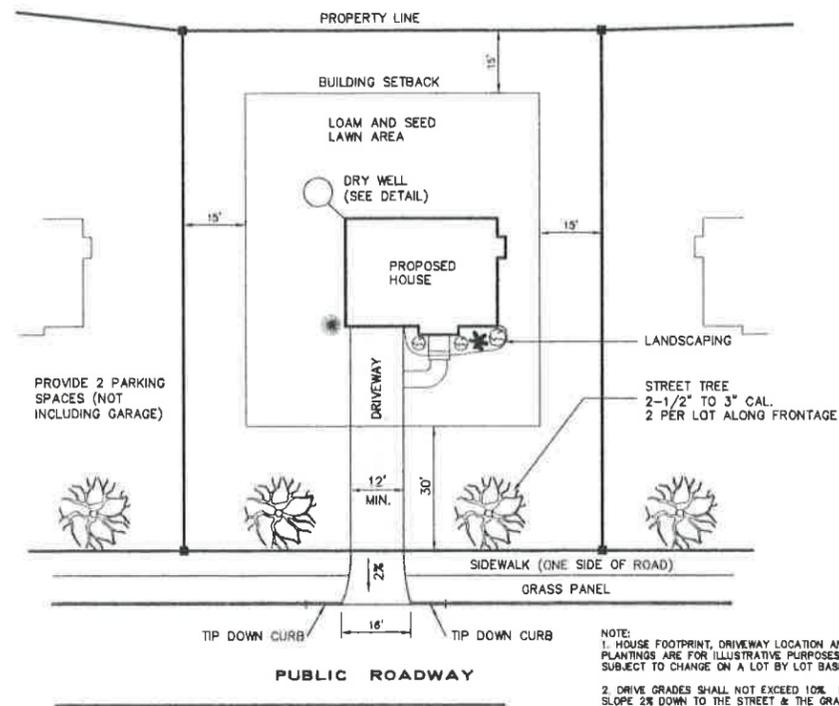
OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013

SCALE: AS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH: 603-219-0194

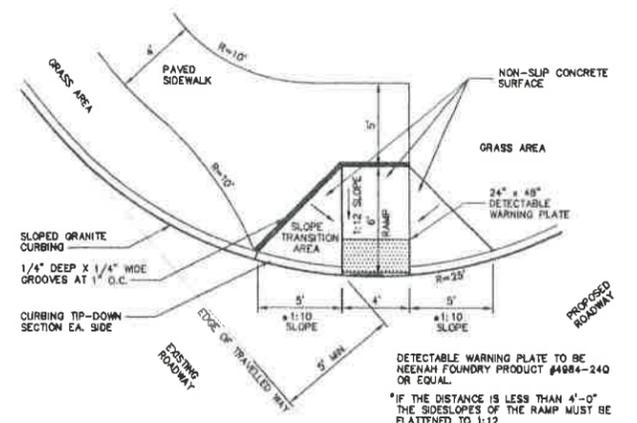
IN ASSOCIATION WITH
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH: 603-647-4282



TYPICAL INDIVIDUAL LOT

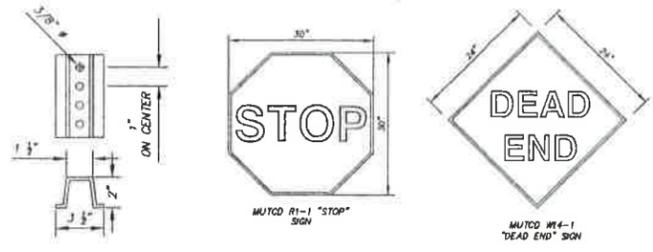
NOT TO SCALE

- NOTE:
- HOUSE FOOTPRINT, DRIVEWAY LOCATION AND FOUNDATION PLANTINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE ON A LOT BY LOT BASIS.
 - DRIVE GRADES SHALL NOT EXCEED 10%. FIRST 10' OF DRIVE TO SLOPE 2% DOWN TO THE STREET & THE GRADE BEYOND THAT MAY VARY AS NEEDED.
 - ROOF DRAINAGE TO INFILTRATE INTO SOILS IN EITHER A CRUSHED STONE DRIP LINE AROUND THE PERIMETER OF THE FOUNDATION OR INTO A DRY WELL AS SHOWN HEREON.



HANDICAP RAMP AT STREET CORNER

NOT TO SCALE

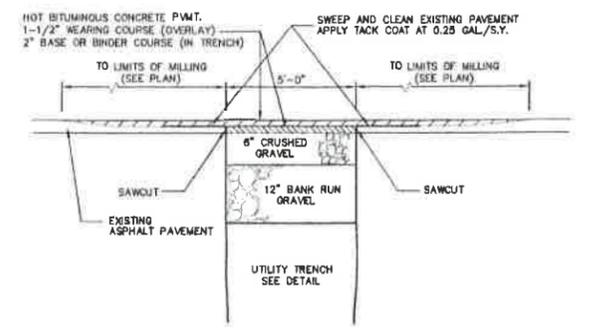


CONSTRUCTION SPECIFICATIONS

- STOP SIGN TO BE PLACED NO LESS THAN 6.0 FEET FROM PROPOSED EDGE OF PAVEMENT AT A HEIGHT NO LESS THAN 5.0 FEET TO BOTTOM EDGE OF SIGN. ALL MATERIALS SHALL MEET APPLICABLE MUTCD GUIDELINES.
- NO STOP BAR OR CROSSWALK BARS REQUIRED FOR THIS APPLICATION PER THE TOWN OF HUDSON STANDARDS FOR MINOR RESIDENTIAL DEAD END STREETS.

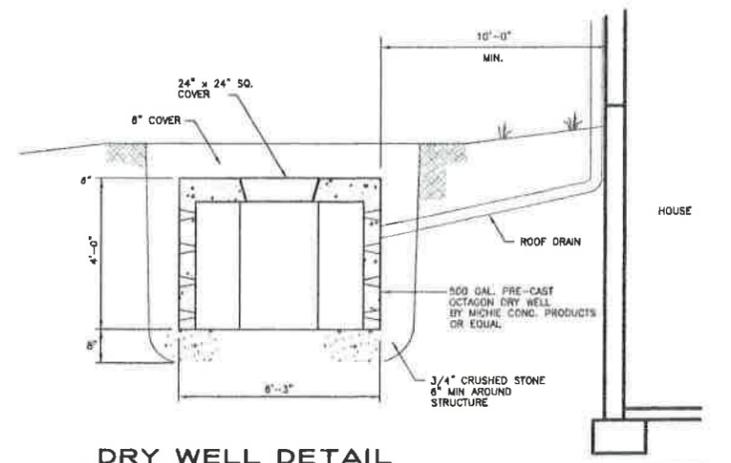
SITE SIGNAGE DETAIL

NOT TO SCALE



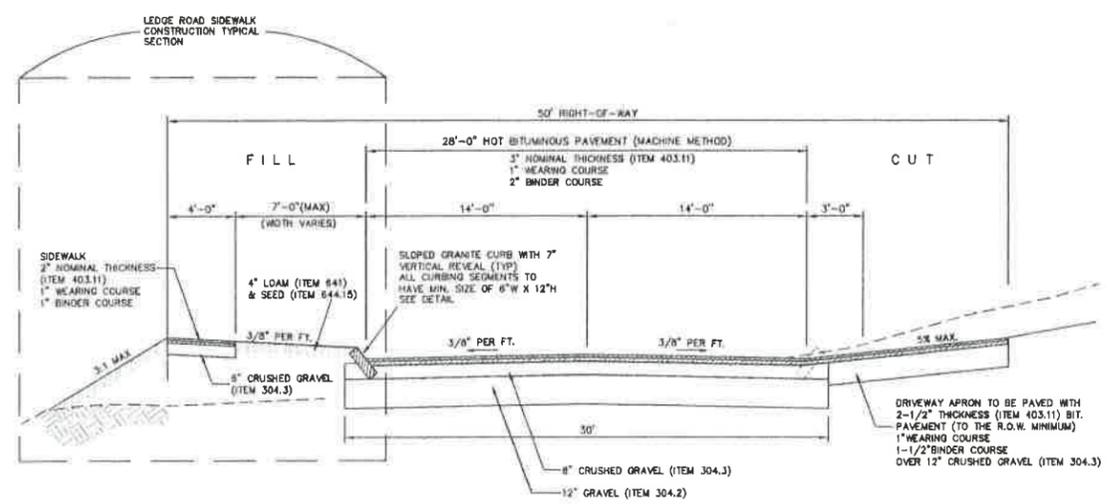
PAVEMENT TRENCH PATCH

IN LEDGE ROAD NOT TO SCALE



DRY WELL DETAIL

NOT TO SCALE



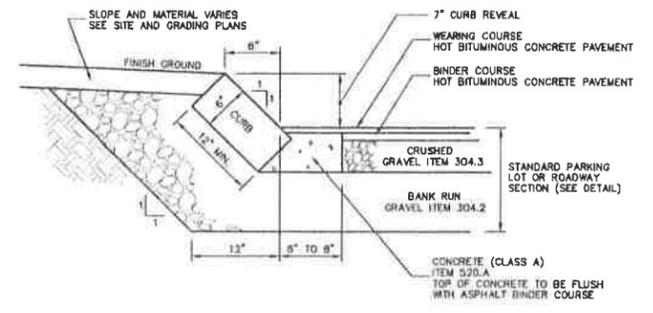
NOTE

- ITEM NUMBERS REFERENCE THE LATEST CONSTRUCTION SPECIFICATIONS FOR NHDOT
- ALL PAVEMENT, BASE MATERIALS, AND WORKMANSHIP SHALL BE IN COMPLIANCE WITH N.H.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" APPROVED AND ADOPTED 1997.

TYPICAL ROADWAY SECTION

TOWN OF HUDSON

NOT TO SCALE



SLOPED GRANITE CURB

EMBEDDED IN CONCRETE

NOT TO SCALE

RADIUS FOR STONES WITH SQUARE JOINTS	RADIUS FOR STONES WITH RADIAL JOINTS	MAXIMUM LENGTH
18"-28"		1'-8"
28"-41"		2'
42"-55"		3'
58"-88"		4'
80"-82"	SEE CURB SECTIONS ON RADII DETAIL	5'
83"-98"		6'
97"-110"		7'
OVER 110"		8'

MAXIMUM LENGTH OF STRAIGHT CURB STONES - 18"

MINIMUM LENGTH OF STRAIGHT CURB STONES - 8"

MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES SEE CHART

ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.

NO.	DESCRIPTION	DATE
1.	REVISIONS PER TOWN REVIEW	05/14/2013

CONSTRUCTION DETAILS

MAP 185, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

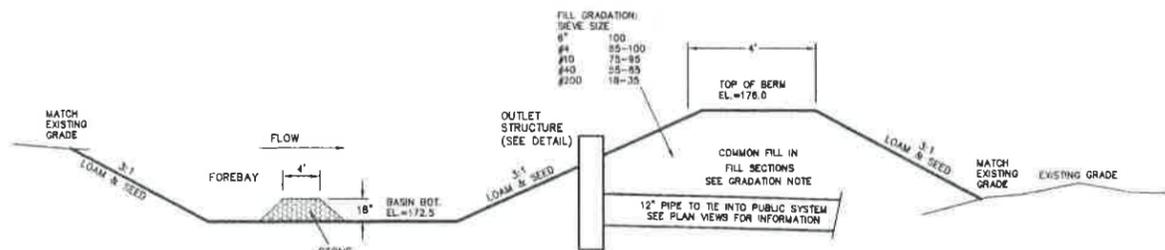
OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
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NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013
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IN ASSOCIATION WITH:
JOSEPH M. WICHERT, L.L.C.
802 AMHERST STREET
MANCHESTER, NH 03104
PH 603-647-4282





DETENTION BASIN CONSTRUCTION NOTES

- THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD AND RUBBISH. SCARIFY SURFACE BEFORE PLACING FILL. THE AREA SHALL BE MOIST FOR GOOD BONDING OF THE NEW FILL. KEEP STANDING WATER FROM FORMING ON OR NEAR THE FILL AREA.
- THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES LARGER THAN 8 INCHES AND OTHER OBJECTIONABLE MATERIAL. CRUSHED GRAVEL (3/4") SHALL BE PLACED AROUND PIPES AND CONCRETE STRUCTURES.
- THE PLACING AND SPREADING OF FILL SHALL BE STARTED AT THE LOWEST POINT IN THE BERM AREA AND BROUGHT UP IN HORIZONTAL LAYERS (LIFTS) OF ABOUT 12" SO THAT REQUIRED COMPACTION CAN BE OBTAINED. THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAMS OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OR GRADATION FROM THE SURROUNDING MATERIAL.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION.
- CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER AREAS OR EACH LAYER OF FILL TO INSURE REQUIRED COMPACTION. USE SPECIAL EQUIPMENT IF NECESSARY. FILL ADJACENT TO PIPES AND STRUCTURES SHALL BE COMPACTED BY HAND TAMPING OR PLATE VIBRATOR. FILL ADJACENT TO CONCRETE STRUCTURES SHALL NOT BE COMPACTED UNTIL CONCRETE HAS CURED STRONG ENOUGH TO SUPPORT THE LOAD.
- FOR PROTECTION ALL EXPOSED AND DISTURBED SURFACES SHALL HAVE A COVER OF VEGETATION, PREFERABLY TOPSOIL AND SEED. FOLLOW SEEDING SPECIFICATIONS AND GENERAL NOTES IN THE EROSION CONTROL DETAILS SECTION IN THIS PLANSET.

SAFETY

- PONDS THAT ARE EASILY ACCESSIBLE IN POPULATED AREAS SHOULD INCORPORATE ALL POSSIBLE SAFETY PRECAUTIONS. DUE TO ONLY TEMPORARY WATER LEVELS IN THESE BASINS, FENCING IS NOT NECESSARY.

MAINTENANCE

- MAINTENANCE IS NECESSARY IF THE BASIN IS TO CONTINUE TO FUNCTION AS DESIGNED. THE LANDOWNER MUST BE AWARE OF THE REQUIREMENTS FOR A PROPERLY OPERATIONAL BASIN AND A PLAN BE DEVELOPED FOR REGULAR SCHEDULED MAINTENANCE.
- THE EMBANKMENT SHOULD BE INSPECTED TO DETERMINE IF RODENT BURROWS, WET AREAS OR EROSION OF THE FILL IS TAKING PLACE.
- THE VEGETATION SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC AND DENSE WOOD GROWTH. LIME AND FERTILIZER SHOULD BE APPLIED AS NECESSARY AS DETERMINED BY SOIL TESTS. TREES AND SHRUBS SHOULD BE KEPT OFF THE EMBANKMENT AND EMERGENCY SPILLWAY AREAS.
- PIPE INLETS AND SPILLWAY STRUCTURES SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED. IF PIPES ARE COATED, THE COATING SHOULD BE CHECKED AND REPAIRED AS NECESSARY.
- PIPE OUTLETS SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. THE CONDITION OF THE PIPES SHOULD BE NOTED AND REPAIRS MADE AS NECESSARY. IF EROSION IS TAKING PLACE, THEN MEASURES SHOULD BE TAKEN TO STABILIZE AND PROTECT THE AFFECTED AREA OF THE OUTLET.
- SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACHED THE PREDETERMINED DESIGN ELEVATION, THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.

INFILTRATION BASIN DETAIL

SECTION

NOT TO SCALE

INFILTRATION BASIN OUTLET STRUCTURE

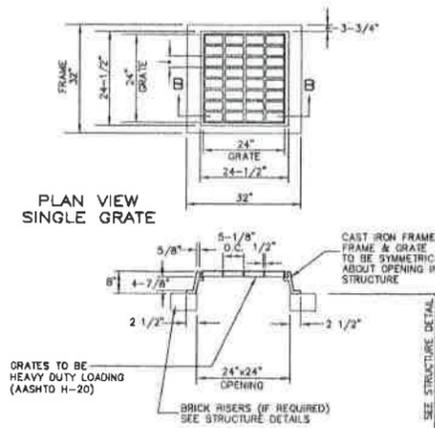
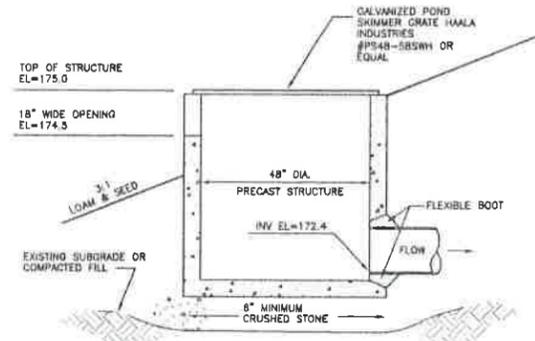
SECTION

NOT TO SCALE

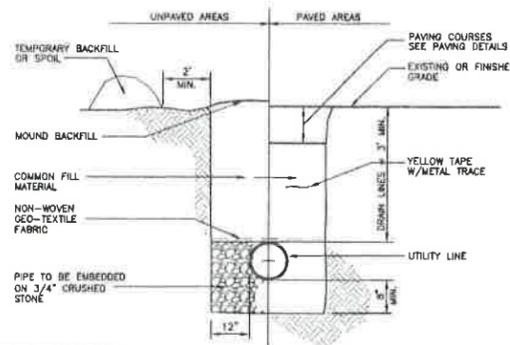
C.B. FRAME AND GRATE

NHDOT TYPE B ALT 1

NOT TO SCALE



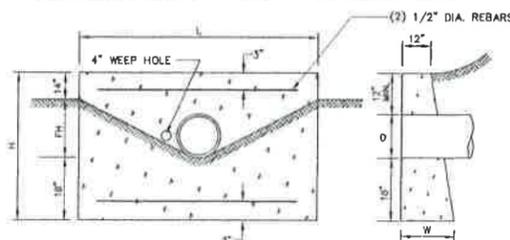
NOTE: ALL CASTINGS ARE TO CONFORM TO ASTM A48, CLASS 30 AS MANUFACTURED BY AMERICAN FOUNDRY OR EQUAL.



TRENCH FOR DRAIN LINES

NOT TO SCALE

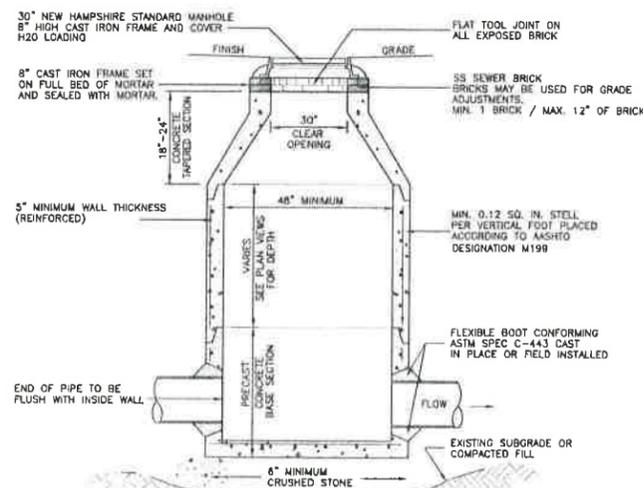
D	WASPER STD HOR CU.YD.	STEEL PER STD HOR LB.	LENGTH OF BARS	L	H	FH	W
12	01	8	3'-2"	3'-6"	0'-10"	0'-10"	1'-10.5"
15	05	11	1'-10"	4'-6"	1'-9"	1'-1"	1'-7.5"
18	1-1/2	14	0'-2"	5'-0"	1'-0"	1'-4"	2'-0"
24	1-7/8	20	2'-2"	7'-0"	1'-0"	1'-10"	2'-0.8"



CONCRETE HEADWALL

SINGLE PIPE SYSTEM

NOT TO SCALE



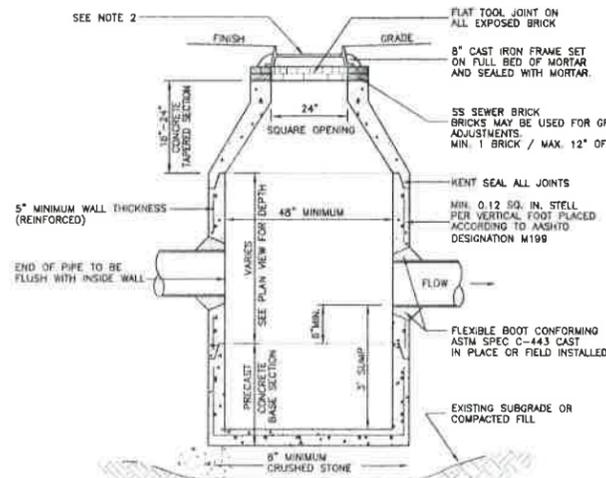
DRAIN MANHOLE

NOTE: ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478. STRUCTURE SHALL BE CAPABLE OF AASHTO H-20 LOADING WITHOUT FAILURE.

CONCENTRIC CONE

CONCENTRIC CONE

NOT TO SCALE



CATCH BASIN

- NOTE:
- ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478. CATCH BASIN STRUCTURE SHALL BE CAPABLE OF AASHTO H-20 LOADING WITHOUT FAILURE.
 - USE NHDOT TYPE B ALT-1 IN PAVED AREAS, DITCH GRATES IN SWALES
 - POLYETHYLENE INSERT LINERS ARE TO BE INSTALLED ON ALL NEW CATCH BASINS

CONCENTRIC CONE

CONCENTRIC CONE

NOT TO SCALE



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CONSTRUCTION DETAILS

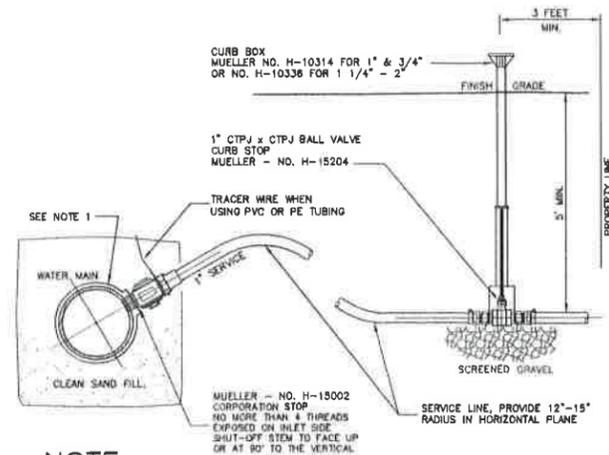
MAP 165, LOT 159
 63 DERRY STREET - NH ROUTE 102
 HUDSON, NEW HAMPSHIRE

OWNED BY:
 THE NELLIE D. LINDSAY REV. TRUST
 OF SEPTEMBER 23, 1999
 NELLIE D. LINDSAY, TRUSTEE

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 802 AMHERST STREET
 MANCHESTER, NH 03104
 P11. 603-647-4282

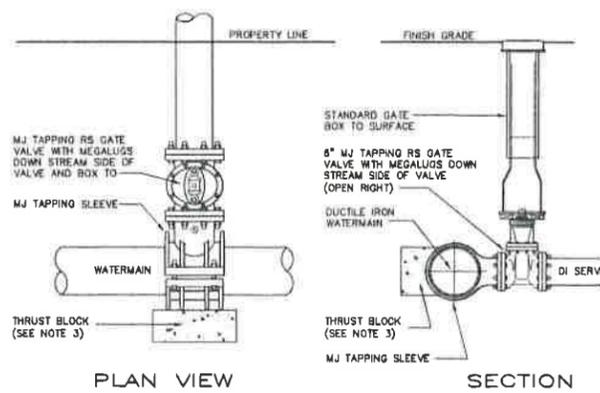


NOTE:

- CORPORATIONS UP TO 1" DIA. (INCLUSIVE) SHALL BE TAPPED DIRECTLY INTO THE MAIN AND CORPORATIONS ABOVE 1-1/2" SHALL BE INSTALLED USING A TAPPING SADDLE AND SHELL CUTTER

SERVICE CONNECTION

NOT TO SCALE

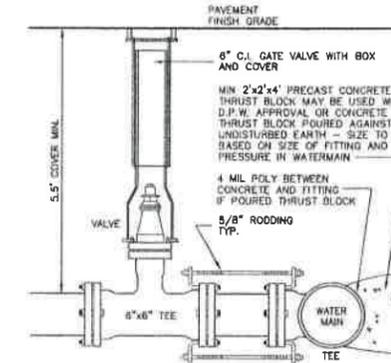


NOTE:

- ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO D.P.W. TECHNICAL SPECIFICATIONS.
- ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
- MIN 2"x2"x4" PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH D.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATERMAIN.

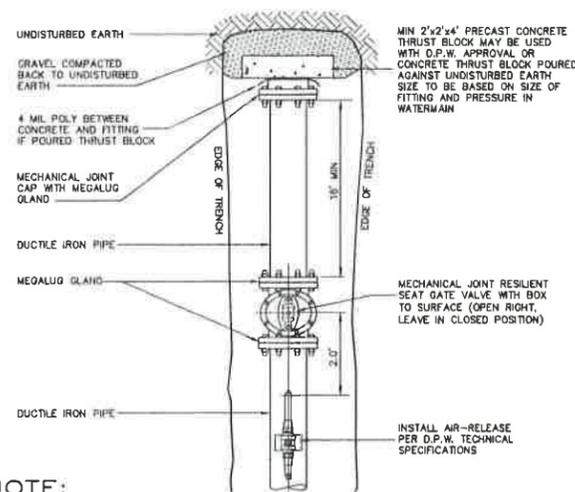
WET TAP TEE INSTALLATION

NOT TO SCALE



BURIED GATE VALVE

NOT TO SCALE

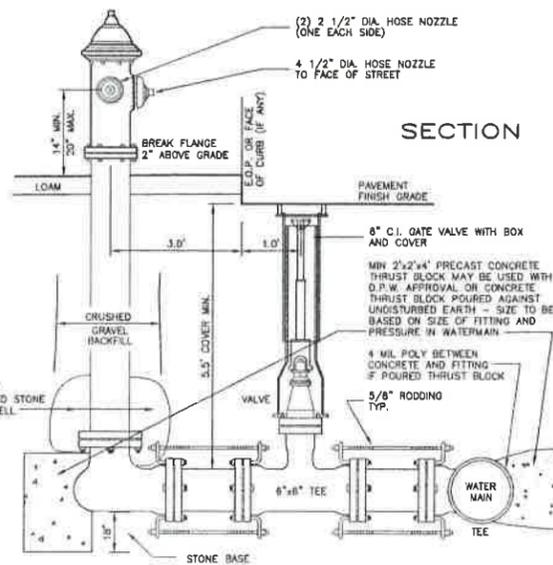


NOTE:

- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO D.P.W. TECHNICAL SPECIFICATIONS.
- ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

END OF MAIN INSTALLATION

NOT TO SCALE



FIRE HYDRANT AND GATE VALVE



PLAN VIEW

NOTE:

- ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO D.P.W. TECHNICAL SPECIFICATIONS.
- ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
- ALL THREADED RODS AND NUTS MUST BE STAINLESS STEEL.
- WHEN DISTANCE FROM WATERMAIN TO HYDRANT IS MORE THAN 10', SUBSTITUTE MEGALUGS IN LIEU OF THREADED ROD OR GRIP RINGS.
- MIN 2"x2"x4" PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH D.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATERMAIN.

NOT TO SCALE



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WATER SYSTEM DETAILS

MAP 185, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

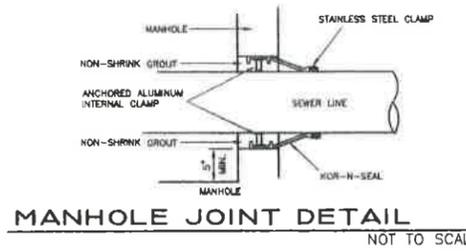
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NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013

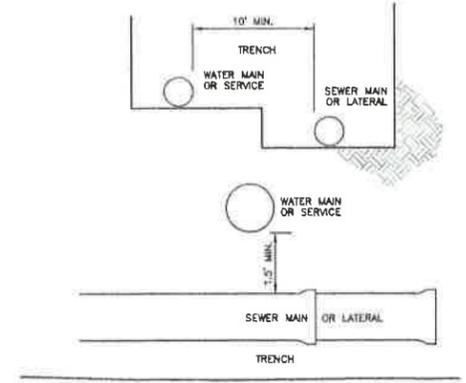
SCALE: AS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
P11. 603-219-0194

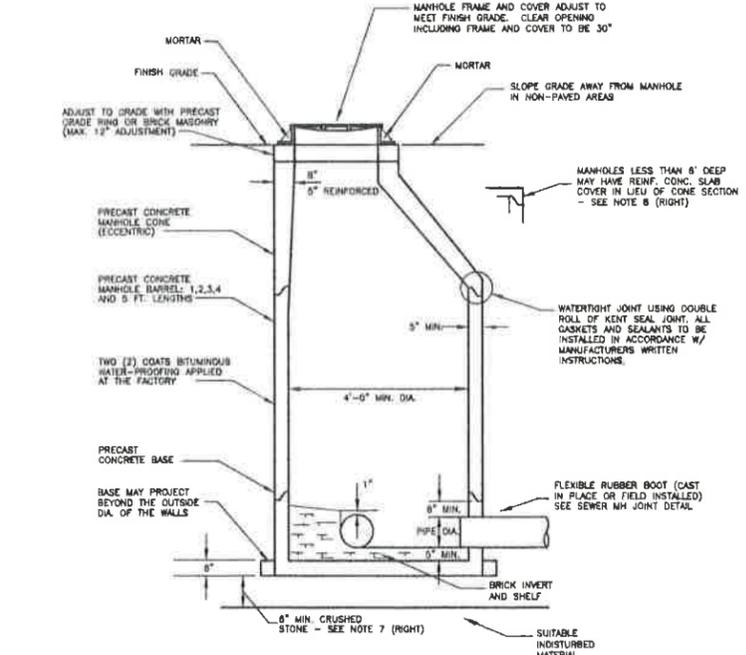
IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
P11. 603-647-4282



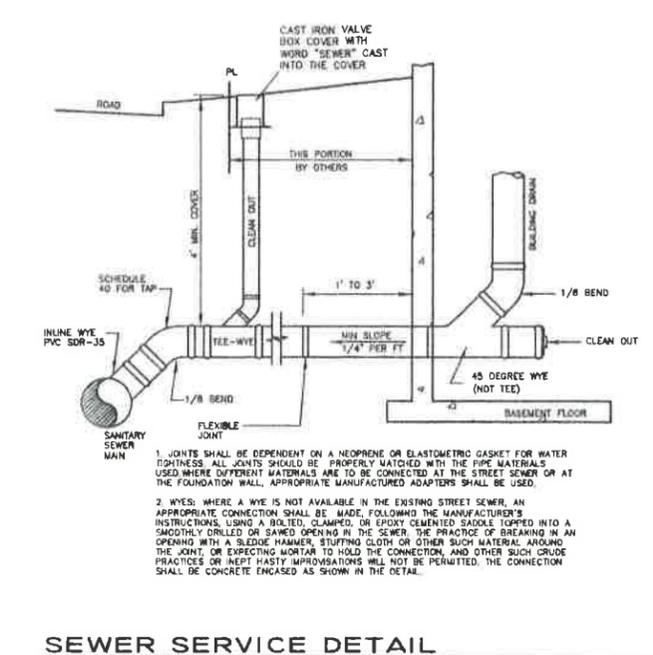
MANHOLE JOINT DETAIL
NOT TO SCALE



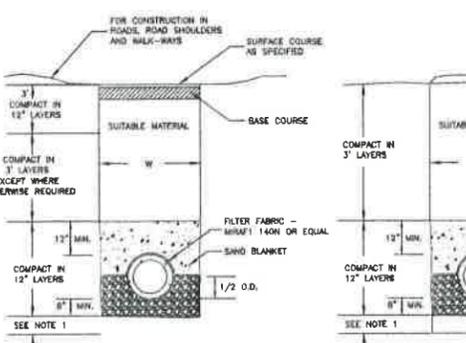
WATER / SEWER MAIN SEPARATION
NOT TO SCALE



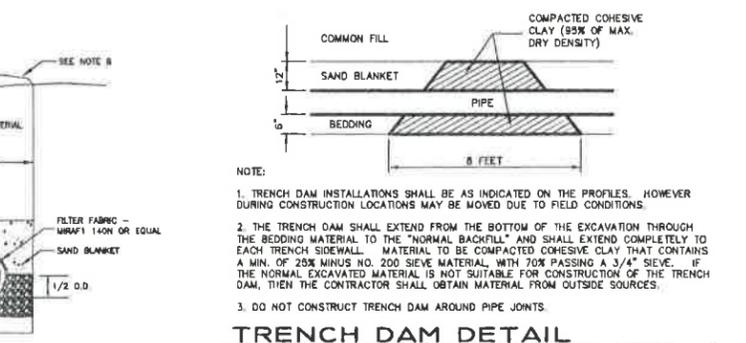
STANDARD SEWER MANHOLE DETAIL
NOT TO SCALE



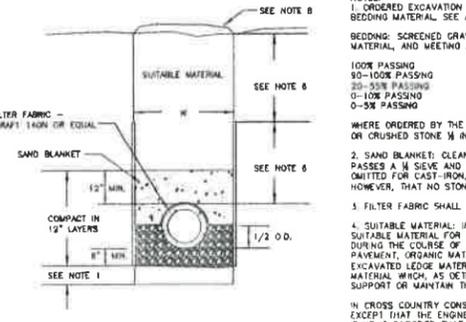
SEWER SERVICE DETAIL
NOT TO SCALE



LEDGE CONSTRUCTION

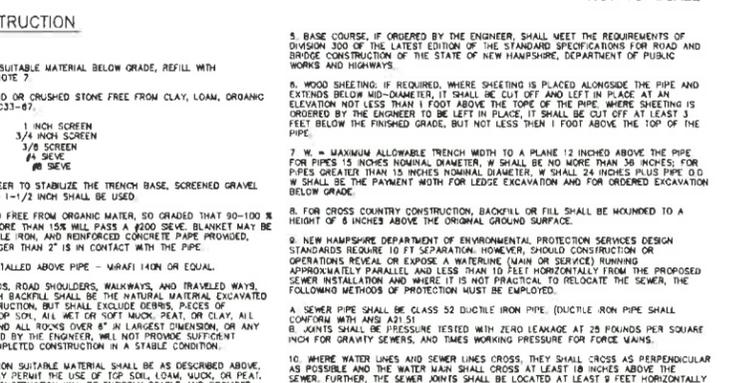


EARTH CONSTRUCTION

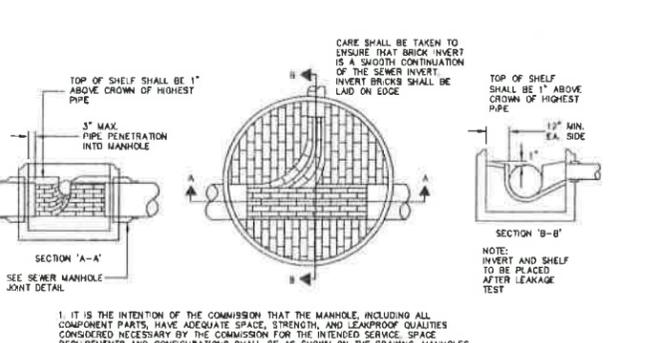


EARTH CONSTRUCTION WITH SHEETING

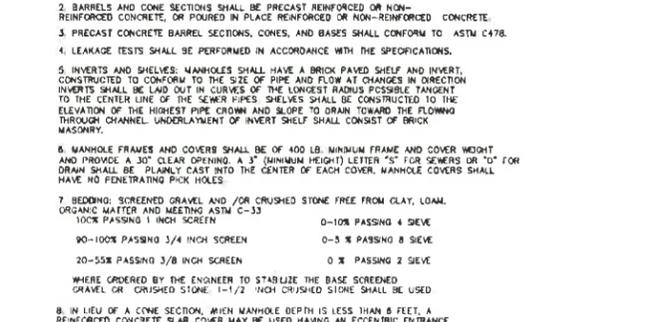
STANDARD TRENCH SECTIONS
NOT TO SCALE



TRENCH DAM DETAIL
NOT TO SCALE



CLEANOUT DETAIL
NOT TO SCALE



SEWER MANHOLE INVERT & SHELF DETAILS
NOT TO SCALE

1. PIPE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED, AND JOINTED, IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND /OR GRAVEL, AS SPECIFIED IN NOTE 7, BEDDING AND RE-FILL FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH THE APPROPRIATE MECHANICAL DEVICES. THE PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS, IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

4. TESTING: THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND, WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM TO A HEIGHT OF 8 FEET ABOVE THE LEVEL OF THE PILED.

B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO SATURATE, AS CLOSELY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF THE TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTION FOR LEAKS SHALL BE MADE THROUGHOUT THE CLEAN OUT WITH A FLASHLIGHT.

C. DRY FLUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER OR, IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN TRENCH OVER THE PIPE. OBSERVATIONS FOR LEAKS SHALL BE MADE IN THE FIRST DOWNSTREAM MANHOLE.

LEAKAGE OBSERVED IN ANY OF THE ABOVE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE, AND THE PIPE SHALL BE DUG UP, IF NECESSARY AND RE-LAID 90 AS TO ASSURE WATER TIGHTNESS.

5. ILLEGAL CONNECTION: NOTHING BUT SANITARY WASTE FLOW FROM HOUSES, TOILETS, SHOPS, LAUNDRY, ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS, OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE, OR GROUND WATER SHALL NOT BE PERMITTED.

6. HOUSE WATER SERVICE SHOULD NOT BE LAID IN THE SAME TRENCH AS SEWER SERVICE, BUT, WHEN NECESSARY, SHALL BE PLACED ABOVE AND TO ONE SIDE OF THE HOUSE SEWER AS SHOWN.

7. BEDDING: SCREENED GRAVEL AND /OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL, AND MEETING ASTM C33-67.

100% PASSING	1 INCH SCREEN
90-100% PASSING	3/4 INCH SCREEN
20-55% PASSING	#4 SIEVE
0-10% PASSING	#8 SIEVE
0-5% PASSING	#16 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH SHALL BE USED.

8. LOCATION: THE LOCATION OF THE WYE SHALL BE RECORDED AND FILED WITH THE SEWER DEPARTMENT. IN ADDITION, A METALLIC TAPE SHALL BE PLACED OVER THE PIPE TO THE WYE TO INDICATE THE LOCATION OF THE BURIED PIPE.

9. CHIMNEYS: NOT PERMITTED.

10. SEWER SERVICE AND CLEAN OUT TO BE CONSTRUCTED AT TIME OF SEWER MAIN CONSTRUCTION TO EACH PROPOSED AND EXISTING LOT SERVICE TO BE BROUGHT TO RIGHT OF WAY LINE.

NO.	DESCRIPTION	DATE
1	REVISIONS PER TOWN REVIEW	05/14/2013

SEWER SYSTEM DETAILS
MAP 185, LOT 159
63 DERRY STREET - NH ROUTE 102
HUDSON, NEW HAMPSHIRE

OWNED BY:
THE NELLIE D. LINDSAY REV. TRUST
OF SEPTEMBER 23, 1999
NELLIE D. LINDSAY, TRUSTEE

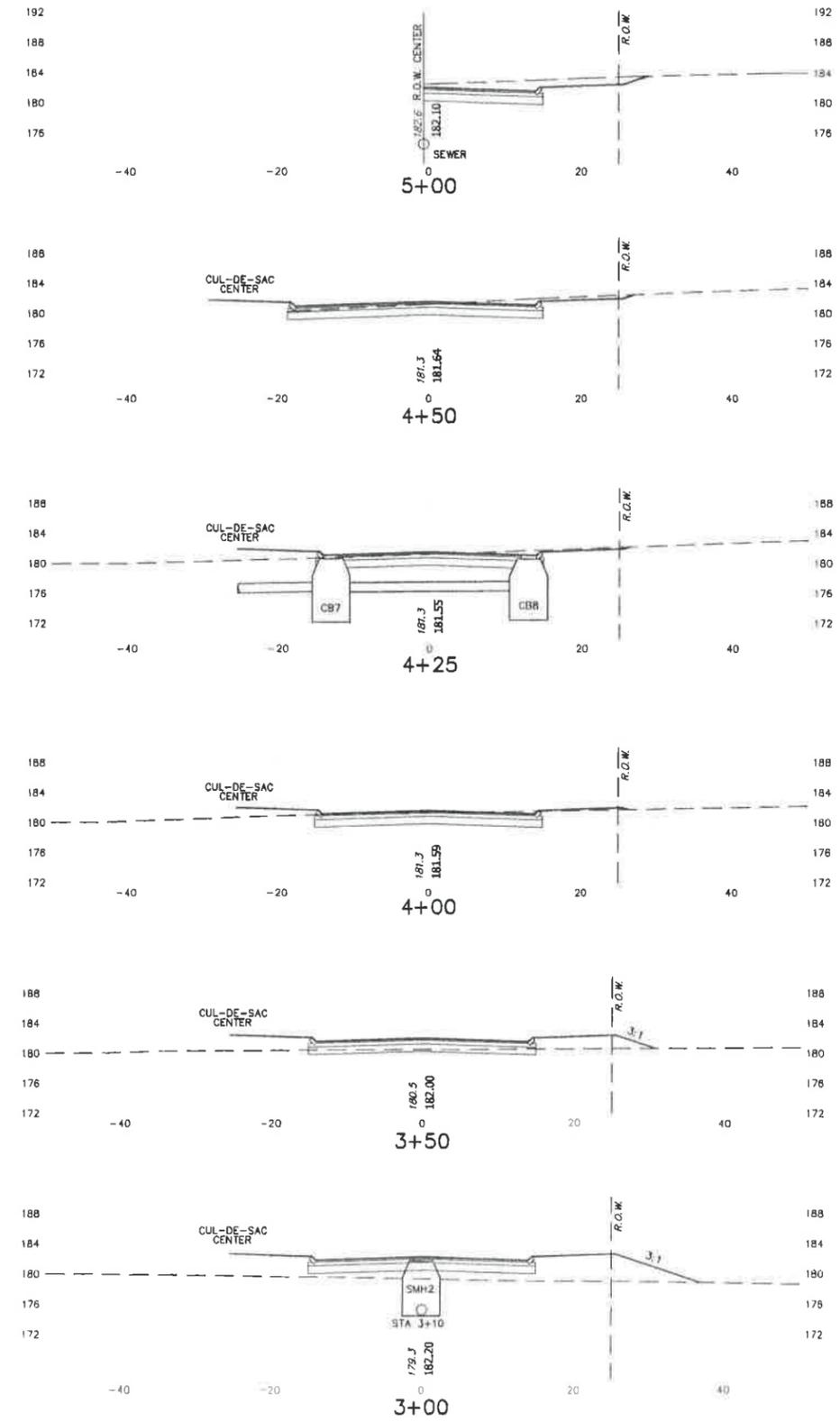
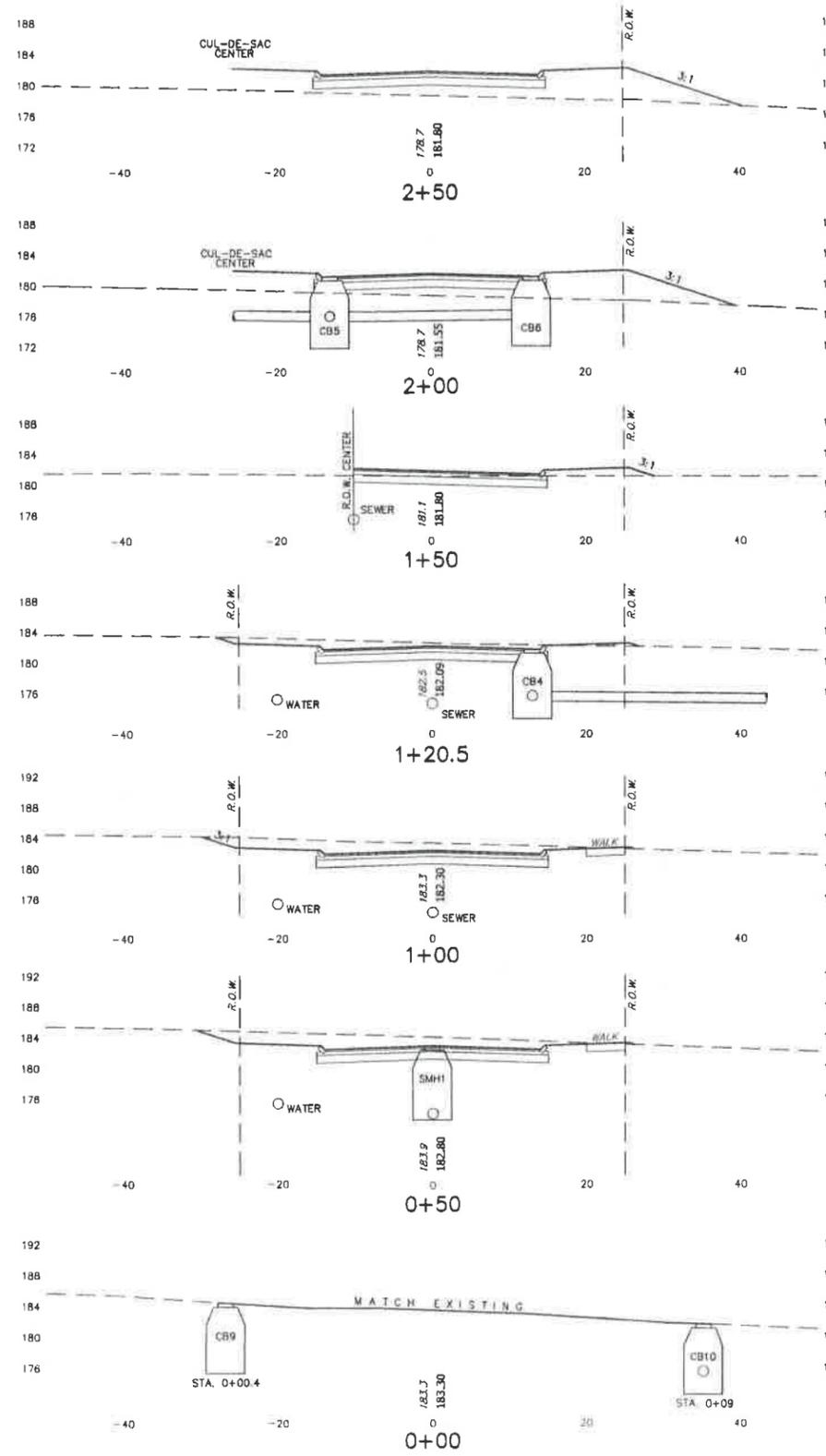
DATE: APRIL 5, 2013
SCALE: AS NOTED

PREPARED BY:
RJB ENGINEERING, LLC
15 PLEASANT ST, SUITE 5
CONCORD, NH 03301
PH: 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
802 AMHERST STREET
MANCHESTER, NH 03104
PH: 603-447-4282

SHEET: 12 of 13



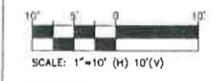


NO.	DESCRIPTION	DATE
1.	REVISIONS PER TOWN REVIEW	05/14/2013

ROADWAY CROSS SECTIONS
 MAP 165, LOT 159
 63 DERRY STREET - NH ROUTE 102
 HUDSON, NEW HAMPSHIRE

OWNED BY:
 THE NELLIE D. LINDSAY REV. TRUST
 OF SEPTEMBER 23, 1999
 NELLIE D. LINDSAY, TRUSTEE

DATE: APRIL 5, 2013



PREPARED BY:
RJB ENGINEERING, LLC
 15 PLEASANT ST, SUITE 5
 CONCORD, NH 03301
 P11 603-219-0194

IN ASSOCIATION WITH:
JOSEPH M. WICHERT, LLS, INC.
 802 AMHERST STREET
 MANCHESTER, NH 03104
 P11 603-647-4282

Review Cost Estimate to Complete an Update of the 2000 School Impact Fee Study

Staff Report

June 12, 2013

Per board action at the May 22, 2013 meeting, staff forwarded the attached letter to the Chair of the Hudson School Board, Laura Bisson. In preparation for the meeting, staff also sent Ms. Bisson the following email. As of this writing, staff has not received a response from Ms. Bisson. However, in talking with Selectman Maddox about this matter, he informed staff that he would contact Ms. Bisson and report to the board on Wednesday night information pertaining to whether the School Dept. will fund the School Impact Fee Update.

Dear Ms. Bisson:

Just writing to see if you have input or update information for the Planning Board in regard to the attachments, re: proposed School Impact Fee Update Study?

The Planning Board will next review this matter at their June 12th meeting. Any update information you may be able to offer leading up to next Wednesday night's Planning Board meeting will be greatly appreciated.

Sincerely,

John M. Cashell
Town Planner

At the April 24, 2013 Planning Board meeting, the board requested staff to seek a cost estimate from Bruce Mayberry, relative to updating Hudson's 2000 School Impact Fee Schedule, and for this RFP to include the following analysis and updating elements: present and projected school enrollment, the town's Kindergarten enrollment policy, school generation per unit, space requirements per student, state funding, and cost of new construction. To the effect of the foregoing, staff communicated with Bruce Mayberry, as cited in the below emails. At the May 22d meeting staff handed-out to board members Mr. Mayberry's cost estimate. For your convenience it is also attached, herewith, together with the letter sent to Ms. Bisson, Chair Hudson School Board.

NOTE: DRAFT MOTIONS will be provided Wednesday night. This is taking into consideration that staff may hear from Selectman Maddox before the meeting, as to whether the School Board will pay or not pay for the subject update.

May 2, 2013

Bruce C Mayberry Planning Consultant
49 Pineland Drive # 202b
New Gloucester, ME 04260-5134

RE: Update Hudson, NH 2000 School Impact Fee Study

Dear Bruce:

On behalf of the Town of Hudson, and by action of the Planning Board, I would like to respectfully request a cost estimate and schedule to complete an update of Hudson's 2000 School Impact Fee Schedule, and for the update to include analysis of the following elements: present and projected school enrollment, the town's Kindergarten enrollment policy, school generation per unit, space requirements per student, state funding sources for new school construction, together with the square foot cost for such construction.

Please note, the Town is aware that this request, in the least, is several years overdue, but now firmly believes that it is imperative to complete the update as expeditiously as possible. This is taking into consideration the recommendations of Russ Thibeault, as outlined in his attached report on the collection of School Impact Fees for 55+ older person's housing developments in Hudson, and also, Town Counsel, Atty. Steve Buckley's legal opinion on this matter. For your reference, both of their documents are attached, together with their respective attachments.

If you have any questions regarding this request and/or need additional information, please feel free to contact me, via phone or email, whichever you prefer. In the meantime, again, on behalf of the Town of Hudson, I appreciate your consideration in providing the aforementioned cost estimate and completion schedule, and look forward to hearing from you.

Sincerely

John M. Cashell
Town Planner

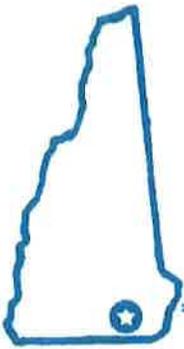
Community Development Department
Town Hall
12 School Street
Hudson, New Hampshire
jcashell@hudsonnh.gov
Office (603) 886-6005
Fax (603) 594-1142

John -

Received your email request and will follow up next week. Many of these systems have aged considerably, and it is good you are looking at updating. Will talk with you soon.

Bruce

Bruce C. Mayberry, Principal
BCM Planning, LLC
49 Pineland Drive - Suite 202B
New Gloucester, ME 04260
bcmplanning@securespeed.us
Cell: (207) 749-5217
Office: (207) 688-8433



TOWN OF HUDSON

COMMUNITY DEVELOPMENT DEPARTMENT

12 School Street • Hudson, New Hampshire 03051 • 603-886-6005 • Fax 603-594-1142



May 23, 2013

Laura Bisson, Chair
Hudson School Board
7 Nathaniel Drive
Hudson, NH 03051

RE: Update of Hudson's School Impact Fee Study

Dear Madam Chair and member of the Hudson School Board:

Over the past year it has become apparent to the Hudson Planning Board, through consultation with Town Counsel, that an update of the Town's School Impact Fee Study is imperative, relative to the continued collection of the fees associated with this study. To this effect, and by reason that the subject fees collected by the Planning Board exclusively benefit the Hudson School District (as further explained below), the board recently voted to respectfully request that the Hudson School District consider funding said study update. Please note, the present School Impact Fee Study, was originally drafted in 1996, and was last updated, in a partial manner, in the year 2000. As cited in the attached "Scope of Serves: School Impact Fee Update", prepared by Bruce C. Mayberry, Principal for BCM Planning, LLC, and dated May 21, 2013, the estimated cost to complete the study update is between \$7,500.00 - \$8,500.00.

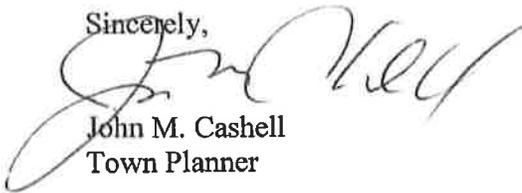
In addition to the above, and the content of the attached scope of services, the Planning Board would also like the Hudson School Board to take into consideration concerning this request the following specific information concerning the importance of continuing to collect the subject fees:

- School Impact Fees are used in their entirety and exclusively for the benefit of the Hudson School District, and in particular, said fees, which generate from the construction of new dwelling units in Hudson, are presently used to help pay down the debt associated with the construction of the Hills Garrison and the Nottingham West Elementary Schools.

- Several years ago, as some, if not all, School Board members will recall, the sum of \$1.2 million was transferred from the School Impact Fee Account to the Hudson School District. Presently, said account has a balance in excess of \$132,000.00, and continues to grow with the construction of each new dwelling unit built in our community.
- With the above-cited debt not scheduled to expire until the year 2020, the continued collection of the subject fees could be considered essential, relative to the ongoing fiscal constraints faced by our community.
- If, in the future (i.e., past 2020) the Hudson School District requires additional capacity building, the presently requested study update, if accomplished, will provide an important nexus document, relative to continuing the collection of the subject funds to help defray the cost of said future capacity building.

In closing, on behalf of the Planning Board, I thank you in advance for your time and attention to this important matter. If you or members of the School Board have any questions, concerns or would like additional information regarding the above request for funding, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "John M. Cashell".

John M. Cashell
Town Planner

cc: Rick Maddox, Board of Selectmen Chairman
Vincent Russo, Planning Board Chairman



49 Pineland Drive – Suite 202B - New Gloucester, ME 04260
(207) 688-8433 bcmplanning@securespeed.us

May 21, 2013

Mr. John M. Cashell
Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Scope of Services: School Impact Fee Update

Dear John:

Per your request I have developed a proposed scope of services and cost estimate for updating the Hudson school impact fee. The most recent update of the fee basis was prepared in 2000, but I prepared the original underlying methodology in 1996 (17 years ago).

In reviewing both reports, I found that at the time of the original study, data sources apparently did not permit us to fully document local enrollment ratios by matching student enrollment to addresses and related property assessment data. Instead, we used statistical estimates based on NH Census-based averages, then adjusted them to estimate the ratios for Hudson.

For nearly all the school fee studies I've done over the past 10-15 years, the creation of an address-matched enrollment/assessment file is the first step of the process of computing a school impact fee. The resulting analysis will generate multipliers that are specific to Hudson's historical experience, and the by-products of this analysis become principal components of the assessment.

Since school enrollment per housing unit is tending to decline in most but not all communities, and given an expected general decline in total enrollment, the question of whether a school impact fee remains supportable must be addressed prior to a final decision on continuing the school fee process or amending the basis of assessment.

The impact fee assessment process involves not only a mathematical calculation and rationale for the fees, but also requires certain public policy judgments of the Town on the appropriate allocation of capital improvement costs to new development.

Proposed Scope of Services

The approach to the impact fee will be based on a model similar to the original one, but with all variables fully updated to current conditions (essentially a new fee basis). The components of the analysis would include the following steps:

- Develop a detailed enrollment analysis for Hudson to relate resident student counts by grade to specific addresses and match that to related property assessment data.
- Cross-tabulate the file to show enrollment per housing unit by type of structure, living area, bedrooms and year the housing was built.
- Update all Census demographics relative to housing units, households, the pre-school and school-age population, and Hudson birth data from NH Department of Health and Human services.
- Review history of births and projections of public school enrollment as available from the Hudson School District.
- Meet with School District officials to review school facility history, capacity, class size policy by grade, floor area, capital value (replacement cost), and debt service (historic and projected).
- Facility development costs will be reviewed based on historical District data, proposed projects, and national averages based on construction cost survey information. This will be compared with the estimated replacement cost of existing facilities in Hudson and an appropriate cost standard will be developed for use as the cost basis for the impact fee.
- Develop options for school impact fee schedules *per unit* by structure type, and assessments *per square foot* of living area.
- Provide draft alternative fee schedules and recommendations for waiver criteria, and recommended use of funds.
- Review the language of impact fee ordinance for possible conflicts with recommended fee basis.
- Discuss the rationale for continuing the school impact fee assessment process, and provide an interpretation of the consistency of the fee basis with statutory guidelines within RSA 674:21, V.
- Meet with Planning Department staff, Planning Board, and Town legal counsel, as appropriate, to review the basis of assessment and the rationale for the fee schedules and amounts to be assessed to new development for its proportionate demand on facilities. The cost estimate assumes one public meeting for a final presentation of recommendations, and that other staff level meetings will be conducted during the research process.

- Provide summary narrative report with fully developed options for school impact fee schedules.

Role of the Town of Hudson

The study will require close interaction between BCM Planning and Town and School District staff to compile historical data, student address information, and the property assessment data base. As part of this process, the Town should anticipate the following roles in assisting in BCM Planning's performance of the work plan:

- Assistance from Assessor's office in assembling a Town-wide database on selected property characteristics by parcel.
- Help from the Planning Department in identifying housing developments subject to age-restricted occupancy.
- Securing advisory memoranda, reports and data from School District staff regarding existing and planned school facility capacity, and securing a student address data base.

Cost Estimate

The fee for the original Hudson school impact fee study (1996) comprised about 40% of a larger impact fee study budgeted at \$11,280 (roughly \$4,500 for the school portion of the overall study). The original study did not include the detailed enrollment by address analysis proposed here.

At current hourly rates (2013), I estimate that the cost to update the Hudson school impact fee would be \$7,500 to \$8,500 based on the scope outlined above. This cost range is inclusive of all labor, materials, travel and meeting time as outlined in the scope assumptions.

Schedule for Completion

Given my current workload, the anticipated period required for completion of a full draft report would be between 4-6 months from the Town's authorization to proceed, and from my receipt of key assessment and enrollment data from the Town and School District. Certain portions of the work, relating to the matching of enrollment and assessment information, could begin immediately upon receipt of that data.

Limitations of Study

While BCM Planning will perform all tasks in the proposed scope of services in a professional manner, and within the guidelines of RSA 674:21 V, no warranty of the ultimate legal

defensibility of methodologies subsequently adopted by the Town or related fee assessments should be construed as a part or extension of the performance of this scope of services.

Qualifications and Experience

I have been involved with the development of impact fees and related ordinances in since 1991 and during that time have worked with at least 48 New Hampshire municipalities on impact fee issues. I have also served as an expert witness in the defense of challenges to municipal impact fees in superior court proceedings. A one-page summary of my background is attached.

I would be glad to review this proposal with you at your convenience. This proposal and has been prepared with the understanding that the scope can be revised in the form of a services agreement tailored to best meet the specific needs and concerns of the Town of Hudson.

This proposal has been prepared for the sole use of the Town of Hudson and is not intended for distribution to third parties.

Thank you for calling on me to develop a scope of services for this project; I look forward to working with the Town to review and update the school impact fee assessment.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bruce C. Mayberry".

Bruce C. Mayberry, Principal
BCM Planning, LLC

BRUCE C. MAYBERRY: GENERAL RESUME AND EXPERIENCE

Since 1991, Bruce Mayberry (Principal, BCM Planning, LLC) has been providing planning consultant services, specializing in the fields of municipal planning, housing market analysis, community economic development, fiscal impact analysis, and impact fee development. His experience as a consultant, and in local and state government comprises 30 years of experience in housing analysis and planning in northern New England. He has authored guidebooks for municipal impact fee development and capital improvements programming in New Hampshire.

Prior to establishing his consulting practice, Mr. Mayberry had a seven year tenure with an economic research firm as a Senior Associate and Vice President. In these positions, Mr. Mayberry completed numerous housing market studies and fiscal impact evaluations, and participated in the development of retail market analyses, economic development and industrial development strategies, feasibility studies, and downtown redevelopment plans. He completed market analyses involving proposals for multi-family apartments, single family and condominium housing, and assisted living development. He also researched and authored comprehensive statewide housing studies for the states of Vermont, New Hampshire and Delaware.

Mr. Mayberry also served as Director of Research and Planning for the New Hampshire Housing Finance Authority. While at the Authority, he authored the first State Housing Advisory Plan (1982-83), developed an energy conservation loan program, and was responsible for research relating to bond-financed and subsidized housing programs, housing market research and new program development. He was also responsible for the public information functions of the NHHFA. While at the Authority, and formerly the New Hampshire Housing Commission, he provided technical assistance and information for local government, public and private housing advocacy groups, housing developers, local housing authorities, regional planning commissions and State agencies.

Prior to his graduate education at Rutgers University, Mr. Mayberry served as the first Town Planner and Community Development Director for the Town of Rockingham (Bellows Falls) Vermont, where he was responsible for the coordination and writing of federal grant proposals, and served as liaison to the Regional Planning Commission, Chamber of Commerce and Area Development Corporation. He served as the Town's Zoning Administrator and helped the Planning Board develop its first Master Plan.

Mr. Mayberry's other experience includes socioeconomic analysis for an environmental impact consulting firm and an assignment as a Special Projects Assistant to the New Jersey Commission on Capital Budgeting and Planning.

He holds a master's degree in city and regional planning from Rutgers University, where he also worked as a teaching assistant for various faculty. At Rutgers, he specialized in Housing and Community Development issues. He has a Bachelor of Arts degree in geography from Middlebury College in Vermont and is a graduate of Deering High School of Portland, Maine where he attended the local public school system.

He has been a member of the American Planning Association since 1979, and served as President of New Hampshire Planners Association for the 1983-84 year. He has served in citizen appointments for civic activities including Planning Board, Zoning Board of Adjustment, Economic Development Committee, and Library Building Committee.

CAP Fee Assessment Update

Staff Report

June 12, 2013

Per board action at the May 22, 2013 Meeting, Marty Kennedy, VHB, Inc. will be in attendance at the meeting to present his requested proposal to update Hudson's Traffic Impact Fee System. Said proposal was included in the board's May 22d Packets, but for convenience sake I included it again, herein, as an attachment. Please note, Marty requested, if possible, for him to be able to be first to appear before the board at the meeting. He reported to staff that he has another meeting to attend after he completes presenting his proposal to the board.

Please note, the following information and proposed DRAFT MOTIONS were first provided to the board in the May 22d Meeting Packets, and are again provided below to help facilitate the board review and discussion of the subject at-hand:

In order to fund the \$18,000.00 sum for the update of the "Traffic Impact Fee System", as cited in Mr. Kennedy's proposal, staff recommends using the "Planning Board Exp. Fund, which has a balance of \$58,264.15.

Please note, concerning the possible inclusion of Dracut Rd. in this study update, this street is not presently maintained by the Town, and as such, CAP Fees cannot be assessed nor expended for improvements associated with this street. To this effect, the Town's agreement with NHDOT, as to the portions of the highway corridors maintained by the Town, needs to be amended to include a section of Lowell Rd. (as described in the below DRAFT MOTION) and Dracut Rd. This possibility can be further discussed by the Board at Wednesday night's meeting, and for the meeting, staff will find out the steps necessary to amend said agreement.

DRAFT MOTIONS:

I move to defer further review of the discussion to update the "Traffic Impact Fee System" date specific to the June 26, 2013 meeting.

Motion by: _____ Second: _____ Carried/Failed: _____.

I move for the Planning Board to request from the Board of Selectmen, authorization to expend from the Planning Board Exp Fund the sum of \$18,000.00, and for said sum to be expended on the "Traffic Impact Fee System", as cited in the AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN VANASSE HANGEN BRUSTLIN, INC. AND TOWN OF HUDSON, NEW HAMPSHIRE TRAFFIC IMPACT FEE SYSTEM, dated May 14, 2013, as prepared VHB, Inc.

Motion by: _____ Second: _____ Carried/Failed: _____.

I move for staff to prepare the documents necessary to submit to NHDOT, relative to amending the urban compact area of Hudson to include the following streets: that portion of Lowell Rd. (Rte 3A) not presently included in the urban compact area, located to the immediate north of Dracut Rd., and along Dracut Rd. south to the border of Tyngsboro, MA. Further, staff shall present said documents to the Planning Board for review at the June 26, 2013 meeting.

Motion by: _____ Second: _____ Carried/Failed: _____.

**AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN
VANASSE HANGEN BRUSTLIN, INC.
AND
TOWN OF HUDSON, NEW HAMPSHIRE**

TRAFFIC IMPACT FEE SYSTEM

May 14, 2013

This Agreement is composed of Part I and Part II. Part I includes details of the services to be performed, timing of the services, and compensation. Part II (attached) contains the Terms and Conditions of Agreement, which are the general terms of the engagement between the Town of Hudson, hereinafter called the "client," and Vanasse Hangen Brustlin, Inc. (VHB).

PART I

TRANSPORTATION PLANNING SERVICES

Vanasse Hangen Brustlin Inc. will develop a town-wide traffic impact fee system for the Town of Hudson that will be designed to be easy-to-understand and easy-to-use. The system will provide a table with fees for a wide range of development types (retail, office, residential, etc.) in a report form as well as an electronic EXCEL Spreadsheet. The electronic spreadsheet provides a simple and easy way of applying annual inflation adjustment factors.

The work effort includes an initial meeting with the Planning Board to ensure that town officials fully understand this particular methodology prior to proceeding to develop the full impact fee procedure. The work effort associated with developing the impact fee system would follow the initial meeting. The specific tasks to be conducted are as follows:

- VHB will attend an initial Planning Board meeting with the purpose of reviewing the project scope, schedule, and methodology prior to developing the new procedure.
- Upon concurrence of the methodology, VHB will conduct a field reconnaissance of the town roadway system with the purpose of noting typical travel routes through various sections of the town as well as note traffic flow constrained areas. The information will be used to determine average travel distances for future land use within the community.
- VHB will use available base mapping provided by the town to develop graphics that will be used to delineate traffic impact zones.
- VHB will review the costs of recent roadway construction projects within the town to determine the most up-to-date and appropriate average cost per lane mile. The costs of recent town roadway projects are to be provided to VHB by the town.
- VHB will estimate total daily vehicle trips for a wide range of land uses. Adjustment factors will be established and applied to account for multi-use trips.
- VHB will establish an acceptable operating condition and traffic volume level that will be used as the effective carrying load of a travel lane within the town.
- VHB will estimate an appropriate credit to account for any potential double counting of property owner funding of future traffic improvements.
- VHB will prepare an impact fee table, both in paper form and in the form of an electronic spreadsheet. The spreadsheet will be designed so that the impact fees can be adjusted annually for inflation.



- VHB will review the town's current impact fee ordinance language and in consultation with the town's attorney suggest any potential modifications to the language needed as a result of the updated system. Note that the town would be responsible for having its own attorney review and finalize the specific ordinance language.
- A concise draft report will be prepared for review by town officials. The report will include the impact fee table, a traffic impact fee zone map, and a summary of the impact fee methodology, including all backup calculations.
- VHB will meet with the Planning Board to present and discuss the new traffic impact fee system. We also anticipate the need for up to two (2) working meetings with town staff throughout project.
- After receiving input on the draft report, a final version of the report will be prepared.

SCHEDULE

VHB anticipates performance of services to be completed within 8 to 12 weeks. VHB will begin performance of the above services on the date written authorization to proceed. The schedule is also subject to timely delivery of information promised by the client and is exclusive of client review of interim products and time required to schedule and hold meetings. If the client requests that work under this Agreement be stopped, the schedule is subject to renegotiation when written authorization to proceed is received.

COMPENSATION

VHB will perform the Scope of Services contained in this Agreement for a Fixed Fee for labor and expenses of \$18,000.

Should work, beyond the tasks described in the agreement, be required, VHB will prepare a proposal or amendment that contains the scope of services, fee, and schedule required to complete additional requested tasks.

VANASSE HANGEN BRUSTLIN, INC. AUTHORIZATION

By: _____
 Title: _____
 Date: _____

CLIENT AUTHORIZATION

The Town of Hudson agrees with Part I which includes the Scope of Services, Compensation, Schedule, and Part II, Terms and Conditions of Agreement (attached hereto and acknowledged as being received). Together they constitute the entire Agreement between Vanasse Hangen Brustlin, Inc. and the Town of Hudson.

Fixed Fee for Labor and Expenses: \$18,000

By: _____
 Title: _____
 Date: _____



NH DOT Process For Designating Compact Sections of Highways

Class IV highways shall consist of all highways within the compact sections of cities and towns listed in RSA 229:5, V. The compact section of any such city or town shall be the territory within such city or town where the frontage on any highway, in the opinion of the commissioner of transportation, is mainly occupied by dwellings or buildings in which people live or business is conducted, throughout the year and not for a season only. Whenever the commissioner reclassifies a section of a class I or class II highway as a class IV highway, the commissioner shall prepare a statement of rehabilitation work which shall be performed by the state in connection with the turnback. No highway reclassification from class I or II to class IV shall take effect until all rehabilitation needed to return the highway surface to reputable condition has been completed by the state. Rehabilitation shall be completed during the calendar year preceding the effective date of the reclassification. A copy of the commissioner's statement of work to be performed by the state shall be attached to the notification of reclassification to class IV, and receipt of said statement shall be acknowledged, in writing, by the selectmen of the town, or the mayor of the city, affected by the reclassification.