

- D. Zheng Garden Site Plan (Extension)
SP# 10-15

Map 204/Lot 005
143 Lowell Road

Purpose of Plan: To request a two-year extension to the Planning Board approved Site Plan on 12/10/14. This plan was recorded on 9/03/15 HCRD# 38615. Application Acceptance & Hearing.

- E. Sullivan Road 2 Lot Subdivision
SB# 01-16

Map 162/Lot 023
75 Sullivan Road

Purpose of Plan: to depict the subdivision of Map 162, Lot 23, into two separate lots. Application Acceptance & Hearing.

- F. Amend §334-14. - Building height – of the Zoning Ordinance, by adding language to the end of the first sentence of this section, so that said sentence shall read in its entirety as follows (added language shown in bold-print): No habitable structure may exceed 38 feet in height in any district, **except as provided in Sub-section A. below.**
- G. Amend §334-14. - Building height – of the Zoning Ordinance, by adding new Sub-Section “A.”, allowing in the Sagamore Industrial Park a maximum habitable building height of 50 feet, restricted to those areas of buildings used exclusively for warehouse and/or distribution space only .

- XV. OTHER BUSINESS
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 – 12-31-15

Orchard at Nottingham OSD Subdivision Plan

Staff Report
13 January 2016

Please note, as previously emailed to board members, the 9 DEC 2015 Staff Report, Attachments and Plans stand as the materials to review for this Wednesday night's meeting, relative to this Agenda item. If you need said materials either emailed or hand-delivered to you prior to the meeting, please let me know.

Hudson Hilltop Self-Storage Expansion Site Plan Review

Staff Report
13 January 2016

SITE: 22 Brady Drive -- Map 105/Lot 017 -- SP# 11 – 15

ZONING: G-1

PURPOSE OF PLAN: to depict the improvements associated with the expansion of the existing self-storage facility, which includes three 9,900 sf buildings, parking and access drive. Application Acceptance & Hearing.

SITE PLAN UNDER REVIEW IS ENTITLED: “Non-Residential Site Plan Hudson Hilltop Self Storage Expansion, Map 105; Lot 17, 22 Brady Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 8 OCT 2015, last revised 25 NOV 15, consisting of Sheets 1 - 16 and Notes 1 – 37 on Sheet 4 of 15 (said Plans attached herewith).

ATTACHMENTS:

1. CLD’s 2d Comments Report, including follow-up comments in regard to traffic, dated 23 DEC 15 -“A”.
2. ZBA Decision to Grant a Wetlands Special Exception Permit, dated 21 DEC 15 – “B”.

ATTACHMENTS INCLUDED IN THE DECEMBER 9, 2016 MEETING PACKETS:

3. Site Plan application, Project Narrative, Checklist, Waiver Request Forms and Aerial Photo of the Site, together with Onsite Photos, dated 9 NOV 15 – Attachment “A”.
4. CLD Initial Comments Report, including CLD/JMC Application Checklist, and Traffic Report Comments, dated 23 NOV 15 -“B”.
5. Traffic Impact and Access Study for Proposed Self-Storage Facility (Abridged) – “C”.
6. Comment Reports/Forms from Acting Zoning Admin., Dave Hebert, Deputy Fire Chief, John O’Brien, Road Agent, Kevin Burns, Town Eng., Elvis Dhima, and the Police Dept. “D”.
7. CAP Fee Work Sheet, Matrix Map and Impact Fee Matrix – “E”.
8. HCRD Recorded Development Agreement (Proposed Self-Storage Facility - Robinson and Derry Roads), i.e, Phase I – “F”.
9. HCRD Recorded Master Site Plan Robinson Road Self-Storage (Phase I) – “G”.
10. Robinson Road Self Storage “As-Built” Plan – “H”.
11. Conservation Commission Motion to Recommend Wetlands Special Exception – “I”.

WAIVERS REQUESTED:

- 1) HTC 275-8(26) – Off-Street Parking Spaces
- 2) HTC 275-8(30) - Off-Street Loading Spaces
- 3) HTC 275-8(31)(b) - Landscaping
- 4) HTC 275-9(C) - Noise Study
- 5) HTC 275-9D – Fiscal & Environmental Impact Study

OUTSTANDING ISSUES:

1. CLD has reviewed the Site Plan, Zoning and conducted a “peer” review of the attached Traffic Study for this project, which was prepared by GPI, Inc., dated October 2015. Please see an abridged copy of this Traffic Study “C”. For this meeting, staff specifically requested the Applicant’s Engineer to address each and every one of CLD’s outstanding comments, including the issues concerning traffic conditions along Robinson Rd., from Brady Drive/the Irving Service Station drive to the Derry St./Robinson Rd./West Rd. signalized intersection. Specifically, the board may want the Applicant to continue working with Town officials, relative to designing and implementing improvements to the roadway layout of Robinson Rd., and including review of the traffic signal timing at said Derry St. intersection.
2. In the Deputy Fire Chief’s Comments Report “D” (included in the 9 DEC 15 Staff Report) , he cites that Town water will be provided to this project site, via Robinson Rd. to Brady Drive. **Status:** the municipal water issue concerning this Site Plan application was resolved at the most recent BOS meeting held on 5 JAN 16. During this same meeting the outstanding municipal water issue for the Dunkin Donuts project, off Brady Dr., was also resolved.
3. In regard to the landscape waiver request, one may think that no landscaping being provided by the Applicant is somewhat of an excessive waiver request. However, on the other hand, it appears that the Applicant plans to maintain a substantial natural landscape buffer to the rear of the site, leading to the Twin Meadow Dr. residential neighborhood. Also, a permanent 8 ft. in-height chain link fence is proposed around the perimeter of the developed portion of the site – replicating the fence surrounding Phase 1 of this self-storage complex. See fence installation locations on Sheet 4 and fence details on Sheet 10 of 15.
4. Exterior lighting, parking, onsite travel lanes, stormwater management, as well as the installation of “conservation markers” abutting the wetland areas of this site are addressed in the Plan set. Again, staff has requested the Project Eng. to address all of the site development features at the meeting, including the construction detail of the access driveway, especially involving the wetland crossing.
5. For this meeting, the applicant was further requested to provide renderings of the buildings at the meeting.
6. In regard to the board possibly considering an offsite traffic improvement contribution for this project, please note, that Phase I of this Self-Storage Complex consisted of 52,050 sf, and the agreed upon offsite contribution was \$5,000. See Condition of Approval #5 in the Development Agreement for that project “F”. With this present project consisting of roughly half the size of Phase I, perhaps, a contribution of \$2,500 would be considered appropriate?

APPLICATION TRACKING:

- 5 NOV 15 – Site Plan application submitted.

4) HTC 275-9(C) - Noise Study

I move to grant the requested waiver - HTC 275-9(C) - Noise Study - based on the testimony of the Applicant's representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

5) HTC 275-9D – Fiscal & Environmental Impact Study

I move to grant the requested waiver - HTC 275-9D – Fiscal & Environmental Impact Study - based on the testimony of the Applicant's representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

MOTION TO APPROVE:

I move to approve the Site Plan entitled: "Non-Residential Site Plan Hudson Hilltop Self-Storage Expansion, Map 105; Lot 17, 22 Brady Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 8 OCT 2015, last revised 25 NOV 15, consisting of Sheets 1 - 16 and Notes 1 - 37 on Sheet 4 of 15, 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 Site Plan-of-Record.
- 2) Prior to the Planning Board endorsement of the Site Plan, the Development Agreement shall be favorably reviewed and recommended on by Town Counsel.
- 3) All improvements shown on the Site Plan-of-Record, including Notes 1-37 found on Sheet 4 of 15, shall be completed in their entirety and at the expense of the Applicant or his assigns.
- 4) The calculated CAP fee of \$12,771.00, prepared in accordance with the 2015 CAP Fee Matrix for Zone One, shall be submitted to the Town prior to the issuance of the Certificate of Occupancy. Said CAP fee amount shall be inscribed on the Site Plan-of-Record prior to Planning Board endorsement.
- 5) A contribution of \$ _____ shall be submitted to the Town prior to the Certificate of Occupancy. This contribution shall be used exclusively for road and signal improvements along Robinson Rd., between Brady Drive and the Robinson Rd/Derry St./West Rd. signalized intersection, and a note to this effect shall be inscribed on Plan prior to Planning Board endorsement.

4) HTC 275-9(C) - Noise Study

I move to grant the requested waiver - HTC 275-9(C) - Noise Study - based on the testimony of the Applicant's representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

5) HTC 275-9D – Fiscal & Environmental Impact Study

I move to grant the requested waiver - HTC 275-9D – Fiscal & Environmental Impact Study - based on the testimony of the Applicant's representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

MOTION TO APPROVE:

I move to approve the Site Plan entitled: "Non-Residential Site Plan Hudson Hilltop Self-Storage Expansion, Map 105; Lot 17, 22 Brady Drive, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 8 OCT 2015, last revised 25 NOV 15, consisting of Sheets 1 - 16 and Notes 1 - 37 on Sheet 4 of 15, 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 Site Plan-of-Record.
- 2) Prior to the Planning Board endorsement of the Site Plan, the Development Agreement shall be favorably reviewed and recommended on by Town Counsel.
- 3) All improvements shown on the Site Plan-of-Record, including Notes 1-37 found on Sheet 4 of 15, shall be completed in their entirety and at the expense of the Applicant or his assigns.
- 4) The calculated CAP fee of \$12,771.00, prepared in accordance with the 2015 CAP Fee Matrix for Zone One, shall be submitted to the Town prior to the issuance of the Certificate of Occupancy. Said CAP fee amount shall be inscribed on the Site Plan-of-Record prior to Planning Board endorsement.
- 5) A contribution of \$ _____ shall be submitted to the Town prior to the Certificate of Occupancy. This contribution shall be used exclusively for road and signal improvements along Robinson Rd., between Brady Drive and the Robinson Rd/Derry St./West Rd. signalized intersection, and a note to this effect shall be inscribed on Plan prior to Planning Board endorsement.

- 6) After the issuance of foundation permits for the structures, and prior to the issuance of framing permits, the applicant shall submit to the Hudson Community Development Department foundation "As-Built" plans on transparencies and to the same scale as the approved site plan. The foundation "As-Built" plans shall include all structural dimensions and lot line setback measurements to the foundations and be stamped by a licensed land surveyor. Any discrepancy between the approved site plan and foundation "As-Built" plans shall be documented by the applicant and be part of the foundation "As-Built" submission.
- 7) Prior to the issuance of a final certificate of occupancy, a L.L.S. certified "As Built" site plan shall be provided to the Town of Hudson Community Development Department, confirming that the site conforms with the Planning Board approved Site Plan.
- 8) The Applicant shall be responsible for implementing and maintaining the Stormwater Pollution Prevention Plan (SWPPP).
- 9) Construction activities on the site shall be limited to between 7:00 A.M. and 7:00 P.M. Monday through Saturday. No construction activities shall occur on Sundays.
- 10) This approval shall be subject to final engineering review, including approval of the SWPPP.
- 11) The applicant or his assigns, at his/her expense, shall be responsible for repairing all construction cuts, if any, on Robinson Rd., and this work shall be properly bonded with the Town of Hudson, as well as with the State of New Hampshire, if applicable.
- 12) The Applicant's Engineer and/or Contractor shall contact the Town of Hudson to schedule a preconstruction meeting, which will be held with Town staff prior to the start of construction.

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



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A
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December 23, 2015

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

Re: Town of Hudson Planning Board Review
Hudson Hilltop Self-Storage Expansion (Site Plan)
Tax Map 105, Lot 17; Acct. #1350-871
CLD Reference No. 03-0249.1490

Dear Mr. Cashell:

CLD Consulting Engineers, Inc. (CLD) has reviewed the second submission of the materials received December 14, 2015 related to the above-referenced project. Authorization to proceed on this review was received November 10, 2015. A list of items reviewed is enclosed. The scope of our review is based on the Site Plan Review Codes, Stormwater Codes, Driveway Review Codes, Sewer Use Ordinance 77, Zoning Regulations, and criteria outlined in the CLD Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007, September 3, 2008, and October 2015.

The project appears to consist of the addition of three 9,900 square foot storage units with associated site improvements southeast of the previously approved storage units within the site. The site is serviced by onsite sewer and water, and the additional storage units will share these services (no direct water or sewer service connections to the storage units are proposed).

The following items have outstanding issues:

1. Site Plan Review Codes

- p. **Former/Current CLD Comment:** HR 275-9.F. Copies of existing easements were not received for review as part of the package. The applicant has noted that there are existing slope and drainage easements adjacent to the storage facility expansion location with a proposed easement adjustment.

4. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- a. **Former CLD Comment:** *The applicant should keep the Town informed of all communication with New Hampshire Department of Environmental Services (NHDES) in relation to the Alteration of Terrain (AoT) Permit and Wetland Permit being requested to ensure NHDES comments do not alter drainage design/calculations.*

Current CLD Comment: The applicant has noted that these permits were still pending as of the date of their response letter.



6. Erosion Control/Wetland Impacts

- b. *Former CLD Comment: HR 290-5.B. (1) (o). The applicant should indicate the proposed means for disposal of all stumps.*

Current CLD Comment: The applicant has added a note to the plans indicating that all stumps are to be ground. The applicant should expand the note to show the intent for disposal (i.e. ground than transported off site for disposal; use as erosion controls then left on site; etc.).

9. Other

- a. *Former CLD Comment: The applicant should provide additional details for the installation of proposed guardrail. The plans appear to show relatively abrupt changes in line where the guardrail crosses the box culvert. The applicant should also provide guardrail warrant evaluation calculations, demonstrating that proposed guardrail length and layout is adequate for the proposed grading.*

Current CLD Comment: The applicant has revised the guardrail layout to remove the abrupt changes in line. The applicant did not provide warrant evaluation calculations but noted that the guardrail has been provided along the retaining wall and box culvert and at the 2:1 slope leading down to the stormwater pond. CLD is unable to verify if proposed guardrail locations are adequate.

- c. **Former/Current CLD Comment:** CLD's Plan Set did not include any architectural elevations or plans for the proposed self-storage units.

The following items require Town input:

1. Site Plan Review Codes

- f. *Former CLD Comment: HR 275-8.B.(20) The applicant has not shown the height of the existing buildings within the parcel other than 'one-story' or 'two-story' indications.*

Current CLD Comment: The applicant has noted that the Town of Hudson Planning Board has historically accepted one/two story as a "height measurement".

- g. **Former/Current CLD Comment:** HR 275-8.B.(26) The applicant has requested a waiver from the requirement for off-street parking spaces. A copy of the waiver request was included in CLD's review copy. The applicant has noted that the existing 49,650 square foot self-storage facility was granted a waiver from this regulation previously. Note #13 on plan sheet #4 addresses parking space calculations. The applicant has included the installation of 8 parking spaces near the existing storage facility which are intended for customer parking.

- h. **Former/Current CLD Comment:** HR 275-8.B.(30)(a) The applicant has requested a waiver from the loading space requirement, noting that off-street loading spaces are unnecessary for a self-storage facility as the travel lanes between units serve as loading and unloading areas for the tenants. A copy of the waiver request was included in CLD's review copy. Note #15 on plan sheet #4 indicates that no loading spaces will be provided.

- m. **Former/Current CLD Comment:** HR 275-9.C. The applicant has noted on the plan set that a waiver from the Noise Study requirement is requested. A copy of this waiver request was included in CLD's review copy.



- n. **Former/Current CLD Comment:** HR 275-9.D. The applicant has noted on the plan set that a waiver from the Fiscal and Environmental Impact Study requirement is requested. A copy of this waiver request was included in CLD's review copy.

2. Driveway Review Codes (HR 275-8.B. (34)/Chapter193)

- c. *Former CLD Comment:* The applicant has proposed a K value of 11.52 within the expansion site driveway which is less than the minimum required by Town of Hudson subdivision regulations for roadways. We understand this is not a subdivision, but since recreational vehicle storage is proposed, the applicant should evaluate this design to ensure that this won't result in trailer or emergency vehicle overhangs scraping the roadway or other potential issues.

Current CLD Comment: The applicant has noted that their design exceeds the AASHTO recommended K value of 10 for a 15 mph roadway, and are confident that there will be no issue with vehicles scraping the roadway. The Town should confirm they are comfortable with the proposed geometry.

- d. *Former CLD Comment:* The site appears to have been designed to accommodate SU-type vehicles and vehicles with small trailers. Since tractor trailers likely cannot maneuver the site, we recommend that signage be proposed warning of the no turn around restriction for those type vehicles. The fire department should confirm that the maneuvering area provided is adequate for their use.

Current CLD Comment: The applicant has added a sign note and detail to the plans restricting tractor trailers in the expansion area. The applicant has also noted in the Fire Department Review Comment responses that the site was designed for the ability of to turn and drive around the storage facility with a Hudson fire apparatus. The Fire Department should confirm that their largest response vehicle will be able to maneuver as needed.

- 1.2) *Former CLD Comment:* The collision history summarized in Table 2 shows an average of 4 crashes per year, which is approaching consideration of the intersection as a high crash location. It would be helpful to note more detail about these crashes and the movements involved (e.g., if these crashes involved north-south traffic on Route 102 or east-west traffic on Robinson/West Roads, since these movements are on a permissive green phase). This would have an impact on overall intersection operations and may suggest signal timing changes, such as splitting the east-west phases to reduce potential conflicts, especially since the proposed site expansion would increase exiting traffic from the Robinson Road approach.

Current CLD Comment: The increase in crash events from 2012-2014 may be more indicative of the increase of traffic volumes being processed by this intersection due to adjacent development occurring during that period, and not just an outlier because there was fewer crashes in earlier years. As noted in Table 2, 5 of the 12 crashes between 2012-2014 involved personal injury, so there should be an increased level of concern with operations in and around this intersection. It should be further noted that the proposed Dunkin Donuts is not yet built and occupied, as noted in GPI's letter, so this traffic is not yet reflected in the crash history. A review of the requested crash information from the NH DMV may provide further insight into any operational deficiencies at this location. While it may not be the sole responsibility of this development to address this condition, the intersection should be monitored to see if this trend continues.

Mr. John Cashell
CLD Reference No. 03-0249.1490
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3. Utility Design/Conflicts (HR 275-9.E.)

- a. *Former CLD Comment: HR 275-8.B.(14) The applicant has not indicated the hours of operation for the proposed expanded facility nor have the hours that the proposed building lighting will be illuminated been noted.*

Current CLD Comment: The applicant has noted that the facility is open 24 hours a day, 7 days a week and as such the lights to the existing facility and proposed expansion will remain illuminated during non-daylight hours. The Town should confirm that these hours of operation and lighting are acceptable.

7. Landscaping (HR 275-8B (31))

- a. *Former CLD Comment: HR 275-8.B.(31) The applicant has requested a waiver from the requirement for having to provide new landscaping as part of the proposed facility expansion.*

Current CLD Comment: The waiver is still noted on the plan set as being requested. The applicant has also revised the plans to show a supplementation of trees within the 100' buffer between the expansion area and Map 105 Lot 21.

The following items are resolved or have no further CLD input:

1. Site Plan Review Codes

- a. *HR 275-8.B.(2) The scale of the Master Site Plan sheet is 1:100. All other plan sheets are 1:40.*
- b. *HR 275-8.B.(8) The applicant's vicinity plan is at a scale of 1" = 1,000'±.*
- c. *HR 275-8.B.(13) The applicant is not proposing any new business identification signs as part of the site expansion. Traffic and safety signs for locations within the site are proposed.*
- d. *HR 275-8.B.(14) The applicant has shown building mounted lighting for the new storage buildings. No other site lighting is shown.*
- e. *Former CLD Comment: HR 275-8.B.(17) The applicant has shown two temporary benchmarks on the plans, but has not referenced the survey to a specific United States Geological Survey (USGS) benchmark. The applicant has noted a vertical datum of NGVD 29 and a horizontal datum of NAD 83.*

Current CLD Comment: The applicant has noted that the NHDOT control point utilized and referenced on the plan was obtained from a NHDOT Survey-Geodetic Division with NGVD 29 as the elevation datum. The elevation of the control point 229-0230 was obtained by employing a differential level loop from the USGS TBM and the differential level loop run by NHDOT Survey-Geodetic Division is a second order level loop that met the Federal Geodetic Control Committee Standards set forth in 1984. No further CLD comment.

- i. *HR 275-8.B.(31) See comments below.*



- j. *Former CLD Comment: HR 275-8.B. (35) The applicant has shown a handicap parking space adjacent to the existing facility building. The applicant should provide a detail in the plan set for the painted handicap symbol. Also, additional spot grades should be provided to demonstrate that the space can be graded to ADA standards.*

Current CLD Comment: The applicant has noted that a detail has been provided for the painted handicap symbol and that spot grades were provided showing the parking space conforms to ADA specifications. No further CLD comment.

- k. *HR 275-9.A. See comments below.*

- l. *Former CLD Comment: HR 275-9.B. Traffic Study Review Comments – We have reviewed the site plan as well as the Traffic Impact Study dated October 2015 prepared by Greenman-Pedersen, Inc. (GPI) for this project. In general, the traffic study provides a reasonable estimate and evaluation of the projected traffic impacts of the proposed expansion of the existing self-storage use by 29,700 sf and 27 parking spaces. We concur with the general finding that the proposed development should have minimal impact on traffic operations in the vicinity of the site, provided the suggested signal timing adjustments at the NH Route 102/Robinson Road intersection are implemented. We do have the following technical comments:*

- 1) *Former CLD Comment: New (2015) traffic counts were collected for the weekday PM peak hour at the two study area intersections, but 2013 counts were apparently used for the base Saturday midday peak analyses, which included the projected, not actual, site-generated volumes for the existing site. It is unclear where the Saturday peak volumes at the Brady Drive intersection shown in Figure 2 came from, since they don't agree with the 2013 counts provided in the Appendix. New Saturday data at this intersection would have been more appropriate.*

Current CLD Comment: The GPI response letter dated 12/14/15 notes that these counts were from the previously approved traffic study from 2013 for the Dunkin Donuts project on Brady Drive that has yet to be constructed and the occupancy of the self-storage facility at the time of the counts. It would have been preferable to have used updated counts showing actual 2015 conditions versus projected values, especially since the previous counts are 2 years old. However, the approach used is a reasonable estimate of projected 2015 base conditions. No further CLD comment.

- 3) *Former CLD Comment: The vehicle speed measurements in Table 3 are from 2013 and are on the segment of the road between Brady Drive and the traffic signal, which would be expected to be on the lower end of the scale since they are completing a turn from a signalized intersection. No speed information is provided for Robinson Road further south of Brady Drive, which would be more indicative of typical speeds approaching the intersection.*

Current CLD Comment: GPI's response is that there is more than sufficient available sight distance looking south on Robinson Road for travel speeds in excess of 30 mph, which is an accurate statement. We disagree with the premise that speeds on Robinson Road traveling northbound on an uncontrolled roadway would be similar from those turning and entering the road from the signalized intersection. No further CLD comment.



- 4) *Former CLD Comment: Trip Generation – it is unclear where the ‘counted trips’ shown in the Appendix for the Saturday peak period came from, since these numbers do not agree with the volumes shown in Figure 2. It appears these numbers were derived from applying the per-unit rate from the 315 units to the 96 units from 2013, but this was not calculated the same way for the weekday PM peak case. While the approach appears reasonable, the calculations are confusing.*

Current CLD Comment: This has been explained as part of their response to Item 1 above. No further CLD comment.

- 5) *Former CLD Comment: Capacity Analyses – while the net impact of the proposed site expansion is minimal, the queue analyses identify issues that may affect operations at the signal under either No-Build or Build conditions. For example, there is only 250 feet from the stop bar to Brady Drive, and average and peak queues on the Robinson Road NB approach are projected to meet or exceed this number even in 2016. Furthermore, the exclusive right turn lane is only about 150 feet long, which means that this lane may be blocked by the average thru queue, notably during the weekday PM peak condition. This could have the effect of adding this right-turn traffic to the thru lane, and potentially blocking Brady Drive and the Irving exit drive. This would further impede the ability of traffic to exit from the Irving drive, which is already projected to operate at a poor Level of Service.*

While this proposed self-storage site expansion is not the sole contributor to this issue, the cumulative traffic impacts of development in and around this intersection appear to be taxing the ability of this intersection to accommodate projected traffic demands, despite the calculated acceptable Levels of Service, and that the Town should continue to monitor operations in this area as these projects come on line.

Current CLD Comment: Comment acknowledged. GPI further noted that the Dunkin Donuts site has granted a 12-foot easement along the Robinson Road frontage for future roadway purposes. No further CLD comment.

- o. *HR 275-9.E. See comments below.*
q. *HR 275-9.G. See comments below.*

2. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

- a. *Former CLD Comment: The applicant should review the proposed location of the dumpster enclosure as it may inhibit the line of sight for vehicles exiting the expansion site driveway.*

Current CLD Comment: The applicant has noted that there is 270' of sight distance to the far right portion of the site at this location. No further CLD comment.

- b. *Former CLD Comment: The applicant should show the proposed driveway slope between station 0+00 and the edge-of-curb at the stop sign to show if a suitable transition exists from the 5.0% slope of the driveway starting at 0+00.*

Current CLD Comment: The applicant has added spot grades to the plans. No further CLD Comment.



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3. Utility Design/Conflicts (HR 275-9.E.)

- b. *Former CLD Comment: HR 275-9.E. The applicant should include the proposed underground utilities in the box culvert detail or provide a separate detail for this crossing.*
Current CLD Comment: The applicant has added the proposed underground utilities to the box culvert detail. No further CLD comment.
- c. *Former CLD Comment: HR 275-9.E. The applicant should label the underground utility line shown adjacent to the fire alarm extending to the proposed storage units.*
Current CLD Comment: The applicant has added a label to the underground utility line. No further CLD comment.

4. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- b. *Former CLD Comment: The site is private, and the existing/proposed detention basin is fully accessible via many directions, however the applicant should provide a stabilized drainage basin access road to be utilized when necessary.*
Current CLD Comment: The applicant has added a gravel access drive. No further CLD comment.
- c. *Former CLD Comment: Stormwater Management Regs.290-5.A.(7): The BMP worksheets supplied provide both an estimated seasonal high water table (ESHWT) elevation and depth to bedrock, as well as the Infiltration Feasibility Report notes ESHWT. The applicant should provide test pit data/log on the plan set or in the AoT Permit application.*
Current CLD Comment: The applicant has provided test pit locations and test pit logs within the plan set. No further CLD comment.
- d. *Former CLD Comment: The Post-Development drainage diagram in the AoT application shows catch basin #140 draining to CB #14. It appears that this is CB #15 as shown on the plans. Also, proposed catch basin #4 on the plans appears to be designated as CB #111 in the Post-Development drainage diagram. The applicant should clarify accordingly.*
Current CLD Comment: The applicant has revised the catch basin numbers to coordinate the plans with the AoT application. No further CLD comment.

5. Zoning (HR 334)

- a. *Former CLD Comment: HR 334-14. The applicant should include the height of the proposed storage units on the plans.*
Current CLD Comment: The applicant has added a note to the plans indicating the building heights are less than 38 feet. No further CLD comment.
- b. *Former CLD Comment: HR 334-20. The site is located in the General One (G-1) District. The applicant's proposed use for the site is permitted in this district.*
Current CLD Comment: No further CLD comment.
- c. *Former CLD Comment: HR 334-27. The proposed storage unit expansion conforms with the minimum dimensional requirements for the General One (G-1) District.*
Current CLD Comment: No further CLD comment.



- d. *Former CLD Comment: HR 334-35.B.(2) & 38.D. There are several wetlands areas noted within the subject lot, and some of the associated site improvements are located within the wetlands and wetlands buffers. These proposed improvements (site access road, restoration of previously approved wetlands buffer impact) are permitted by Special Exception. The applicant has indicated in the project narrative that a ZBA Special Exception hearing is scheduled.*

Current CLD Comment: The applicant has noted that the ZBA Wetland Special Exception was granted on December 10, 2015. No further CLD comment.

- e. *Former CLD Comment: HR 334-38.A. The proposed wetlands impact is less than 1,000 square feet, with associated wetlands buffer impacts that exceed 6,200 square feet.*

Current CLD Comment: No further CLD comment.

- f. *Former CLD Comment: HR 334-64. The applicant is not proposing any new business identification signs as part of the site expansion. Traffic and safety signs for locations within the site are proposed.*

Current CLD Comment: No further CLD comment.

- g. *Former CLD Comment: HR 334-83. The applicant has noted that the site is not located in a designated flood hazard area.*

Current CLD Comment: No further CLD comment.

6. Erosion Control/Wetland Impacts

- a. *Former CLD Comment: HR 290-4.A (3) and 5.A.(3). The applicant should consider the need for an additional stabilized construction entrance/exit at the temporary wetlands crossing that is to be restored if this will be used as a means of access and egress to the site during construction.*

Current CLD Comment: The applicant has added a stabilized construction exit for the wetland impact restoration area. No further CLD comment.

8. State and Local Permits (HR 275-9.G.)

- a. *Former CLD Comment: The applicant has noted that a NHDES Wetlands Minimum Impact Dredge and Fill Permit and a NHDES Alteration of Terrain (AoT) permit are pending. The applicant has also noted that a NPDES Notice of Intent (NOI) is required prior to construction. The applicant should forward copies of all documentation related to these permits to the Town for their records.*

Current CLD Comment: The applicant has noted that upon approval copies of the Wetland and AoT permits will be forwarded to the Town. No further CLD comment.

- b. *Former CLD Comment: Additional local permitting may be required.*

Current CLD Comment: No further CLD comment.

9. Other

- b. *Former CLD Comment: The concrete box culvert details are inconsistent in that one refers to a 4' rise x 5' span culvert while another refers to a 5' rise x 4' span culvert. The applicant should coordinate the details accordingly.*

Current CLD Comment: The applicant has revised the culvert details. No further CLD comment.

Mr. John Cashell
CLD Reference No. 03-0249.1490
December 23, 2015
Page - 9



Please feel free to call if you have any questions.

Very truly yours,

A handwritten signature in cursive script that reads 'Heidi J. Marshall'.

Heidi J. Marshall, P.E.

A handwritten signature in cursive script that reads 'Paul Konieczka'.

Paul Konieczka, AICP

HJM:PK:mjt

Enclosure

cc: Town of Hudson Engineering Division – File
Keach-Nordstrom Associates, Inc.
10 Commerce Park North, Suite 3B
Bedford, NH 03110
Fax (603) 627-2915



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

TO: File

FROM: Steven W. Reichert, P.E. 

DATE: December 23, 2015

RE: Town of Hudson Planning Board Review
Proposed Hilltop Self Storage Expansion (Site Plan)
Tax Map 105, Lot 17; Acct. #1350-866
CLD Reference No. 03-0249.1490

The following list itemizes the set of documents reviewed related to the Hilltop Self-Storage Facility Expansion at 22 Brady Drive, Hudson, NH.

- *Letter of Transmittal* from Keach-Nordstrom Associates, Inc. (KNA) to CLD Consulting Engineers, Inc. (CLD) dated and received December 14, 2015.
 1. Copy of *Preliminary & Final Site Plan Application for Plan Review, Town of Hudson, New Hampshire for Map 105, Lot 17*, dated November 9, 2015.
 2. Copy of *Comment Response Letter*, dated December 14, 2015.
 3. Copy of *Response to Traffic Peer Review Comments Letter*, prepared by Greenman-Pedersen, Inc., dated December 14, 2015
 4. Copy of Non-Residential Site Plan – Hudson Hilltop Self Storage Expansion, *Map 105, Lot 17, 22 Brady Drive, Hudson, New Hampshire* Plan Set, prepared by Keach-Nordstrom Associates, Inc. dated October 8, 2015 and last revised December 10, 2015, unless otherwise noted, including the following:
 - a. *Cover Sheet*, revised on November 25, 2015.
 - b. *Master Site Plan*, Sheet 1 of 16.
 - c. *Existing Conditions Plan*, Sheet 2 of 16.
 - d. *Removal/Demolition Plan*, Sheet 3 of 16.
 - e. *Non-Residential Site Layout Plan*, Sheet 4 of 16.
 - f. *Grading, Drainage and Utility Plan*, Sheet 5 of 16.
 - g. *Erosion Control Plan*, Sheet 6 of 16.
 - h. *Landscape Plan*, Sheet 7 of 16.
 - i. *Lighting Plan*, Sheet 8 of 16.
 - j. *Profiles*, Sheet 9 of 16.
 - k. *Construction Details*, Sheets 10 through 16 of 16.

SWR:mjt

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

Hudson Town Hall
Hudson Zoning Board
12 School Street
Hudson, NH 03051

13

Town of Hudson

Zoning Board of Adjustment

Decision to Grant a Wetlands Special Exception Permit

On **12/10/15**, the members of the Hudson Zoning Board of Adjustment, as part of its regular public meeting for that date, heard **Case 105-017**, pertaining to a request by **Noury Investments, LLC, 17 Elnathans Way, Hollis, NH**, for a Wetland Special Exception for the **proposed self-storage expansion located at 22 Brady Drive, Hudson, NH**, to impact **approximately 640 square feet of permanent wetland impact, 6,232 square feet of permanent wetland buffer impact to construct a 24' wide access driveway that will extend from the existing facility to the expansion, and 2,712 square feet of temporary wetland buffer impact to restore the previously permitted buffer impact. [Map 105, Lot 017; Zoned G-1; HZO Article IX, Section 334-35, Wetland Conservation District.]**

Following the hearing of testimony by the applicant, a majority of the members of this Zoning Board voted that this Wetlands Special Exception should be granted, with the following stipulations:

1. With stipulation to carry out all requirements or stipulations of the Conservation Commission as follows:
 - a. Construction and restoration shall comply with **BEST MANAGEMENT PRACTICES TO CONTROL NON-POINT SOURCE POLLUTION: A GUIDE FOR CITIZENS AND TOWN OFFICIALS (NH Dept of Environmental Services – Current Issue)**

- b. During construction and restoration, erosion control barriers shall be installed and maintained to the satisfaction of the Town Engineer.

For details of specific discussion relative to this decision, please consult the public minutes recorded during this hearing.

All representations of fact or intention made by the applicant or any applicant's representative(s) during testimony before the Zoning Board of Adjustment relative to the obtaining of this special exception shall be considered conditions of the special exception, regardless of the fact that such facts or intentions were not specifically stated as part of the motion to grant.

In the event that the requested use subsequently is found by the Hudson Zoning Administrator to demonstrate deliberate or preventable lack of compliance with any applicable stipulation or restriction, including the verbally specified restrictions described in the preceding paragraph, such use shall be held to be in violation of the covenant made with the Board, and corrective action(s) will be enforced under N.H. R.S.A. 676:17, Fines and Penalties, which allows a civil penalty of \$275 for the first offense and \$550 for subsequent offenses for each day that such violation is found to continue, as well as recovery of costs and reasonable attorney's fees.

Signed:


Acting Chairman, Hudson Zoning Board of Adjustment

Date:

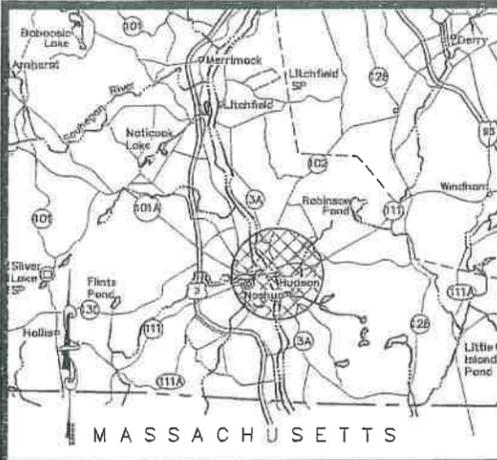
12/21/2015

Signed:

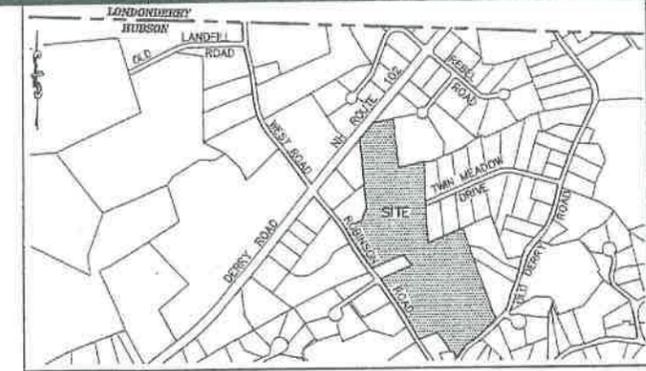

Acting Zoning Administrator

Date:

12/28/2015



VICINITY PLAN
NOT TO SCALE



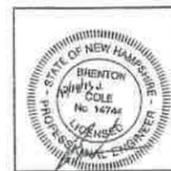
VICINITY PLAN
SCALE: 1" = 1,000'

NON-RESIDENTIAL SITE PLAN HUDSON HILLTOP SELF STORAGE EXPANSION MAP 105 LOT 17 22 BRADY DRIVE HUDSON, NEW HAMPSHIRE



OWNER/APPLICANT:
NOURY INVESTMENTS, LLC.
 17 ELNATHANS WAY
 HOLLIS, NEW HAMPSHIRE 03049

PREPARED BY:
KEACH-NORDSTROM ASSOCIATES, INC.
 10 COMMERCE PARK NORTH, SUITE 3B
 BEDFORD, NEW HAMPSHIRE 03110
 (603) 627-2881



KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

OCTOBER 8, 2015

LAST REVISED: NOVEMBER 25, 2015

PROJECT NO. 08-0925-2

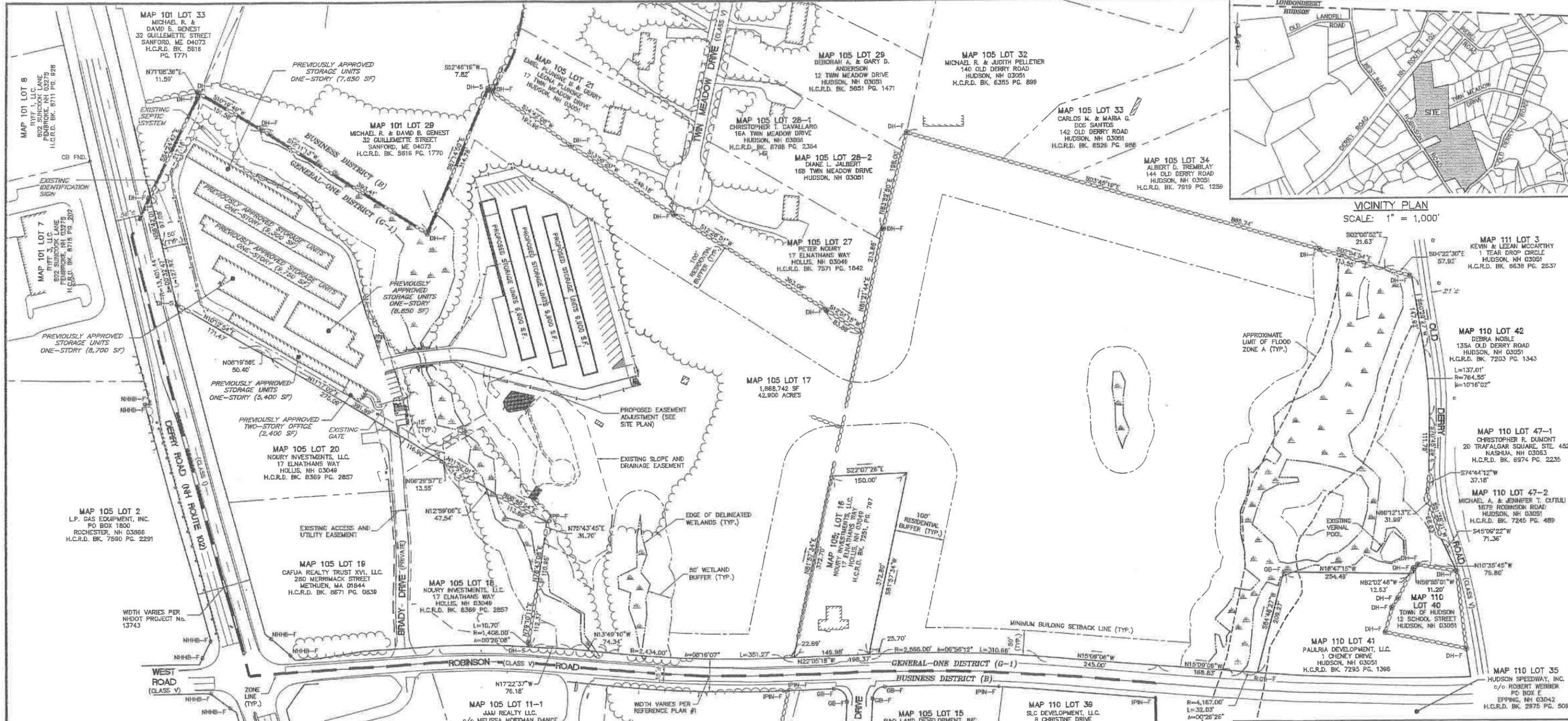
SHEET TITLE

- MASTER SITE PLAN
- EXISTING CONDITIONS
- REMOVALS/DEMOLITION PLAN
- NON-RESIDENTIAL SITE LAYOUT PLAN
- GRADING, DRAINAGE, AND UTILITY PLAN
- EROSION CONTROL PLAN
- LANDSCAPE PLAN
- LIGHTING PLAN
- PROFILES
- CONSTRUCTION DETAILS

SHEET No.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 - 16

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL	APPROVED BY THE HUDSON, NH PLANNING BOARD
	DATE OF MEETING: _____
	SIGNATURE _____ SIGNATURE DATE _____
	SIGNATURE _____ SIGNATURE DATE _____
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.	



VICINITY PLAN
SCALE: 1" = 1,000'

**MASTER SITE PLAN
HUDSON HILL TOP SELF
STORAGE EXPANSION**
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 38, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS		
No.	DATE	DESCRIPTION
1	11/25/15	REV. PER WATER MAIN EXTENSION
2	12/10/15	REV. PER TOWN COMMENTS

DATE: OCTOBER 8, 2015
PROJECT NO: 08-0925-2
SCALE: 1" = 100'
SHEET 1 OF 16

WETLANDS WERE DELINEATED BY ROBERT PROKOP, NH CERTIFIED WETLAND SCIENTIST (8063) FOLLOWING THE CRITERIA DESCRIBED IN THE JANUARY 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (VERSION 2.0). WETLAND DELINEATION PREPARED BY:

Robert Prokop
ROBERT PROKOP
CERTIFIED WETLAND SCIENTIST (NH) 8/31/15

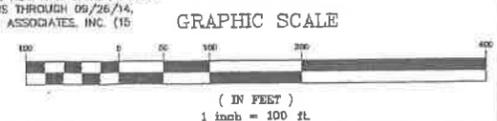
CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE IN DECEMBER 2009 AND JANUARY 2010, WITH SUPPLEMENTAL MEASUREMENTS MADE DURING AUGUST OF 2015. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael R. Dahlberg
MICHAEL R. DAHLBERG
DATE: 12-14-15

SEE SHEET 4 FOR NOTES

- REFERENCE PLANS:**
- "N.H.C. SUBDIVISION, DERRY ROAD-ROUTE 102 & ROBINSON ROAD," HUDSON, NH, PREPARED FOR NOURY INVESTMENTS, LLC., PREPARED BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC., DATED JANUARY 10, 2003.
 - "NON-RESIDENTIAL SITE PLAN, ROBINSON ROAD SELF STORAGE, MAP 105, LOT 17, ROBINSON ROAD & DERRY ROAD (NH ROUTE 102), HUDSON, NEW HAMPSHIRE," DATED: AUGUST 2010, WITH REVISIONS THROUGH 01/03/11, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC. (22 SHEETS)
 - "NON-RESIDENTIAL SITE LAYOUT PLAN, LAND OF NOURY INVESTMENTS, LLC., PREPARED FOR DUNKIN DONUTS, MAP 105, LOT 18, 14 BRADY DRIVE, HUDSON, NEW HAMPSHIRE," DATED: JANUARY 24, 2014, WITH REVISIONS THROUGH 09/26/14, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC. (15 SHEETS)

ROBERT PROKOP
No. 063
8/31/15



- LEGEND**
- GRANITE BOUND FOUND
 - IRON PIN FOUND
 - IRON PIPE FOUND
 - DRILL HOLE SET
 - DRILL HOLE FOUND
 - UTILITY POLE
 - PROPERTY LINE
 - ABUTTER LINE
 - WETLAND
 - TREELINE
 - EDGE OF PAVEMENT
 - BUILDING SETBACK LINE
 - EASEMENT LINE
 - STONEMALL
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED CHAIN LINK FENCE
 - ZONE LINE
 - FLOOD LINE



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

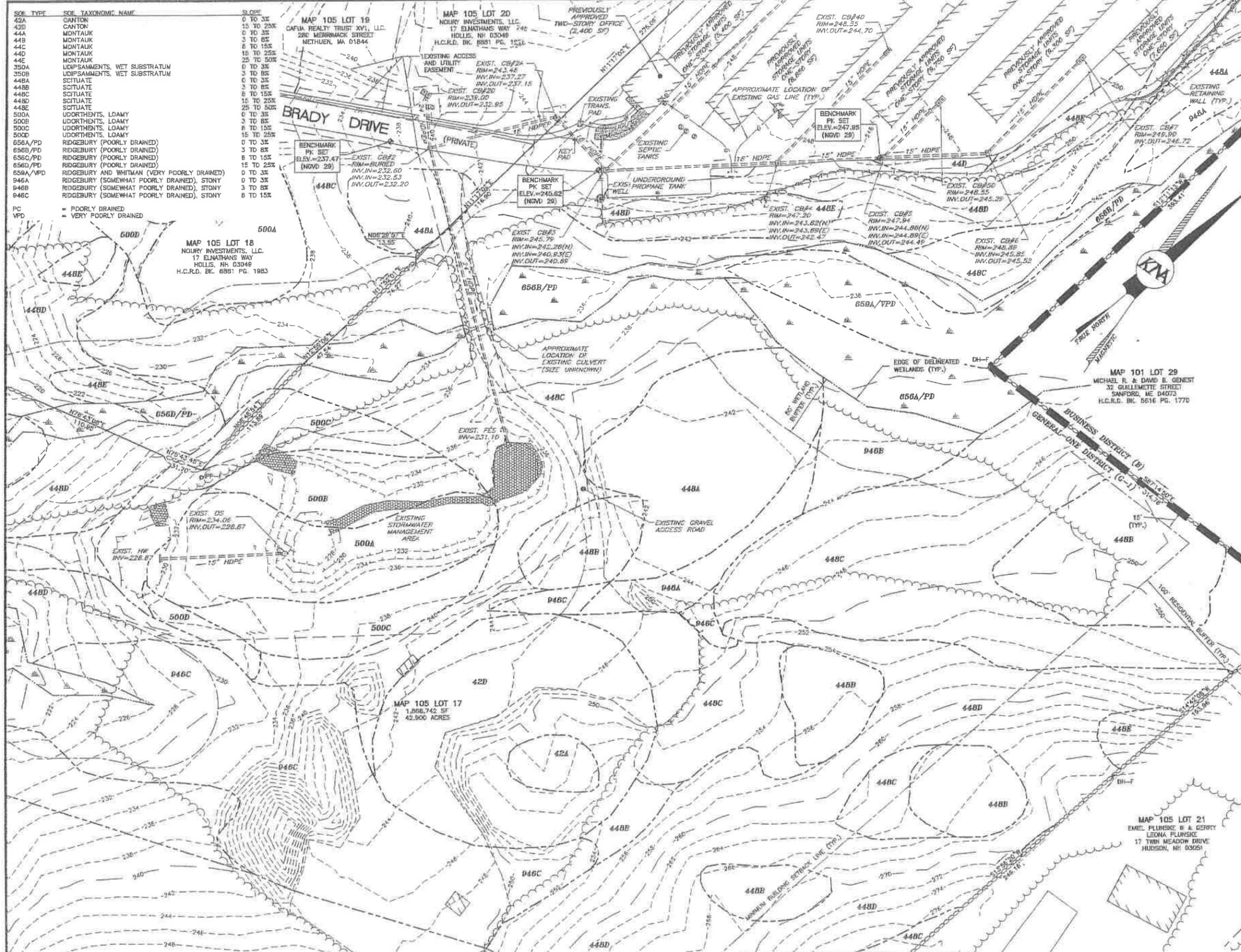
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ SIGNATURE DATE _____

SIGNATURE _____ SIGNATURE DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.





SOIL TYPE	SOIL TAXONOMIC NAME	SLOPE
42A	CANTON	0 TO 3%
42B	CANTON	15 TO 20%
44A	MONTAUK	0 TO 3%
44B	MONTAUK	3 TO 15%
44C	MONTAUK	6 TO 15%
44D	MONTAUK	15 TO 25%
44E	MONTAUK	25 TO 50%
350A	UDIPSAMENTS, WET SUBSTRATUM	0 TO 3%
350B	UDIPSAMENTS, WET SUBSTRATUM	3 TO 8%
448A	SCITUATE	0 TO 3%
448B	SCITUATE	3 TO 15%
448C	SCITUATE	6 TO 15%
448D	SCITUATE	15 TO 25%
448E	SCITUATE	25 TO 50%
500A	UDORTMENTS, LOAMY	0 TO 3%
500B	UDORTMENTS, LOAMY	3 TO 8%
500C	UDORTMENTS, LOAMY	8 TO 15%
500D	UDORTMENTS, LOAMY	15 TO 25%
656A/PD	RIDGEBURY (POORLY DRAINED)	0 TO 3%
656B/PD	RIDGEBURY (POORLY DRAINED)	3 TO 8%
656C/PD	RIDGEBURY (POORLY DRAINED)	8 TO 15%
656D/PD	RIDGEBURY (POORLY DRAINED)	15 TO 25%
659A/VPD	RIDGEBURY AND WHITMAN (VERY POORLY DRAINED)	0 TO 3%
946A	RIDGEBURY (SOMEWHAT POORLY DRAINED), STONY	0 TO 3%
946B	RIDGEBURY (SOMEWHAT POORLY DRAINED), STONY	3 TO 8%
946C	RIDGEBURY (SOMEWHAT POORLY DRAINED), STONY	8 TO 15%

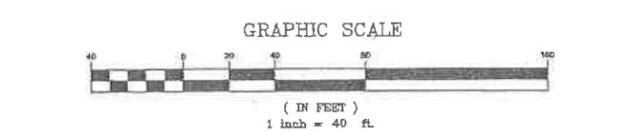
PC = POORLY DRAINED
VPD = VERY POORLY DRAINED

- REFERENCE PLANS:**
- "HILL SUBDIVISION, DERRY ROAD-RT. 102 & ROBINSON ROAD," HUDSON, NH, PREPARED FOR NOURY INVESTMENTS, LLC, PREPARED BY MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC, DATED JANUARY 10, 2003.
 - "NON-RESIDENTIAL SITE PLAN, ROBINSON ROAD SELF STORAGE, MAP 105; LOT 17, ROBINSON ROAD & DERRY ROAD (NH ROUTE 102), HUDSON, NEW HAMPSHIRE," DATED AUGUST 2010, WITH REVISIONS THROUGH 01/23/11, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC. (22 SHEETS)
 - "NON-RESIDENTIAL SITE LAYOUT PLAN, LAND OF NOURY INVESTMENTS, LLC, PREPARED FOR DUNKIN DONUTS, MAP 105; LOT 19, 14 BRADY DRIVE, HUDSON, NEW HAMPSHIRE," DATED JANUARY 24, 2014, WITH REVISIONS THROUGH 09/26/14, PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC. (15 SHEETS)
- GENERAL NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS WITHIN THE LIMITS OF PROPOSED WORK ON MAP 105 LOT 17 IN THE TOWN OF HUDSON.
 - TOTAL SITE AREA = 1,868,742 SF, OR 42.900 ACRES.
 - MAP 105 LOT 17 INDICATES TOWN OF HUDSON TAX ASSESSOR'S MAP AND LOT NUMBERS.
 - THE SUBJECT PARCEL IS LOCATED WITHIN THE GENERAL-ONE (G-1) DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS:
 - MINIMUM LOT AREA: 67,120 SF
 - MINIMUM LOT FRONTAGE: 200 FT
 - FRONT SETBACK: 50 FT
 - SIDE SETBACK: 15 FT
 - REAR SETBACK: 15 FT
 - TOPOGRAPHIC INFORMATION WITHIN THE RIGHT-OF-WAY OF DERRY ROAD AND ROBINSON ROAD, WETLANDS, BOUNDARY, AND AS-BUILT INFORMATION IS THE PRODUCT OF AN ON GROUND SURVEY PERFORMED BY THIS OFFICE BETWEEN DECEMBER 2009 AND AUGUST 2015. THE REMAINING TOPO SHOWN HEREIN WAS PROVIDED BY THE CLIENT.
 - HORIZONTAL DATUM IS NAD 83. VERTICAL DATUM IS NGVD 29. (STANDARD NHDOT DISC 228-0230)
 - THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
 - THE PARCEL IS SERVICED BY A PRIVATE WELL AND ON-SITE SEPTIC SYSTEM.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - THE SUBJECT PREMISES IS NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 3301100500, PANEL 506 OF 701, AND MAP NUMBER 3301100500, PANEL 506 OF 701, EFFECTIVE DATE SEPTEMBER 25, 2006. THE SUBJECT PARCEL IS LOCATED IN ZONES 'A' & 'X'.

- WETLAND/SITE SPECIFIC SOIL NOTES:**
- WETLANDS WERE FLAGGED BY ROBERT PROKOP (NH CERTIFIED WETLAND SCIENTIST #063) OF WETLAND CONSULTING SERVICES UTILIZING THE CRITERIA DESCRIBED IN THE JANUARY 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHEASTRAL AND NORTHEAST REGION (VERSION 2.0) ON MARCH 10 AND 16, 2010 AND UPDATED ON AUGUST 24, 2015.
 - SITE SPECIFIC SOIL MAPPING WAS PERFORMED BY ROBERT PROKOP AND FIELD REVIEWED BY ERIC FONTAINE (NH CERTIFIED SOIL SCIENTIST #083) ON APRIL 2, 2010 TO THE SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, SPECIAL PUBLICATION NUMBER 3, DECEMBER, 2006.
 - THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR USE AS A PLANNING DOCUMENT FOR RESIDENTIAL SUBDIVISION CONSTRUCTION. IT WAS PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS). THERE IS A NARRATIVE REPORT DATED APRIL 6, 2010 THAT ACCOMPANIES THIS MAP.
 - THE SOIL MAP UNITS IDENTIFIED FOR TAX MAP 105, LOTS 17, 18, 19 & 20, THAT TOTALS APPROXIMATELY 22.35 ACRES, AND IS LOCATED OFF ROBINSON ROAD IN HUDSON, NEW HAMPSHIRE ARE IDENTIFIED BELOW USING THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, ISSUE #5, JANUARY 1999:

LEGEND

□ GB-F	GRANITE BOUND FOUND	—	PROPERTY LINE
○ IFF-F	IRON PIPE FOUND	—	ABUTTER LINE
⊙ DH-F	DRILL HOLE FOUND	—	WETLAND
⊙ U	UTILITY POLE	—	TREELINE
+	SIGN	—	CHAIN LINK FENCE
+	LIGHT	—	DRAINAGE LINE
+	GAS VALVE	—	RETAINING WALL
⊙ W	WELL	—	EDGE OF PAVEMENT
⊙ F	FLARED END SECTION	—	EDGE OF GRAVEL
⊙ C	CATCH BASIN	—	10' CONTOUR
⊙ S	SEWER MANHOLE	—	2' CONTOUR
— FA	FIRE ALARM	—	BUILDING SETBACK LINE
— UCU	UNDERGROUND UTILITIES	—	EASEMENT LINE
— G	GAS LINE	—	STONEWALL
— W	WATER LINE	—	SITE SPECIFIC SOIL LINE



**EXISTING CONDITIONS PLAN
HUDSON HILL TOP SELF
STORAGE EXPANSION**
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 88, Bedford, NE 03110 Phone (603) 827-2881

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ SIGNATURE DATE _____

SIGNATURE _____ SIGNATURE DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

ROBERT PROKOP
NH CERTIFIED WETLAND SCIENTIST (#063)
8/31/15

ERIC FONTAINE
NH CERTIFIED SOIL SCIENTIST (#083)
10/05/10

SITE SPECIFIC SOIL SURVEY MAP PREPARED BY:

ROBERT PROKOP
NH CERTIFIED WETLAND SCIENTIST (#063)
8/31/15

ERIC FONTAINE
NH CERTIFIED SOIL SCIENTIST (#083)
10/05/10

CERTIFICATION:

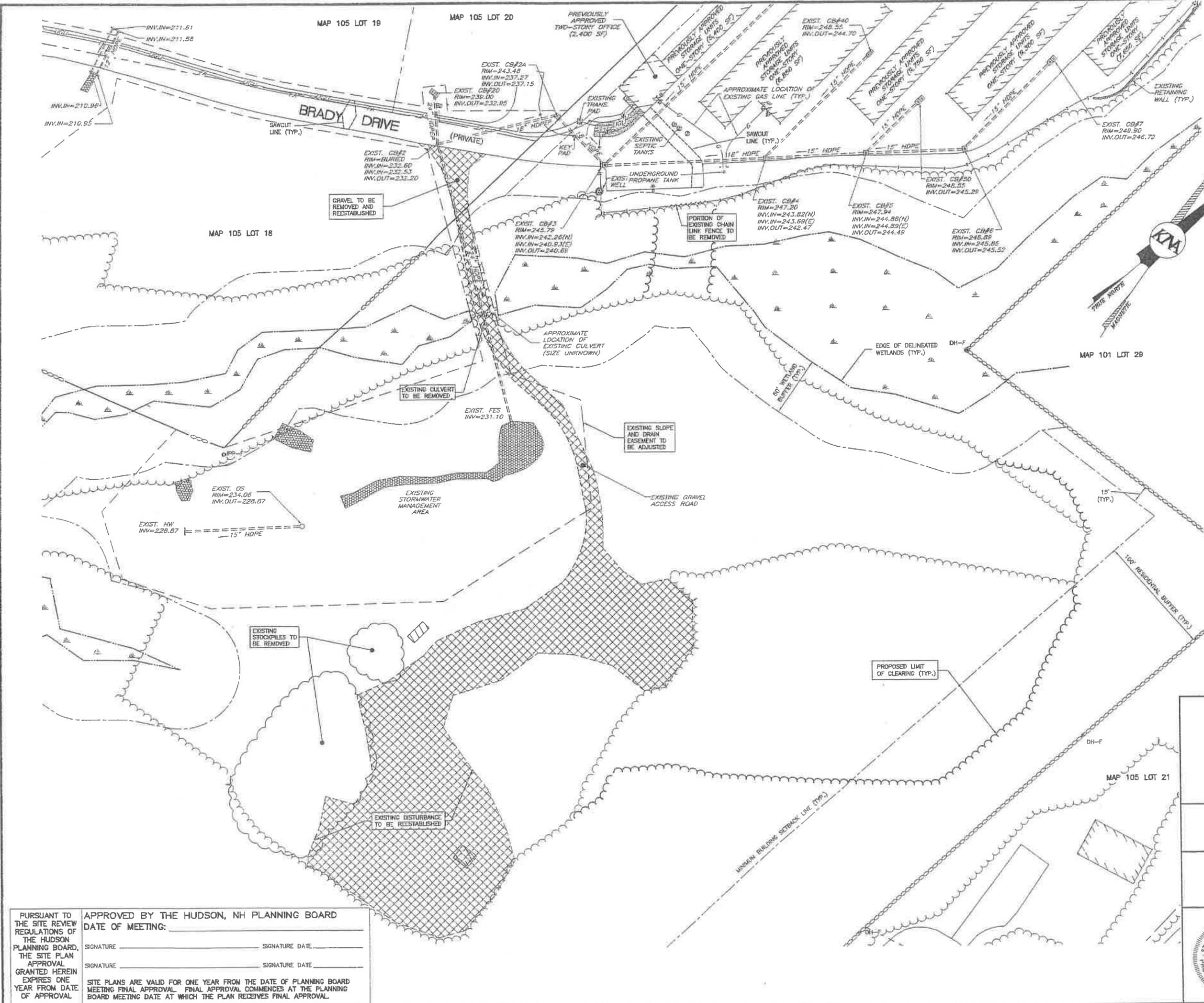
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE IN DECEMBER 2009 AND JANUARY 2010, WITH SUPPLEMENTAL MEASUREMENTS MADE DURING AUGUST OF 2015. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Eric Fontaine
10/05/10

REVISIONS

No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 5, 2015
PROJECT NO: 08-0925-2
SCALE: 1" = 40'
SHEET 2 OF 16

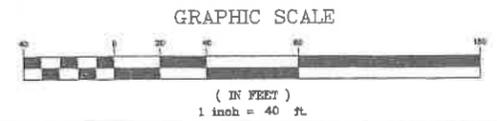


- REMOVALS/DEMOLITION NOTES:**
- ITEMS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE TOWN OF HUDSON REQUIREMENTS, UNLESS OTHERWISE SHOWN HEREON OR DIRECTED BY OWNER.
 - ALL EXISTING GRAVEL WITHIN THE CROSS HATCHED AREA IS TO BE REMOVED DURING THE DEMOLITION PHASE OF THE PROJECT. EXCESS MATERIAL FROM THESE AREAS SHALL BE APPROPRIATELY DISPOSED OF OFFSITE BY AN APPROVED METHOD.
 - THE CONTRACTOR SHALL CONTROL ALL DUST GENERATED DURING THE REMOVAL PHASE AND CONSTRUCTION PHASE SO THAT NE JUST LEAVES THE SITE.
 - ANY MONUMENT DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AT THE SITE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.



LEGEND

- ⊠ GB-F GRANITE BOUND FOUND
- ⊠ IPP-F IRON PIPE FOUND
- ⊠ DH-F DRILL HOLE FOUND
- ⊠ UTILITY POLE
- ⊠ SIGN
- ⊠ LIGHT
- ⊠ GAS VALVE
- ⊠ WELL
- ⊠ FLARED END SECTION
- ⊠ CATCH BASIN
- ⊠ SEWER MANHOLE
- ⊠ FIRE ALARM
- ⊠ UNDERGROUND UTILITIES
- ⊠ GAS LINE
- ⊠ WATER LINE
- ⊠ PROPERTY LINE
- ⊠ ABUTTER LINE
- ⊠ WETLAND
- ⊠ TREELINE
- ⊠ CHAIN LINK FENCE
- ⊠ DRAINAGE LINE
- ⊠ RETAINING WALL
- ⊠ EDGE OF PAVEMENT
- ⊠ EDGE OF GRAVEL
- ⊠ BUILDING SETBACK LINE
- ⊠ EASEMENT LINE
- ⊠ STONEWALL
- ⊠ GRAVEL TO BE REMOVED



REMOVALS/DEMOLITION PLAN
HUDSON HILL TOP SELF STORAGE EXPANSION
 MAP 105 LOT 17
 22 BRADY DRIVE
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: NOURY INVESTMENTS, LLC. 17 ELMNATHANS WAY HOLLIS, NH 03049 BK. 8421 PG. 155	APPLICANT: NOURY INVESTMENTS, LLC. 17 ELMNATHANS WAY HOLLIS, NH 03049
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KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/16/15	REV. PER TOWN COMMENTS	BJC

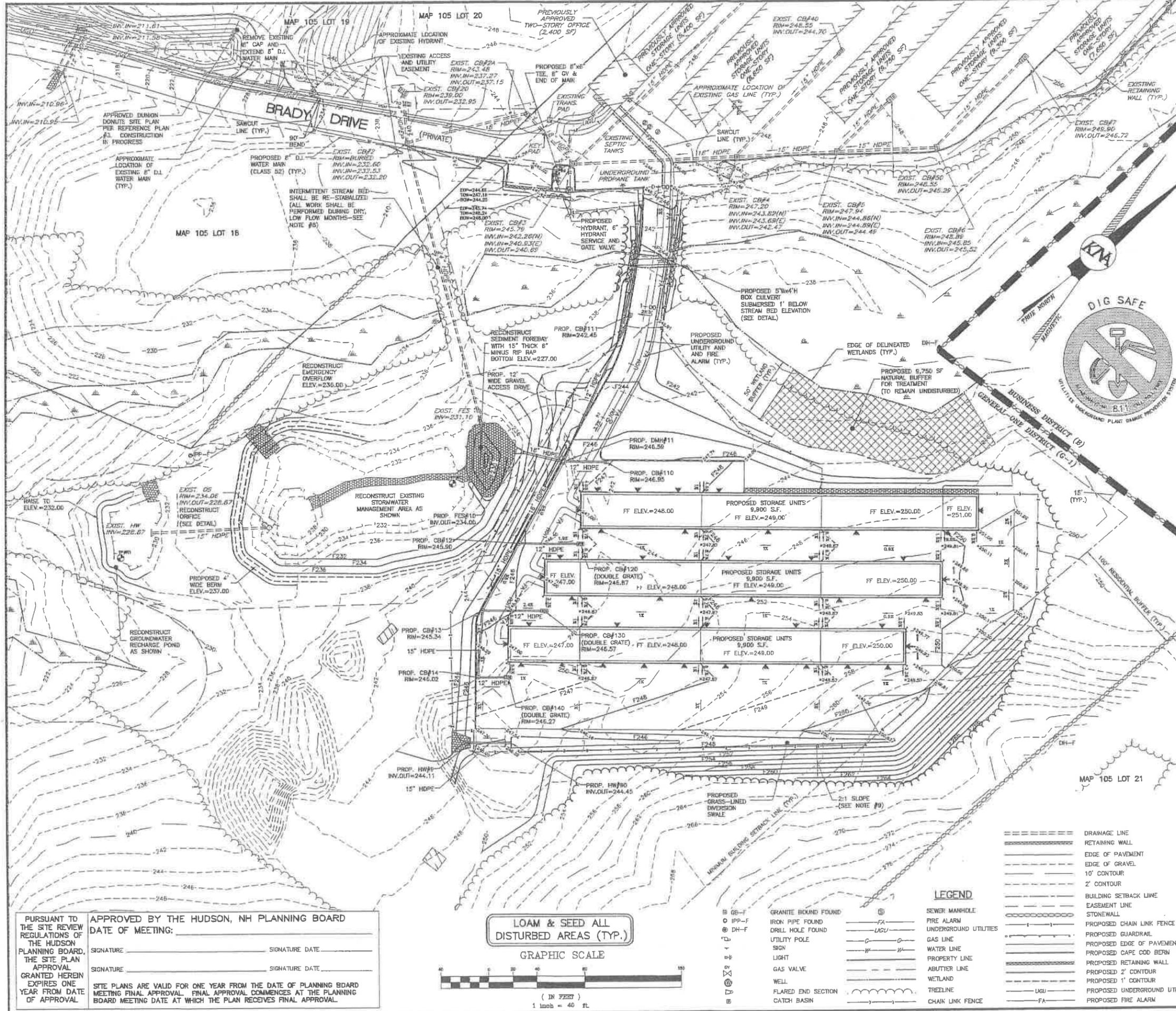
DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
 PROJECT NO: 06-0925-2 SHEET 3 OF 16

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ SIGNATURE DATE _____
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SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



- CONSTRUCTION NOTES:**
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, NH AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE.
 - ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, NEW HAMPSHIRE. ALL DRAINAGE PIPES SHOWN SHALL BE HDPE. CATCH BASINS SHALL BE TYPE B AND HAVE 3' SLUMPS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE DRAINAGE PROFILES AND CONSTRUCTION DETAILS FOR SPECIFIC CONSTRUCTION INFORMATION.
 - CONTRACTOR TO COORDINATE UTILITY WORK WITH LOCAL PROVIDER.
 - PROPOSED WETLAND CROSSING IS SUBJECT TO NHDES REQUIREMENTS FOR STREAM CROSSINGS. WORK SHALL BE DONE DURING PERIODS OF LOW FLOW. BYPASS PUMPING AND Dewatering SHALL FOLLOW BEST MANAGEMENT PRACTICES.
 - THE BANK OF THE STREAM WILL BE REBUILT USING 12" DIAMETER "BILOGS" (SEE DETAIL SHEET 14). THE NEW STREAMBED WILL BE APPROXIMATELY 4' ACROSS, WILL BE COMPACTED BEFORE THE BILOGS ARE INSTALLED. THESE LOGS WILL BE STAKED ALONG THE DISTURBED EDGES OF THE STREAM AND BACKFILLED WITH ORGANIC SOIL OR LOAM TO MATCH THE BORDERING GRADES. THESE BILOGS WILL BE LEFT IN PLACE AND WILL FUNCTION AS A NEW STREAM BANK TO CONTAIN WATER FLOW WITHIN THE CONFINES OF THE NEWLY CREATED STREAMBED. 6" TO 12" STONES WILL BE SPREAD ACROSS THE NEW STREAM BED. A MINIMUM OF 4" OF LOAM WILL BE SPREAD ACROSS THE BORDERING DISTURBED SLOPES AND THEN THE ENTIRE AREA WILL BE SEED WITH WETLAND SEED MIX.
 - IF LEDGE IS ENCOUNTERED AT THE SOUTHERN MOST CUT SLOPE, A DETAIL ON SHEET 10 SHOWS HOW A LEDGE FACE CAN BE CONSTRUCTED, IF APPLICABLE.
 - ESTIMATED DRAINAGE VOLUME AT CROSSING IS 54.5 ACRES.
 - CONSTRUCTION OF BOX CULVERT AND RESTORATION TO TEMPORARY CROSSING TO BE DONE DURING LOW FLOW MONTHS.
 - TOTAL EXCAVATION FOR INSTALLATION OF BOX CULVERT IS 456 CUBIC YARDS.

- WATER MAIN NOTES:**
- BRADY DRIVE PAVEMENT SHALL BE SAWCUT AND REMOVED TO THE EXTENT NECESSARY TO INSTALL THE WATERMAIN. FOLLOWING INSTALLATION OF THE WATERMAIN, 3/4" BINDER PAVEMENT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4" TO MATCH THE GRADE OF EXISTING PAVEMENT.
 - ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, NH AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, 2016 EDITION ARE HEREBY INCORPORATED BY REFERENCE.
 - ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL BENDS AND DEAD ENDS SHALL BE THURST BLOCKED AND/OR MECHANICALLY RESTRAINED WITH RODS. THURST BLOCKS ARE NOT TO BE USED WHERE ADJACENT STRUCTURES ARE LOCATED SO THAT EXCAVATION TO REPAIR THE ADJACENT STRUCTURE WOULD DISTURB THE SOIL MASS SUPPORTING THE THURST BLOCK. THURST BLOCKS ALSO SHALL NOT BE USED ABOVE THE PIPE. LOCAL WATER AUTHORITY HAS FINAL CALL ON ALLOWABLE RESTRAINT.
 - ALL FITTINGS TO USE METALLIC ACCESSORIES FOR JOINT RESTRAINT.
 - ALL WATER DISTRIBUTION MATERIAL INCLUDING: MAINS, FITTINGS, VALVES, WATER METERS AND PRESSURE REDUCING VALVES (PRV'S) SHALL MEET THE APPLICABLE ELEVATION OF HUDSON WATER DEPARTMENT TECHNICAL SPECIFICATIONS, NHDES-DWGR, AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS, AS APPLICABLE. ALL PROVISIONS OF THE LEAD REDUCTION ACT (BRASS GOODS) MUST ALSO BE MET.
 - ALL INSTALLATION OF MATERIAL TO CONFORM TO APPLICABLE TOWN OF HUDSON WATER DEPARTMENT TECHNICAL SPECIFICATIONS AVAILABLE THROUGH THE TOWN ENGINEER'S OFFICE & AWWA STANDARDS FOR POTABLE WATER SYSTEMS.
 - ALL HUDSON APPROVED VALVES, TEES, BENDS, AND FIRE HYDRANTS, AND THEIR RELATED JOINTS, SHALL BE PROPERLY RESTRAINED USING TOWN OF HUDSON APPROVED RETAINER KITS AND THURST BLOCKS WHERE APPLICABLE.
 - ALL WATER MAIN SHALL BE CLASS 52, DOUBLE CEMENT LINED, DUCTILE IRON PIPE (DIP). ALL WATER MAIN, VALVES AND APPURTENANCES TO BE TOWN OF HUDSON WATER APPROVED MATERIALS. PIPE SIZES SHALL BE AS SHOWN ON PROJECT PLANS AND AS APPROVED BY THE TOWN OF HUDSON. ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM OF 60" OF COVER, AND IF IN LEDGE, WITH 12" SAND BEDDING UNDERNEATH AND ON EITHER SIDE OF WATER MAIN. WATER MAIN SHALL BE BACKFILLED WITH SUITABLE MATERIAL. THE TOWN OF HUDSON WILL BE PROVIDED WITH INSPECTION SERVICES DURING INSTALLATION AND TESTING. THIS WILL REQUIRE THAT AN ESCROW ACCOUNT BE ESTABLISHED.
 - FIRE HYDRANTS SHALL BE INSTALLED AS APPROVED ON THE PLAN SET 13 AND SHALL BE METROPOLITAN H-94. FIRE HYDRANTS SHALL MEET AWWA C-503 AND SHALL BE AS APPROVED BY THE TOWN OF HUDSON WATER DEPARTMENT. ALL MATERIALS TO BE INSTALLED PER THE APPROVED PLANS. HYDRANTS SHALL BE OPEN LEFT (COW).
 - GATE VALVES SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE APPROVED PLANS. ALL GATE VALVES SHALL BE AWWA C-508 APPROVED AND INSTALLED PER TOWN OF HUDSON WATER TECHNICAL SPECIFICATIONS. GATE VALVES SHALL BE EPOXY COATED, RESILIENT WEDGE TYPE, AS APPROVED BY TOWN OF HUDSON WATER. VALVES SHALL OFFER LEFT (COW). VALVE BOXES SHALL BE AWWA APPROVED, SLIP TYPE WITH 3" BASE, 3" TOP AND COVER SHALL BE A ONE-PIECE CAST COVER LABELED "WATER". ALL VALVES 2" AND SMALLER, USED FOR SERVICE LINES, SHALL BE BRASS BALL VALVES, USING SS BALLS, MEETING TOWN OF HUDSON WATER TECHNICAL SPECIFICATIONS.
 - PRIOR TO TOWN OF HUDSON WATER ACCEPTANCE, ALL WATER MAIN SHALL BE FLUSHED, PRESSURE TESTED, AND DISINFECTED, IN ACCORDANCE WITH THE LATEST VERSIONS OF AWWA C-650 AND C-651, PER TOWN OF HUDSON WATER TECHNICAL SPECIFICATIONS. WRITTEN CERTIFICATION OF TESTING AND BACTERIOLOGICAL TEST RESULTS SHALL BE PROVIDED BY AN APPROVED THIRD PARTY CONTRACTOR. A RECORD DRAWING SHALL BE PROVIDED BY THE CONTRACTOR FOLLOWING INSTALLATION AND START UP.

NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND, THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND OPERATOR (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

**GRADING, DRAINAGE, AND UTILITY PLAN
HUDSON HILL TOP SELF STORAGE EXPANSION**
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELMATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELMATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881



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No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 6, 2015 SCALE: 1" = 40'
PROJECT NO: 08-0925-2 SHEET 5 OF 16

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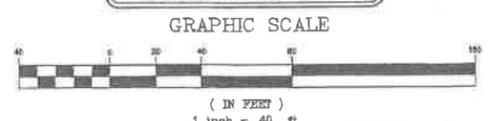
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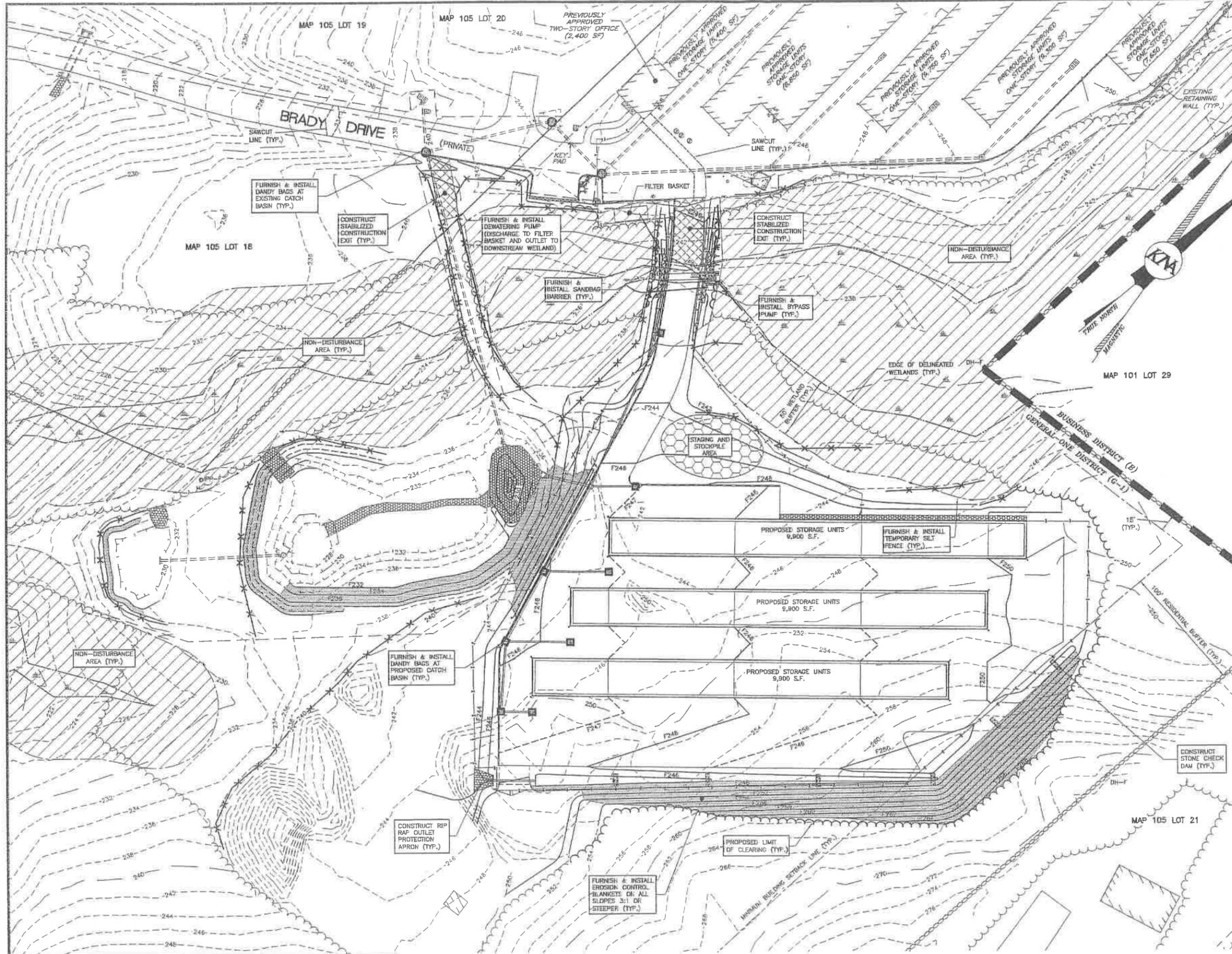
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LOAM & SEED ALL DISTURBED AREAS (TYP.)



- LEGEND**
- GRANITE BOUND FOUND
 - IRON PIPE FOUND
 - DRILL HOLE FOUND
 - UTILITY POLE
 - SIGN
 - LIGHT
 - GAS VALVE
 - WELL
 - FLARED END SECTION
 - CATCH BASIN
 - SEWER MANHOLE
 - FIRE ALARM
 - UNDERGROUND UTILITIES
 - GAS LINE
 - WATER LINE
 - PROPERTY LINE
 - ABUTTER LINE
 - WETLAND
 - TREELINE
 - CHAIN LINK FENCE
 - DRAINAGE LINE
 - RETAINING WALL
 - EDGE OF PAVEMENT
 - EDGE OF GRAVEL
 - 10' CONTOUR
 - 2' CONTOUR
 - BUILDING SETBACK LINE
 - EASEMENT LINE
 - STONEWALL
 - PROPOSED CHAIN LINK FENCE
 - PROPOSED GUARDRAIL
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED CAPE COD BERM
 - PROPOSED RETAINING WALL
 - PROPOSED 2' CONTOUR
 - PROPOSED 1' CONTOUR
 - PROPOSED UNDERGROUND UTILITIES
 - PROPOSED FIRE ALARM



- CONSTRUCTION NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
 - ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL, TITLED "EROSION AND SEDIMENT CONTROL'S DURING CONSTRUCTION," DATED DECEMBER 2010. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 - APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 - THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDELE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 - MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 - OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 - THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 - SNOW ACCUMULATION DURING THE WINTER CONSTRUCTION CONDITIONS SHOULD BE STORED IN THE STAGING AND STOCKPILE AREA SURROUNDED BY SILT FENCE.
 - CULVERT CROSSING IS SUBJECT TO PERMITTING IN ACCORDANCE WITH THE NHDES STREAM CROSSING GUIDELINES. CONTRACTOR TO PROVIDE APPROPRIATE BYPASS PUMPING AND DEWATERING PRACTICES DURING CONSTRUCTION.
 - ALL REMOVED STUMPS ARE TO BE GROUND.

LOAM & SEED ALL DISTURBED AREAS (TYP.)

EROSION & SEDIMENT CONTROL LEGEND

- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- TEMPORARY DANDY BAGS AT EXISTING CATCH BASINS
- TEMPORARY BLOCK AND GRAVEL SEDIMENT FILTERS AT ALL CATCH BASINS
- TEMPORARY SILT FENCE
- SANDBAG BARRIER
- LIMITS OF CLEARING
- TEMPORARY STONE CHECK DAM
- STABILIZED CONSTRUCTION EXIT
- NON DISTURBANCE AREA
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS



**EROSION CONTROL PLAN
HUDSON HILLTOP SELF STORAGE EXPANSION**
 MAP 105 LOT 17
 22 BRADY DRIVE
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: NOURY INVESTMENTS, LLC. 17 ELNATHANS WAY HOLLIS, NH 03049 BK. 8421 PG. 155	APPLICANT: NOURY INVESTMENTS, LLC. 17 ELNATHANS WAY HOLLIS, NH 03049
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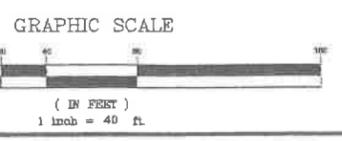
KMA
 KRACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 2E, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
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2	12/10/15	REV. PER TOWN COMMENTS	ELC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
 PROJECT NO: 08-0925-2 SHEET 6 OF 16

NPDES NOTE

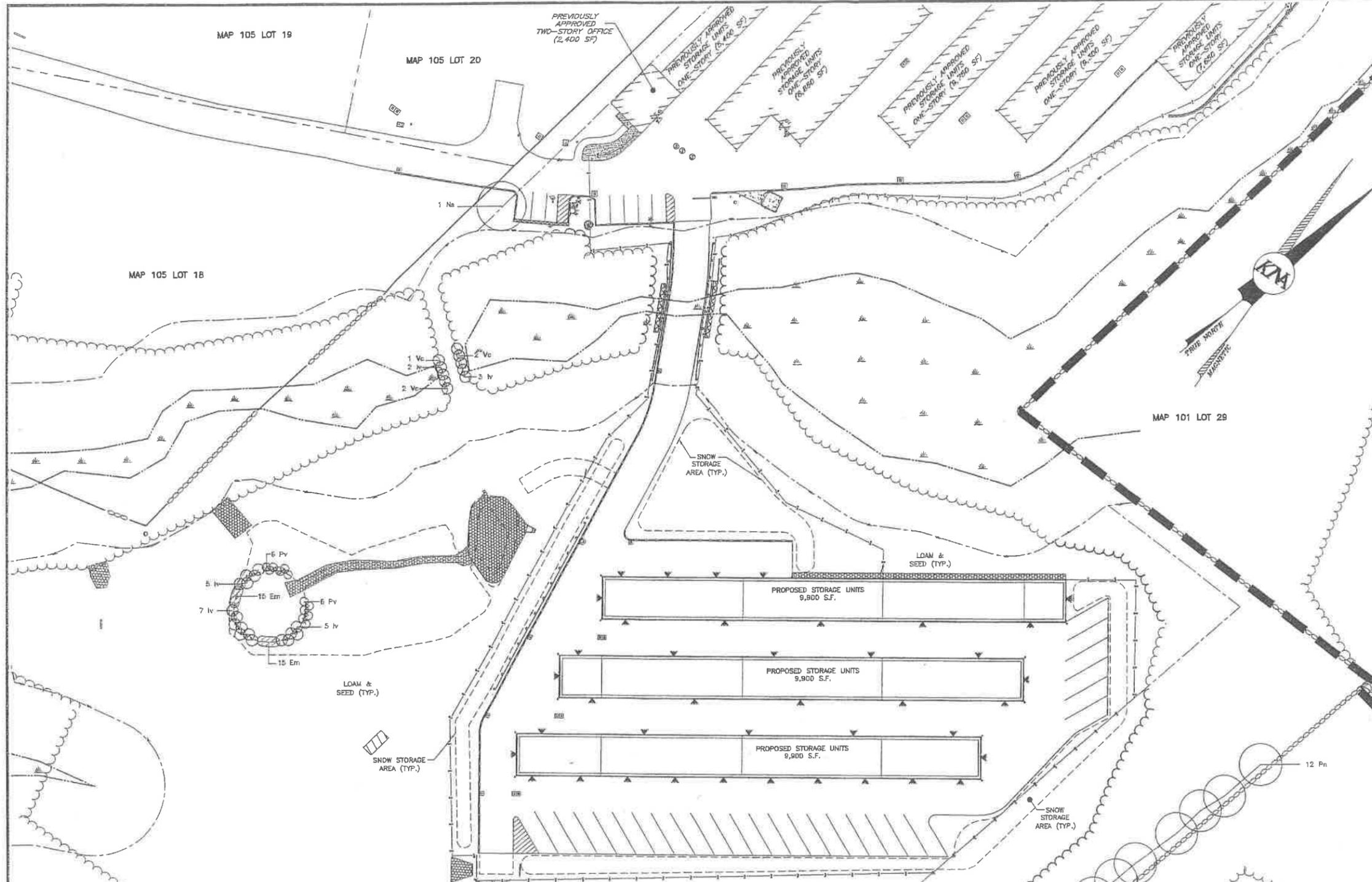
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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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- LANDSCAPE NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SITE LANDSCAPE WHICH PROVIDES CLIMATIC RELIEF AND AESTHETIC APPEAL.
 - ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL. WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
 - IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
 - PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
 - PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.

- STORMWATER MANAGEMENT AREA PLANTING NOTES:**
- THE AREA PROPOSED FOR STORMWATER PLANTING SHALL BE GRADED DOWN SUCH THAT AN ADDITION OF 6-INCHES OF TOPSOIL (PLANTABLE SOIL BORROW FROM SITE) WILL RESULT IN THE FINAL GRADES SPECIFIED. THE SOIL SUBSTRATE SHALL BE SCARIFIED PRIOR TO TOPSOIL PLACEMENT. TOPSOIL SHALL BE IMPORTED ONLY IF ON-SITE QUANTITIES ARE INSUFFICIENT. ANY IMPORTED TOPSOIL SHALL BE INSPECTED TO PREVENT THE INTRODUCTION OF NOXIOUS PLANTS TO THE SITE. TOPSOIL TO BE PERIODICALLY SATURATED DURING PERIODS OF CONSTRUCTION PRIOR TO PLANTING.
 - PLANTING OF THE STORMWATER MANAGEMENT AREA SHALL BE COMPLETED BETWEEN MAY 1 TO JUNE 15 OR SEPTEMBER 1 TO OCTOBER 15. FALL SEEDING MAY BE PERFORMED UNTIL NOVEMBER 1. APPLY STRAW MULCH OVER SEED TO PREVENT DISPLACEMENT. SEEDING MIX IS AS FOLLOWS:
 - 30% REBEL II - TALL FESCUE
 - 25% REDTOP (AGROSTIS ALBA)
 - 15% PERENNIAL RYEGRASS (LOLIUM PERENNE)
 - 15% SWITCHGRASS (PANICUM VIRGATUM)
 - 15% ROUGH BLUEGRASS (POA TRIVIALIS)
 - CONTRACTOR TO MONITOR MITIGATION AREA AND RESEED/REPLANT AS NECESSARY.

LANDSCAPE CALCULATIONS

REQUIRED PARKING LOT INTERIOR LANDSCAPE AREA	
PROPOSED PAVED AREA:	21,412 SF
10% REQUIRED LANDSCAPE AREA:	2,141 SF
PROVIDED LANDSCAPE AREA:	40 SF

REQUIRED PARKING LOT SHADE TREES AND SHRUBS	
PROPOSED PAVED AREA:	21,412 SF
SHADE TREES REQUIRED (21,412/1,600):	13 TREES REQUIRED, OR (OR 1 TREE/5 PROP. PARKING SPACES) 5 TREES REQUIRED
SHADE TREES PROVIDED:	13 TREES PROVIDED
SHRUBS REQUIRED (21,412/200):	107 SHRUBS REQUIRED, OR (OR 1.6 x 27 PROP. PARKING SPACES) 13 SHRUBS REQUIRED
SHRUBS PROVIDED:	469 SHRUBS PROVIDED (INCLUDES BIO-RETENTION PLANTS)

• WAIVER REQUESTED

LEGEND

□ GB-F	GRANITE BOUND FOUND	—	PROPERTY LINE
○ IPP-F	IRON PIPE FOUND	—	ABUTTER LINE
⊙ DI-F	DRILL HOLE FOUND	—	RETAINING WALL
⊙	UTILITY POLE	—	EDGE OF PAVEMENT
⊙	SIGN	—	EDGE OF GRAVEL
⊙	LIGHT	—	BUILDING SETBACK LINE
⊙	GAS VALVE	—	WETLAND BUFFER
⊙	WELL	—	EASEMENT LINE
⊙	FLARED END SECTION	—	STONEWALL
⊙	CATCH BASIN	—	PROPOSED CHAIN LINK FENCE
⊙	SEWER MANHOLE	—	PROPOSED GUARDRAIL
⊙	WETLAND	—	PROPOSED EDGE OF PAVEMENT
⊙	TREELINE	—	PROPOSED CAPE COD BERM
⊙	CHAIN LINK FENCE	—	PROPOSED RETAINING WALL

PLANT LIST

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
Ns	1	NYSSA SYLVATICA	TUPELO	2-2 1/2" CAL
Pn	12	PINUS NIGRA	AUSTRIAN PINE	6-7" B&B
SHRUBS				
Iv	22	ILEX VERTICILLATA	COMMON WINTERBERRY	2-2.5" B&B
Vc	5	VACCONIUM CORYMBOSUM	HIGH BUSH BLUEBERRY	18-24" B&B
PERENNIALS				
Em	30	EUPATORIUM MACULATUM 'GATEWAY'	GATEWAY JOE-PYE WEED	#2
Pv	12	PANICUM VIRGATUM 'CLOUD NINE'	CLOUD NINE SWITCH GRASS	#2

SUPPLEMENT NATURAL BUFFER WITH 12 TREES AS SHOWN (CONTRACTOR SHALL TAKE CARE PLANTING TREES IN THIS AREA SO EXISTING VEGETATION IS IMPACTED TO THE MINIMUM EXTENT PRACTICABLE AND THAT THE PROPOSED TREES HAVE AN ADEQUATE AMOUNT OF SPACE FOR HEALTHY GROWTH)



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**LANDSCAPE PLAN
HUDSON HILLTOP SELF
STORAGE EXPANSION**
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
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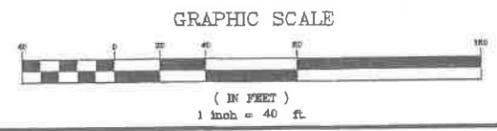
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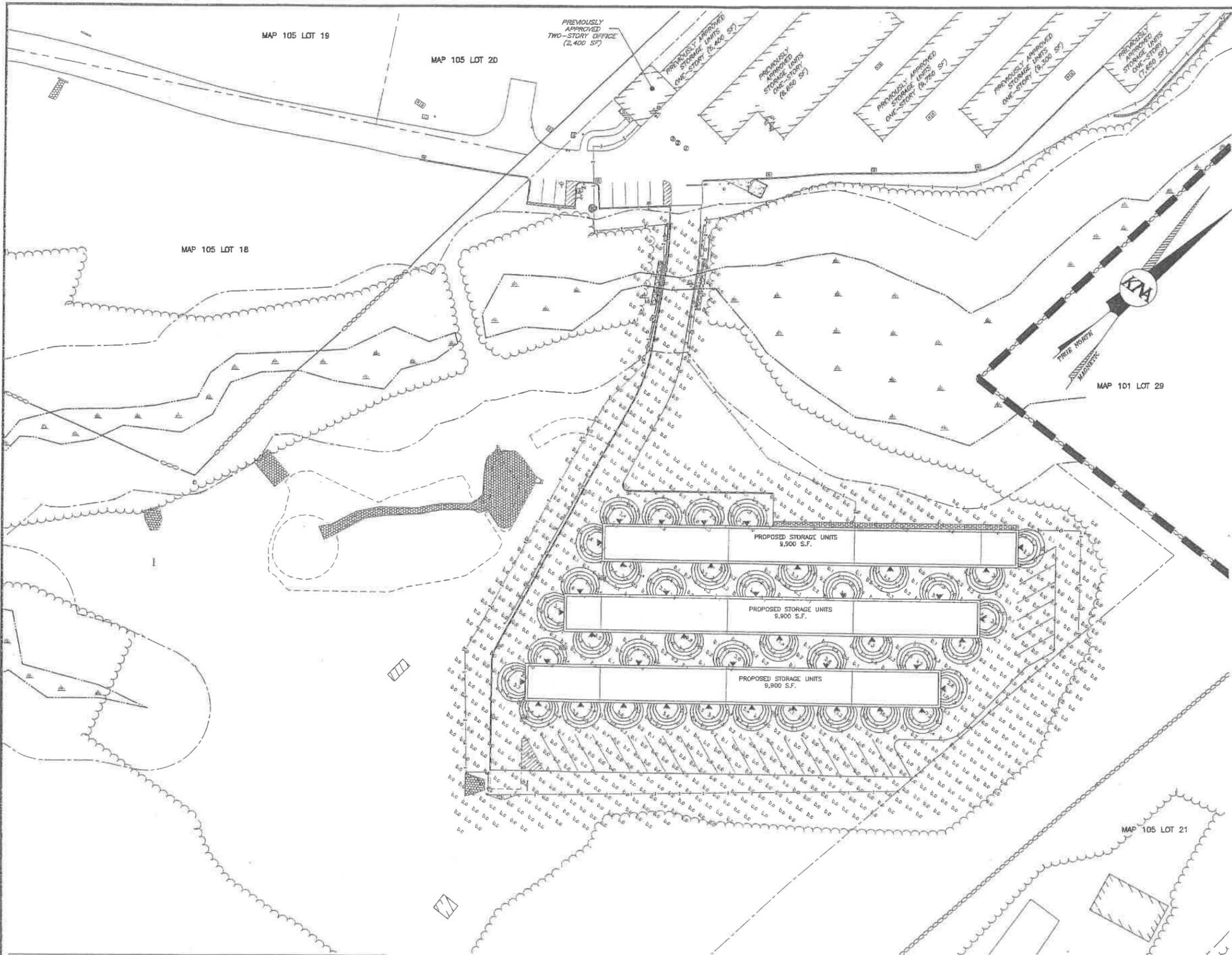
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REVISIONS

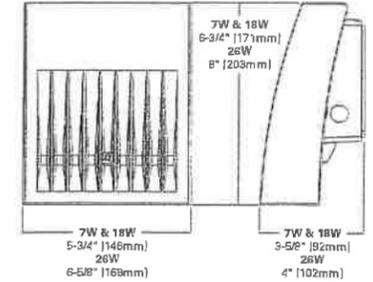
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PROJECT NO: 06-0925-2 SHEET 7 OF 16





- NOTES:**
1. ALL PROPOSED LIGHTING MEETS IES FULL-CUT OFF CLASSIFICATION.
 2. INSTALLATION PER LOCAL CODE REQUIREMENTS.
 3. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION REGARDING LIGHT INSTALLATION AND WIRING REQUIREMENTS.



LUMARK CROSSTOUR LED
NOT TO SCALE



IN ASSOCIATION WITH:

CHARRON
INCORPORATED
P.O. BOX 4650
MANCHESTER, NH 03108
(603) 634-8827
FAX (603) 624-6764

LIGHTING PLAN
HUDSON HILL TOP SELF STORAGE EXPANSION
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 38, Bedford, NH 03110 Phone (603) 627-2881

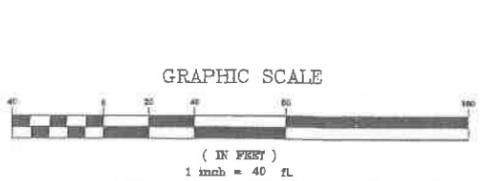
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
PROJECT NO: 08-0925-2 SHEET 8 OF 16

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

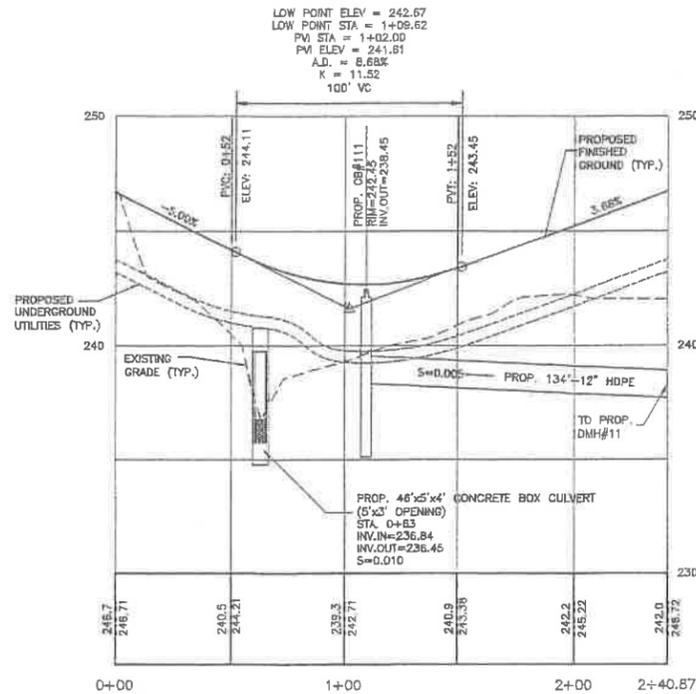
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



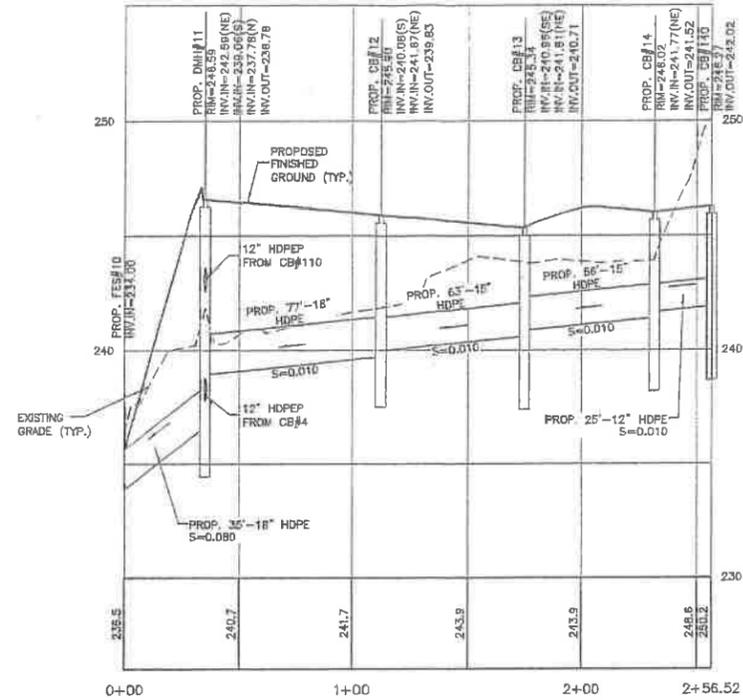
LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
◀	40	B	SINGLE	STORAGE/WALL MTD 8' AFG

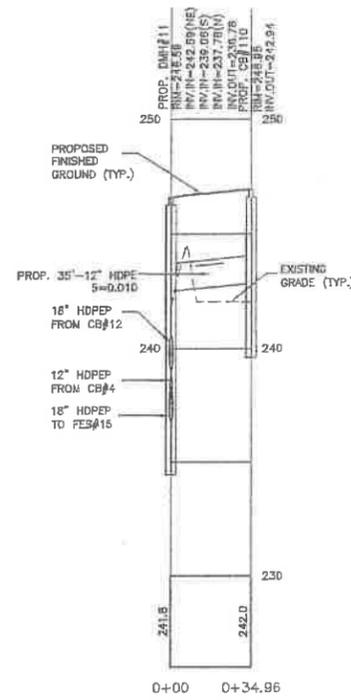




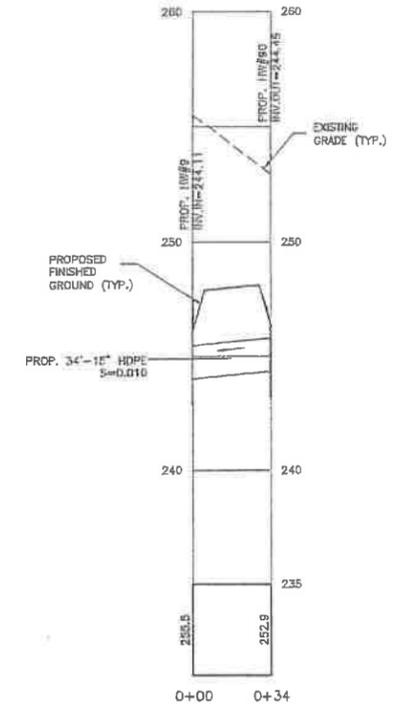
DRIVEWAY PROFILE
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



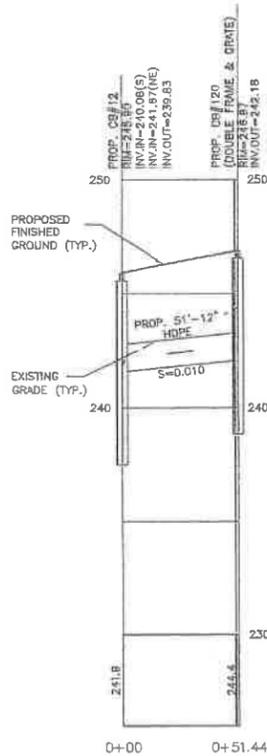
DRAIN PROFILE (PROP. FES#10 TO PROP. CB#15)
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



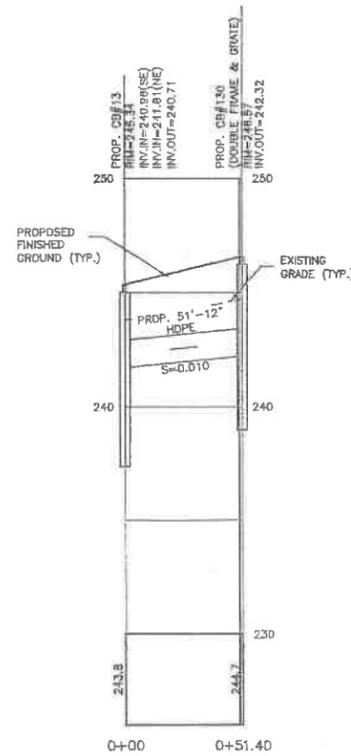
DRAIN PROFILE (PROP. DMH#11 TO PROP. CB#110)
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



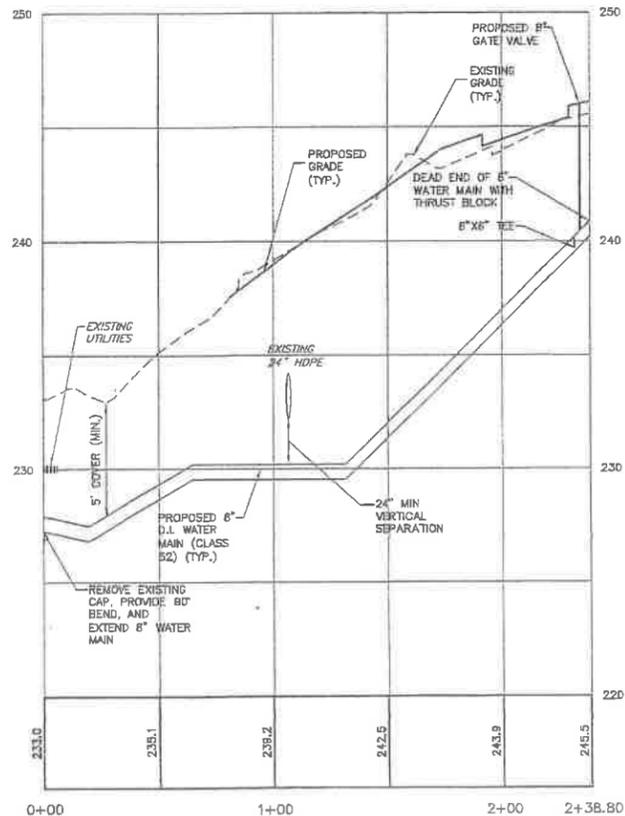
DRAIN PROFILE (PROP. HW#9 TO PROP. HW#90)
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



DRAIN PROFILE (PROP. CB#12 TO PROP. CB#120)
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



DRAIN PROFILE (PROP. CB#13 TO PROP. CB#130)
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



WATER MAIN EXTENSION PROFILE
 SCALE: 1" = 40' (HORIZ.)
 1" = 4' (VERT.)



PROFILES
HUDSON HILLTOP SELF STORAGE EXPANSION
 MAP 105 LOT 17
 22 BRADY DRIVE
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: NOURY INVESTMENTS, LLC. 17 ELNATHANS WAY HOLLIS, NH 03049 BK. 8421 PG. 155	APPLICANT: NOURY INVESTMENTS, LLC. 17 ELNATHANS WAY HOLLIS, NH 03049
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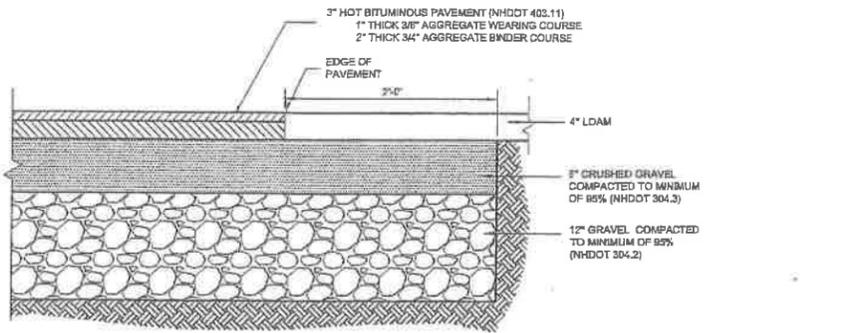
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/16/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
 PROJECT NO: 08-0925-2 SHEET 9 OF 16

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

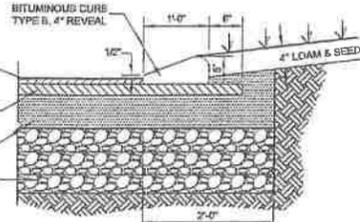
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE _____ SIGNATURE DATE _____
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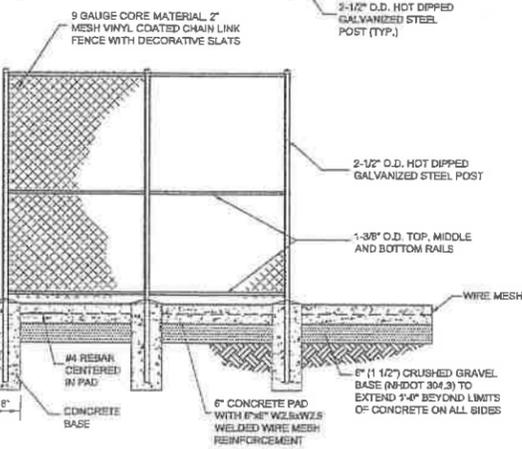
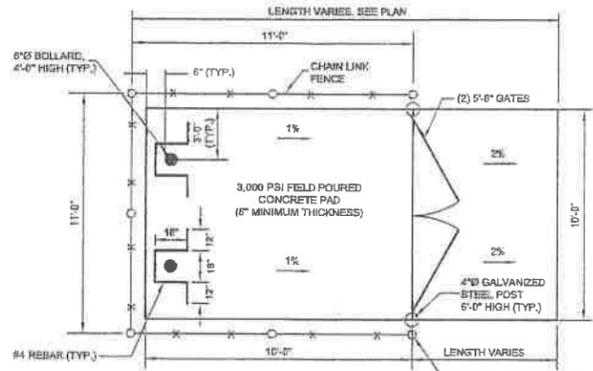
DRIVEWAY AND PARKING LOT SECTION

NOT TO SCALE
(MARCH 2008)



BITUMINOUS CURB TYPE B DETAIL

NOT TO SCALE
(MARCH 2008)

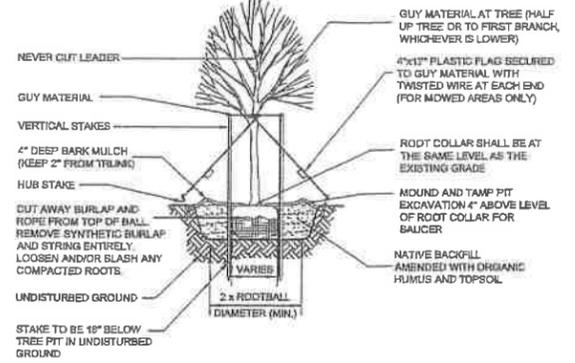


NOTE:
THIS DUMPSTER ENCLOSURE WILL ACCOMMODATE MOST
2, 4, 6 AND 8 CY DUMPSTERS

CHAIN LINK TRASH ENCLOSURE DETAIL

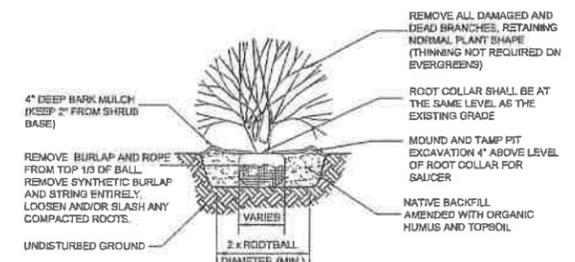
NOT TO SCALE
(MARCH 2008)

NOTE:
GUYING AND STAKING TO BE DETERMINED IN THE
FIELD BY THE LANDSCAPE ARCHITECT. LOCAL
FIELD CONDITIONS AS WELL AS PLANT
CHARACTERISTICS WILL DETERMINE THE
NECESSITY OF GUYING AND STAKING.



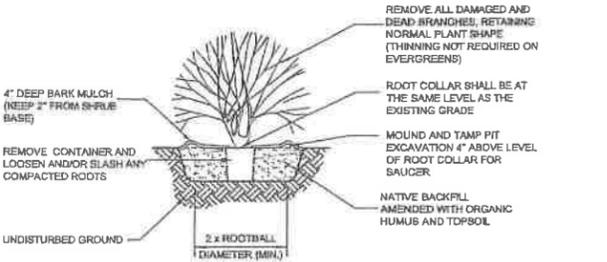
DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE
(JANUARY 2012)



BALLED & BURLAP SHRUB PLANTING DETAIL

NOT TO SCALE
(JANUARY 2012)



CONTAINER SHRUB PLANTING DETAIL

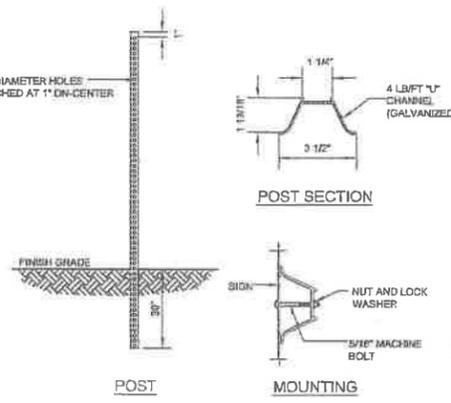
NOT TO SCALE
(JANUARY 2012)



WETLAND CONSERVATION DISTRICT
BOUNDARY MARKER

NOT TO SCALE
(MARCH 2010)

TRAFFIC SIGN NOTES:
1. ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
2. ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.



NOTE:
POST SHALL CONFORM TO NHDOT 815.2.5.3

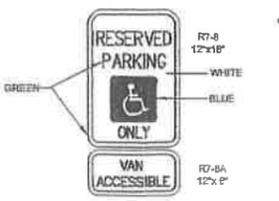
STEEL SIGN POST DETAIL

NOT TO SCALE
(MARCH 2008)



STOP SIGN DETAIL

NOT TO SCALE
(MARCH 2008)



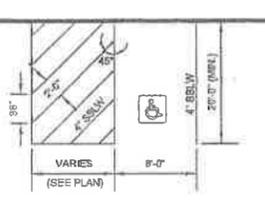
VAN ACCESSIBLE HANDICAP
PARKING SIGN DETAIL

NOT TO SCALE
(MARCH 2008)

STRIPING NOTES:
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
2. WIDTH OF LINES SHALL VARY NO MORE THAN +/- 1/4 INCH FROM THAT SPECIFIED.
3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.



STOP BAR



HANDICAP STRIPING DETAIL

NOT TO SCALE
(MARCH 2012)

TURF ESTABLISHMENT SCHEDULE

PURPOSE:
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:
1. RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
2. PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.
3. FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
4. APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
5. APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
7. SEEING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNUSABLE.
8. WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH HAY, ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDED.
10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:
ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA. MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:
1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
2. LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
3. FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
5. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
8. MULCH SHALL BE APPLIED AT A RATE OF 50 POUNDS PER 1,000 S.F.

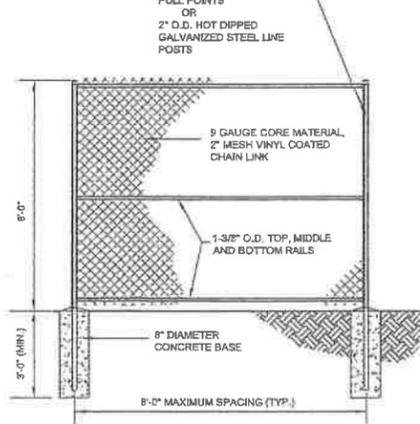
MATERIALS:
1. LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
2. LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 85% CALCIUM AND MAGNESIUM CARBONATES.
3. FERTILIZER SHALL BE 10-20-20 COMMERCIAL GRADE.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE 90% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
5. TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIAGARA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE SAND LITTLESTEM
15% NE-27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFOL
15% BLACKWELL OR SHELTER SWITCHGRASS
10% VIKING BIRDSFOOT TREFOL
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE 90% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
30% CREEPING RED FESCUE
40% PERENNIAL RYE GRASS
15% REDTOP
15% BIRDSFOOT TREFOL
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
15% SWITCH GRASS
15% FOX SEDGE
15% CREEPING BENTGRASS
10% FLATPEA
20% WILDFLOWER VARIETY
8. HAY USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.



FALL PROTECTION ZONE

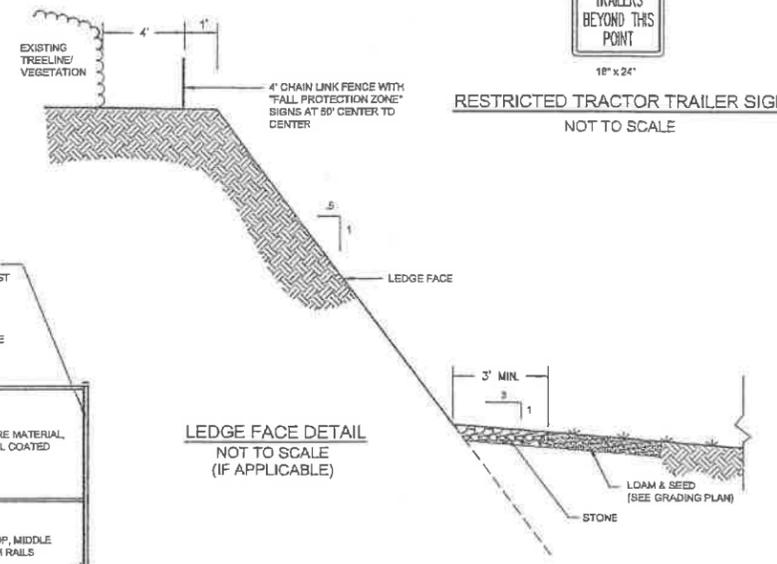
NOTE:
MOUNT SIGN TO FENCE EVERY 50'
(CENTER ON CENTER)

SIGN DETAIL
NOT TO SCALE



CHAIN LINK FENCE DETAIL

NOT TO SCALE
(MARCH 2008)



LEDGE FACE DETAIL

NOT TO SCALE
(IF APPLICABLE)



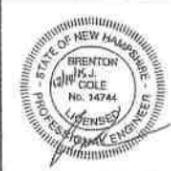
RESTRICTED TRACTOR TRAILER SIGN
NOT TO SCALE

CONSTRUCTION DETAILS
HUDSON HILL TOP SELF
STORAGE EXPANSION
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
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REVISIONS			
No.	DATE	DESCRIPTION	BY
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2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
PROJECT NO: 06-0925-2 SHEET 10 OF 16

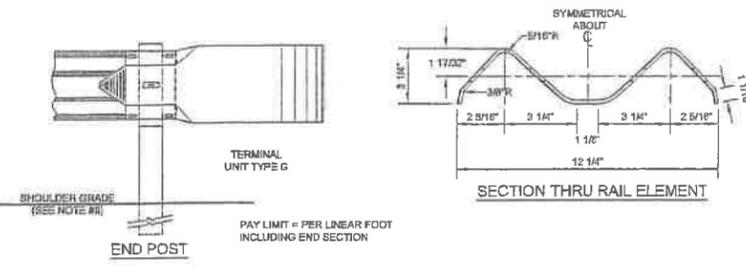
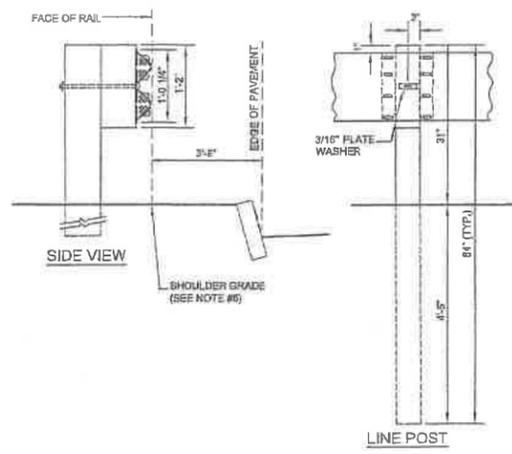
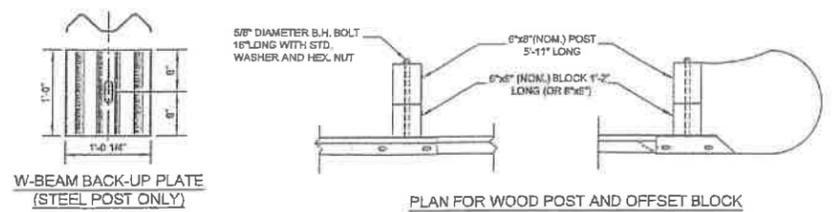
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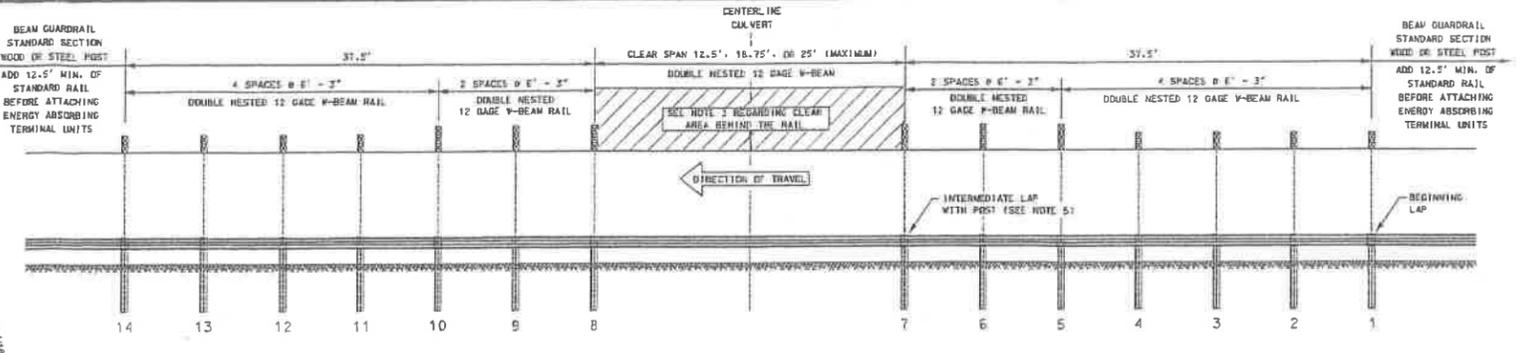
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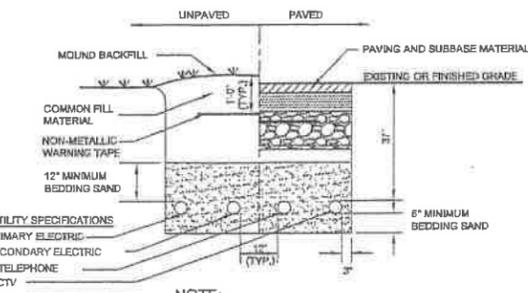
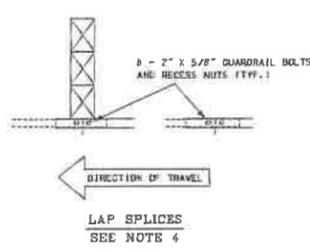
- NOTES:**
1. STEEL POSTS, OFFSET BLOCKS, ANCHORS, PLATES AND ALL FITTINGS TO BE GALVANIZED.
 2. ALL DIMENSIONS SUBJECT TO MANUFACTURER'S TOLERANCES.
 3. RAIL PANELS AND END SECTIONS TO BE 12 GAUGE STEEL.
 4. ALL PARTS SHALL CONFORM TO CURRENT MHDOT STANDARD SPECIFICATIONS.
 5. WHEN GUARDRAIL IS CONSTRUCTED AT UP TO FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL HEIGHT WILL BE SET FROM THE GRADE AT THE EDGE OF PAVEMENT. WHEN GUARDRAIL IS CONSTRUCTED MORE THAN FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL WILL BE SET FROM THE GRADE AT FACE OF PAVEMENT.

BEAM GUARDRAIL DETAIL
NOT TO SCALE
(MARCH 2008)

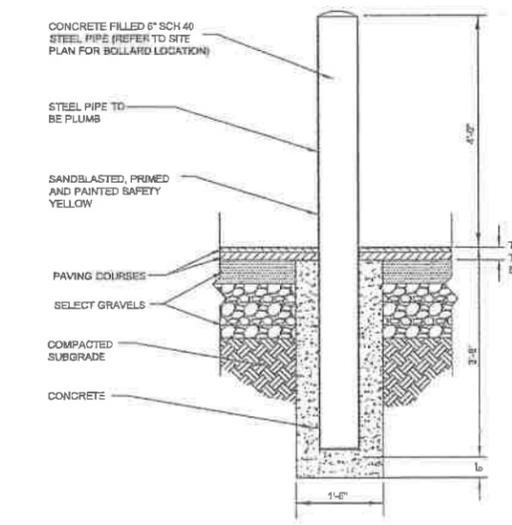


W-BEAM GUARDRAIL LONG SPAN, DOUBLE NESTED
NOT TO SCALE

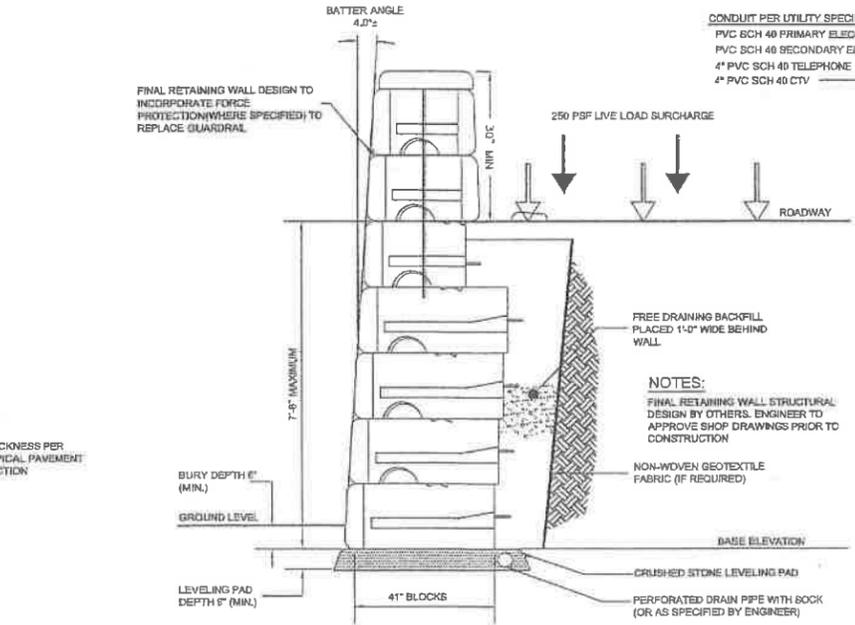
1. POSTS 1 - 4 AND 11 - 14 STANDARD WOOD OR STEEL POSTS WITH BLOCKOUTS (SEE STANDARD SHEET OR-1)
2. POSTS 5 - 10 ARE CRT WOOD POSTS WITH TWO WOOD OR COMPOSITE BLOCKOUTS ONLY CRT POSTS NEED TO BE WOOD, UNLESS THE REST OF THE RAIL IS WOOD POST
3. CLEAR AREA BEHIND BACK OF RAIL SHALL BE 5 FEET MINIMUM FOR OBSTRUCTIONS LESS THAN OR EQUAL TO THE HEIGHT OF THE TOP OF RAIL. 6 FEET MINIMUM FOR OBSTRUCTIONS TALLER THAN THE TOP OF RAIL.
4. LAP SPLICES IN THE DIRECTION OF ADJACENT TRAFFIC.
5. 25'-0" RAIL LENGTHS MAY BE USED TO ELIMINATE THE INTERMEDIATE LAP WITHOUT A POST. DO NOT PLACE A LAP WITHOUT A POST UNLESS NEEDED DUE TO THE LENGTH OF GAP.
6. DESIGN MEETS MHRP 350 TEST LEVEL 3 FHWA ACCEPTANCE LETTER HHS-858 10/8/1999.



UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)

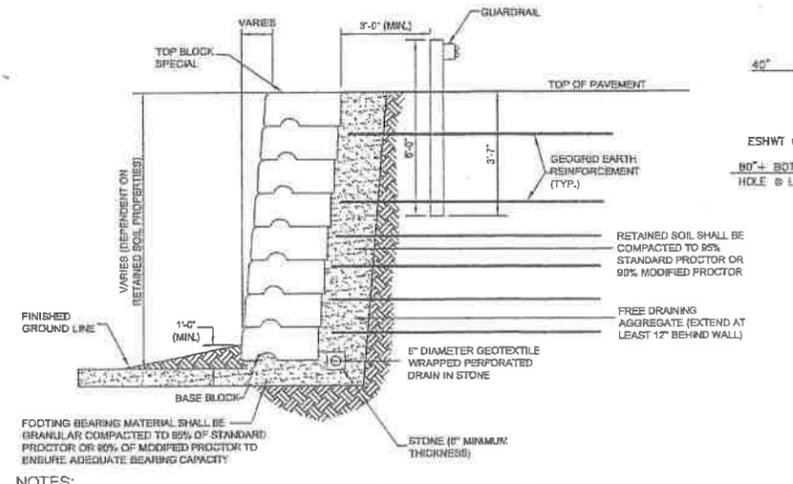


BOLLARD DETAIL
NOT TO SCALE
(MARCH 2008)



MODULAR BLOCK (REDI-ROCK OR EQUAL) RETAINING WALL
NOT TO SCALE
(AUGUST 2011)

- NOTES:**
1. AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
 2. RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
 3. THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECTS REQUIRED PRE CONSTRUCTION MEETING.
 4. THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
 - 4.a. DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
 - 4.b. STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
 - 4.c. GEORGRID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
 - 4.d. CONSTRUCTION INSTALLATION SPECIFICATION
 - 4.e. LATERAL EARTH PRESSURE COEFFICIENT
 - 4.f. SURCHARGE LOAD, EMBEDMENT DEPTH
 - 4.g. BOTH A PLAN AND PROFILE OF EACH WALL SECTION



REDI-ROCK RETAINING WALL WITH GUARDRAIL
(TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN NEW HAMPSHIRE)
NOT TO SCALE

TP #R1

LOGGED BY RAP PERC. TEST @ -" DATE: 3/11/2010 PERC. RATE: - IMPERVIOUS LAYER: 80'+ WATER ENCOUNTERED: -

DEPTH	HORIZON	DESCRIPTION
3"	0	LOAM 10YR 4/2 FRIABLE
0"	A	WEAK GRANULAR, VERY FRIABLE, LOAMY SAND, MANY FINE ROOTS YELLOWISH BROWN 10YR 5/4
6"	A1	WEAK GRANULAR, FRIABLE, TRACE ROOTS 12", VERY PALE BROWN, 10YR 7/4 SANDY LOAM
14"	A2	WEAK GRANULAR, VERY FRIABLE, PALE YELLOW, LOAMY SAND
24"	B1	BLOCKY, FRIABLE PALE YELLOW, INTERMIDED BROKEN ROCK 2.5Y 7/3 LOAMY SAND
27"	B2	WEAK GRANULAR, VERY FRIABLE, YELLOW, 2.5Y 7/8 SAND, TRACE ROOTS TO 32"
38"	B2	WEAK GRANULAR, VERY FRIABLE, YELLOW, 2.5Y 7/8 SAND, TRACE ROOTS TO 32"
40"	B1	BLOCKY, FIRM GRAYISH BROWN 2.5Y 5/2 CRAYELLY SAND HEAVILY MIXED WITH BROKEN LEDGE
50"	C1	WEAK BLOCKY, FRIABLE, LIGHT OLIVE BROWN, 2.5Y 5/4 SANDY LOAM
50"	C2	MASSIVE FRIABLE, LIGHT YELLOWISH BROWN, 2.5Y 6/3 LOAMY SAND

ESHWT @ 72" NO+ BOTTOM OF HOLE @ LEDGE

TP #R2

LOGGED BY RAP PERC. TEST @ -" DATE: 3/11/2010 PERC. RATE: - IMPERVIOUS LAYER: 72'+ WATER ENCOUNTERED: -

DEPTH	HORIZON	DESCRIPTION
3"	0	FRIABLE, DARK GRAYISH BROWN, 10YR 4/2 LOAM GRANULAR
6"	A1	FRIABLE, SANDY LOAM, COMMON ROOTS, BROWN 10YR 5/3
14"	A2	WEAK GRANULAR, FRIABLE, TRACE ROOTS 12", VERY PALE BROWN, 10YR 7/4 SANDY LOAM
24"	B1	WEAK GRANULAR, VERY FRIABLE, PALE YELLOW, LOAMY SAND
27"	B2	WEAK GRANULAR, VERY FRIABLE, YELLOW, 2.5Y 7/8 SAND, TRACE ROOTS TO 32"
38"	B2	WEAK GRANULAR, VERY FRIABLE, YELLOW, 2.5Y 7/8 SAND, TRACE ROOTS TO 32"
40"	B1	BLOCKY, FIRM GRAYISH BROWN 2.5Y 5/2 CRAYELLY SAND HEAVILY MIXED WITH BROKEN LEDGE
50"	C1	WEAK BLOCKY, FRIABLE, LIGHT OLIVE BROWN, 2.5Y 5/4 SANDY LOAM
50"	C2	MASSIVE FRIABLE, LIGHT YELLOWISH BROWN, 2.5Y 6/3 LOAMY SAND

72"+ BOTTOM OF HOLE @ LEDGE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ SIGNATURE DATE _____

SIGNATURE _____ SIGNATURE DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

CONSTRUCTION DETAILS HUDSON HILL TOP SELF STORAGE EXPANSION
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

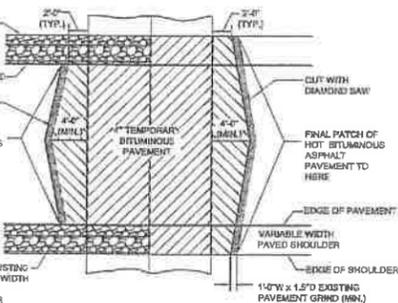
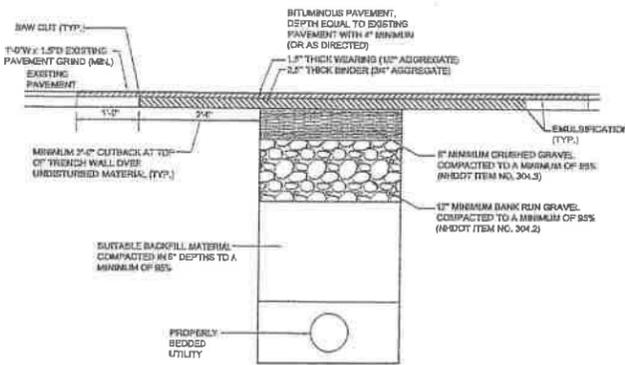
OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. B421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3E, Bedford, NH 03110 Phone (603) 627-2881

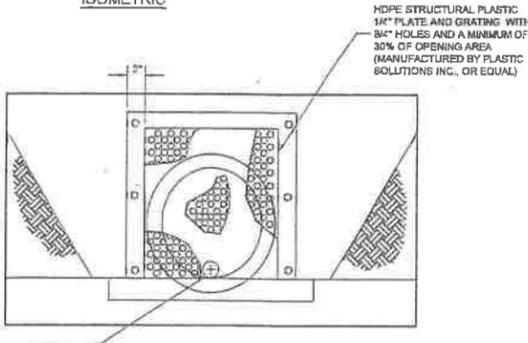
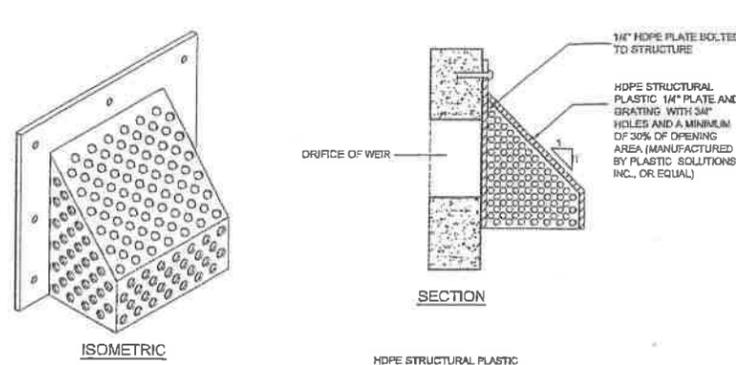
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BUC
2	12/10/15	REV. PER TOWN COMMENTS	BUC

DATE: OCTOBER 8, 2015 SCALAR: 1" = 40'
PROJECT NO: 08-0925-2 SHEET 11 OF 16

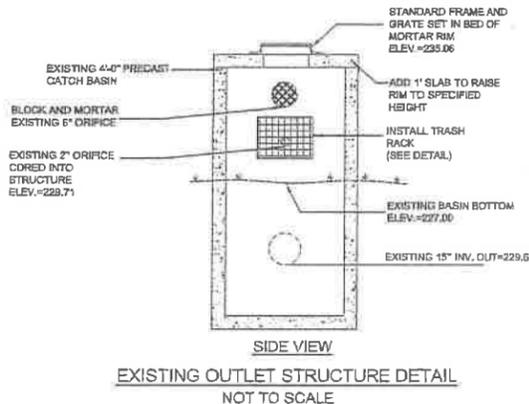


NOTE:
1. ALL BACKFILL SHALL BE COMPACTED TO 95% OF AASHTO T-99, METHOD C.

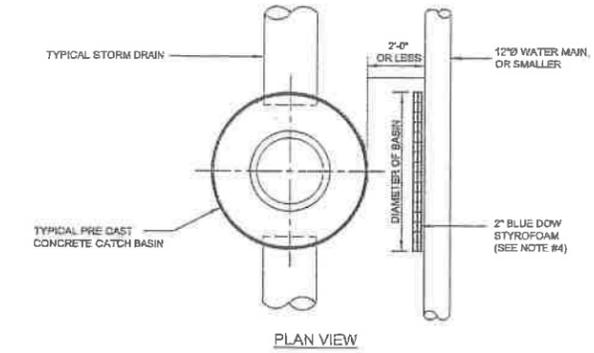
PERMANENT PAVEMENT REPAIR
NOT TO SCALE



TRASH RACK DETAIL
NOT TO SCALE

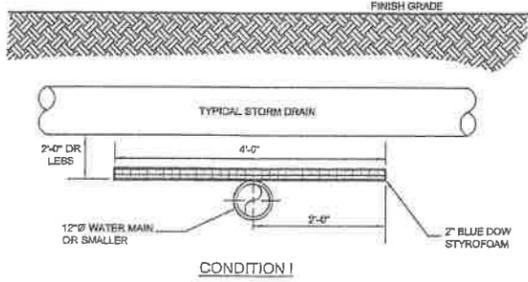


EXISTING OUTLET STRUCTURE DETAIL
NOT TO SCALE

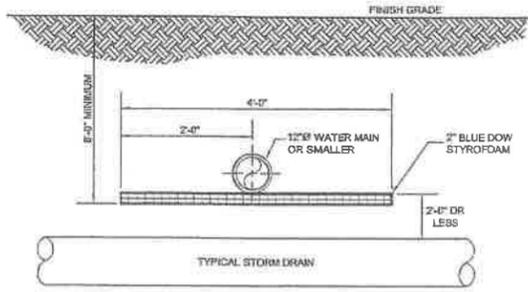


NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. PENNICHUCK WATER WORKS, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1'-0" PIECE OF INSULATION CENTERED OVER SEAM.

CATCH BASIN INSULATION DETAIL
(A-16)
NOT TO SCALE
(MARCH 2008)



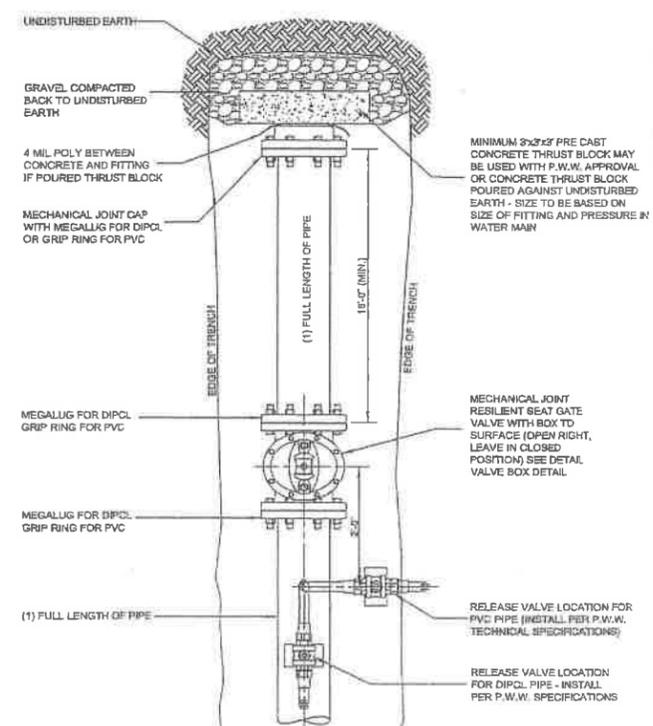
STORM DRAIN/WATER MAIN INTERSECTION RUNS -
ELEVATION VIEW
(A-18)
NOT TO SCALE



STORM DRAIN/WATER MAIN INTERSECTION RUNS -
ELEVATION VIEW
(A-18)
NOT TO SCALE

NOTES:
1. PENNICHUCK WATER WORKS, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2" BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1" PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN/WATER MAIN INTERSECTION RUNS -
ELEVATION VIEW
(A-18)
NOT TO SCALE



NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6'-0" FROM TOP OF PIPE TO FINISH GRADE.

END OF MAIN INSTALLATION
(A-08)
NOT TO SCALE
(MARCH 2008)

BEST MANAGEMENT PRACTICES FOR BLASTING

A BLASTING PERMIT IS REQUIRED FOR ANY BLASTING IN ACCORDANCE WITH THE TOWN OF HUDSON CODE CHAPTER 202. IF MORE THAN 5000 CUBIC YARDS ARE BLASTED, IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLASTING QUALITY MONITORING AND BE APPROVED BY NIDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NIDES.

BEST MANAGEMENT PRACTICES FOR BLASTING.
ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN, PROPER DRILLING, EXPLOSIVE HANDLING AND LOADING PROCEDURES, OBSERVING THE ENTIRE BLASTING PROCEDURES, EVALUATING BLASTING PERFORMANCE, AND HANDLING AND STORAGE OF BLASTED ROCK.

- LOADING PRACTICES.** THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
 - DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
 - EXPLOSIVE PRODUCTS SHALL BE MANAGED ON SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF SITE DISPOSAL.
 - SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF SITE DISPOSAL.
 - LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
 - LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
 - EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEAMING, BECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- EXPLOSIVE SELECTION.** THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- PREVENTION OF MISTRIES.** APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISTRIES.
- MUCK PILE MANAGEMENT.** MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
 - REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
 - MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- SPILL PREVENTION MEASURES AND SPILL MITIGATION.** SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
 - THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 - LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
 - INSPECT STORAGE AREAS WEEKLY.
 - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 - WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
 - SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
 - THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
 - PLACE DRIP PANS UNDER SPOGOTS, VALVES, AND PUMPS.
 - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
 - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
 - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 - THE TRAINING OF ON SITE EMPLOYEES AND THE ON SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
 - FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT OR ITS SUCCESSOR DOCUMENT.

**CONSTRUCTION DETAILS
HUDSON HILL TOP SELF
STORAGE EXPANSION**
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 687-2881

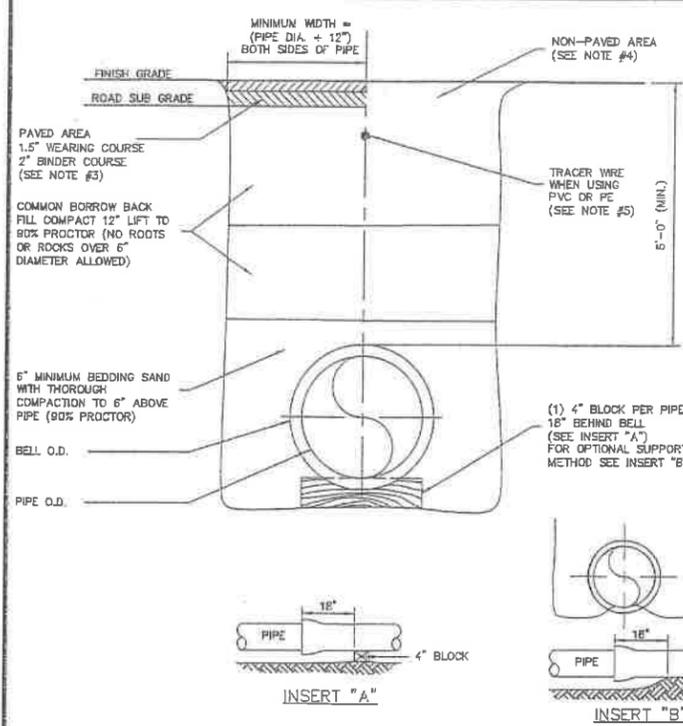
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
PROJECT NO: 06-0925-2 SHEET 12 OF 16

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

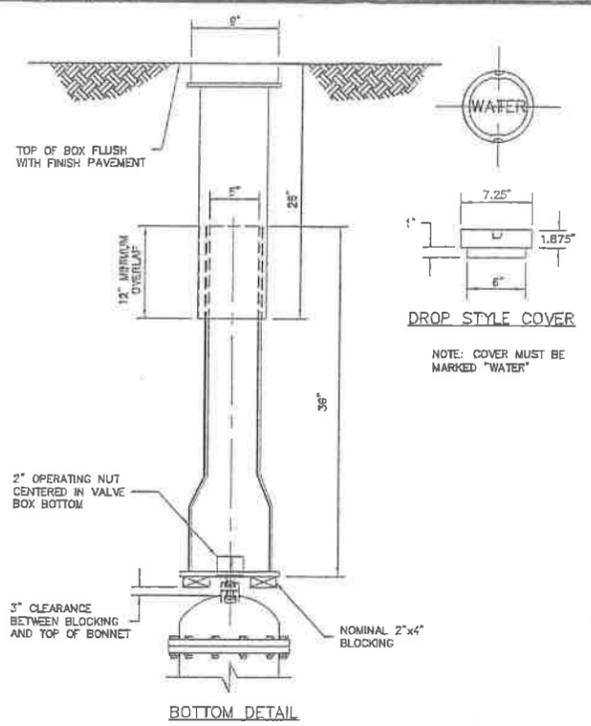
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
SIGNATURE: _____ SIGNATURE DATE: _____
SIGNATURE: _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



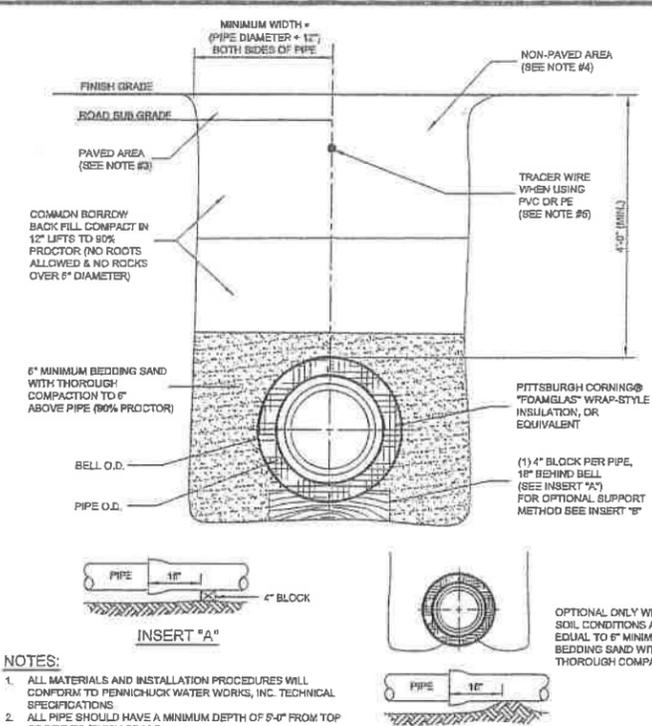
TYPICAL WATER LINE TRENCH DETAIL
NOT TO SCALE

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE UNLESS INSULATION IS SPECIFIED.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.



TYPICAL VALVE BOX DETAIL
NOT TO SCALE

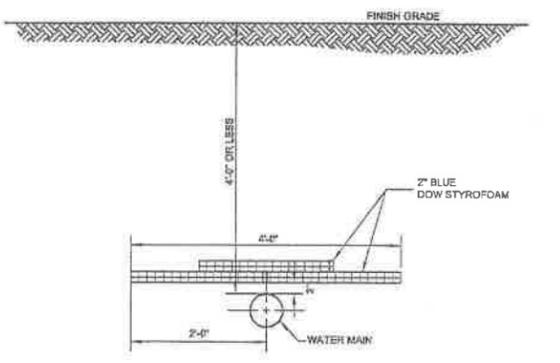
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.



WRAP INSULATION DETAIL
(A-16A)
NOT TO SCALE
(JANUARY 2011)

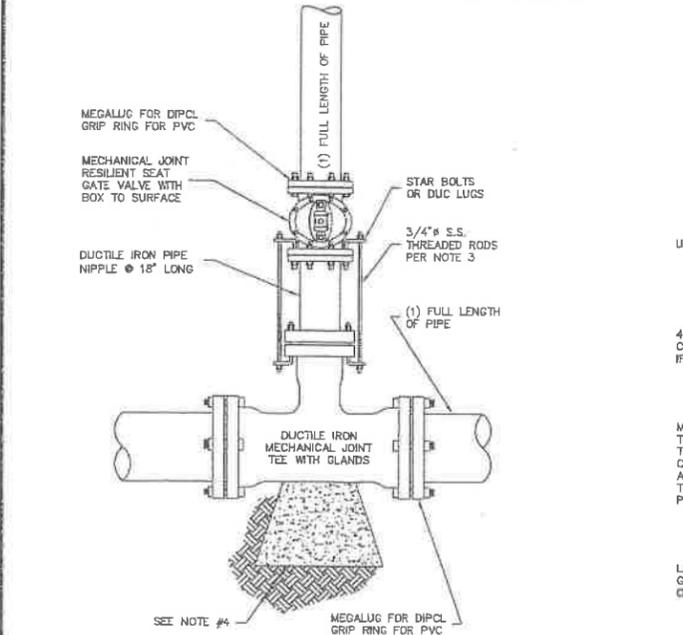
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNACLUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.
 6. WRAP INSULATION TO EXTEND 5'-0" BEYOND CULVERT IN EACH DIRECTION.

- WATER DISTRIBUTION SYSTEM NOTES**
1. ALL DISTRIBUTION MATERIAL INCLUDING MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
 2. ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
 3. ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED "MEGA-LUG" OR APPROVED EQUAL, RETAINER KITS AT EACH JOINT.
 4. ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8" AND 12" DIAMETER WATER MAIN AND APPURTENANCES SHALL BE AN APPROVED AWWA CLASS 52 CEMENT LINED DUCTILE IRON PIPE PIPE SIZING IS AS SHOWN ON THE KEACH-NORDSTROM ASSOCIATES, INC. PLANS APPROVED BY THE TOWN PLANNING BOARD AND NEWHWS. FIRE HYDRANTS MEETING AWWA C-503 STANDARDS, OPEN LEFT AND TO BE INSTALLED AT LOCATIONS AS APPROVED BY THE HUDSON FIRE DEPARTMENT. ALL WATER MAIN AND SERVICE LINES TO BE INSTALLED WITH A MINIMUM OF 8" OF COVER AND SHALL BE PROPERLY SAND BEDDED, COMPACTED AND BACKFILLED WITH SUITABLE MATERIALS.
 5. GATE VALVES SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE APPROVED UTILITY PLANS. ALL GATE VALVES SHALL BE AWWA APPROVED, EPOXY COATED, RESILIENT WEDGE TYPE, BEING OPEN LEFT (COUNTER CLOCKWISE). VALVE BOXES SHALL BE AWWA APPROVED, SLIP TYPE WITH 36" BASE, 36" TOP AND COVER ARE A ONE-PIECE CAST COVER LABELED "WATER".
 6. FIRE HYDRANTS SHALL BE TOWN OF HUDSON APPROVED, OPEN LEFT (COW) INSTALLED AT LOCATION SHOWN ON THE PROJECT PLANS. DOMESTIC SERVICES SHALL HAVE SERVICE LINE SIZING BEING 2" DIAMETER COPPER TUBING BETWEEN MAIN AND CURB STOP, AND 2" PE-CCTS TUBING SIZE FROM STOP TO INSIDE HOME FOR THE FIRE SPRINKLER SERVICE, AND 1" PE-CCTS TUBING SIZE WITH A TEE FROM 2" FOR DOMESTIC WATER, USING BRASS COMPRESSION JOINTS FOR SERVICE FITTINGS AND CORPORATION STOPS, STAINLESS STEEL INSERTS ON HOPE PIPE, BALL VALVE SHUT OFFS AND ADJUSTABLE ERIE TYPE CURB BOXES. SERVICES SHALL BE RUN INTO EACH OF THE INDIVIDUAL HOMES FROM THE WATER MAINS.
 7. SEPARATION OF WATER MAINS AND SEWER ARE IN ACCORDANCE WITH DWGB STANDARDS. ON PARALLEL INSTALLATION, WATER MAINS WERE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. IF LESS THAN TEN FEET, WATER MAIN LAID IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHOULDER LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER WITH AT LEAST THREE FEET HORIZONTAL SEPARATION. AT CROSSINGS THERE IS A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE WATER MAIN AND SEWER. WATER MAIN WITH A MINIMAL LAYING LENGTH OF 18 FEET IS TO BE USED AT ALL CROSSINGS, WITH BOTH JOINTS BEING LOCATED AS FAR FROM THE SEWER AS POSSIBLE.
 8. ALL WATER MAINS SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AWWA C-600 AND C-851, PRIOR TO ACCEPTANCE. WRITTEN CERTIFICATION OF TESTING AND BACTERIOLOGICAL TEST RESULTS BY A THIRD PARTY CONTRACTOR SHALL BE PROVIDED.
 9. A RECORD DRAWING OF WATER MAINS AND APPURTENANCES SHALL BE PROVIDED FOLLOWING INSTALLATION, IN ACCORDANCE WITH NEWHWS AND TOWN OF HUDSON STANDARDS.



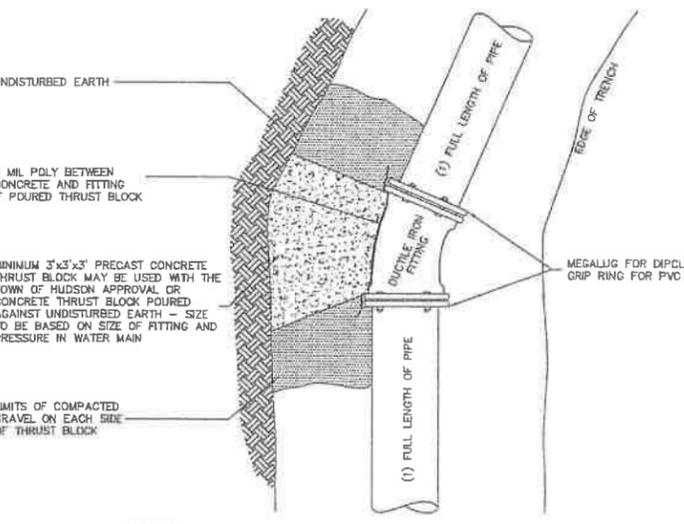
INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER
(A-31)
NOT TO SCALE
(MARCH 2008)

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2" PIECE OF INSULATION CENTERED OVER SEAM.



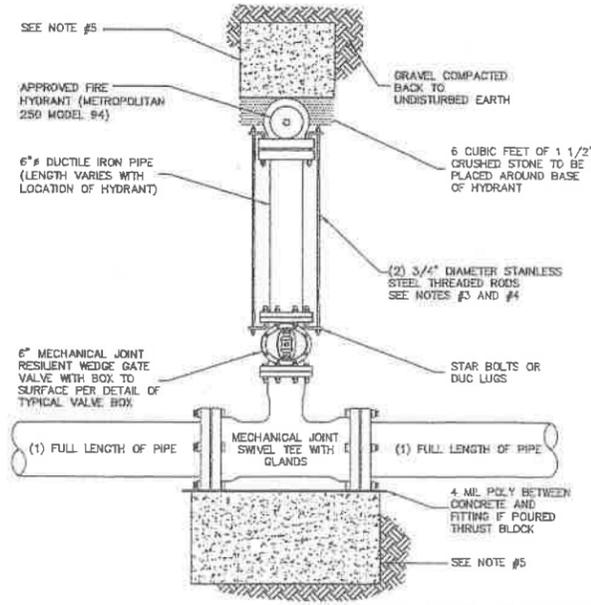
- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS.
 - 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE.
 - 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 - MINIMUM 3"x3"x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH THE TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

TYPICAL TEE INSTALLATION
NOT TO SCALE



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
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 - MINIMUM 3"x3"x3" PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH THE TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

TYPICAL THRUST BLOCK BEHIND FITTINGS INSTALLATION
NOT TO SCALE



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS.
 - 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE.
 - 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
 - WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10' SUBSTITUTE MEGALUGS (OR GRIP RINGS) IN LIEU OF THREADED RODS.
 - MINIMUM 3"x3"x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

TYPICAL HYDRANT INSTALLATION
NOT TO SCALE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE: _____ SIGNATURE DATE: _____

SIGNATURE: _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

CONSTRUCTION DETAILS
HUDSON HILL TOP SELF STORAGE EXPANSION
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. B421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

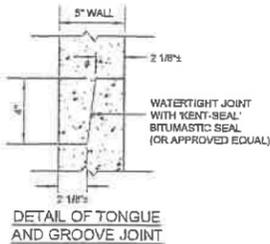
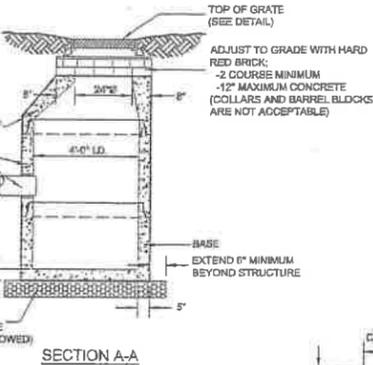
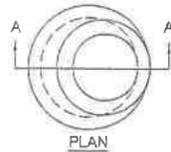
K/A KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BUC
2	12/10/15	REV. PER TOWN COMMENTS	BUC

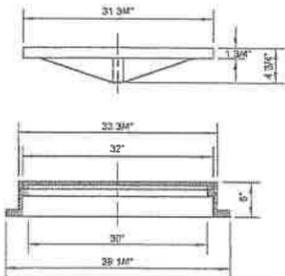
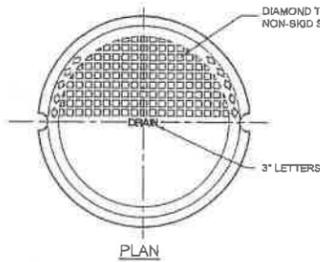
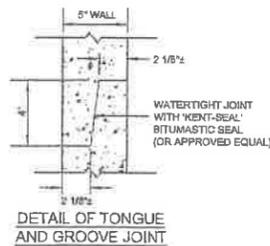
DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
PROJECT NO: 08-0925-2 SHEET 13 OF 16

NOTES:

- ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
- THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
- RISER OF 1", 2", 3" & 4" CAN BE USED TO REACH DESIRED DEPTH.
- MATERIALS AND CONSTRUCTION TO MH-DOT STANDARDS.



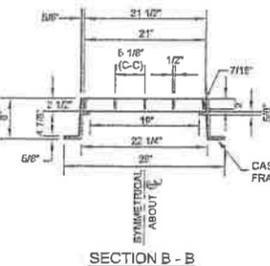
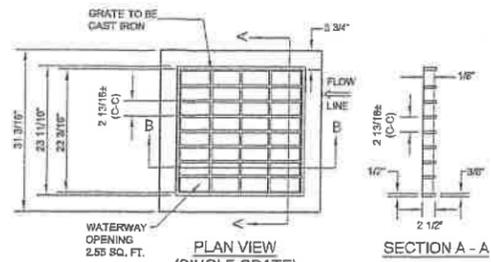
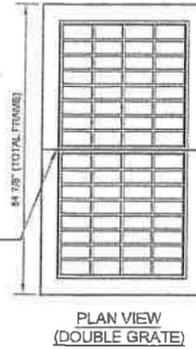
PRECAST REINFORCED CATCH BASIN
NOT TO SCALE
(MAY 2012)



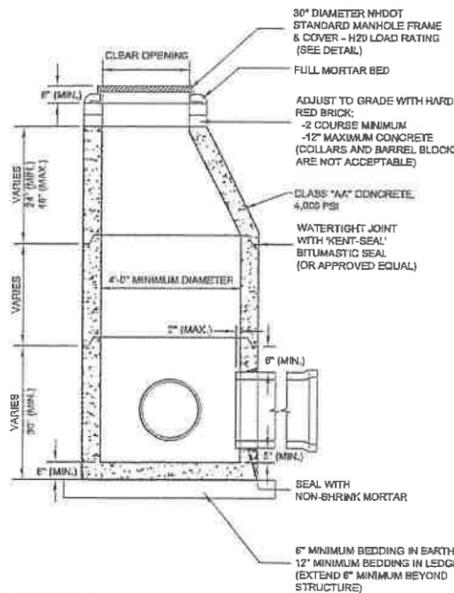
DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
(JANUARY 2012)

- NOTES:**
- NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS.
- FEATURES:**
- 5" LETTERING
 - COVERS MARKED DRAIN
 - NON-SKID COVER
 - DIAMOND SURFACE DESIGN
- SPECIFICATIONS:**
- FULLY MACHINED FRAME AND COVER
 - H-20 LOAD RATED
 - GRAY CAST IRON MEETS ASTM A48 CLASS 30

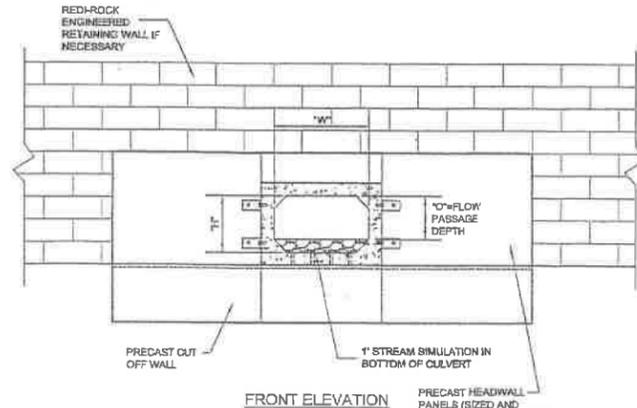
PRECAST REINFORCED DRAIN MANHOLE DETAIL
NOT TO SCALE
(MARCH 2008)



TYPE B FRAME & GRATE DETAIL
NOT TO SCALE
(MARCH 2008)



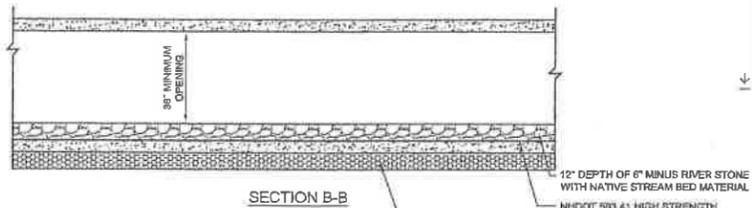
- NOTES:**
- STEPS ARE NOT ALLOWED.
 - ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LF. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
 - THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LF.
 - MATERIALS AND CONSTRUCTION TO MH-DOT STANDARDS.



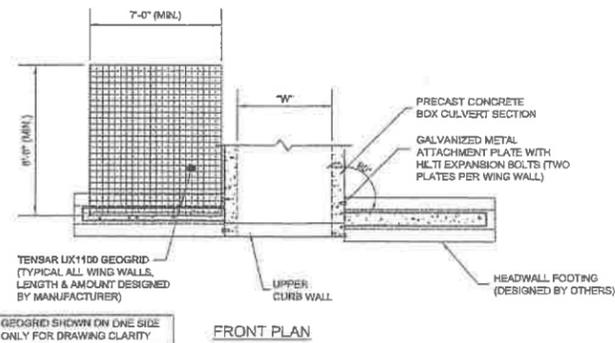
FRONT ELEVATION

PRECAST HEADWALL PANELS (SIZED AND SHAPED TO MEET EXISTING SITE CONDITIONS)

CONCRETE BOX CULVERT FOUNDATION AND BACKFILL DETAIL
NOT TO SCALE



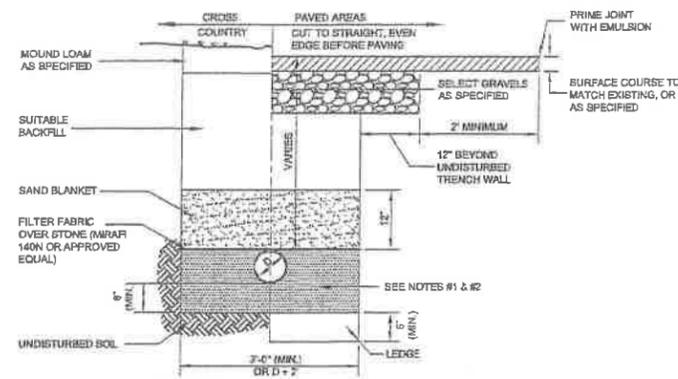
- NOTES:**
- THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL CULVERT MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECTS REQUIRED PRE CONSTRUCTION MEETING.
 - THE BOX CULVERT IS TO BE H-20 RATED.



FRONT PLAN

- NOTES:**
- AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
 - RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
 - THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECTS REQUIRED PRE CONSTRUCTION MEETING.
 - THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
 - DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
 - STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
 - GEGRID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
 - CONSTRUCTION INSTALLATION SPECIFICATION
 - LATERAL EARTH PRESSURE COEFFICIENT
 - SURCHARGE LOAD, EMBEDMENT DEPTH
 - BOTH A PLAN AND PROFILE OF EACH WALL SECTION

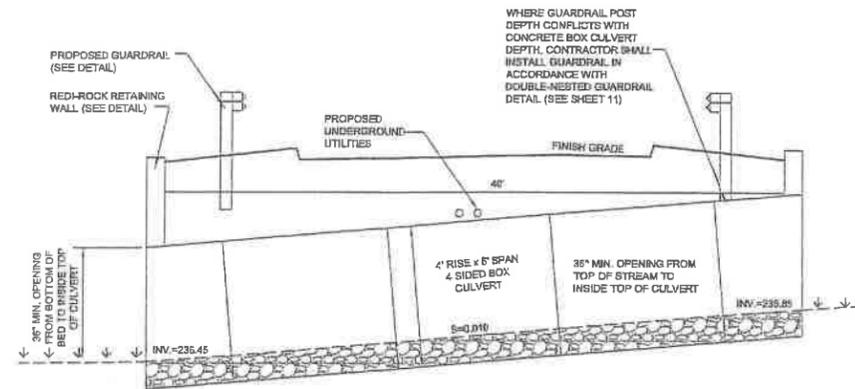
PRECAST CONCRETE HEADWALL
NOT TO SCALE



NOTES

- THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
- FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4" STONE TO THE TOP OF THE PIPE.

STORM DRAINAGE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



CONCRETE BOX CULVERT FOOTING LAYOUT DETAIL
NOT TO SCALE

CONSTRUCTION DETAILS
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MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

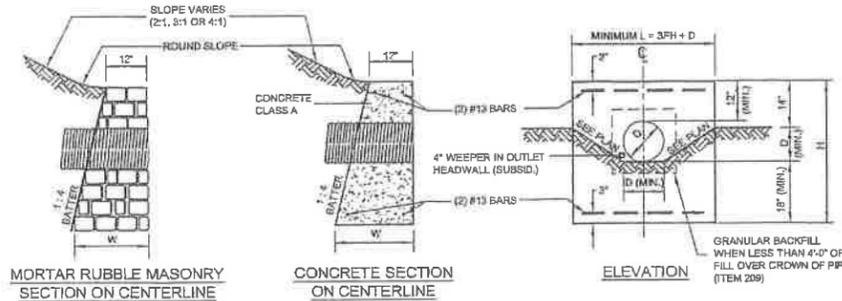
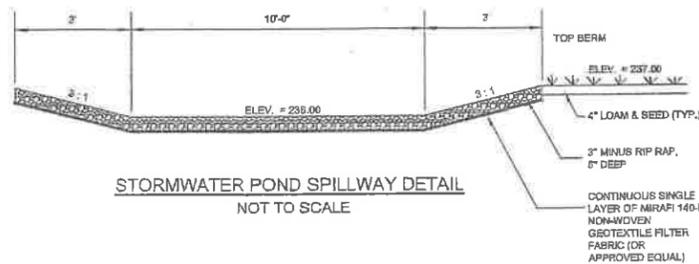
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PIPE DIAMETER	DIMENSIONS, INCHES (MM)				
	PART No.	A (± 1")	B (MAX)	H (± 1")	W (± 2)
12" & 15"	1210 NP	8.5"	10"	6.5"	25"
18"	1810 NP	7.5"	15"	6.5"	35"
24"	2410 NP	7.5"	18"	6.5"	36"
30"	3010 NP	10.5"	N/A	7.0"	53"
36"	3610 NP	10.5"	N/A	7.0"	60"

ADS END SECTION DETAIL
NOT TO SCALE
(MARCH 2008)



NOTE:
DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. FT.)	STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1' DEPTH (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADERS		FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	1" HEADWALL	
										LENGTH L	HEIGHT H			MASONRY IN CORNER FRUSTRUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)
12"	0.79	0.106	1.03	0.61	8	5'-2"	0.331	0.789	0.30	9'-6"	2'-6"	10"	1'-10 1/2"	0.38	1.057
15"	1.25	0.202	1.73	0.85	11	5'-10"	0.320	0.947	0.35	4'-4"	3'-9"	1'-1"	1'-11 1/4"	0.51	1.232
18"	1.77	0.222	2.52	1.13	14	6'-2"	0.330	1.111	0.39	5'-0"	4'-0"	1'-4"	2'-0"	0.30	1.406
24"	3.14	0.280	4.71	1.76	20	7'-2"	0.348	1.451	0.45	7'-2"	4'-6"	1'-3 1/2"	2'-1 1/2"	0.42	1.775
30"	4.91	0.301	7.07	2.56	25	8'-2"	0.365	1.810	0.55	8'-4"	6'-0"	2'-4"	2'-3"	0.55	2.164
36"	7.07	0.344	11.46	3.53	31	11'-2"	0.223	2.187	0.85	11'-4"	8'-2"	2'-8"	2'-4 1/2"	0.81	2.572
42"	9.00	0.389	16.24	4.65	38	13'-2"	0.298	2.651	1.07	13'-4"	8'-4"	3'-4"	2'-4"	0.72	3.000
48"	12.21	0.435	21.02	5.85	42	15'-2"	0.298	3.000	1.31	15'-6"	8'-4"	3'-10"	2'-7 1/2"	0.84	3.447
54"	15.50	0.486	26.83	7.44	47	17'-2"	0.332	3.432	1.56	17'-4"	7'-0"	4'-4"	2'-5"	0.98	3.914
60"	19.63	0.536	36.80	9.15	52	19'-2"	0.370	3.822	1.87	19'-6"	7'-6"	4'-10"	2'-10 1/2"	1.12	4.401
66"	23.76	0.593	46.03	11.04	58	21'-2"	0.407	4.350	2.17	21'-6"	8'-0"	5'-4"	3'-4"	1.28	4.907
72"	28.27	0.649	60.55	13.17	63	23'-2"	0.440	4.838	2.50	23'-6"	8'-6"	5'-10"	3'-11 1/2"	1.46	5.433

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE
(MARCH 2008)

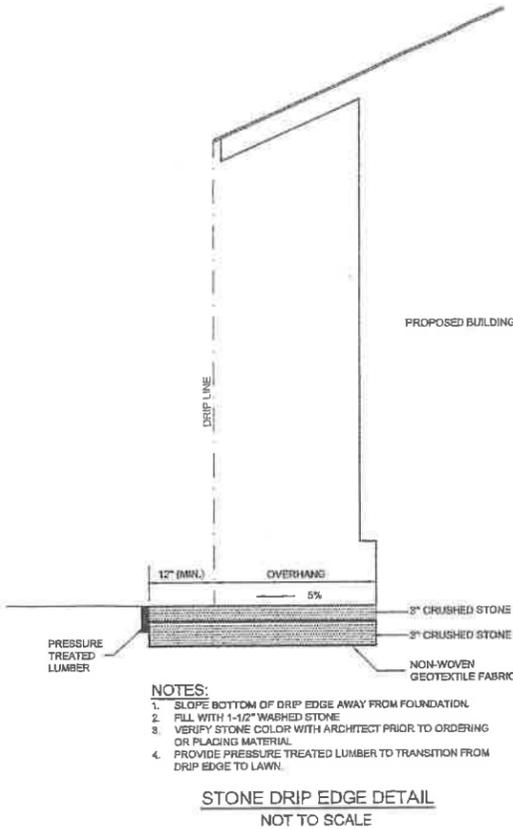
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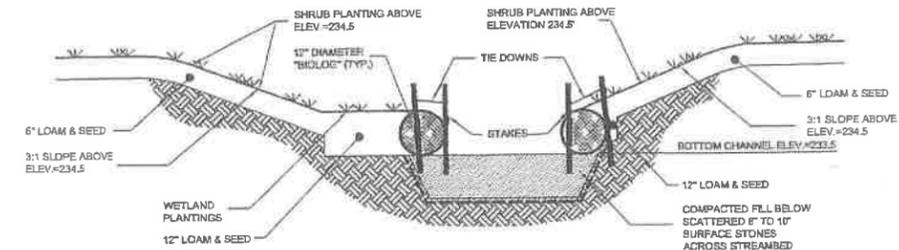
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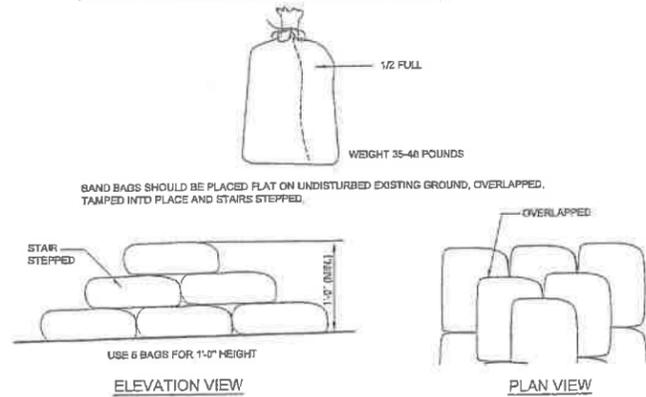
NOTES:
1. SLOPE BOTTOM OF DRIP EDGE AWAY FROM FOUNDATION.
2. FILL WITH 1-1/2" WASHED STONE.
3. VERIFY STONE COLOR WITH ARCHITECT PRIOR TO ORDERING OR PLACING MATERIAL.
4. PROVIDE PRESSURE TREATED LUMBER TO TRANSITION FROM DRIP EDGE TO LAWN.

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL
NOT TO SCALE
(MARCH 2008)

LOCATION	Ls	W1	W2	d50	DEPTH
EXIST. HW#1	3'	8'	21'	6"	15"
PROP. FES#10	21'	8'	26'	6"	15"
PROP. HW#5	17'	4'	11'	6"	15"



FILL SAND BAGS 1/2 TO 2/3 FULL. THE AT TOP 80 BAG WILL LAY FLAT WHEN PUT IN PLACE. A PROPERLY FILLED SAND BAG SHOULD WEIGH BETWEEN 35-40 POUNDS.



SANDBAG BARRIER DETAIL
NOT TO SCALE
(MARCH 2008)

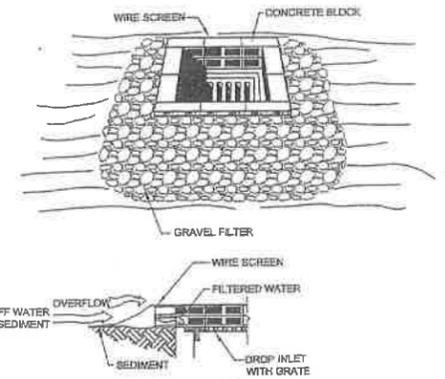
TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES	
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 (50)
85%	1.2 TO 1.5 (50)
50%	1.0 TO 1.5 (50)
15%	0.3 TO 0.5 (50)

CONSTRUCTION SPECIFICATIONS:

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR 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.

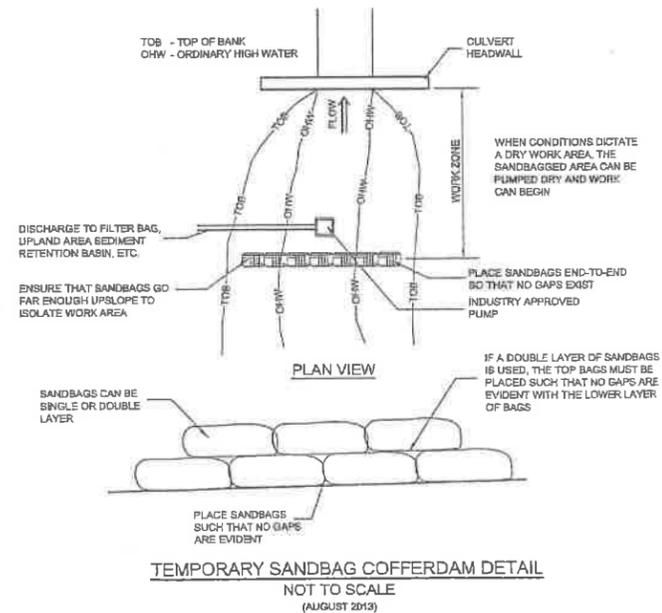
MAINTENANCE:

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. 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 FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



NOTES:
1. CONCRETE BLOCKS SHOULD BE PLACED LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF EACH BLOCK SHOULD BE ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED DEPENDING ON THE DESIGN BY STACKING VARIOUS COMBINATIONS OF DIFFERENT SIZED BLOCKS. THE BARRIER SHOULD BE A MINIMUM OF 12 INCHES HIGH AND A MAXIMUM OF 24 INCHES HIGH.
2. HARDWARE CLOTH OR WIRE MESH SHOULD BE PLACED OVER OPENINGS OF THE CONCRETE BLOCKS AND EXTENDED AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCK.
3. SEWER STONE OR OTHER CLEAN COARSE AGGREGATE SHOULD BE PLACED AGAINST THE BLOCK TO THE TOP OF THE BARRIER.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
NOT TO SCALE
(MARCH 2008)



CONSTRUCTION DETAILS
HUDSON HILLTOP SELF STORAGE EXPANSION
MAP 105 LOT 17
22 BRADY DRIVE
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

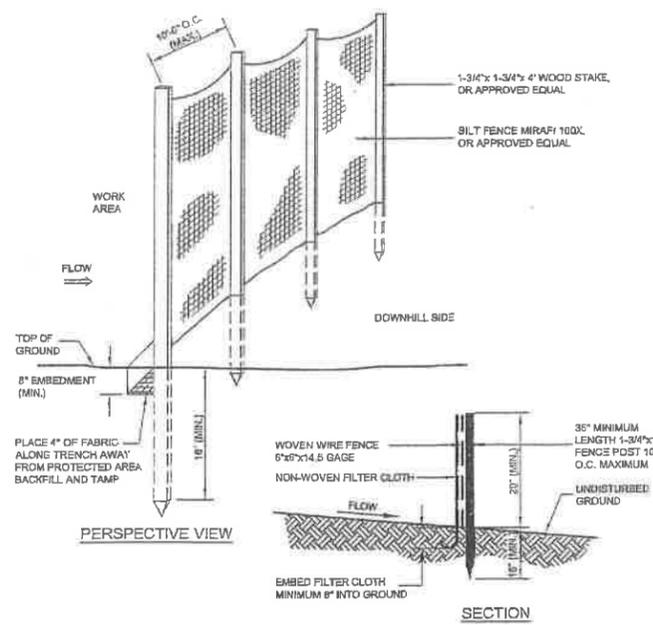
OWNER OF RECORD:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049
BK. 8421 PG. 155

APPLICANT:
NOURY INVESTMENTS, LLC.
17 ELNATHANS WAY
HOLLIS, NH 03049

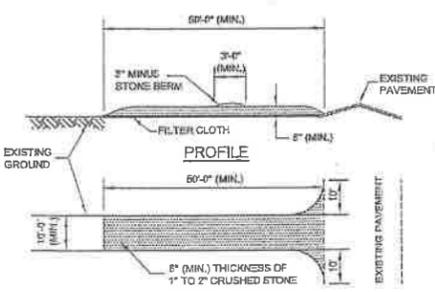
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

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DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
PROJECT NO: 06-0825-2 SHEET 15 OF 16



SILT FENCE DETAIL
 NOT TO SCALE
 (MARCH 2008)



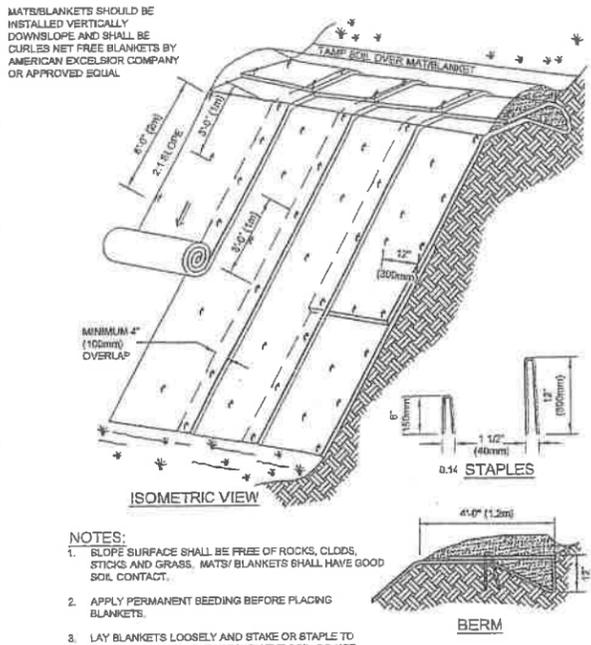
STABILIZED CONSTRUCTION EXIT DETAIL
 NOT TO SCALE
 (MARCH 2008)

MAINTENANCE:
 MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
 IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

- CONSTRUCTION SPECIFICATIONS:**
- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
 - THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE 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 EXIT SHALL NOT BE LESS THAN 6 INCHES.
 - THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA 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 RESIDENCE LOT.
 - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 6:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
 - THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND 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.

- CONSTRUCTION SPECIFICATIONS:**
- THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCE.
 - THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
 - WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
 - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
 - FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

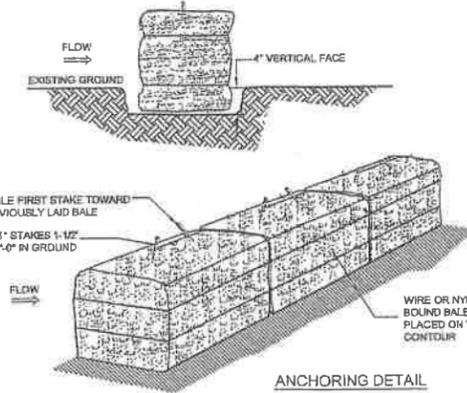
- MAINTENANCE:**
- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
 - IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC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



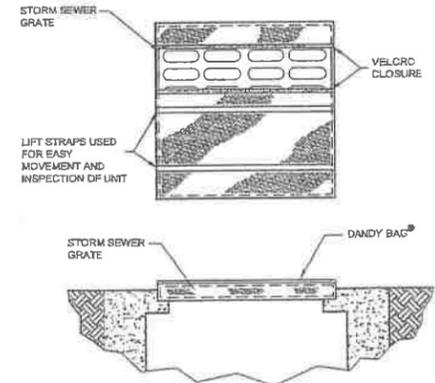
EROSION CONTROL BLANKETS - SLOPE INSTALLATION
 NOT TO SCALE
 (AUGUST 2011)

- NOTES:**
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLDS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 - APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 - LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

- CONSTRUCTION SPECIFICATIONS:**
- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPED STORM FLOW OR DRAINAGE.
 - BALES SHOULD BE FREE FROM ANY PLANT MATERIAL FOUND ON THE NEW HAMPSHIRE INVASIVE SPECIES LIST.



STRAW BALE BARRIER
 NOT TO SCALE
 (JULY 2010)



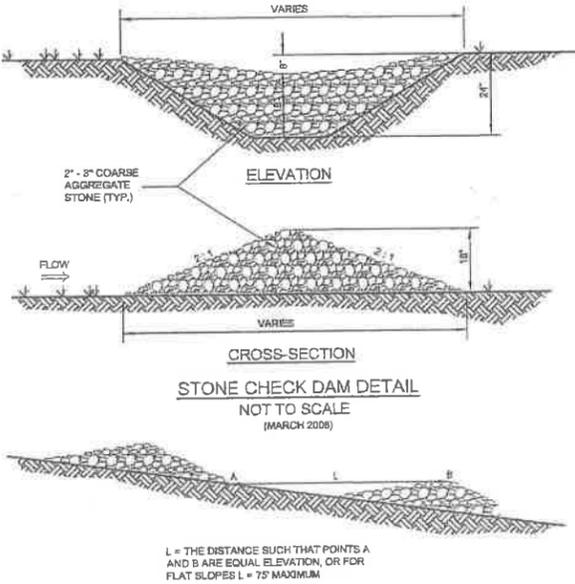
HI-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAPE TENSILE STRENGTH	ASTM D 4932	kN (lbs)	1.62 (365) x 0.69 (200)
GRAPE TENSILE ELONGATION	ASTM D 4932	%	24 ± 10
PUNCTURE STRENGTH	ASTM D 4933	kN (lbs)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3.97 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.51 (115) x 0.30 (75)
UV RESISTANCE	ASTM D 4255	%	90
APPARENT OPENING SIZE	ASTM D 4751	Min (US Std Sieve)	0.425 (100)
FLOW RATE	ASTM D 4491	l/min/m² (gal/min/ft²)	5.00 (1.45)
PERMITTIVITY	ASTM D 4491	Sec ⁻¹	2.1

DANDY BAG®
 NOT TO SCALE
 (APRIL 2010)

- WINTER CONSTRUCTION NOTES:**
- ALL PROPOSED POST-DEVELOPMENT 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 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH 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 WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 8 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 804.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
 - AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 65% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

EROSION CONTROL BLANKETS - SWALE INSTALLATION
 NOT TO SCALE
 (MARCH 2008)



- CONSTRUCTION SEQUENCE**
- FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 420:2 AND AGR 260:2 RELATIVE TO INVASIVE SPECIES.
 - FRUIT TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS. ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLAN.
 - COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDING WITH WINTER RYE AND BE SURROUNDED WITH HAY BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
 - BEGIN EARTHMOVING OPERATIONS. COMMENCE WITH WORKS NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADIENT STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY EARTHEN DIKES OR EXCAVATED SWALES.
 - ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED.
 - INSTALL DRAINAGE SWALE SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.
 - PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS.
 - COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LEAM.
 - ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
 - INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
 - CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
 - INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
 - COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

- EROSION CONTROL NOTES**
- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRY (30) CALENDAR DAYS.
 - TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
 - ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
 - ALL SWALES AND DITCHES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
 - IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
 - AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 65% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
 - DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENH-A 1000.
 - IN NO WAY ARE THESE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
 - AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION."
 - THE TOWN SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 - ALL DETENTION PONDS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING ACTIVITIES IN AREAS THAT DIRECT RUNOFF TO THE STRUCTURES.
 - ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - ALL CUT AND FILL SLOPES SHALL BE SEEDING AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

CONSTRUCTION DETAILS
HUDSON HILLTOP SELF STORAGE EXPANSION
 MAP 105 LOT 17
 22 BRADY DRIVE
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 NOURY INVESTMENTS, LLC.
 17 ELNATHANS WAY
 HOLLIS, NH 03049
 BK. 8421 PG. 155

APPLICANT:
 NOURY INVESTMENTS, LLC.
 17 ELNATHANS WAY
 HOLLIS, NH 03049

KM KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2861

REVISIONS

No.	DATE	DESCRIPTION	BY
1	11/25/15	REV. PER WATER MAIN EXTENSION	BJC
2	12/10/15	REV. PER TOWN COMMENTS	BJC

DATE: OCTOBER 8, 2015 SCALE: 1" = 40'
 PROJECT NO: 08-0925-2 SHEET 16 OF 16

Autumn Circle Subdivision Extension Request

Staff Report

January 13, 2016

SITE: Autumn Circle Subdivision - 300 Webster Street - Map128/Lots 007 & 008 - SB# 10-15

PURPOSE OF PLAN: Pursuant to RSA 674:39, the Applicant requests a two-year extension for the approved Autumn Circle Subdivision Plan of 12/10/14. Application Acceptance & Hearing.

ATTACHMENTS:

- 1) Letter from Project Eng., Patrick Colburn, P.E., RE: Ext. Request – “A”.
- 2) Application for Subdivision Extension Request – “B”.
- 3) Notice of Approval, RE: 10 DEC 14 Autumn Circle Subd. – “C”.

COMMENTS & RECOMMENDATION: In accordance with the attached letter from the project eng., Patrick Colburn, P.E., “A”, the Applicant requests for the Planning Board to consider granting a 2-year extension for the approved Autumn Circle Subdivision. For this meeting, staff recommends granting the requested two-year extension in accordance with the below DRAFT MOTION.

DRAFT MOTION:

I move to grant a two-year extension (i.e., from December 10, 2015 to December 10, 2017) for the Autumn Circle Subdivision, located at 300 Webster Street, which calls for the consolidation of the subjects: Hudson/Litchfield Tax Map and Lot = 128-7/1-2 and Hudson-Litchfield Tax Map and Lot = 128-8 / 1-1 and subdivide the resulting area into 10 building lots; 1 containing the existing house and garage.

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

Handwritten mark resembling the letter 'A' with a checkmark-like stroke above it.

October 20, 2015

Mr. John Cashell, Town Planner
Planning Department
Town of Hudson
12 School Street
Hudson, New Hampshire 03051



**Subject: Autumn Circle Subdivision
Subdivision Approval SP# 11-14
Map 128; Lot 7 and 8
300 Webster Street, Hudson, New Hampshire
KNA Project No. 07-0511-4A**

Dear Mr. Cashell,

As you are aware, our office prepared subdivision plans for the above referenced property in 2014. Further, on December 10, 2014, the Hudson Planning Board granted the Applicant Subdivision Approval. The plan proposed to consolidate two existing lots in Hudson and Litchfield, and re-subdivide the property to create 10-new residential building lots. The plan also includes significant improvements such as onsite stormwater management, a 1,000+/- foot cul-de-sac, onsite septic systems, and connection to municipal water.

Due to the slow economic conditions, the applicant has not been able to move forward with the development. Therefore, we hereby respectfully request, on behalf of our client that the Hudson Planning Board grant a two-year extension to the previously approved Subdivision plans listed above.

Should you have any questions, or require further information, please do not hesitate to contact me at the office.

Respectfully,

A handwritten signature in black ink, appearing to read "Patrick Colburn".

Patrick Colburn, PE
Project Manager



TOWN OF HUDSON
PLANNING BOARD

21
C
7

NOTICE OF APPROVAL

12 School Street

Hudson, New Hampshire 03051

603/886-6005



December 11, 2014

Owner or Applicant: Leonard A. Vigeant, Sr.
5 Mockingbird Lane
Hudson, NH 03051

On Wednesday, December 10, 2014, the Hudson Planning Board heard subject case SP# 11-14 "Autumn Circle Subdivision"

SUBJECT: Purpose of plan: is to consolidate the two subject parcels: Hudson/Litchfield Tax Map and Lot = 128-7/1-2 and Hudson/Litchfield Tax Map and Lot = 128-8/1-1 and subdivide the resulting area into 11 building lots; (one will contain the existing house and garage). Application Acceptance & Hearing. Deferred Date Specific from the 11-12-14 Planning Board Meeting.

LOCATION: 300 Webster Street – Map 128/Lots 7 & 8

You are hereby notified of the subject plat presented before the Planning Board and the following action:

The Planning Board voted to accept the Subdivision application for 300 Webster Street – Map 128/Lots 7 & 8, which calls for the construction of a new public street and 11 single-family house lots.

Waivers:

289-6(D) – Fiscal Impact

The Planning Board voted 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.

289-6(D) – Traffic Study

The Planning Board voted to grant the requested waiver: HTC 289-6(D) – Traffic Study- because the traffic volume associated with the addition of 10 new single-family dwellings will not substantially impact the existing traffic conditions along Webster St., and as such, the granting of this waiver is not contrary to the spirit and intent of the Subdivision Regulations.

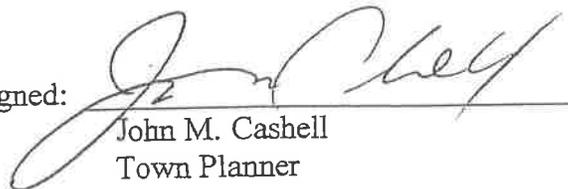
The Planning Board voted to approve the subdivision plan entitled: Residential Subdivision Land of Leonard Vigeant Map 128; Lots 7 & 8 Hudson, Map B; Lots 1-1 & 1-2 Litchfield 300 Webster Street, Hudson and Litchfield, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 16 Sept 2014, latest revision date: 19 Nov 2014, consisting of Sheets 1 – 23 and Notes 1 – 32, 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 Subdivision 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 Municipal Water and Drain Easement Deeds pertaining to such easements as shown on the Plan.
 3. A CAP amount of \$1,554.33, 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. This approval is subject to final engineering review.
- ✓ Maintenance of the onsite drainage system shall be constructed and maintained in compliance with local and NHDES requirements for such systems, and the perpetual maintenance of the stormwater treatment structures and treatment and retention basins outside of the ROW, shall be the responsibility of the future homeowner's association comprised of all the homeowners within this subdivision.

8. The number of dwelling lots for this subdivision shall be limited to 11, which includes proposed Lot 1 having an existing two-family dwelling.
9. 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.
10. Construction activities involving the lots shall be limited to the hours between 7:00 A.M. and 6:00 P.M., Monday through Friday. Interior construction activities are allowed on Saturday between 7:00 A.M. and 6:00 P.M. Both interior and exterior construction activities are prohibited on Sunday. Note: this condition shall be properly inscribed on Sheets 3 and 4 of the Plans prior to Planning Board endorsement of same.
11. The developer shall be responsible for the installation of a road status sign at the entrance drive to this subdivision in accordance with Section 289-40 of the Planning Board's Land Use Regulations, and as stated in Note 26, Sheet 1 of the Plan.
12. An offsite traffic improvement fee, in the amount of \$250 shall be paid prior to the issuance of a Certificate of Occupancy for each dwelling within this subdivision built in Hudson, and this fee shall be expended exclusive to traffic improvements implemented within the vicinity of the Webster St./Derry St. (NH Rte. 102) intersection.
13. Prior to Planning Board endorsement of the Plan, the "Heritage Trail Easements", pertaining to Lots 8-7 & 8-8, shall be favorably reviewed by Town Counsel, and said easements shall be recorded at the HCRD, together with the Plan.
14. Conservation signage shall be provided at 50 foot intervals, at the Applicant's expense, along the Merrimack River "no cut, no disturb" zones associated with Lots 8-7 & 8-8.

All representations of fact or intention made by the applicant or any applicant's representative during testimony before the Planning Board relative to the obtaining approval of this plan, shall be considered conditions of this approval regardless of the fact that such fact or intentions were not specifically stated as part of the motion to grant.

Signed: _____


John M. Cashell
Town Planner

Date: _____

12-11-14

cc: Keach-Nordstrom Assoc. Inc.

"B"



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

Date of Application: September 16, 2014 Tax Map # 128 Lot # 7 & 8

Name of Project: Autumn Circle

Zoning District: _____ General SB# 10-15
(For Town Use) (For Town Use)

ZBA Action: Wetland Special Exception - 08/28/2014

PROPERTY OWNER:

DEVELOPER:

Name: Leonard A. Vigeant SR.

Same As Owner

Address: 5 Mockingbird Lane

Address: Hudson, NH 03051

Telephone # (603) 321-1946

Fax # _____

Email: vfamilyproperties@comcast.net

PROJECT ENGINEER

Name: Patrick Colburn, PE

Telephone # (603) 627-2881

Address: Keach Nordstrom Associates, Inc

Fax # (603) 627-2915

Address: 10 Commerce Park No. Suite 3 Bedford, NH 03110

Email: pcolburn@keachnordstrom.com

PURPOSE OF PLAN:

The purpose of this plan is to consolidate the two subject parcels: Hudson/Litchfield Tax Map and Lot = 128-7 / 1-2 and Hudson/Litchfield Tax Map and Lot = 128-8 / 1-1 and subdivide the resulting area into 10 building lots; 1 will contain the existing house and garage.

(FOR TOWN USE)

Plan Routing Date: _____ Sub/Site Date: _____

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

(Initials) Title: _____ Date: _____

DEPT:

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

Fees Paid _____

LOT AREA CALCULATION TABLE

LOT #	TOTAL AREA	WETLAND AREA	AREA > 25% SLOPE	BUILDABLE AREA (net contiguous upland useable)	FRONTAGE
1.	55,719 S.F.	0 S.F.	0 S.F.	55,719 S.F.	165.17' (Autumn Circle) 201.85' (Webster St.)
2.	54,655 S.F.	0 S.F.	420 S.F.	54,235 S.F.	150.00'
3.	58,977 S.F.	1,241 S.F.	5,207 S.F.	52,529 S.F.	224.74'
4.	52,460 S.F.	4,227 S.F.	933 S.F.	47,300 S.F.	231.63'
5.	49,968 S.F.	0 S.F.	0 S.F.	49,968 S.F.	229.75'
6.	58,621 S.F.	1,769 S.F.	4,482 S.F.	52,370 S.F.	152.30'
7.	127,724 S.F.	6,166 S.F.	35,157 S.F.	86,401 S.F.	150.39'
8.	114,990 S.F.	11,571 S.F.	8,757 S.F.	94,662 S.F.	336.03'
9.	50,708 S.F.	1,718 S.F.	0 S.F.	48,990 S.F.	206.93'
10.	45,418 S.F.	0 S.F.	424 S.F.	44,994 S.F.	494.80'

Data Sheets Checked By:  Date: 9/26/14

SUBDIVISION PLAN DATA SHEET

Dates/Case #/Description/

Stipulations of ZBA,

Conservation Commission,

NH Wetlands Board Action: ZBA Special Exception granted on August 28, 2014.

(Attach Stipulations on
Separate Sheet)

List Permits Required:

NHDES Subdivision Approval, NHDES Alteration of Terrain, NHDES Wetland Minor Impact,

NHDES Shoreland, NHDOT Driveway, NPDES Notice of Intent

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

	1. 289-18.B.(2)	Cul-De-Sac Roadway Length
	2. 289-6(D)	Fiscal Impact Study
	3. 289-6(D)	Traffic Study
	4.	
	5.	
	6.	
	7.	

**(Left Column for Town Use)*

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

Development Agreement

Proposed:

Yes No

If Yes Endorsed

Yes Date _____ No

Hudson Town Hall
Hudson Zoning Board
12 School Street
Hudson, NH 03051

Town of Hudson

Zoning Board of Adjustment

Decision to Grant a Wetlands Special Exception Permit

On **August 28, 2014**, the members of the Hudson Zoning Board of Adjustment, as part of its regular public meeting for that date, heard **Case 128-007 & 008, 300 Webster Street**, pertaining to a request by **Leonard Vigeant, 5 Mockingbird Lane, Hudson, NH** to allow for a Wetland Special Exception in accordance with the provisions of HZO Article IX, Section 334-35 to **encroach into the designated wetlands approximately 3,458 square feet, and 25,915 sq. ft. of permanent wetland buffer impact is proposed at 300 Webster Street [Map 128, Lots 7 & 8; Zoned R2; HZO Article IX, Section 334-35, Uses within Wetland Conservation District.]**

Following the hearing of testimony by the applicant, a majority of the members of this Zoning Board voted that this Wetlands Special Exception should be granted, with the following stipulations:

1. With stipulation to carry out all requirements or stipulations of the Conservation Commission as follows:
 - a. Construction and restoration shall comply with BEST MANAGEMENT PRACTICES TO CONTROL NON-POINT SOURCE POLLUTION: A GUIDE FOR CITIZENS AND TOWN OFFICIALS (NH Dept of Environmental Services - Current Issue)
 - b. During construction and restoration, erosion control barriers shall be installed and maintained to the satisfaction of the Town Engineer.

- c. Recommend that the Town of Hudson acquire a pedestrian easement from the cul-de-sac at the western of the proposed new roadway, along the lot line between Lots 6 & 7 to the boat ramp, located coincident with Photo 6 on the associated plans, and at the top of the Merrimack River bank both north and south of the wetlands connecting to the river, for the purpose of providing access to and a path for the proposed Heritage Trail.
- d. Recommend that the Town of Hudson acquire a river access and pedestrian easement extending from the recommended pedestrian easement located coincident with Photo 6 on the associated plans, and continuing down the existing boat ramp to the Merrimack River.

For details of specific discussion relative to this decision, please consult the public minutes recorded during this hearing.

All representations of fact or intention made by the applicant or any applicant's representative(s) during testimony before the Zoning Board of Adjustment relative to the obtaining of this special exception shall be considered conditions of the special exception, regardless of the fact that such facts or intentions were not specifically stated as part of the motion to grant.

In the event that the requested use subsequently is found by the Hudson Zoning Administrator to demonstrate deliberate or preventable lack of compliance with any applicable stipulation or restriction, including the verbally specified restrictions described in the preceding paragraph, such use shall be held to be in violation of the covenant made with the Board, and corrective action(s) will be enforced under N.H. R.S.A. 676:17, Fines and Penalties, which allows a civil penalty of \$275 for the first offense and \$550 for subsequent offenses for each day that such violation is found to continue, as well as recovery of costs and reasonable attorney's fees.

Signed: _____
 Chairman, Hudson Zoning Board of Adjustment

Date: _____

Signed: _____
 Zoning Administrator

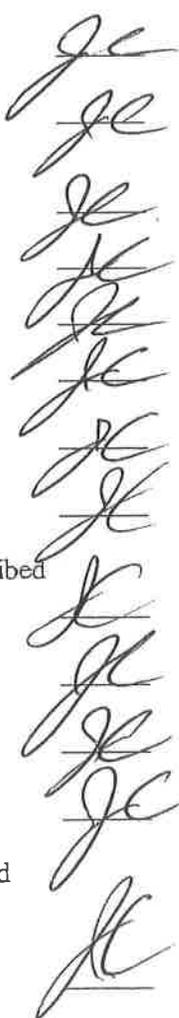
Date: _____

**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**

- | | |
|--|--|
| <p><u>PRC</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.</p> <p><u>PRC</u> b) Seventeen (17)-subdivision narratives, describing the project.</p> <p><u>PRC</u> c) Plan scale at not less than one inch equals fifty feet (example: 1" = 50' acceptable).</p> <p><u>PRC</u> d) Locus plan with 1,000 minimum radius of site to surrounding area.</p> <p><u>PRC</u> e) Plan dated by day/month/year.</p> <p><u>PRC</u> f) Revision block.</p> <p><u>PRC</u> g) Planning Board approval block.</p> <p><u>PRC</u> h) Title of project inscribed on plan.</p> <p><u>PRC</u> i) Name(s) and address of property owner(s) and signature(s) shall be inscribed on plan.</p> <p><u>PRC</u> j) North point shall be inscribed on plan.</p> <p><u>PRC</u> k) Property lines-exact locations and dimensions.</p> <p><u>PRC</u> l) Acreage/sq. ft. of entire subdivision.</p> <p><u>PRC</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.</p> |  |
|--|--|

Applicant
Initials

Staff
Initials

- PRC 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.
- PRC 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.
- PRC p) Locations of existing and proposed permanent monuments and benchmarks within 200 feet of the tract.
- N/A q) Pertinent highway projects.
- PRC r) Assessor map and lot number.
- PRC 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.
- PRC t) Delineate zoning.
- PRC u) Storm water drainage plan.
- PRC v) Topographical contours at 2-foot intervals existing and proposed.
- PRC w) Utilities: existing and proposed.
- PRC x) Building and wetland setback lines.
- PRC y) Rights of way, existing and proposed.
- N/A z) Location of dedicated recreational public use land(s) proposed.
- PRC aa) Detailed designs of bridges and culverts.
- PRC ab) Typical roadway cross-section, road profile, stationing, and curve data, etc.

Handwritten initials and marks on the right side of the page, including "JC" and "N/A" written multiple times, corresponding to the rows of the list.

Applicant
Initials

Staff
Initials

- PRC 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. JC

- PRC ad) All notes from plats. JC
- PRC ae) Buffers as required by subdivision regulations. JC
- PRC 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. JC

- PRC 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. JC

- PRC ah) Easements, existing and proposed. JC
- PRC ai) State of New Hampshire Engineer's seal and signature. Surveyor's seal and signature. JC

- PRC aj) Error of closure (1 in 10,000 or better). JC
- PRC ak) Drafting errors/omissions. JC

- N/A al) Note outlining phasing schedule. N/A

- PRC am) Narrative description stating the purpose, location, long range plans impacts on traffic, schools, and utilities. JC

- PRC an) Aerial photograph of site and area within 200 feet of the subdivision parcel. JC

- W ao) Fiscal impact study. W granted
- W ap) Traffic study. W

- PRC aq) Drainage calculations and supporting data. JC

Applicant
Initials

Staff
Initials

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

PRC 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.

N/A at) Off-site agreement(s).

N/A

N/A au) Presentation plan (colored, with color-coded bar chart).

N/A

PRC av) Fees paid to clerk.

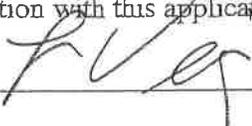
PRC aw) Plans that include relocation of lot lines shall clearly delineate the former (old) lot lines from proposed (new) lot lines.

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

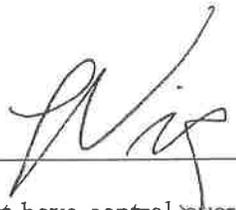
APPLICATION FOR SUBDIVISION PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

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.

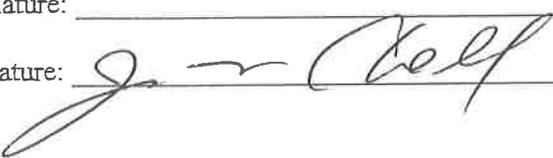
Signature of Owner: 

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

Signature of Developer: 

- ❖ 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: _____

Planner Approval Signature: 

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Autumn Circle

Street Address: 300 Webster Street

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 289-18.B.(2) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. dated September 16, 2014 for property Tax Map/Lot(s) 128/7 & 8 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):

This particular section of the Hudson Land Use Regulations limits the length of a cul-de-sac roadway to a maximum of 1,000 linear feet. The subject regulation would pose an unnecessary hardship upon the Applicant because the subject property is approximately 1,900-LF in depth as measured from the Webster right-of-way to the western most property boundary. As a result of the existing geometry of the property, a 1,141-lf cul-de-sac is necessary in order to gain reasonable access to the remote upland portions of the property.

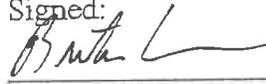
Reason(s) for granting this waiver, relative to not being contrary to the Spirit and Intent of the Subdivision/Site Plan regulations: (if additional space is needed please attach the appropriate documentation hereto):

The purpose of this particular regulation is to prevent the construction of excessively long dead end roads which could interfere with the Town's ability to provide life safety services. Granting of the requested waiver is not contrary to the Spirit and Intent of the regulation for the following reasons:

1. The proposed cul-de-sac length would not result in the construction of an excessively long dead end road, as the proposed roadway length is only 141 feet greater than that which is allowed.
2. The Applicant proposes the construction of a 30,000 gallon fire cistern which will provide a reliable year round water source for fighting fires in the immediate neighborhood as well as for other residences in the vicinity.

3. Additionally, fire hydrants are locating within 1000' of the property due to municipal water along Webster Street and Charles Bancroft Highway.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Autumn Circle

Street Address: 300 Webster Street

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 289-6 (D) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. dated September 16, 2014 for property Tax Map/Lot(s) 128/7 & 8 in the Town of Hudson, NH.

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

A Fiscal Impact study would cause unnecessary additional financial burden to the developer.

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):

The Town of Hudson will collect an impact fee proportionate to the size of the proposed development. A fiscal impact study is not needed as the Town of Hudson already has a mechanism in place to ensure that a project does not burden Town resources. Therefore, granting this waiver is not contrary to the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

Name of Subdivision/Site Plan: Autumn Circle

Street Address: 300 Webster Street

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 289-6 (D) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. dated September 16, 2014 for property Tax Map/Lot(s) 128/7 & 8 in the Town of Hudson, NH.

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

A Traffic Study would cause unnecessary additional financial burden to the developer.

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):

The ordinance is in place to assess existing traffic conditions and what proposed developments would do to current traffic situations. The 10-lot subdivision being proposed on Autumn Circle will not increase traffic enough on Webster Street, Route 3A to warrant a full traffic study. Therefore, granting this waiver is not contrary to the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____



Land of Leonard Vigeant
300 Webster Street
Tax Map 128; Lots 7 & 8
KNA Project No. 07-0511-4A

September 16, 2014

Project Location

The subject properties, situated in both Hudson and Litchfield, are referenced on Hudson Tax Map 128 as Lots 7 & 8 and Litchfield Tax Map 1 as Lots 1 & 2.

Project Intent

The project proposal is for a 10-Lot Residential Subdivision. Access to the site will be provided by a proposed roadway and cul-de-sac running through the Hudson portion of the site. An existing intermittent stream bisects the site making it impossible to access the rear half of the site without impacting the wetland. Substantial stormwater management provisions are also being proposed. Each lot will be serviced by private well and septic systems.

Existing Conditions

The majority of the subject property is currently undeveloped consisting of meadowlands with the exception of a two-story home and detached two-story garage located on Lot 8. Lot 7 is bordered by the Merrimack River to the west. The entire embankment is heavily wooded. The property is bisected at its midpoint by an intermittent stream that runs parallel to the Merrimack River until ultimately discharging into it. A significant portion of the site slopes down toward the wetland.

A Site Specific Soil Survey, performed by Schauer Environmental Consultants, LLC, classifies the predominant on-site soil types as Pootatuck fine sandy loam, 0-8% slopes, Rippowam fine sandy loam, 0-8% slopes, Merrimac fine sandy loam with slopes ranging from 0-25+%, Sudbury fine sandy loam, 0-8% slopes, Udorthents, sandy with slopes from 0-25+%, and Occum fine sandy loam, 0-25+% slopes. Merrimac is a Hydrologic Group 'A' soil, the Pootatuck, Sudbury, and Occum soils are Type 'B' soils, and Rippowam is a Type 'C' soil. The Udorthents soils range from Hydrologic Groups A-C.

Storm Water Management

In general, the 2-year, 10-year, 25-year and 50-year frequency storms will be analyzed as required by the Town of Hudson and the State of New Hampshire design guidelines as well as common engineering practice. Proposed treatment practices will be provided following the recommended design practices outlined in the publication entitled New Hampshire Department of Environmental Services Best Management Practices for Stormwater Management and Erosion and Sediment Control. Two above ground stormwater detention ponds with long, wide, and flat stormwater treatment swales downstream are being proposed to reduce the peak rate of runoff. The swales are located in the buffer

because the natural low points are within the buffer. Proper mitigation and treatment will ensure no adverse downstream impacts to sensitive wetland areas and abutting lands.

Erosion and Sediment Control

As an integral part of the engineering design of this site, an erosion and sedimentation control plan will be developed with the intent of limiting the potential for soil loss and associated receiving water quality degradation, both during and after the construction period. Traditional temporary erosion and sedimentation control devices and practices, such as siltation fencing, check dams, and seeding will be specified. Again, reference is made to the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire manual to appropriately provide and design for erosion control practices. Also, in an effort to account for abnormal adverse building conditions, common engineering practices attempt to further protect all affected areas through caution to the future contractor that any indicated erosion control practices are a minimum standard and serve as a guide only. Notes to this effect are typically added to the design plans and further state more extensive erosion control measures are, by mention, incorporated as field conditions warrant or as directed by the appropriate Local or State authority.

Finally, efforts protecting all affected areas are provided via site specific construction sequencing sensitive to limiting soil loss due to erosion as well as giving consideration to potential associated water quality degradation. It is important for the contractor to recognize that proper judgment in the implementation of work will be essential if erosion is to be limited and protection of completed work is to be realized. Moreover, any specific changes in sequence and/or field conditions affecting the ability of specific erosion control measures to adequately serve their intended purpose are immediately remedied with alternative means.

Wetland Impacts

Schauer Environmental Consultants, LLC mapped the onsite jurisdictional wetlands in May, 2014 which were field located by this office during on ground survey efforts. The central wetland consists of palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded swamp with a perennial stream classified as riverine, upper perennial, unconsolidated bottom, mud, and semi permanently flooded. The wetland in the northwestern corner consists of palustrine, forested, broad-leaved deciduous, seasonally flooded swamp with an intermittent stream classified as riverine, intermittent, streambed, sand, and seasonally flooded. As the attached Wetland and Wetland Buffer Impact Plans depict, the proposed site improvements require 913 square feet of temporary wetland impact, 2,545 square feet of permanent wetland impact along with 20,868 square feet of permanent buffer impact in Hudson. There will be no buffer impacts within the Town of Litchfield.



Owner Affidavit

I, Leonard Vigeant, owner of the properties referenced on Hudson Tax Map 128; Lots 7 & 8, and on Litchfield Tax Map 1; Lots 1 & 2, located at 300 Webster Street in Hudson, New Hampshire, hereby verify that I authorize Keach-Nordstrom Associates, Inc. (KNA) to prepare, submit and represent, on my behalf, any and all required permit applications throughout the federal, state and municipal application processes.

Signature of Landowner:

Printed Name of Landowner:

Leonard Vigeant

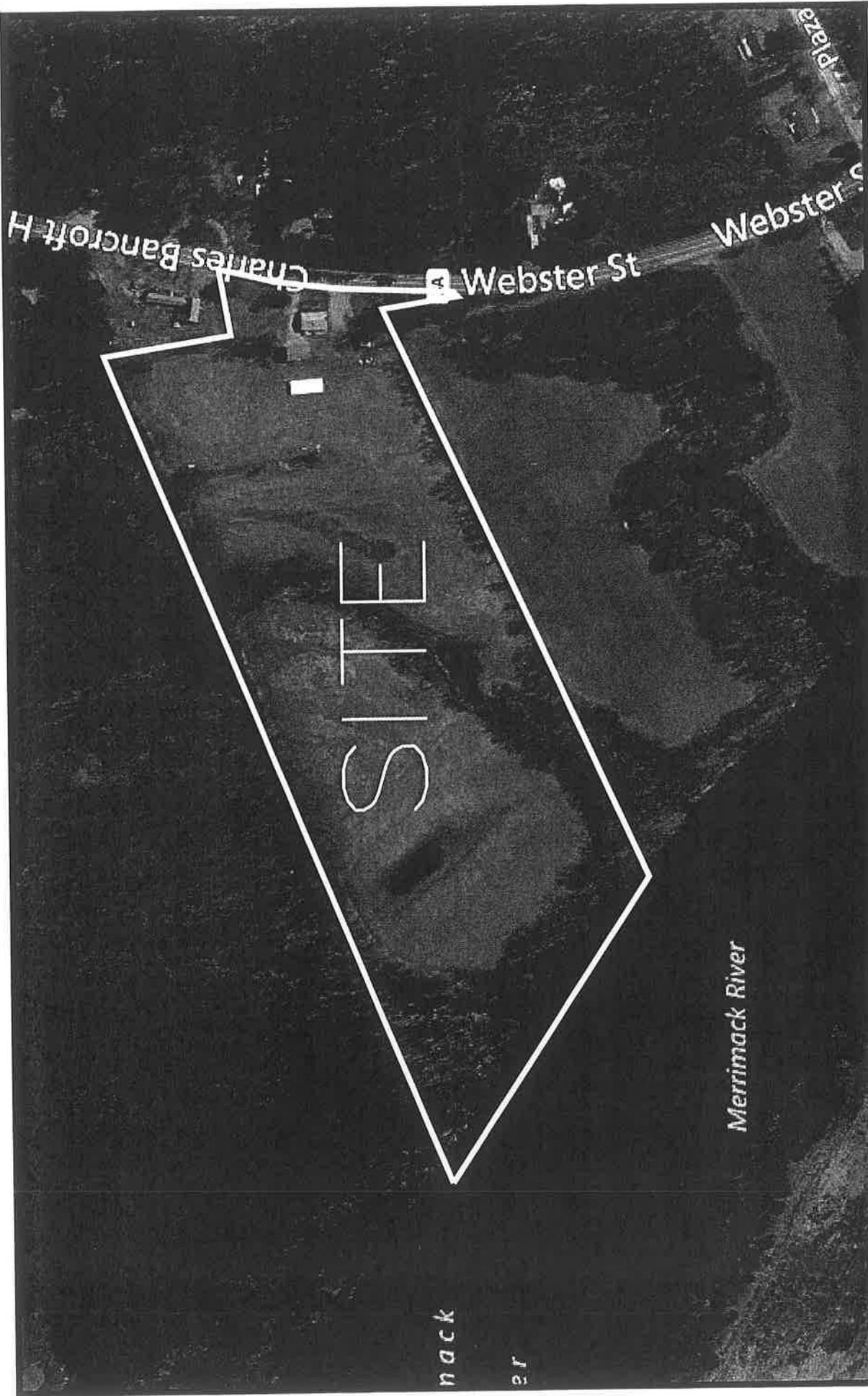
Address of Owner:

5 Mockingbird Lane

Hudson, NH 03051

Date:

9/24/14



TITLE:

AERIAL EXHIBIT PREPARED FOR:

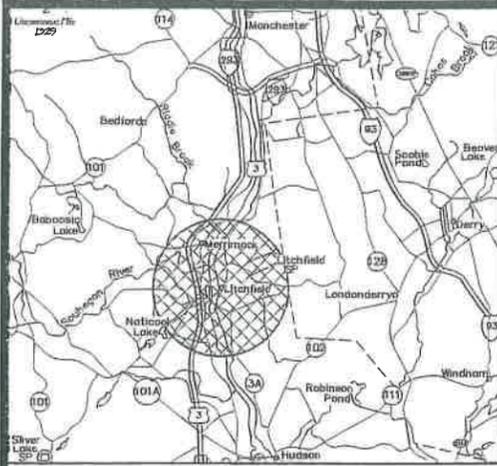
AUTUMN CIRCLE

MAP 128; LOTS 7 & 8 - HUDSON, NH & MAP 1; LOTS 1 & 2 - LITCHFIELD, NH

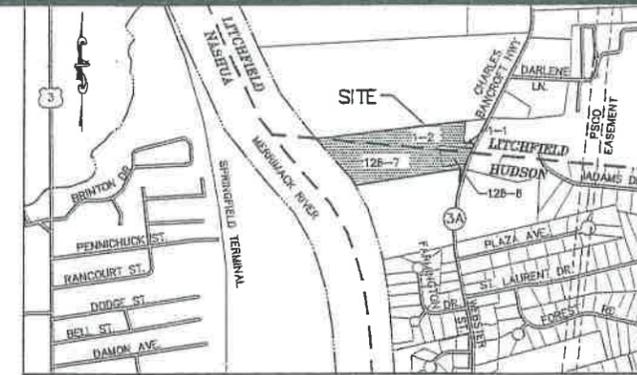
DRAWN BY: KMB DATE: 6/4/14 JOB. NO. 07-0511-4A

CHECKED BY: PRC SCALE: 1" = 250' SHEET 1 OF 1

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110
Phone (603) 627-2881



VICINITY PLAN
NOT TO SCALE



VICINITY MAP
SCALE: 1"=1,000'

RESIDENTIAL SUBDIVISION LAND OF LEONARD VIGEANT

MAP 128; LOTS 7 & 8-HUDSON MAP B; LOTS 1-1 & 1-2-LITCHFIELD 300 WEBSTER STREET HUDSON & LITCHFIELD, NEW HAMPSHIRE



OWNER/APPLICANT:

LEONARD A. SR. AND JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NEW HAMPSHIRE 03054

PREPARED BY:

KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881

IN ASSOCIATION WITH:

SCHAUER ENVIRONMENTAL CONSULTANTS, LLC.
722 ROUTE 3A, UNIT #1
BOW, NEW HAMPSHIRE, 03304



KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SEPTEMBER 16, 2014

LAST REVISED: FEBRUARY 11, 2015

PROJECT NO. 07-0511-4A

SHEET TITLE

SHEET No.

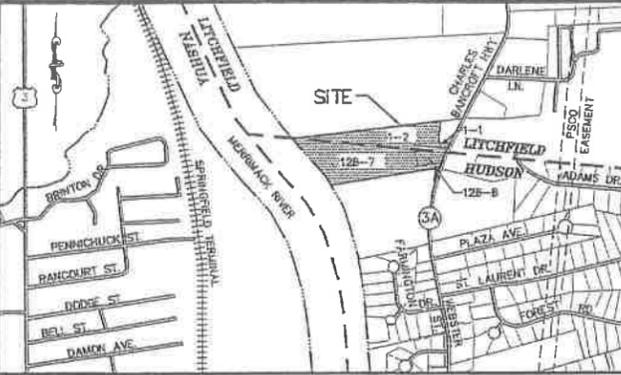
MASTER PLAN	1
SUBDIVISION PLAN	2 & 3
TOPOGRAPHIC SUBDIVISION PLAN	4 & 5
ROADWAY PLAN	6
ROADWAY PROFILE	7
UTILITY PLAN	8
EASEMENT PLANS	9 & 10
SITE DISTANCE PLAN & PROFILE	11
EROSION CONTROL PLAN	12
WATER MAIN EXTENSION PLAN	13
CONSTRUCTION DETAILS	14 - 22
TEST PIT LOGS	23

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ZONING NOTE
 THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY KEACH-NORDSTROM ASSOCIATES, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

OWNER/APPLICANT
 SIGNATURE: *Leonard A. Vigeant*
 DATE: 3-30-15

MAP B; LOT 1-4
 STATE OF NEW HAMPSHIRE
 DEPARTMENT OF TRANSPORTATION
 P.O. BOX 483
 1 HAZEN DRIVE, ROOM 204
 CONCORD, NH 03302



VICINITY MAP
 SCALE: 1" = 1,000'

REFERENCE PLANS:

- "CURRENT LAND USE PLAN FOR EUGENE C. FLEURY", WEBSTER STREET, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED FEBRUARY 21, 1982, BY DONALD T. JEAN.
- "LAND OF EUGENE C. FLEURY", FOR EUGENE C. FLEURY, CHARLES BANCROFT HIGHWAY, ROUTE 3A, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED AUGUST 22, 1973, BY ROLAND R. GROUNDAR. H.C.R.D. PLAN #6896.
- "BOUNDARY PLAN OF LAND BELONGING TO THE ESTATE OF GENE S. DANFORTH", FOR FRANK E. CLANCY, CHARLES BANCROFT HIGHWAY, ROUTE 3A, LITCHFIELD, NH, SCALE: 1"=100', DATED APRIL 1984, BY MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN #16576.
- "LOT LINE RELOCATION FOR LED N. FLEURY & EUGENE C. FLEURY", WEBSTER STREET, HUDSON & LITCHFIELD, NH, SCALE: 1"=50', DATED SEPTEMBER 14, 1982, BY DONALD T. JEAN. H.C.R.D. PLAN #15520.

LEGEND

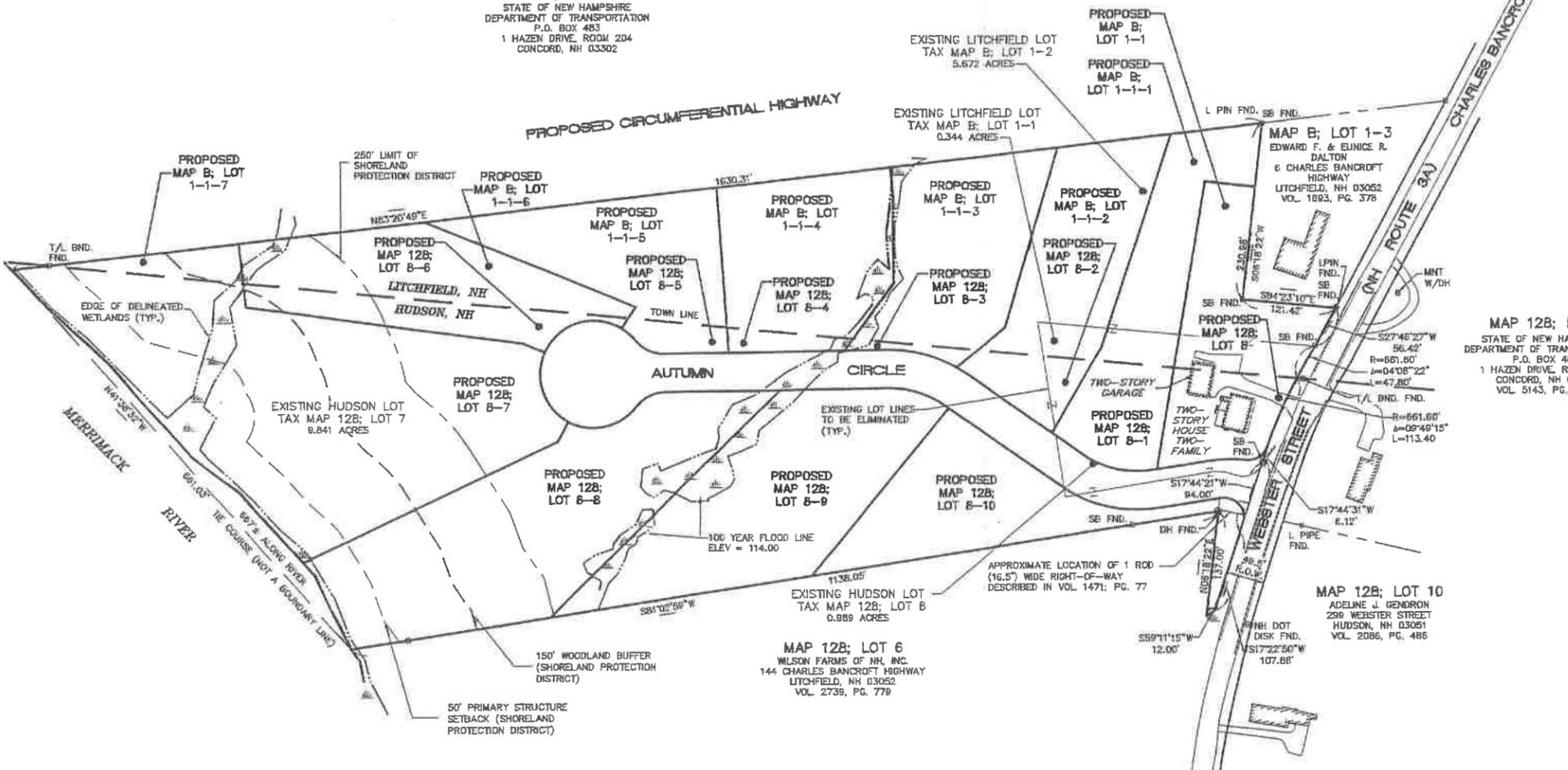
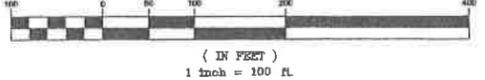
- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- RIVER
- EDGE OF PAVEMENT
- EXISTING EASEMENT
- 50' PRIMARY STRUCTURE SETBACK
- 250' SHORELAND PROTECTION DISTRICT
- 150' WOODLAND BUFFER
- TOWN LINE



NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

GRAPHIC SCALE



NOTES:

- THE PURPOSE OF THIS PLAN IS TO CONSOLIDATE THE TWO SUBJECT PARCELS: HUDSON/LITCHFIELD TAX MAP AND LOT # 126-7 / B-1-2 AND HUDSON/LITCHFIELD TAX MAP AND LOT # 126-8 / B-1-1 AND SUBDIVIDE THE RESULTING AREA INTO 11 BUILDING LOTS; 1 WILL CONTAIN THE EXISTING HOUSE AND GARAGE. THE PROPOSED DEVELOPMENT WILL ALSO CREATE AN AUTUMN CIRCLE HOME OWNER'S ASSOCIATION, WHOSE PRIMARY FUNCTION IS PRIVATE MAINTENANCE OF THE TWO TREATMENT SWALES AND TWO DETENTION PONDS.
- TOTAL AREA OF SUBJECT PARCELS:
 AREA OF LOT 126-7 WITHIN THE TOWN OF HUDSON = 9.841 ACRES
 AREA OF LOT 126-8 WITHIN THE TOWN OF LITCHFIELD = 5.672 ACRES
 TOTAL AREA OF PARCEL 126-7 / B-1-2 = 15.314 ACRES
 AREA OF LOT 126-8 WITHIN THE TOWN OF HUDSON = 0.989 ACRES
 AREA OF LOT B-1-1 WITHIN THE TOWN OF LITCHFIELD = 0.344 ACRES
 TOTAL AREA OF PARCEL 126-8 / B-1-1 = 1.333 ACRES
- THE SUBJECT PARCELS ARE SUBJECT TO THE FOLLOWING ZONING REQUIREMENTS:
 TOWN OF HUDSON (LOTS 126-7 & 126-8):
 RESIDENTIAL (R-2)
 MINIMUM LOT REQUIREMENTS:
 - LOT AREA 43,560 SF
 - LOT FRONTAGE 150 FT LOCAL
 - Y/OUT TOWN WATER & SEWER
 MINIMUM BUILDING SETBACKS:
 - FRONT 30 FT LOCAL
 - FRONT 50 FT COLLECTOR
 - SIDE 15 FT
 - REAR 15 FT
 TOWN OF LITCHFIELD (LOTS B-1-1 & B-1-2)
 SOUTHWESTERN COMMERCIAL DISTRICT (SEE NOTE 17)
 MINIMUM LOT REQUIREMENTS:
 - LOT AREA PLANNING BOARD APPROVAL, NOT < 1 ACRE
 - LOT FRONTAGE 150 FT, NOT INCLUDING NH ROUTE 3-A
 MINIMUM BUILDING SETBACKS:
 - FRONT, RT. 3A 50 FT LANDSCAPE BUFFER
 - SIDE R.O.W. 50 FT EXCEPT NH ROUTE 3-A
 - SIDE 20 FT
 - REAR 20 FT
- OWNER OF RECORD:
 LEONARD A. VIGEANT SR. AND JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 VOL. 8652, PG. 2427
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 330092 0512 D PANEL NUMBER 512 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 AND FOR THE TOWN OF LITCHFIELD, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 330093 0512 D PANEL NUMBER 512 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATE THAT PARCEL 126-7/B-1-2 IS PARTIALLY LOCATED WITHIN THE 100-YEAR HAZARD AREAS AND THAT PARCEL 126-8/B-1-1 IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
- BENCHMARKS SET AS NOTED, BASED ON NGVD 1928.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE BETWEEN MAY 2008 AND MAY 2014. HORIZONTAL DATUM IS MAGNETIC 2008. VERTICAL DATUM IS NGVD 1928.
- WETLAND AND SITE SPECIFIC SOIL MAPPING PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC IN APRIL AND MAY 2014.
- EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH PERFORMED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS.

NOTES (CONTINUED):

- LOTS ARE SERVICED BY ON-SITE SEPTIC SYSTEMS AND MUNICIPAL WATER.
- SHEETS 1 THROUGH 3 AND 8-10 SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AND A FULL PLAN SET IS LOCATED AT THE HUDSON AND LITCHFIELD PLANNING OFFICES.
- PERMITS REQUIRED:
 - NHDES SUBDIVISION APPROVAL STATUS SA2015D10636 REQUIRED PRIOR TO CONSTRUCTION
 - INDIVIDUAL SUBSURFACE SEPTICS A67-0831
 - NHDES ALTERATION OF TERRAIN 2014-02208 12/8/2019
 - NHDES WETLAND MINOR IMPACT 2014-02812 01/23/2020
 - NHDOT DRIVEWAY PENDING
 - NPDES NOTICE OF INTENT REQUIRED PRIOR TO CONSTRUCTION OF WATER MAIN
 - NHDOT EXCAVATION
- WIVERS APPROVED:
 TOWN OF HUDSON:
 - HTC 289-6.(D) - FISCAL IMPACT STUDY
 - HTC 289-6.(D) - TRAFFIC STUDY
 TOWN OF LITCHFIELD:
 - PUBLIC CAPITAL FACILITIES IMPACT FEES: \$2.61/SF
 - TOWN HALL ADMINISTRATION \$0.02/SF
 - FIRE \$0.43/SF
 - POLICE \$0.12/SF
 - RECREATION \$0.75/SF
 - LIBRARY \$0.08/SF
 - ROAD IMPACT FEES:
 ROAD (SINGLE FAMILY DETACHED) \$1,651.21
 WINTER ROAD MAINTENANCE SHALL BE CONDUCTED WITH LIMITED SALT USE. SNOW STORAGE SHALL BE ALONG BOTH SIDES OF THE ROADWAY AND IN THE MIDDLE OF THE CUL-DE-SAC.
- IMPACT FEES IMPOSED PURSUANT TO THE LITCHFIELD ZONING ORDINANCE SECTION 1300, PUBLIC CAPITAL FACILITIES IMPACT FEES AND SECTION 1400, PUBLIC SCHOOLS FACILITIES IMPACT FEE SHALL BE ASSESSED BY THE PLANNING BOARD AT THE TIME OF SUBDIVISION APPROVAL FOR LOTS SITUATED WITHIN TOWN OF LITCHFIELD AND RECORDING AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HORD). APPLICABLE IMPACT FEES SHALL BE STATED IN THE BOARD'S NOTICE OF DECISION. IMPACT FEES ARE PAYABLE AT THE TIME A CERTIFICATE OF OCCUPANCY IS ISSUED BY THE BUILDING DEPARTMENT.
 - PUBLIC SCHOOL FACILITIES IMPACT FEES:
 CAMPBELL HIGH SCHOOL \$1.17/SF
 NEW ELEMENTARY SCHOOL \$2.61/SF
 - PUBLIC CAPITAL FACILITIES IMPACT FEES:
 TOWN HALL ADMINISTRATION \$0.02/SF
 FIRE \$0.43/SF
 POLICE \$0.12/SF
 RECREATION \$0.75/SF
 LIBRARY \$0.08/SF
 - ROAD IMPACT FEES:
 ROAD (SINGLE FAMILY DETACHED) \$1,651.21
- WINTER ROAD MAINTENANCE SHALL BE CONDUCTED WITH LIMITED SALT USE. SNOW STORAGE SHALL BE ALONG BOTH SIDES OF THE ROADWAY AND IN THE MIDDLE OF THE CUL-DE-SAC.
- ON AUGUST 28, 2014, THE HUDSON ZBA GRANTED SPECIAL EXCEPTION FOR WETLAND BUFFER IMPACTS ASSOCIATED WITH ROADWAY CONSTRUCTION AND STORMWATER MANAGEMENT. 25,815 SF FOR BUFFER, 3,450 SF FOR WETLANDS.
- ON JUNE 11, 2014, THE LITCHFIELD ZBA GRANTED THE APPLICANT A VARIANCE TO ALLOW RESIDENTIAL CONSTRUCTION IN A COMMERCIAL DISTRICT.
- A CAP IN THE AMOUNT OF \$1,554.33, PER RESIDENTIAL UNIT IN HUDSON, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- A PUBLIC SCHOOL IMPACT FEE IN THE AMOUNT OF \$3,678 IN HUDSON, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

NOTES (CONTINUED):

- A RECREATION CONTRIBUTION IN THE AMOUNT OF \$400 IN HUDSON, PER RESIDENTIAL UNIT, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ON-SITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH LOCAL AND NHDES REQUIREMENTS FOR SUCH SYSTEMS, AND THE PERPETUAL MAINTENANCE OF THE STORMWATER TREATMENT STRUCTURES AND RETENTION BASINS OUTSIDE OF THE ROW, SHALL BE THE RESPONSIBILITY OF THE FUTURE HOMEOWNER'S ASSOCIATION COMPRISED OF ALL THE HOMEOWNERS WITHIN THIS SUBDIVISION.
- THE NUMBER OF DWELLING LOTS FOR THIS SUBDIVISION SHALL BE LIMITED TO 11, WHICH INCLUDES PROPOSED LOT 1 HAVING AN EXISTING TWO-FAMILY DWELLING.
- 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.
- CONSTRUCTION ACTIVITIES INVOLVING THE LOTS SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 A.M. AND 6:00 P.M. MONDAY THROUGH FRIDAY. INTERIOR CONSTRUCTION ACTIVITIES ARE ALLOWED ON SATURDAY 7:00 A.M. AND 6:00 P.M. BOTH INTERIOR AND EXTERIOR CONSTRUCTION ACTIVITIES ARE PROHIBITED ON SUNDAYS.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF A ROAD STATUS SIGN AT THE ENTRANCE DRIVES TO THIS SUBDIVISION IN ACCORDANCE WITH SECTION 289-4D OF THE PLANNING BOARD'S LAND USE REGULATIONS, UNTIL SUCH TIME THAT THE ROAD IS ACCEPTED BY THE HUDSON BOARD OF SELECTMEN.
- THE BASEMENT FLOOR SLAB ELEVATION FOR ALL PROPOSED STRUCTURES SHALL BE ONE FOOT ABOVE THE 100 YEAR FLOOD ELEVATIONS OF 114 AND 115, BASED ON DATUM OF MAP REFERENCED IN NOTE 5 ON THIS SHEET, OR 6" ABOVE THE ESTIMATED SEASONAL HIGH WATER TABLE, WHICHEVER IS HIGHER. SHOULD FRESH FLOOR ELEVATIONS FALL BELOW FINISH ROADWAY ELEVATIONS, CONTRACTOR SHALL INSTALL APPROPRIATE PERIMETER DRAINS WITH POSITIVE DISCHARGE TO DAYLIGHT.
- ALL PROPOSED EASEMENTS TO BENEFIT THE TOWN OF HUDSON.
- ALL LOTS WITHIN SHORELAND PROTECTION ZONE WILL REQUIRE SEPARATE SHORELAND PERMITS FROM NHDES FOR ANY DISTURBANCES PROPOSED THAT ARE NOT COVERED UNDER THIS PLAN.
- STONE BOUNDS (4"x4"x30") TO BE SET AT ALL BOUNDARY INTERSECTIONS AND POINTS OF CURVATURE ON THE RIGHT-OF-WAY AND IRON PINS (6"x30") TO BE SET AT ALL OTHER BOUNDARY CORNERS.
- THE LITCHFIELD PARCELS FALL WITHIN THE TOWN'S QUERER PROTECTION DISTRICT. IMPERVIOUS SURFACES SHALL BE LIMITED TO 15% OF EACH SUBDIVIDED PARCELS' AREA.
- ANY NEW DEVELOPMENT LOCATED IN LITCHFIELD WITHIN THE FLOODPLAIN WILL NEED TO COMPLY WITH THE TOWN OF LITCHFIELD FLOODPLAIN CONVERSATION DISTRICT.
- AS A CONDITION OF APPROVAL FOR THE NHDOT PERMIT, THE SECOND DRIVEWAY (GRAVEL) AND DIRECT ACCESS TO NH ROUTE 3A SHALL BE REMOVED FROM MAP 126, LOT 8 AND RELOCATED TO AUTUMN CIRCLE.
- ALL STIPULATIONS OF APPROVAL SHALL BE INCORPORATED INTO THE DEVELOPMENT AGREEMENT WHICH SHALL BE RECORDED AT THE H.C.R.D., TOGETHER WITH THE SUBDIVISION PLAN-OF-RECORD.
- PRIOR TO PLANNING BOARD ENDORSEMENT OF THE PLAN, TOWN COUNSEL SHALL FAVORABLY RECOMMEND ON THE DEVELOPMENT AGREEMENT AND MUNICIPAL WATER AND DRAIN EASEMENT DEEDS PERTAINING TO SUCH EASEMENTS AS SHOWN ON THE PLAN.
- AN OFFSITE TRAFFIC IMPROVEMENT FEE, IN THE AMOUNT OF \$250 SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH DWELLING WITHIN THIS SUBDIVISION BUILT IN HUDSON, AND THIS FEE SHALL BE EXPENDED EXCLUSIVELY TO TRAFFIC IMPROVEMENTS IMPLEMENTED WITHIN THE VICINITY OF THE WEBSTER STREET/BERRY STREET (NH ROUTE 102) INTERSECTION.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE _____ DATE _____
 SIGNATURE _____ DATE _____
 SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER TOWN & NHDOT COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS).



THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN MAY 2008 AND MAY 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN STANDARD URBAN PROPERTY SURVEY AS DEFINED IN THE STATE OF NEW HAMPSHIRE ADMINISTRATIVE RULES GOVERNING LAND SURVEYS. (LAN 503).

DATE: 3/19/15

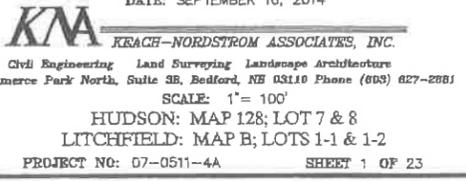


MASTER PLAN
LAND OF LEONARD VIGEANT
 300 WEBSTER STREET
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 VOL. 8652, PG. 2427

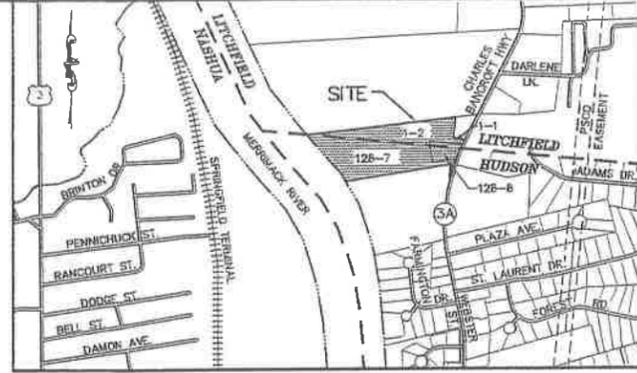
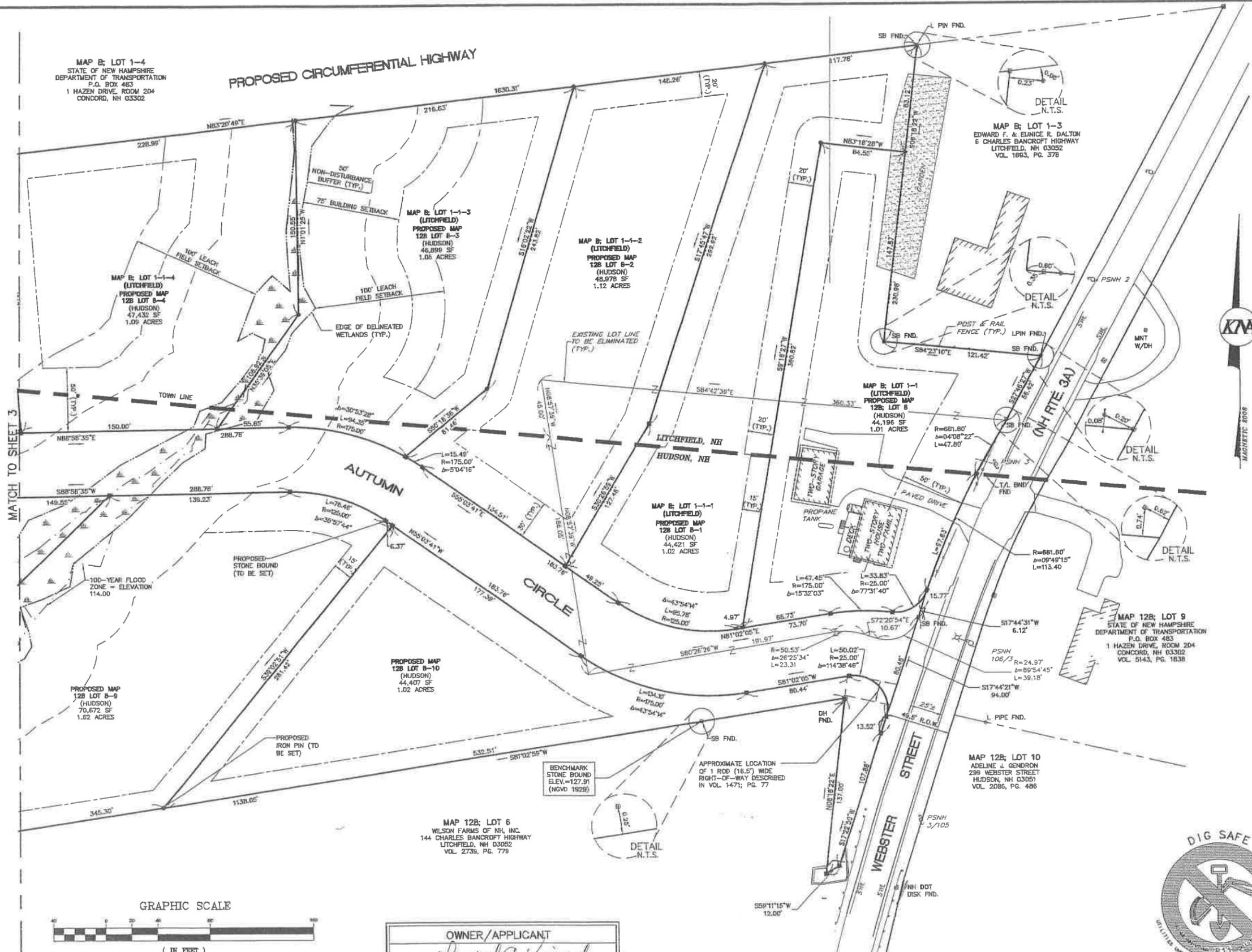
APPLICANT/SUBDIVIDER:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 DATE: SEPTEMBER 16, 2014

SCALE: 1" = 100'
 HUDSON: MAP 128; LOT 7 & 8
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2
 PROJECT NO: 07-0511-4A SHEET 1 OF 23



MAP B: LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE, ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY



VICINITY MAP
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SEE SHEET 3 FOR LOT AREA TABLE & LOT REGULARITY TABLE

LEGEND

- WETLAND SYMBOL
- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- STONE BOUND TO BE SET
- UTILITY POLE
- SIGN
- CATCH BASIN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE ELIMINATED
- PROPOSED PROPERTY LINE
- WETLAND
- RIVER
- POST & RAIL FENCE
- BARBED WIRE FENCE
- EDGE OF PAVEMENT
- BUILDING SETBACK
- NO DISTURBANCE BUFFER
- EXISTING EASEMENT
- PROPOSED LEACH FIELD SETBACK
- 250' SHORELAND PROTECTION DISTRICT
- 150' WOODLAND BUFFER
- TOWN LINE

DATE RECORDED: _____ HC RD# _____

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____

CERTIFIED BY: _____, CHAIRMAN

_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

SUBDIVISION PLAN
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

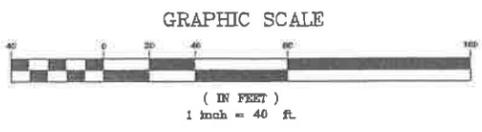
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2861
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 2 OF 23



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL - NORTHEASTAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

OWNER/APPLICANT
SIGNATURE: *Leonard A. Vigeant*
DATE: 3-30-15

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/16/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER NHDOT COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

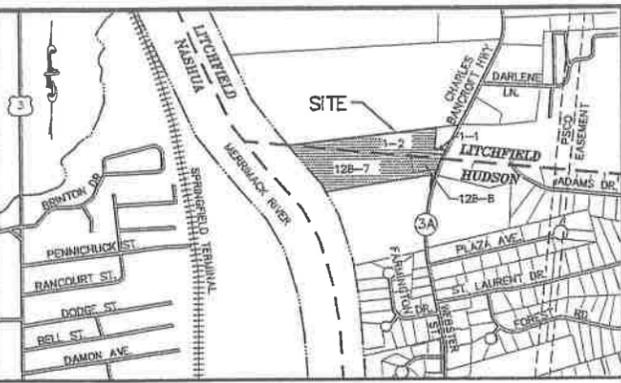
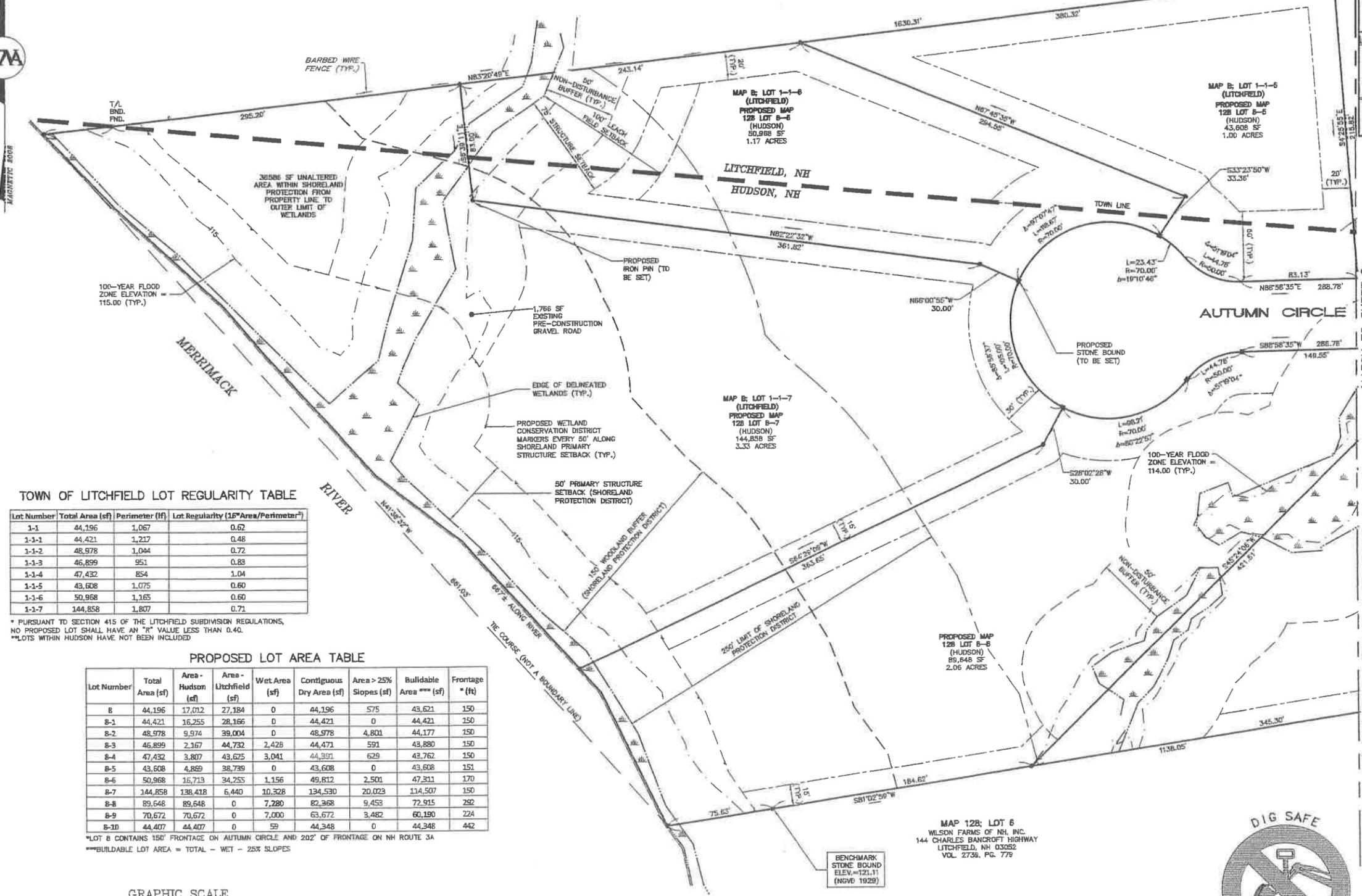
SIGNATURE: _____ DATE: _____

SIGNATURE: _____ DATE: _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

MAP B; LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY



VICINITY MAP
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

TOWN OF LITCHFIELD LOT REGULARITY TABLE

Lot Number	Total Area (sf)	Perimeter (ft)	Lot Regularity (16"Area/Perimeter ²)
1-1	44,196	1,067	0.62
1-1-1	44,421	1,217	0.48
1-1-2	48,978	1,044	0.72
1-1-3	46,899	951	0.83
1-1-4	47,432	854	1.04
1-1-5	43,608	1,075	0.60
1-1-6	50,968	1,165	0.60
1-1-7	144,858	1,807	0.71

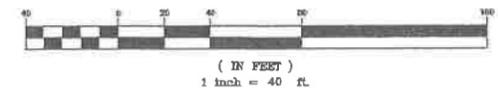
* PURSUANT TO SECTION 415 OF THE LITCHFIELD SUBDIVISION REGULATIONS, NO PROPOSED LOT SHALL HAVE AN "R" VALUE LESS THAN 0.40.
**LOTS WITHIN HUDSON HAVE NOT BEEN INCLUDED

PROPOSED LOT AREA TABLE

Lot Number	Total Area (sf)	Area - Hudson (sf)	Area - Litchfield (sf)	Wet Area (sf)	Contiguous Dry Area (sf)	Area > 25% Slopes (sf)	Buildable Area *** (sf)	Frontage * (ft)
B	44,196	17,012	27,184	0	44,196	575	43,621	150
B-1	44,421	16,255	28,166	0	44,421	0	44,421	150
B-2	48,978	9,574	39,004	0	48,978	4,801	44,177	150
B-3	46,899	2,167	44,732	2,428	44,471	591	43,880	150
B-4	47,432	3,807	43,625	3,041	44,391	629	43,762	150
B-5	43,608	4,869	38,739	0	43,608	0	43,608	151
B-6	50,968	16,713	34,255	1,156	49,812	2,501	47,311	170
B-7	144,858	138,418	6,440	10,328	134,530	20,023	114,507	150
B-8	89,648	89,648	0	7,280	82,368	9,453	72,915	282
B-9	70,672	70,672	0	7,000	63,672	3,482	60,190	224
B-10	44,407	44,407	0	59	44,348	0	44,348	442

*LOT B CONTAINS 150' FRONTAGE ON AUTUMN CIRCLE AND 202' OF FRONTAGE ON NH ROUTE 3A
***BUILDABLE LOT AREA = TOTAL - WET - 25% SLOPES

GRAPHIC SCALE



OWNER/APPLICANT
SIGNATURE: *Leonard A. Vigeant*
DATE: 3-30-15

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
SIGNATURE _____ DATE _____
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PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-57-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGIONAL VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.



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DATE RECORDED: _____ HCRD# _____
APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____
CERTIFIED BY: _____, CHAIRMAN
_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

SUBDIVISION PLAN
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE
OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427
APPLICANT/SUBDIVIDER:
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5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

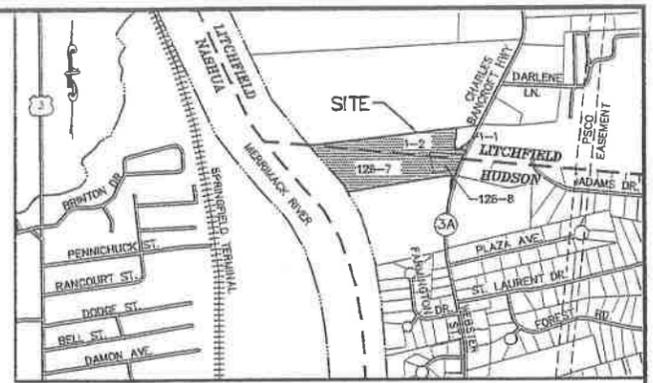
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 3 OF 23

I:_proj\070511-4A\070511-4A.dwg, 070511-4A - SUBDIVISION - REV. 4.dwg, SUB, 3/18/2015 11:39:45 AM, rhdw

MAP B; LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE, ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY

MAP B; LOT 1-3
EDWARD F. & EUNICE R. DALTON
6 EDWARDS DRIVE
LITCHFIELD, NH 03052
VOL. 1683, PG. 378



VICINITY MAP
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES
AND REFERENCE PLANS

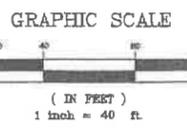
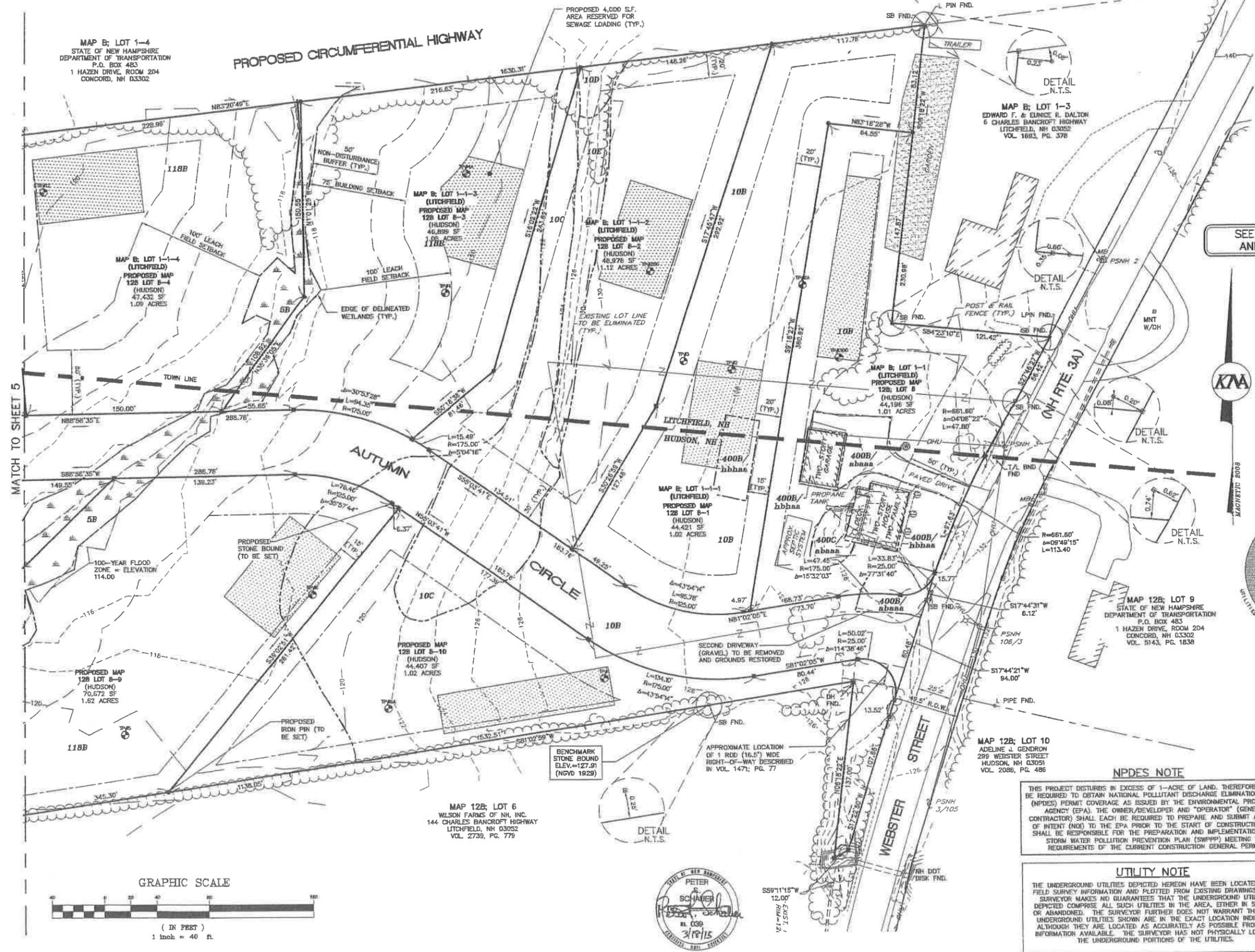
SEE SHEET 5 FOR SITE
SPECIFIC SOIL MAP UNIT KEY

LEGEND

- WETLAND SYMBOL
- STONE FOUND
- IRON PIN FOUND
- DRILL HOLE
- STONE BOUND TO BE SET
- UTILITY POLE
- SIGN
- CATCH BASIN
- TEST PIT LOCATION
- PROPOSED WELL
- ABUTTER LINE
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE ELIMINATED
- PROPOSED PROPERTY LINE
- WETLAND
- RIVER
- POST & RAIL FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- 10' CONTOUR
- 2' CONTOUR
- SITE SPECIFIC SOIL LINE
- EDGE OF GRAVEL
- BUILDING SETBACK
- NO DISTURBANCE BUFFER
- EXISTING EASEMENT
- PROPOSED LEACH FIELD SETBACK
- 250' SHORELAND PROTECTION DISTRICT
- 150' WOODLAND BUFFER
- TOWN LINE



MATCH TO SHEET 5



DATE RECORDED: _____ HCRD# _____

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____

CERTIFIED BY: _____, CHAIRMAN

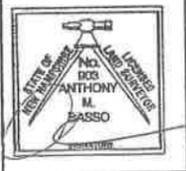
_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

UTILITY NOTE

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PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, LLC, OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHEASTERN AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN MAY 2008 AND MAY 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVELER ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN STANDARD URBAN PROPERTY SURVEY AS DEFINED IN THE STATE OF NEW HAMPSHIRE ADMINISTRATIVE RULES GOVERNING LAND SURVEYS. (LAN 503).

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON, NH PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS				
No.	DATE	DESCRIPTION	BY	
1	10/31/14	REV. PER TOWN COMMENTS	PRC	
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC	
3	12/17/14	DATE ONLY	PRC	
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC	

**TOPOGRAPHIC SUBDIVISION PLAN
LAND OF LEONARD VIGEANT**

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

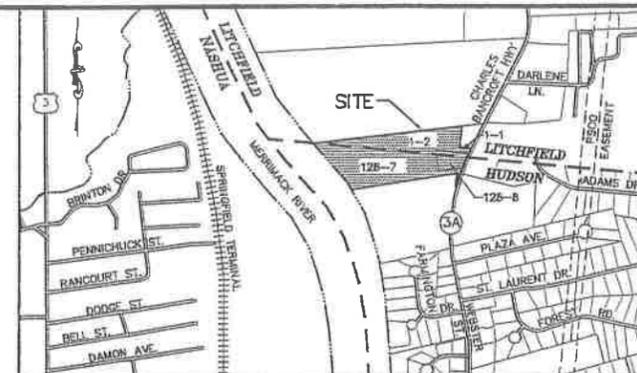
APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 4 OF 23

I:_proj\0705114A\0705114A.dwg SUBDIVISION-REV.dwg, TOPO SUR, 3/19/2015 11:31:07 AM, rws

MAP B; LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE, ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY



SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
4B	FOOTATUCK FINE SANDY LOAM	0-8%	MODERATELY WELL
5B	RIPPOWAM FINE SANDY LOAM, OCC. FLOODED	0-8%	POORLY
10B	MERRIMAC FINE SANDY LOAM	0-8%	SOMEWHAT EXCESSIVELY
10C	MERRIMAC FINE SANDY LOAM	8-15%	SOMEWHAT EXCESSIVELY
10D	MERRIMAC FINE SANDY LOAM	15-25%	SOMEWHAT EXCESSIVELY
10E	MERRIMAC FINE SANDY LOAM	25%+	SOMEWHAT EXCESSIVELY
118B	SUDBURY FINE SANDY LOAM	0-8%	MODERATELY WELL
400B/abaaa	UDORTHENTS, SANDY	0-8%	SOMEWHAT EXCESSIVELY
400E/cggbb	UDORTHENTS, SANDY	25%+	WELL
400B/dbabb	UDORTHENTS, SANDY	0-8%	MODERATELY WELL
400C/dggbb	UDORTHENTS, SANDY	8-15%	MODERATELY WELL
400B/fggbc	UDORTHENTS, SANDY	0-8%	POORLY
400B/hbbaa	UDORTHENTS, SANDY	0-8%	SOMEWHAT EXCESSIVELY
601E	OCCUM FINE SANDY LOAM, RARELY FLOODED	0-8%	WELL
601C	OCCUM FINE SANDY LOAM, RARELY FLOODED	8-15%	WELL
601D	OCCUM FINE SANDY LOAM, RARELY FLOODED	15-25%	WELL
601E	OCCUM FINE SANDY LOAM, RARELY FLOODED	25%+	WELL

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.



THIS DETAILED SITE-SPECIFIC SOIL MAP, PERFORMED ON 4/15/2014 BY PETER S. SCHAUER, CERTIFIED SOIL SCIENTIST #039 OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. IN BOW, NEW HAMPSHIRE CONFORMS TO THE STANDARDS OF SSSNME PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT." THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485A:17 AND NHDES ENV-WQ 1500, ALTERATION OF TERRAIN.

DATE RECORDED: _____ HCRD# _____

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____

CERTIFIED BY: _____, CHAIRMAN

_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

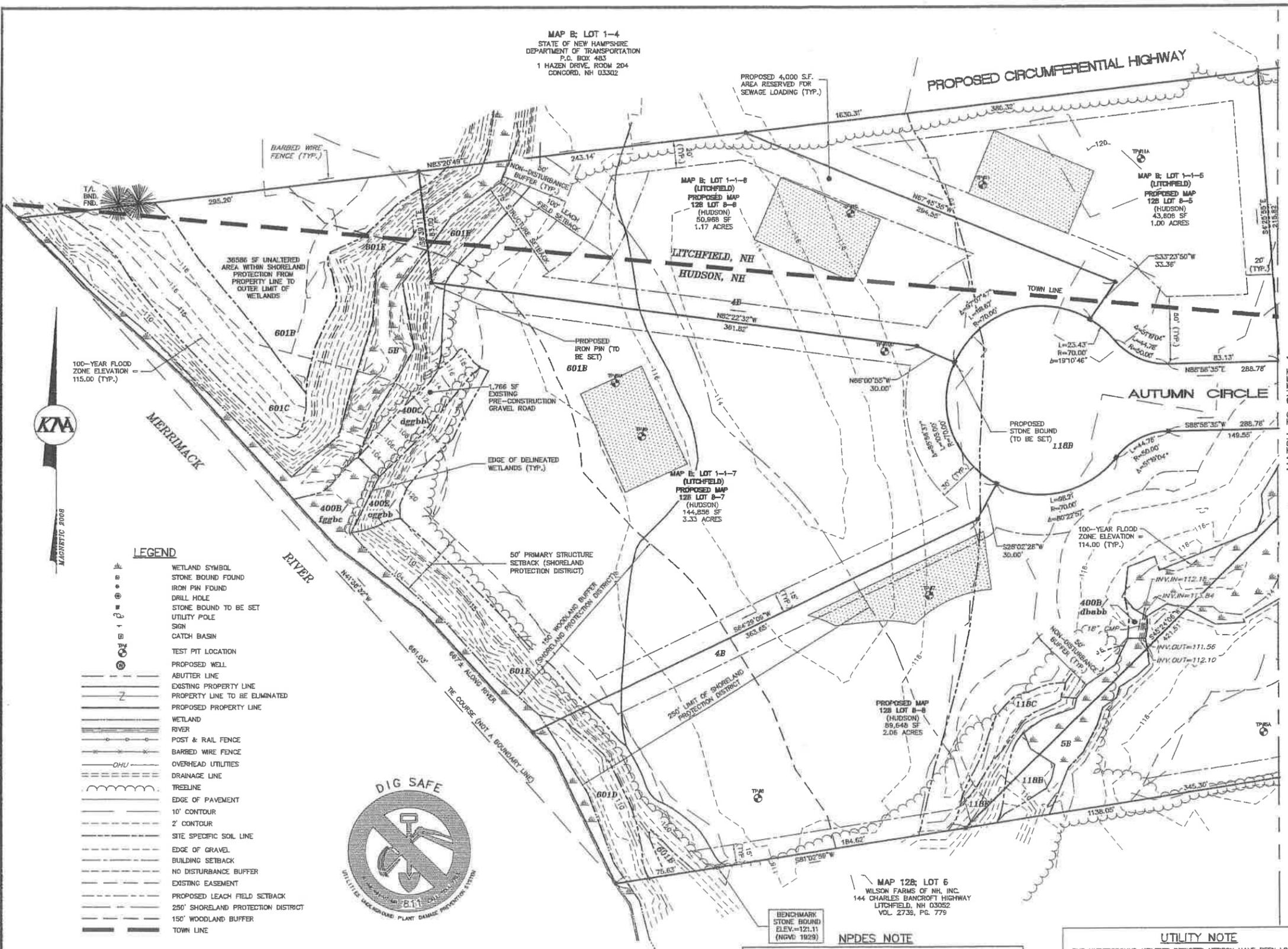
TOPOGRAPHIC SUBDIVISION PLAN
LAND OF LEONARD VIGEANT

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

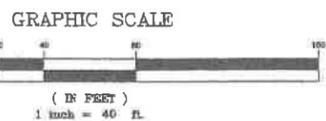
OWNER OF RECORD:
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5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2891
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 5 OF 23



- LEGEND**
- WETLAND SYMBOL
 - STONE BOUND FOUND
 - IRON PIN FOUND
 - DRILL HOLE
 - STONE BOUND TO BE SET
 - UTILITY POLE
 - SIGN
 - CATCH BASIN
 - TEST PIT LOCATION
 - PROPOSED WELL
 - ABUTTER LINE
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 - EDGE OF PAVEMENT
 - 10' CONTOUR
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 - SITE SPECIFIC SOIL LINE
 - EDGE OF GRAVEL
 - BUILDING SETBACK
 - NO DISTURBANCE BUFFER
 - EXISTING EASEMENT
 - PROPOSED LEACH FIELD SETBACK
 - 250' SHORELAND PROTECTION DISTRICT
 - 150' WOODLAND BUFFER
 - TOWN LINE



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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

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No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING IN MAY 2014 ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

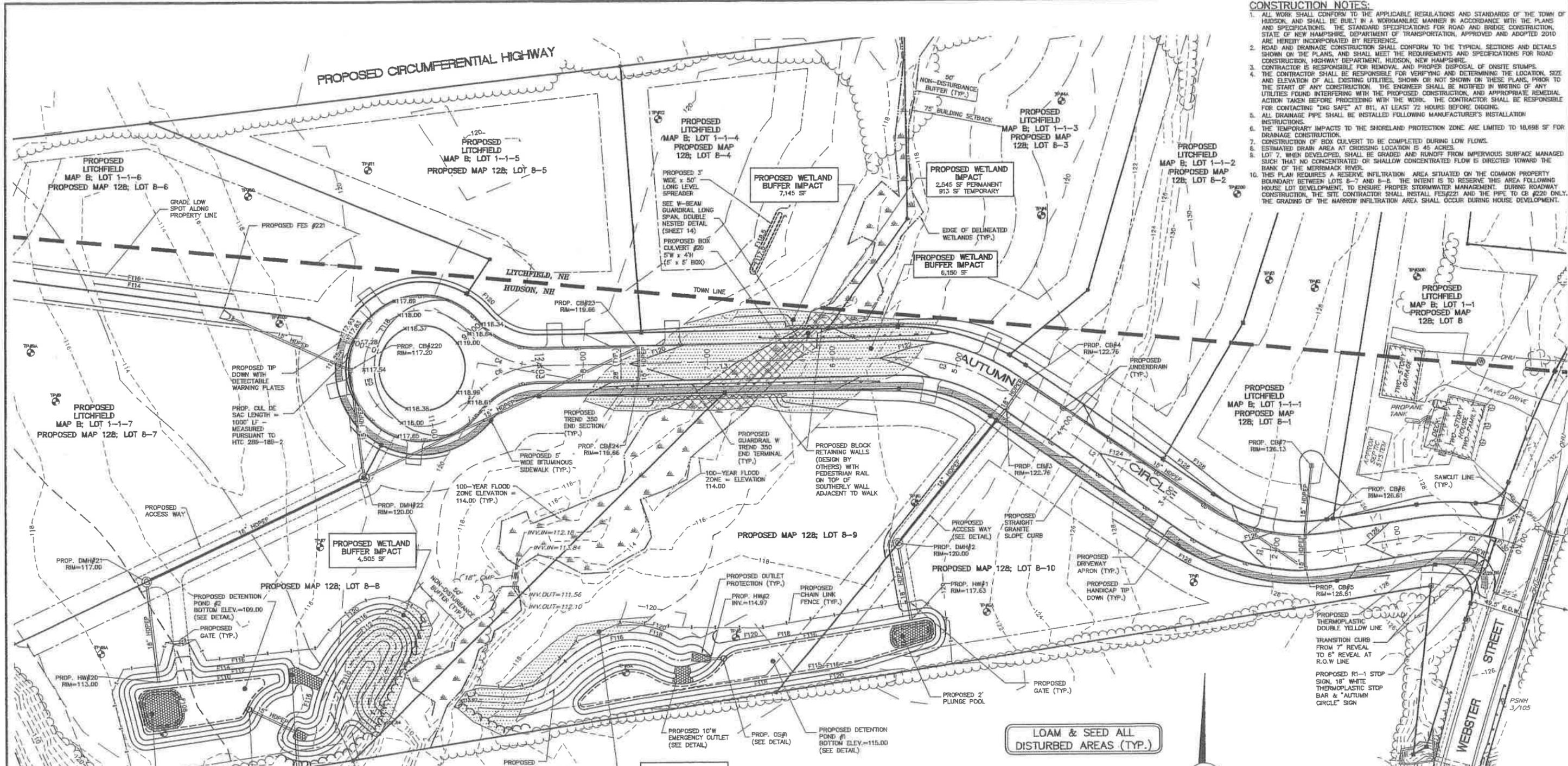


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DATE _____



- CONSTRUCTION NOTES:**
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
 2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, HIGHWAY DEPARTMENT, HUDSON, NEW HAMPSHIRE.
 3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ON-SITE STUMPS.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811, AT LEAST 72 HOURS BEFORE DIGGING.
 5. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 6. THE TEMPORARY IMPACTS TO THE SHORELAND PROTECTION ZONE ARE LIMITED TO 16,698 SF FOR DRAINAGE CONSTRUCTION.
 7. CONSTRUCTION OF BOX CULVERT TO BE COMPLETED DURING LOW FLOWS.
 8. ESTIMATED DRAIN AREA AT CROSSING LOCATION IS 45 ACRES.
 9. LOT 7, WHEN DEVELOPED, SHALL BE GRADED AND RUNOFF FROM IMPERVIOUS SURFACE MANAGED SUCH THAT NO CONCENTRATED OR SHALLOW CONCENTRATED FLOW IS DIRECTED TOWARD THE BANK OF THE MERRIMACK RIVER.
 10. THIS PLAN REQUIRES A RESERVE INFILTRATION AREA SITUATED ON THE COMMON PROPERTY BOUNDARY BETWEEN LOTS 8-7 AND 8-8. THE INTENT IS TO RESERVE THIS AREA FOLLOWING HOUSE LOT DEVELOPMENT, TO ENSURE PROPER STORMWATER MANAGEMENT. DURING ROADWAY CONSTRUCTION, THE SITE CONTRACTOR SHALL INSTALL FES#222 AND THE PIPE TO CS#222 ONLY. THE GRADING OF THE NARROW INFILTRATION AREA SHALL OCCUR DURING HOUSE DEVELOPMENT.



LOAM & SEED ALL DISTURBED AREAS (TYP.)



**ROADWAY PLAN
AUTUMN CIRCLE**
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. B652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 303, Bedford, NH 03110 Phone (603) 627-2881
SCALE: 1"= 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 6 OF 23

AUTUMN CIRCLE

NUMBER	RADIUS	LENGTH	LINE/CHORD DIRECTION
C1	150.00	81.00	N83° 29' 43.47"W
C2	150.00	114.94	N77° 00' 47.85"W
C3	150.00	94.15	N73° 02' 32.82"W
C4	74.00	67.54	N64° 52' 30.76"W
C5	47.00	233.45	S1° 01' 25.13"E
C6	74.00	67.54	N62° 49' 40.50"E
L1		73.69	S81° 02' 05.01"W
L2		183.76	N55° 03' 40.71"W
L3		286.72	S88° 58' 34.57"W

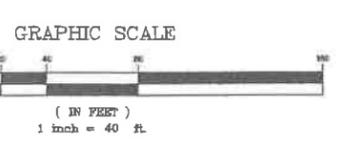
UNDERDRAINS

STA 1+80 - 4+45 RT & LT
STA 7+60 - 12+03 RT & LT

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
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4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

- LEGEND**
- WETLAND SYMBOL
 - STONE BOUND FOUND
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 - DRILL HOLE
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 - CATCH BASIN
 - TEST PIT LOCATION
 - PROPOSED HEADWALL
 - PROPOSED DRAIN MANHOLE
 - PROPOSED CATCH BASIN
 - PROPOSED FLARED END
 - EXISTING PROPERTY LINE
 - PROPOSED PROPERTY LINE
 - WETLAND
 - RIVER
 - POST & RAIL FENCE
 - BARBED WIRE FENCE
 - OVERHEAD UTILITIES
 - DRAINAGE LINE
 - TREELINE
 - ABUTTER LINE
 - EDGE OF PAVEMENT
 - 10' CONTOUR
 - 2' CONTOUR
 - EDGE OF GRAVEL
 - BUILDING SETBACK
 - NO DISTURBANCE BUFFER
 - EXISTING EASEMENT
 - PROPOSED EASEMENT
 - 250' SHORELAND PROTECTION DISTRICT
 - 150' WOODLAND BUFFER
 - TOWN LINE
 - PROPOSED 2' CONTOUR
 - PROPOSED DRAINAGE LINE
 - PROPOSED TRELINE
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED VERTICAL GRANITE CURB
 - PROPOSED SWALE
 - PROPOSED RETAINING WALL
 - PROPOSED CHAIN LINK FENCE



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

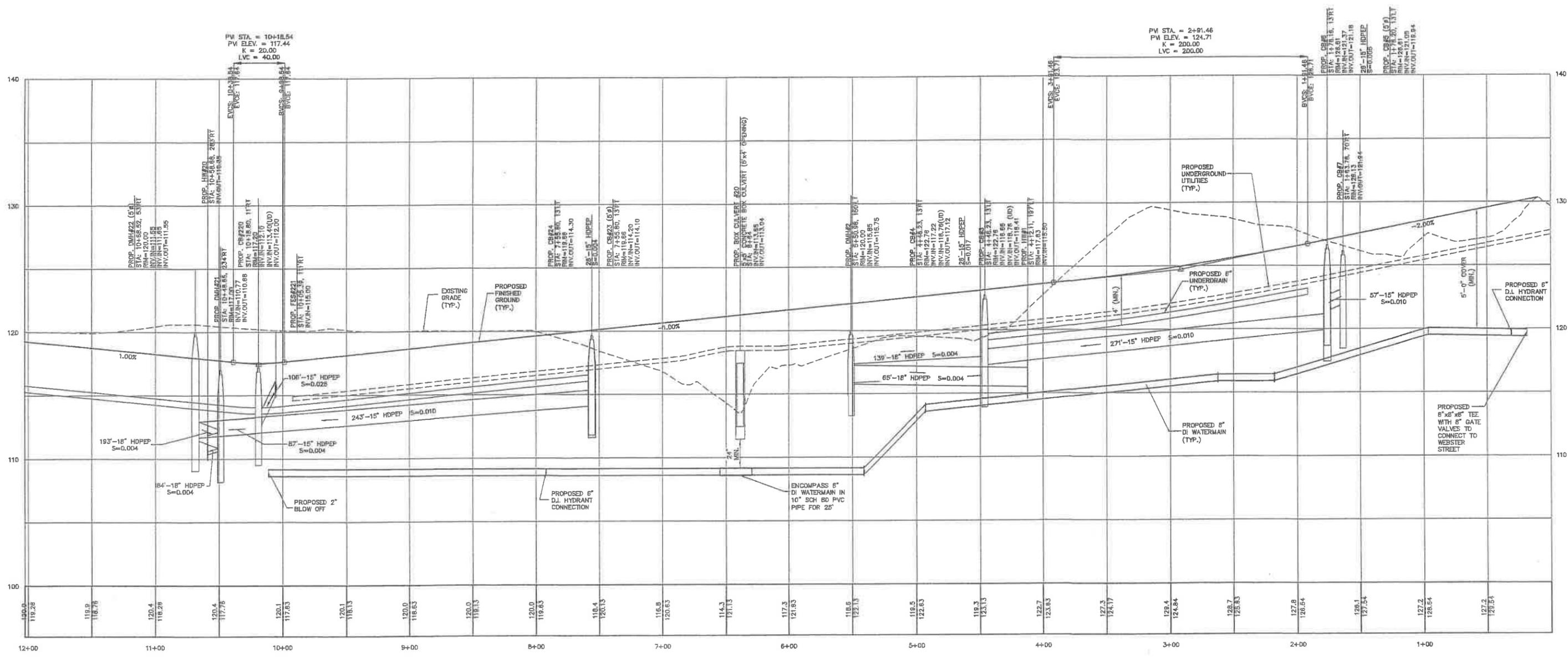
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

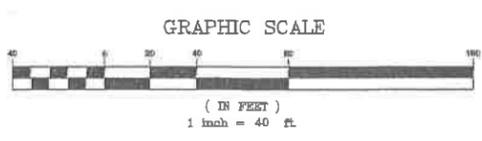
SIGNATURE _____ DATE _____

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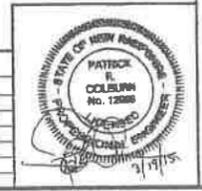
I:\projects\0705114A\0705114A.dwg SUBDIVISION-REV.dwg ROADWAY PLAN, 3/1/2015 9:56:12 AM, hwh



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



UNDERDRAINS
 STA 1+80 - 4+45 RT & LT
 STA 7+60 - 12+03 RT & LT



No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
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ROADWAY PROFILE
AUTUMN CIRCLE
 300 WEBSTER STREET
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
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 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 DATE: SEPTEMBER 16, 2014

KM KEACH-NORDSTROM ASSOCIATES, INC.
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 10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881

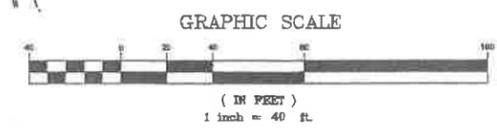
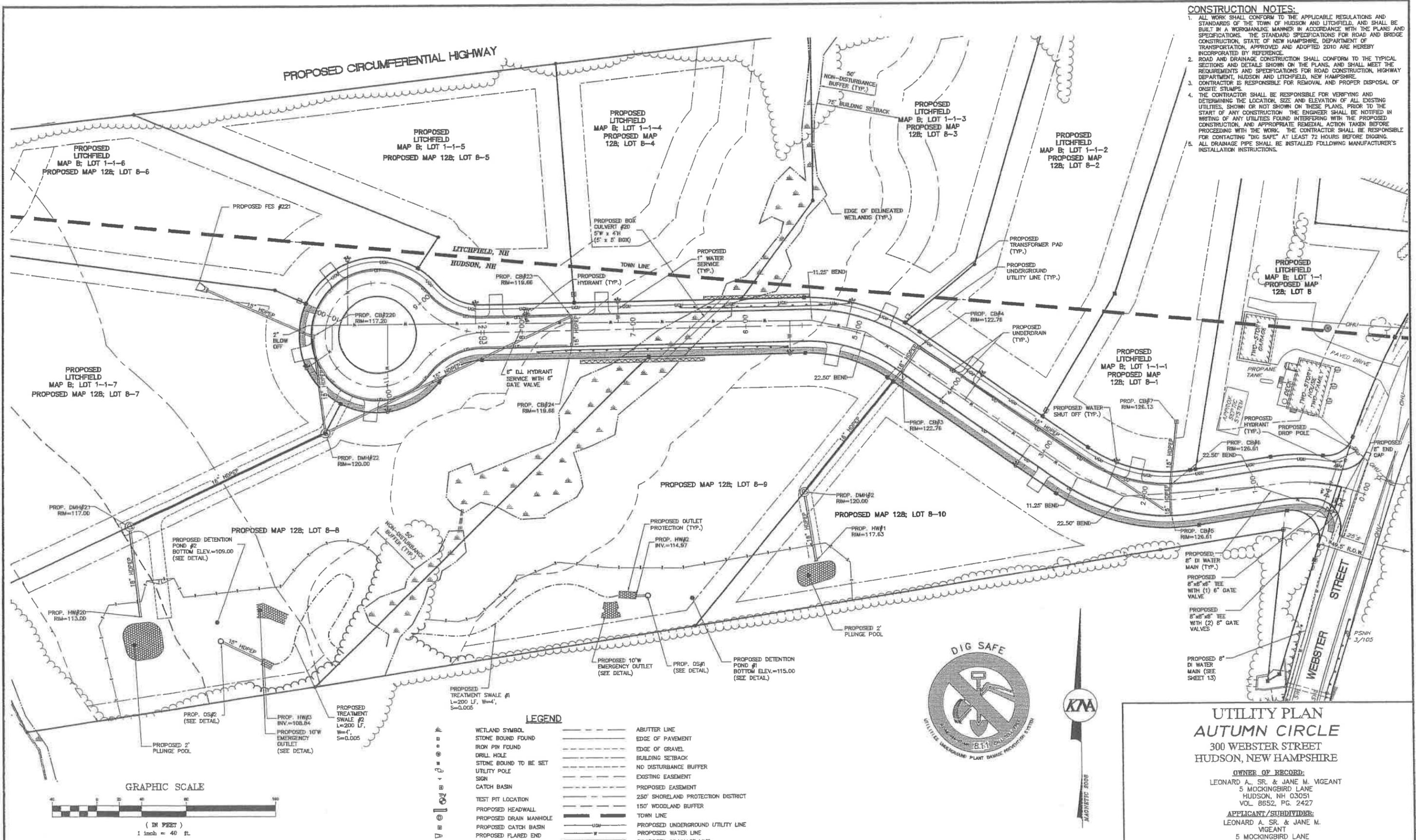
SCALE: AS NOTED
 HUDSON: MAP 128; LOT 7 & 8
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2

PROJECT NO: 07-0511-4A SHEET 7 OF 23

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CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON AND LITCHFIELD, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THESE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, HIGHWAY DEPARTMENT, HUDSON AND LITCHFIELD, NEW HAMPSHIRE.
3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ON-SITE STUMPS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT LEAST 72 HOURS BEFORE DIGGING. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.



LEGEND

WETLAND SYMBOL	ABUTTER LINE
STONE BOUND FOUND	EDGE OF PAVEMENT
IRON PIN FOUND	EDGE OF GRAVEL
DRILL HOLE	BUILDING SETBACK
STONE BOUND TO BE SET	NO DISTURBANCE BUFFER
UTILITY POLE SIGN	EXISTING EASEMENT
CATCH BASIN	PROPOSED EASEMENT
TEST PIT LOCATION	250' SHORELAND PROTECTION DISTRICT
PROPOSED HEADWALL	150' WOODLAND BUFFER
PROPOSED DRAIN MANHOLE	TOWN LINE
PROPOSED CATCH BASIN	PROPOSED UNDERGROUND UTILITY LINE
PROPOSED FLARED END	PROPOSED WATER LINE
EXISTING PROPERTY LINE	PROPOSED DRAINAGE LINE
PROPOSED PROPERTY LINE	PROPOSED TREETLINE
WETLAND	PROPOSED EDGE OF PAVEMENT
RIVER	PROPOSED VERTICAL GRANITE CURB
POST & RAIL FENCE	PROPOSED SWALE
BARBED WIRE FENCE	PROPOSED RETAINING WALL
OVERHEAD UTILITIES	PROPOSED CHAIN LINK FENCE
DRAINAGE LINE	
TREETLINE	



UTILITY PLAN
AUTUMN CIRCLE
 300 WEBSTER STREET
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Cammerway Park North, Suite 5B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: 1" = 40'
 HUDSON: MAP 128; LOT 7 & 8
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2
 PROJECT NO: 07-0511-4A SHEET 8 OF 23

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

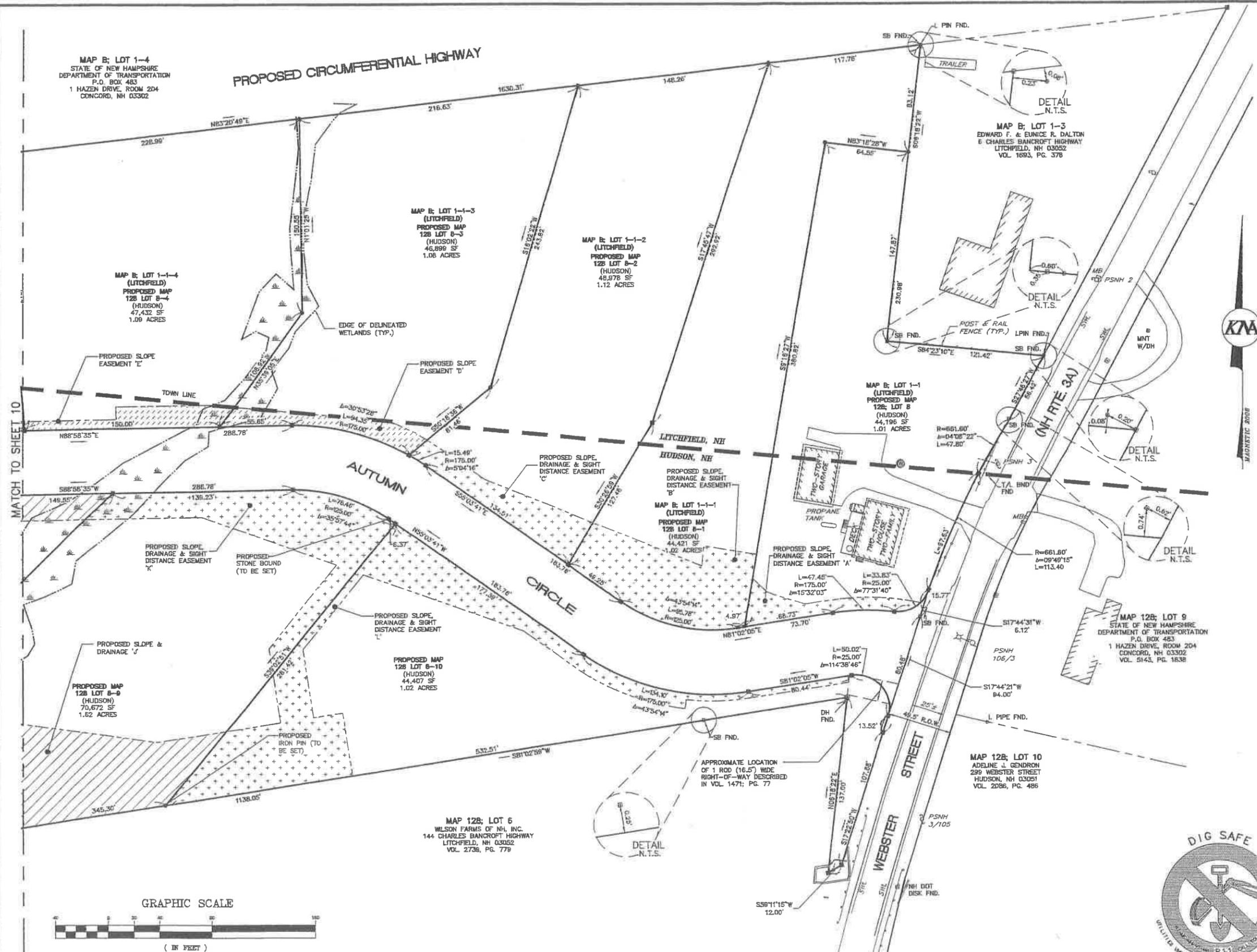
SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

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MAP B; LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE, ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY



HATCH LEGEND

- PROPOSED SLOPE AND DRAINAGE EASEMENT
- PROPOSED TRAIL EASEMENT
- PROPOSED SLOPE EASEMENT
- PROPOSED SLOPE, DRAINAGE & SITE DISTANCE EASEMENT

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

SEE SHEET 3 FOR LOT AREA TABLE & LOT REGULARITY TABLE

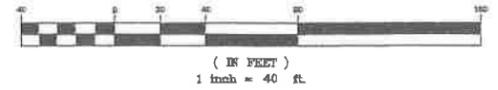
LEGEND

- WETLAND SYMBOL
- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- STONE BOUND TO BE SET
- UTILITY POLE
- SIGN
- CATCH BASIN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE ELIMINATED
- PROPOSED PROPERTY LINE
- WETLAND RIVER
- POST & RAIL FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- TREELINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- EXISTING EASEMENT
- PROPOSED DRAINAGE AND SLOPE EASEMENT
- PROPOSED TRAIL EASEMENT
- PROPOSED UTILITY EASEMENT



MATCH TO SHEET 10

GRAPHIC SCALE



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/12/14	REV. PER NHDOT COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN MAY 2008 AND MAY 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN STANDARD URBAN PROPERTY SURVEY AS DEFINED IN THE STATE OF NEW HAMPSHIRE ADMINISTRATIVE RULES GOVERNING LAND SURVEYS. (LAN 503).

DATE: _____



DATE RECORDED: _____ HCRD# _____

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____

CERTIFIED BY: _____, CHAIRMAN

_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

EASEMENT PLAN
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 5B, Bedford, NH 03110 Phone (603) 627-2881
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 9 OF 23

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MAP B; LOT 1-4
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 483
1 HAZEN DRIVE, ROOM 204
CONCORD, NH 03302

PROPOSED CIRCUMFERENTIAL HIGHWAY

HATCH LEGEND

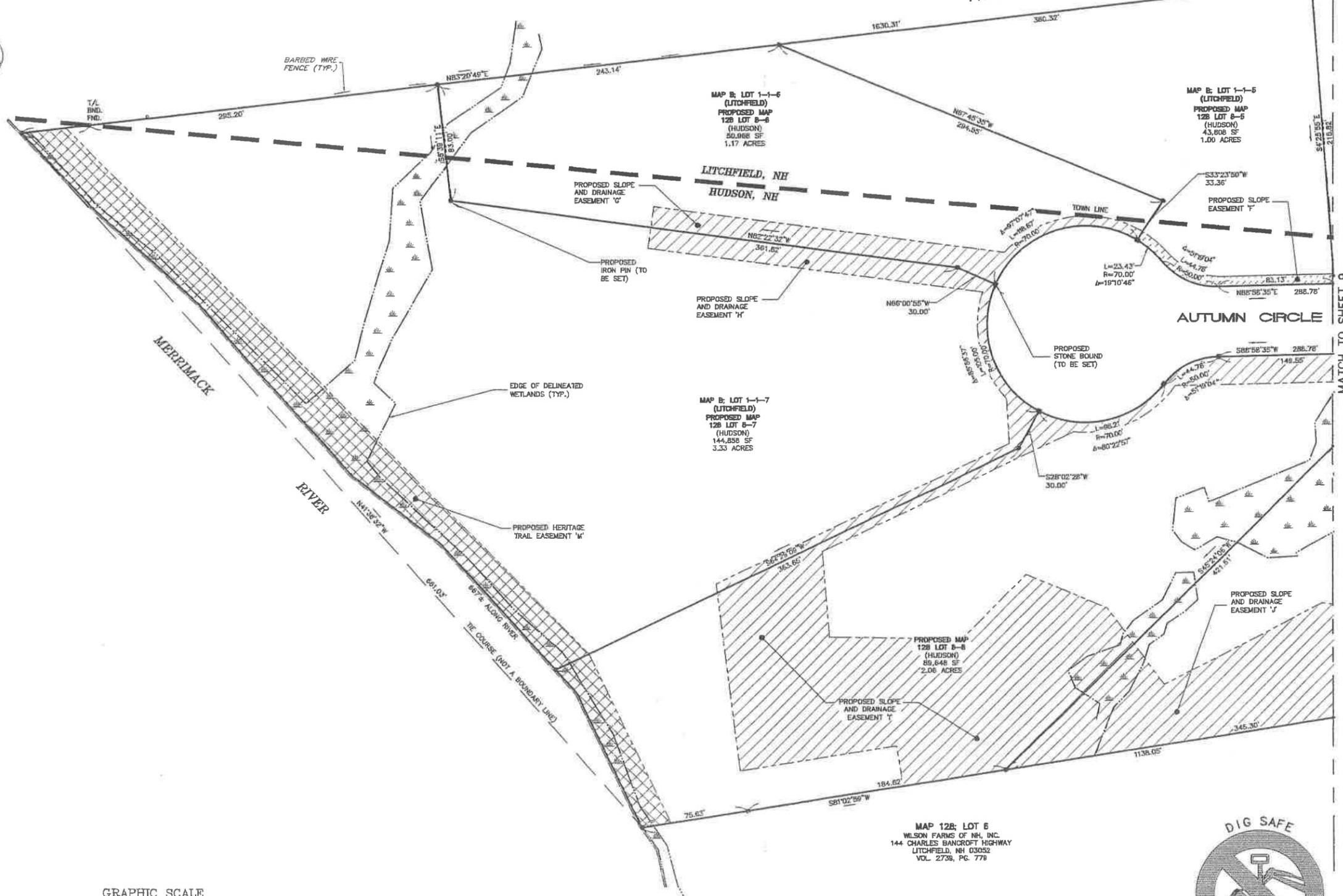
- PROPOSED SLOPE AND DRAINAGE EASEMENT
- PROPOSED TRAIL EASEMENT
- PROPOSED SLOPE EASEMENT
- PROPOSED SLOPE, DRAINAGE & SITE DISTANCE EASEMENT

SEE SHEET 1 FOR NOTES AND REFERENCE PLANS

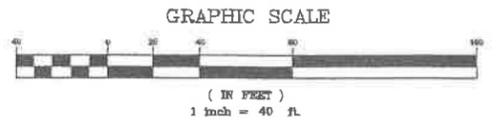
SEE SHEET 3 FOR LOT AREA TABLE & LOT REGULARITY TABLE

LEGEND

- WETLAND SYMBOL
- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- STONE BOUND TO BE SET
- UTILITY POLE
- SIGN
- CATCH BASIN
- ABUTTER LINE
- EXISTING PROPERTY LINE
- PROPERTY LINE TO BE ELIMINATED
- PROPOSED PROPERTY LINE
- WETLAND
- RIVER
- POST & RAIL FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- TREELINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- EXISTING EASEMENT
- PROPOSED DRAINAGE AND SLOPE EASEMENT
- PROPOSED TRAIL EASEMENT
- PROPOSED UTILITY EASEMENT



MATCH TO SHEET 9



DATE RECORDED: _____ HCRD# _____

APPROVED BY THE LITCHFIELD PLANNING BOARD ON: _____

CERTIFIED BY _____, CHAIRMAN
_____, VICE CHAIRMAN, OR DESIGNATED MEMBER

EASEMENT PLAN
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

SCALE: 1" = 40'
HUDSON: MAP 12B; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 10 OF 23

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE: _____ DATE: _____

SIGNATURE: _____ DATE: _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

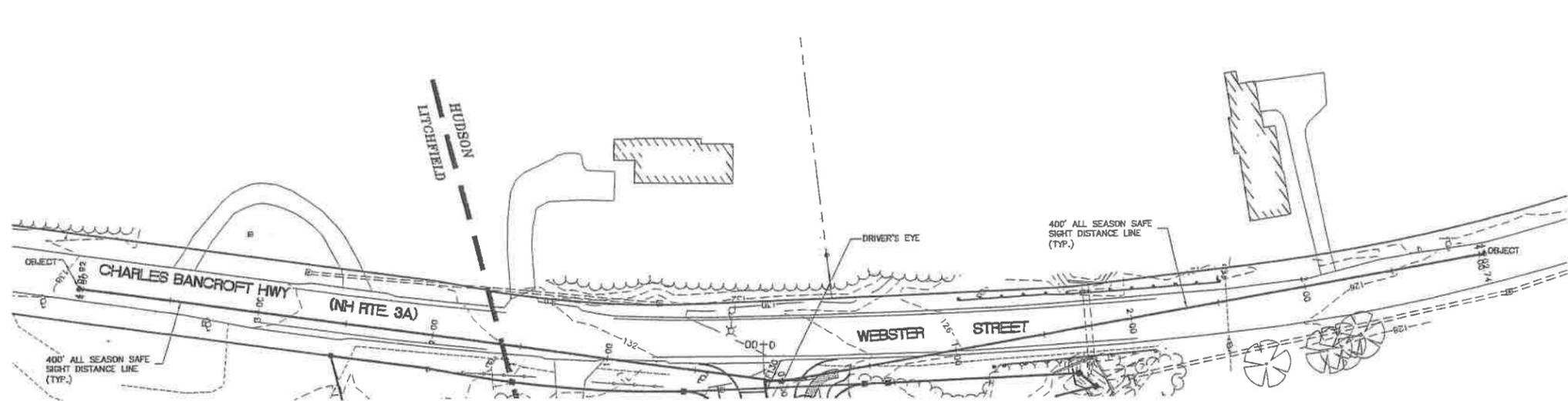
OWNER/APPLICANT
SIGNATURE: *Leonarda Vigeant*
DATE: 3-30-15

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER NHDOT COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

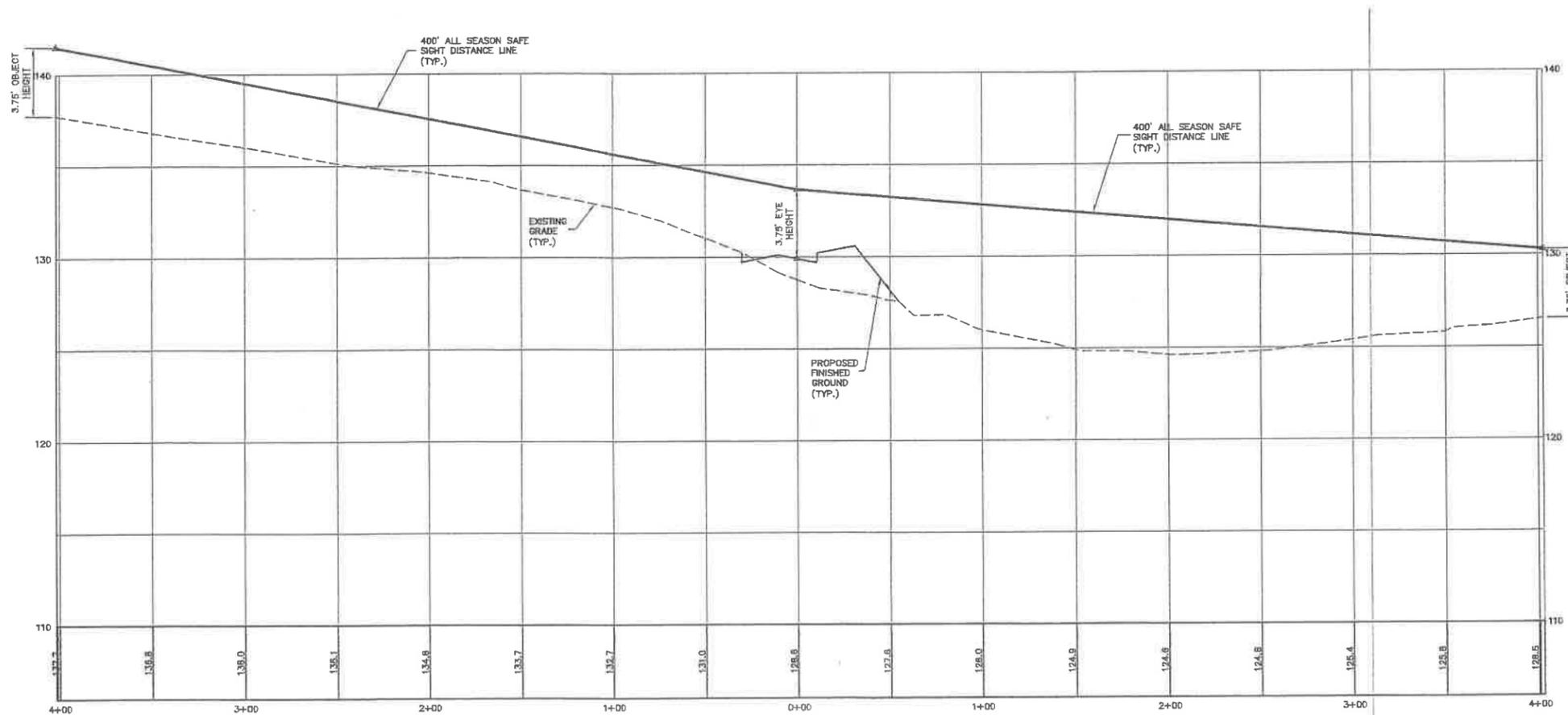
THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN MAY 2008 AND MAY 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS A STANDARD URBAN PROPERTY SURVEY AS DEFINED IN THE STATE OF NEW HAMPSHIRE ADMINISTRATIVE RULES GOVERNING LAND SURVEYS. (LAN 803).

DATE: 3/15/15

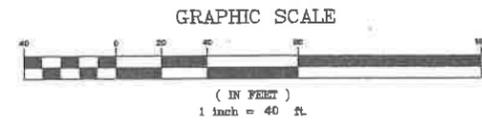




SIGHT DISTANCE PLAN
SCALE: 1" = 40'



SIGHT DISTANCE PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)

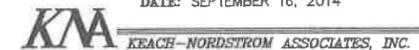


SIGHT DISTANCE PLAN & PROFILE
AUTUMN CIRCLE

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014



Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 303, Bedford, NH 03110 Phone (603) 887-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2

PROJECT NO: 07-0511-4A SHEET 11 OF 23

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

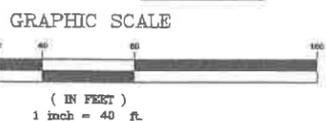
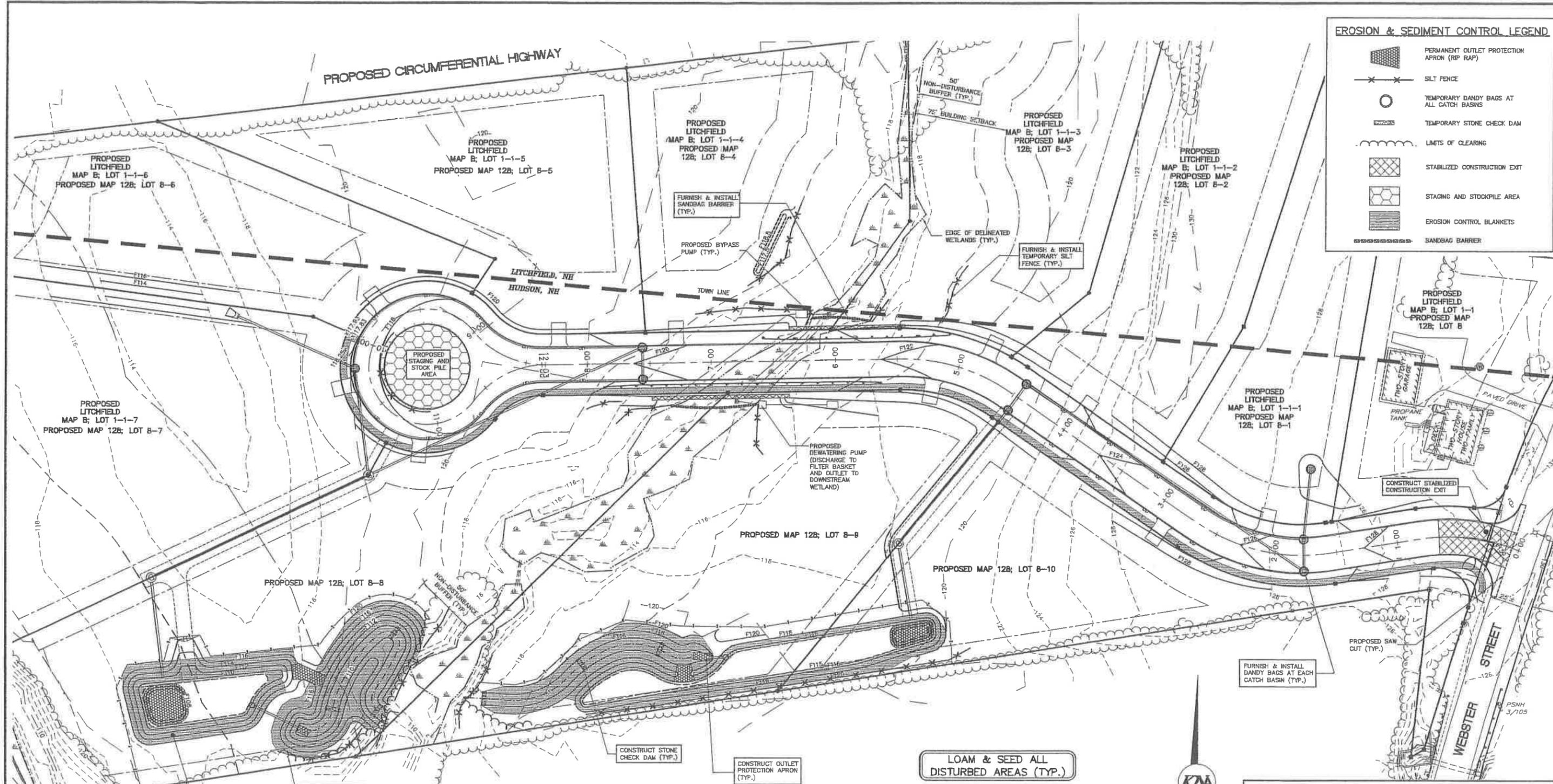
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



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EROSION & SEDIMENT CONTROL LEGEND

- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- SILT FENCE
- TEMPORARY DANDY BAGS AT ALL CATCH BASINS
- TEMPORARY STONE CHECK DAM
- LIMITS OF CLEARING
- STABILIZED CONSTRUCTION EXIT
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS
- SANDBAG BARRIER



- #### EROSION CONTROL NOTES:
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
 2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL, TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2010, AS AMENDED FROM TIME TO TIME.
 3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION, WHEN NECESSARY, SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. FOR ADDITIONAL EROSION CONTROL SPECIFICATIONS AND CONSTRUCTION DETAILS, REFER TO SHEET 19 OF THIS SET.
 5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 10. THE TOWN OF LITCHFIELD AND THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 11. CULVERT CROSSING IS SUBJECT TO PERMITTING IN ACCORDANCE WITH NHDES STREAM CROSSING GUIDELINES.
 12. CONTRACTOR SHALL PROVIDE APPROPRIATE BY-PASS PUMPING AND DEWATERING PRACTICES DURING CONSTRUCTION. SNOW ACCUMULATED DURING THE WINTER CONSTRUCTION CONDITIONS SHOULD BE STORED IN THE STAGING & STOCKPILE AREA DETERMINED BY THE CONTRACTOR, SURROUNDED BY SILT FENCE.

LOAM & SEED ALL DISTURBED AREAS (TYP.)



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PHC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

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EROSION CONTROL PLAN AUTUMN CIRCLE

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

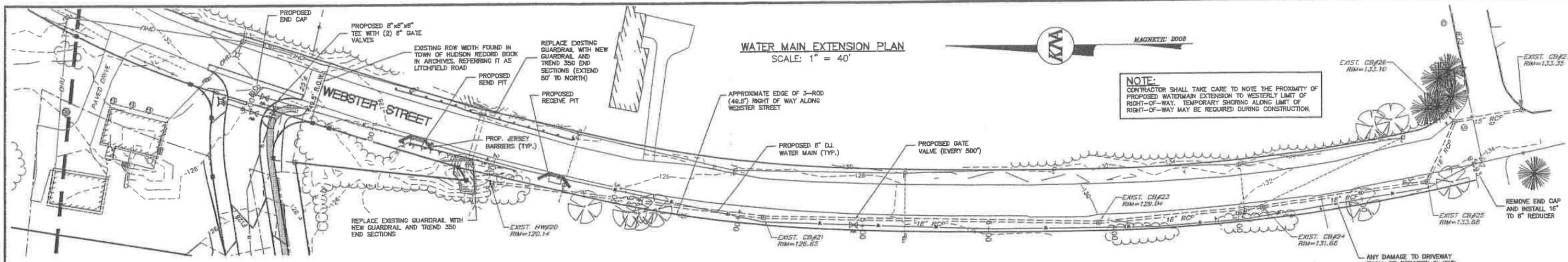
OWNER OF RECORD:
LEONARD A., SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 5B, Bedford, NH 03110 Phone: (603) 627-2881

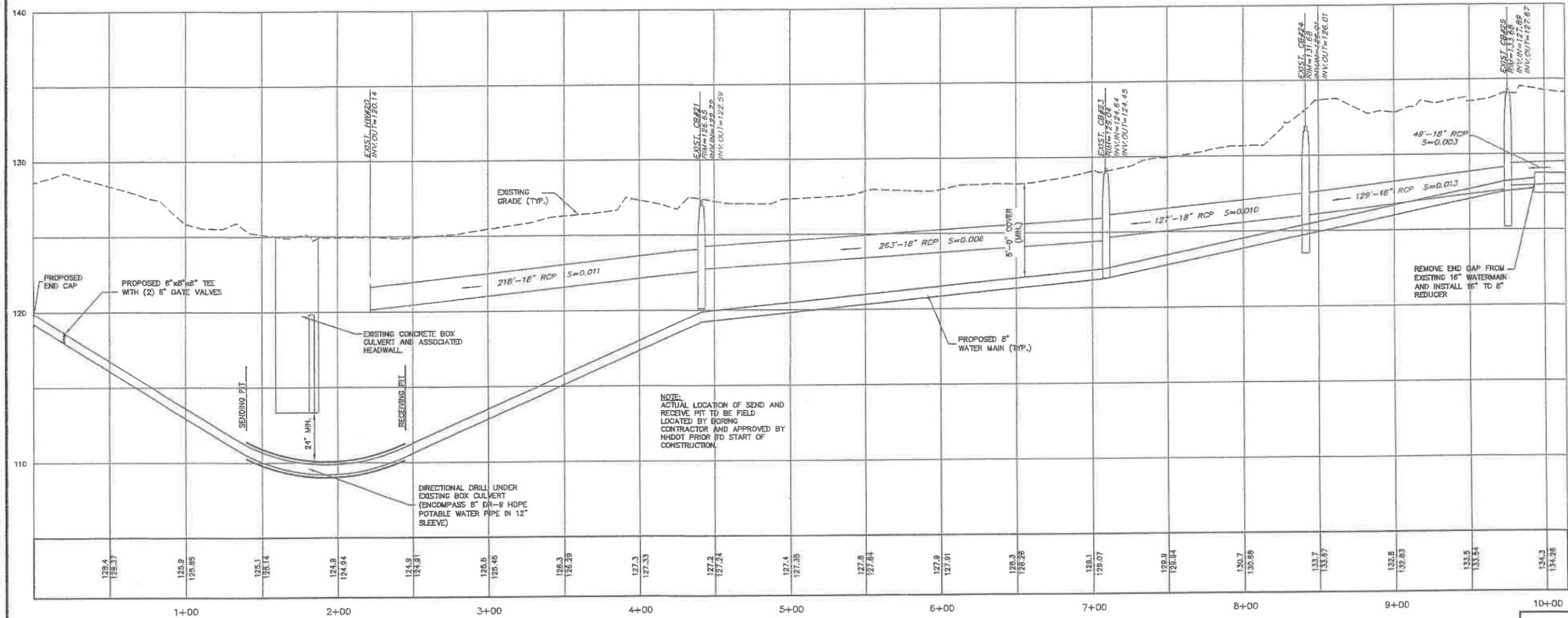
SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 12 OF 23

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WATER MAIN EXTENSION PLAN
SCALE: 1" = 40'

NOTE:
CONTRACTOR SHALL TAKE CARE TO NOTE THE PROXIMITY OF PROPOSED WATERMAIN EXTENSION TO WESTERLY LIMIT OF RIGHT-OF-WAY. TEMPORARY SHORING ALONG LIMIT OF RIGHT-OF-WAY MAY BE REQUIRED DURING CONSTRUCTION.



WATER MAIN EXTENSION PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)

- LEGEND**
- WETLAND SYMBOL
 - STONE BOUND FOUND
 - IRON PIN FOUND
 - DRILL HOLE
 - STONE BOUND TO BE SET
 - UTILITY POLE
 - SIGN
 - CATCH BASIN
 - PROPOSED HEADWALL
 - PROPOSED DRAIN MANHOLE
 - PROPOSED CATCH BASIN
 - PROPOSED FLARED END
 - EXISTING PROPERTY LINE
 - PROPOSED PROPERTY LINE
 - WETLAND
 - RIVER
 - POST & RAIL FENCE
 - BARBED WIRE FENCE
 - OVERHEAD UTILITIES
 - DRAINAGE LINE
 - TREELINE
 - ABUTTER LINE
 - EDGE OF PAVEMENT
 - 10' CONTOUR
 - 2' CONTOUR
 - EDGE OF GRAVEL
 - BUILDING SETBACK
 - TOWN LINE
 - PROPOSED 2' CONTOUR
 - PROPOSED WATER LINE
 - PROPOSED DRAINAGE LINE
 - PROPOSED TREELINE
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED VERTICAL GRANITE CURB
 - PROPOSED RETAINING WALL

- NOTES:**
- EXCAVATION PERMIT FROM NHDOT, DISTRICT 5 OFFICE (886-3336), IS REQUIRED PRIOR TO ANY WORK WITHIN RIGHT-OF-WAY OF ROUTE 3A REGARDING THE WATERMAIN CONSTRUCTION.
 - CONTRACTOR TO COORDINATE WITH APPROVED UTILITY PROVIDERS PRIOR TO CONSTRUCTION.
 - WATERMAIN EXTENSION RECEIVED APPROVAL FROM THE HUDSON BOARD OF SELECTMAN ON FEBRUARY 10, 2015.

WATER MAIN EXTENSION PLAN & PROFILE
AUTUMN CIRCLE

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: OCTOBER 31, 2014

KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: 1" = 40'
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2

PROJECT NO: 07-0511-4A SHEET 13 OF 23

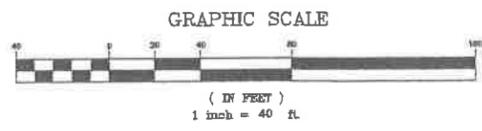
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

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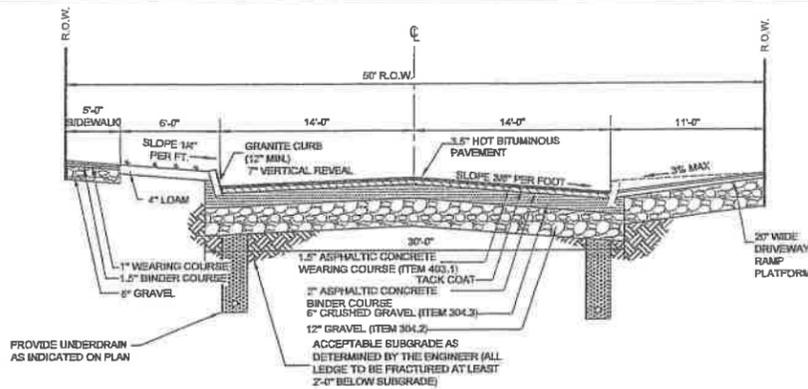


LOAM & SEED ALL DISTURBED AREAS (TYP.)

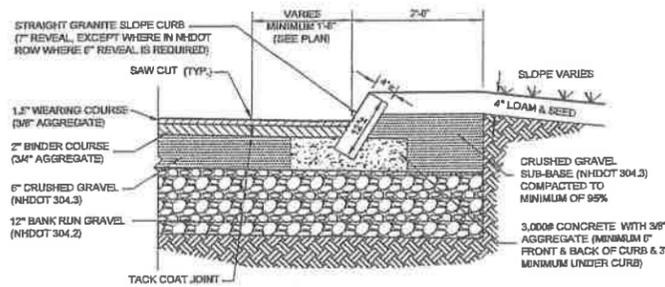
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REDUCE ROADWAY LENGTH, ADDITIONAL LOT	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



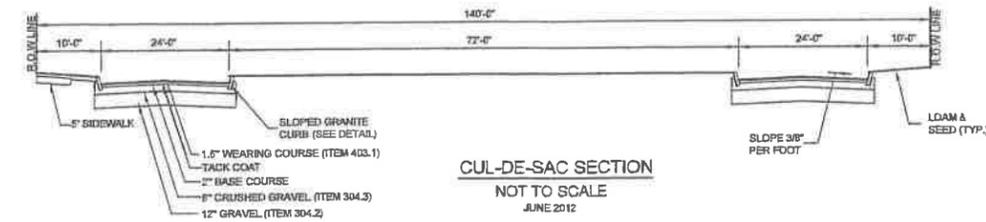
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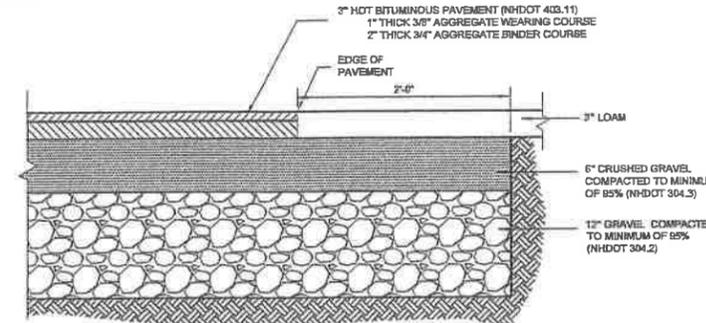
TYPICAL ROADWAY CROSS SECTION
NOT TO SCALE



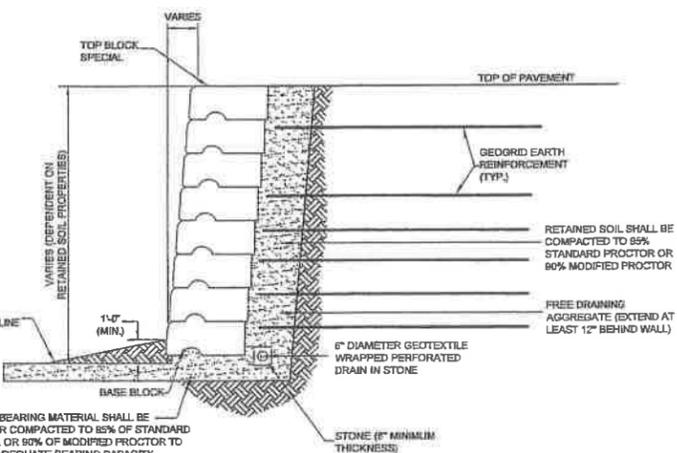
STRAIGHT GRANITE SLOPE CURB DETAIL
NOT TO SCALE
(MARCH 2008)



CUL-DE-SAC SECTION
NOT TO SCALE
JUNE 2012

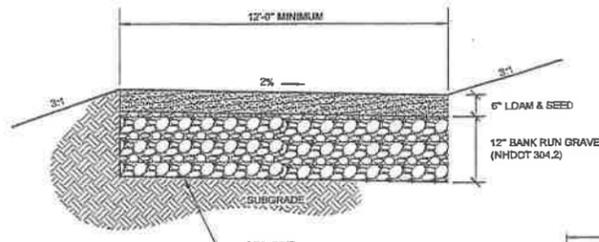


DRIVEWAY APRON SECTION
NOT TO SCALE
(MARCH 2008)

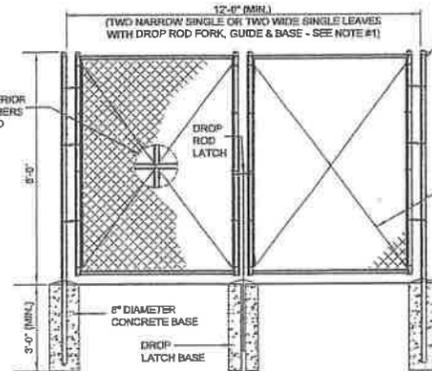


- NOTES:
- AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
 - RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
 - THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECT'S REQUIRED PRE CONSTRUCTION MEETING.
 - THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
 - 4.a. DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
 - 4.b. STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
 - 4.c. GEOGRID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
 - 4.d. CONSTRUCTION INSTALLATION SPECIFICATION
 - 4.e. LATERAL EARTH PRESSURE COEFFICIENT
 - 4.f. SURCHARGE LOAD, EXPOSURE DEPTH
 - 4.g. BOTH A PLAN AND PROFILE OF EACH WALL SECTION

REDI-ROCK RETAINING WALL WITH GUARDRAIL
(TO BE DESIGNED BY OTHERS)
NOT TO SCALE

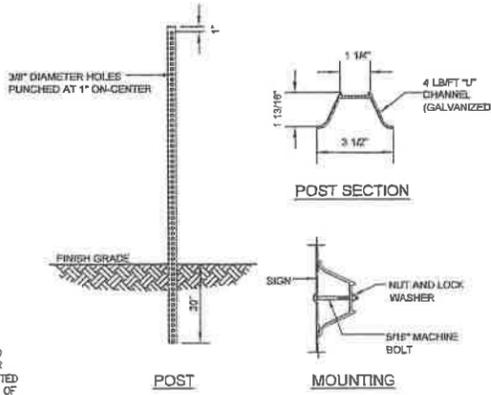


DRAINAGE ACCESS WAY DETAIL
NOT TO SCALE

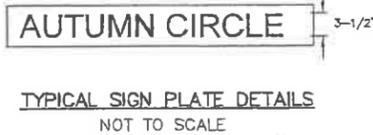


DOUBLE LEAF GATE
NOT TO SCALE
(SEPTEMBER 2010)

- NOTES:
- REINFORCE THE GATE FRAME CORNERS WITH A MALLEABLE IRON OR PRESSED STEEL FITTING DESIGNED FOR THE PURPOSE OR SHOP WELD THE CORNERS GRIND SMOOTH ALL WELDS AND PAINT WITH AN APPROVED ZINC RICH PAINT. FURNISH EACH GATE WITH THE NECESSARY HINGES, LATCH AND DROP ROD LOCKING DEVICE DESIGNED FOR THE TYPE OF GATE POSTS AND GATE USED ON THE PROJECT. PROVIDE POSITIVE TYPE LATCHING DEVICES WITH PROVISIONS FOR PAD LOCKING AT ALL GATES. PROVIDE KEEPERS TO RETAIN THE GATE IN THE OPEN POSITION.
 - APPROVED ALTERNATIVE GATE FRAMES CONSTRUCTED OF STEEL SECTIONS, OTHER THAN PIPE, MAY BE USED.
 - THE DESIGN OF THE CHAIN LINK HARDWARE MAY VARY FROM THE DETAILS SHOWN, HOWEVER, ALL HARDWARE AND MATERIALS USED IN A SINGLE INSTALLATION SHALL BE UNIFORM AND COMPATIBLE.



STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

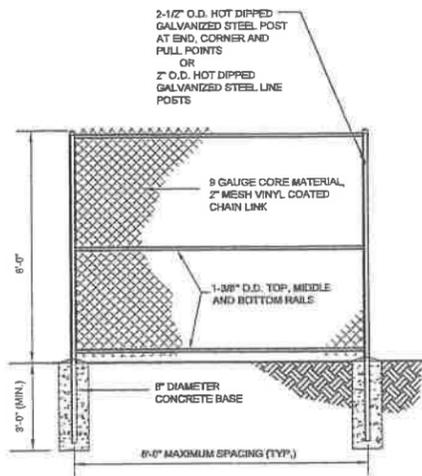


STOP SIGN DETAIL
NOT TO SCALE
(MARCH 2008)

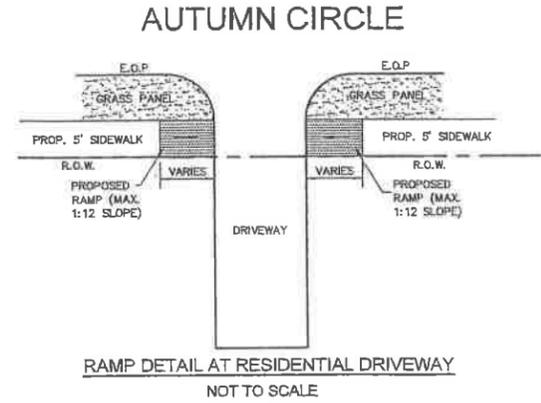


- STRIPING NOTES:
- ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
 - WIDTH OF LINES SHALL VARY NO MORE THAN 1/4 INCH FROM THAT SPECIFIED.
 - THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
 - OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
 - ALL PAINT SHALL COMPLY WITH NH DOT SPECIFICATION SECTION 708.

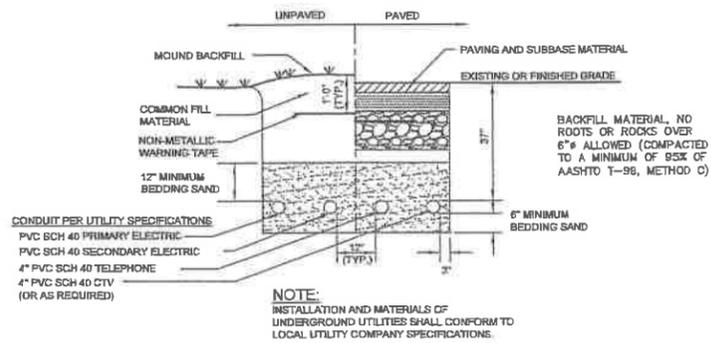
- TRAFFIC SIGN NOTES:
- ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
 - ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NH DOT SPECIFICATIONS.
 - STREET NAME SIGNS SHALL BE METAL, IN CONFORMITY WITH NEW SIGNS PURCHASED BY THE TOWN, TWO-FACED AND REFLECTORIZED, SIX INCHES HIGH WITH THREE-AND-ONE-HALF INCH LETTERS EMBOSSED AND REFLECTORIZED WITH GREEN BACKGROUND AND WHITE LETTERS, OF ALUMINUM METAL.
 - DEAD END SIGN TO BE 18"x18", BLACK LETTERING, YELLOW BACKGROUND, A MINIMUM OF 1' HIGH.
 - STOP SIGN TO BE WHITE LETTERING ON A RED BACKGROUND.
 - RS-1 DO NOT ENTER SIGN TO BE RED LETTERING ON A WHITE BACKGROUND.
 - THE CAUTION SIGN TO BE BLACK LETTERING ON YELLOW BACKGROUND.



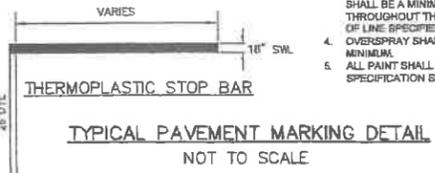
CHAIN LINK FENCE DETAIL
NOT TO SCALE
(MARCH 2008)



RAMP DETAIL AT RESIDENTIAL DRIVEWAY
NOT TO SCALE



UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



THERMOPLASTIC STOP BAR
NOT TO SCALE

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4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT

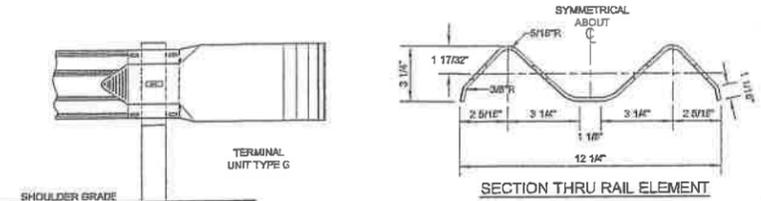
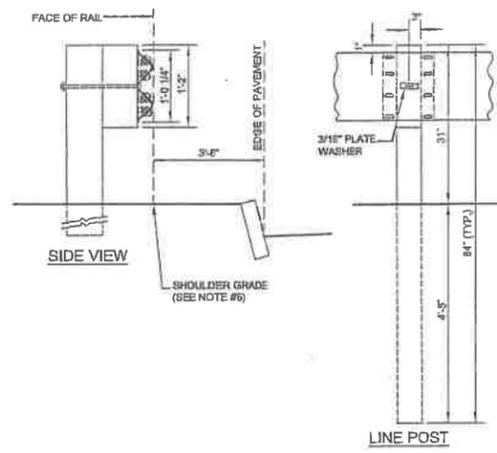
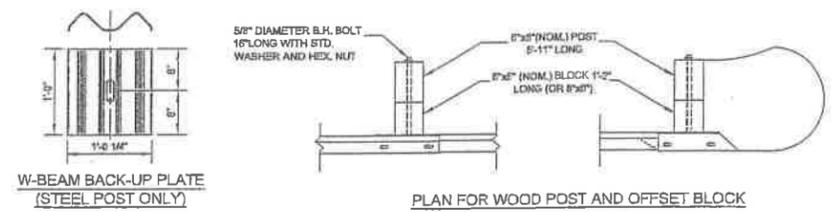
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

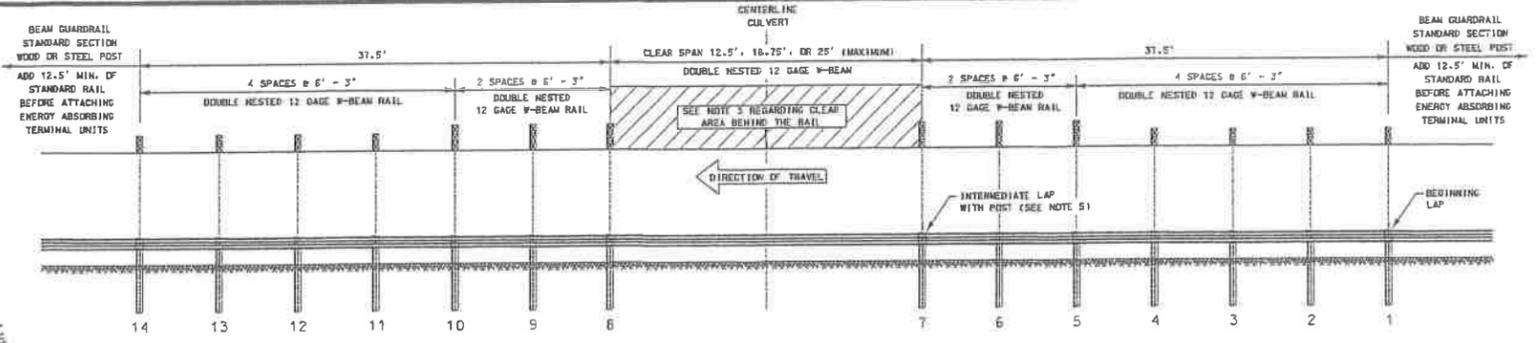
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 5B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 14 OF 23



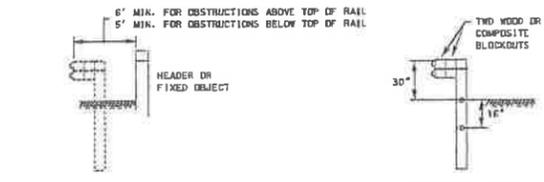
- NOTES:**
- STEEL POSTS, OFFSET BLOCKS, ANCHORS, PLATES AND ALL FITTINGS TO BE GALVANIZED.
 - ALL DIMENSIONS SUBJECT TO MANUFACTURER'S TOLERANCES.
 - RAIL PANELS AND END SECTIONS TO BE 12 GAUGE STEEL.
 - ALL PARTS SHALL CONFORM TO CURRENT NHDOT STANDARD SPECIFICATIONS.
 - WHEN GUARDRAIL IS CONSTRUCTED AT UP TO FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL HEIGHT WILL BE SET FROM THE GRADE AT THE EDGE OF PAVEMENT. WHEN GUARDRAIL IS CONSTRUCTED MORE THAN FOUR FEET FROM THE EDGE OF PAVEMENT, THE GUARDRAIL WILL BE SET FROM THE GRADE AT FACE OF RAIL.

BEAM GUARDRAIL DETAIL
NOT TO SCALE
(MARCH 2008)



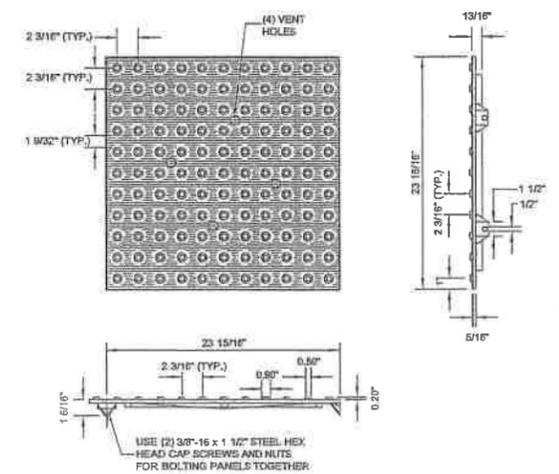
W-BEAM GUARDRAIL LONG SPAN, DOUBLE NESTED
NOT TO SCALE

- POSTS 1 - 4 AND 11 - 14 STANDARD WOOD OR STEEL POSTS WITH BLOCKOUTS (SEE STANDARD SHEET GR-1)
- POSTS 5 - 10 ARE CRT WOOD POSTS WITH TWO WOOD OR COMPOSITE BLOCKOUTS (ONLY CRT POSTS NEED TO BE WOOD, UNLESS THE REST OF THE RUN IS WOOD POST)
- CLEAR AREA BEHIND BACK OF RAIL SHALL BE 5 FEET MINIMUM FOR OBSTRUCTIONS LESS THAN OR EQUAL TO THE HEIGHT OF THE TOP OF RAIL. 6 FEET MINIMUM FOR OBSTRUCTIONS TALLER THAN THE TOP OF RAIL.
- LAP SPLICES IN THE DIRECTION OF ADJACENT TRAFFIC.
- 25'-0\"/>



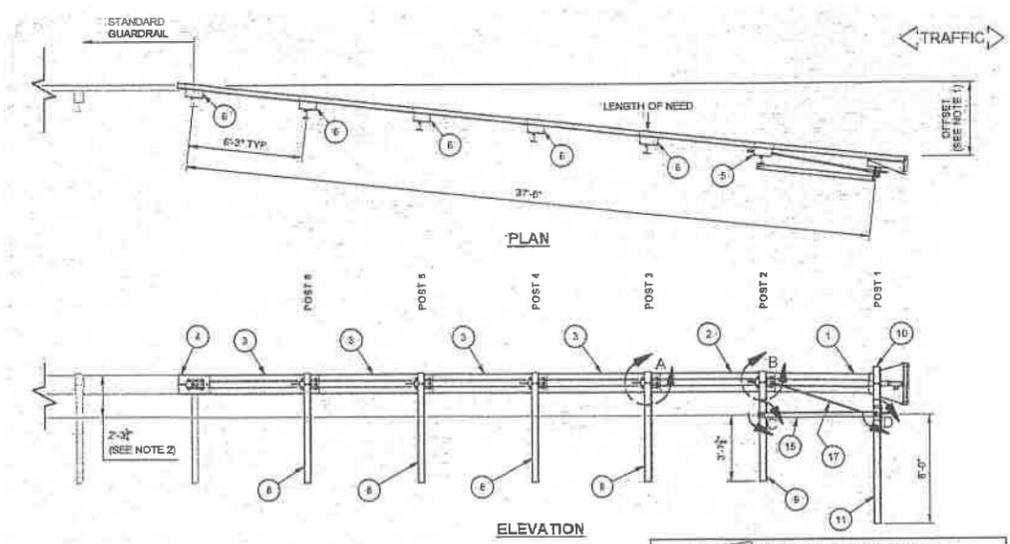
DYNAMIC DEFLECTION IN CLEAR SPAN AREA
SEE NOTE 3

CRT WOOD POSTS
SEE NOTE 2



- NOTES:**
- DETECTABLE WARNING PLATE SHALL BE NEENAH FOUNDRY OR APPROVED EQUAL.
 - THE PLATE MUST COMPLY WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND ARCHITECTURAL BARRIER ACT GUIDELINES.
 - MATERIAL SHALL BE CAST GRAY IRON
 - FINISH: NO PAINT
 - THESE PLATES ARE ONLY TO BE USED AT ROADWAY CROSSINGS, NOT DRIVEWAYS.

24\"/>



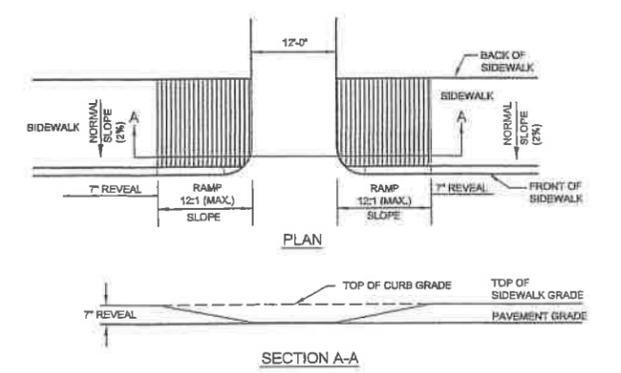
- NOTES:**
- SYSTEM CAN BE FLARED UP TO AN OFFSET OF 4'-0\"/>

TREND 350 FLARED END TERMINAL
NOT TO SCALE

ENERGY ABSORPTION SYSTEMS
ENGINEERING AND RESEARCH DEPARTMENT

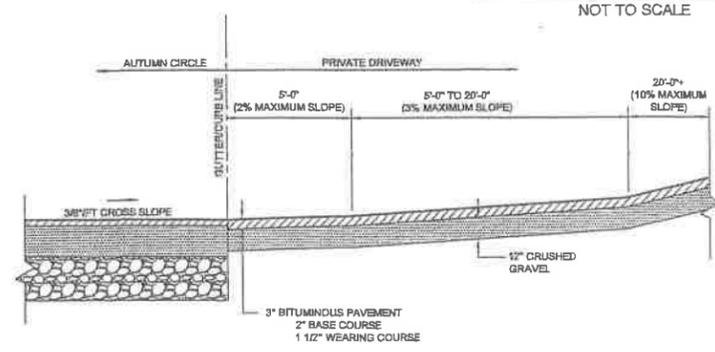
TREND 350 FLARED END TERMINAL

619896 1 of 2 A



- NOTES:**
- MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.

SIDEWALK RAMP
NOT TO SCALE



DRIVEWAY CROSS SECTION WITH NO SIDEWALK
NOT TO SCALE

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3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

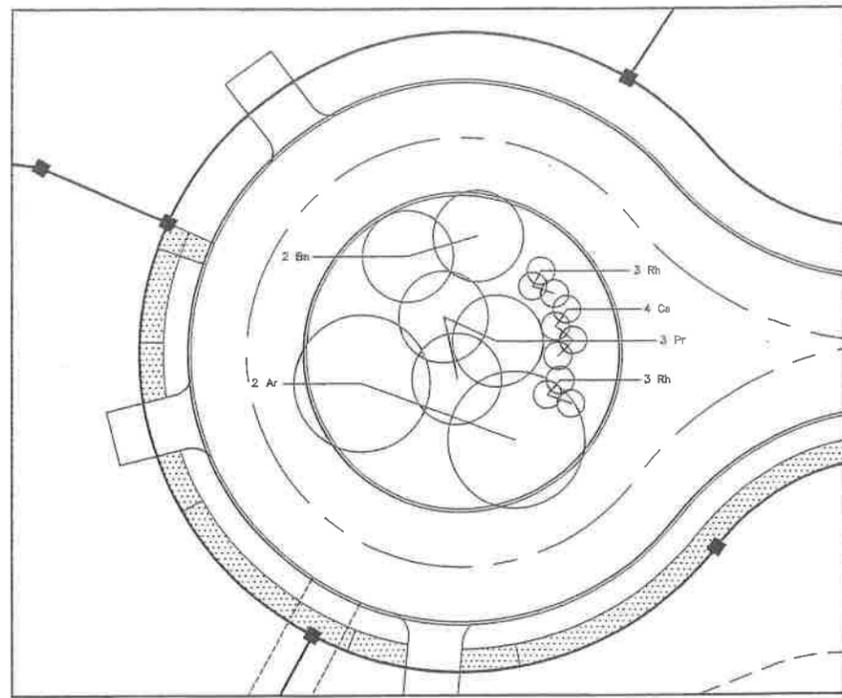
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 2
PROJECT NO: 07-0511-4A SHEET 15 OF 23

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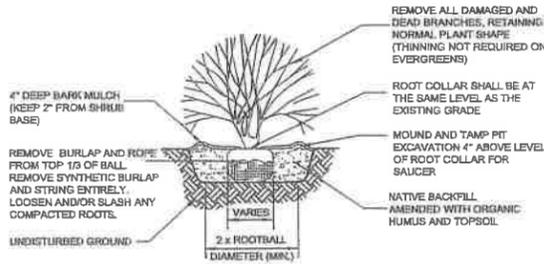
CUL-DE-SAC PLANTING PLAN
SCALE: 1" = 20'

PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
Ar	2	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2"-2.5" CAL
Bn	2	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	2-2.5" CAL
Fr	3	PINUS RESINOSA	RED PINE	5-6" B&B
SHRUBS				
Ca	4	CORNUS SERICEA 'ALLEMAN'S COMPACTA'	ALLEMAN'S COMPACT DOGWOOD	2-2.5'
Rh	6	RHOODOENDRON 'HAAGA'	HAAGA RHOODOENDRON	2-2.5' B&B

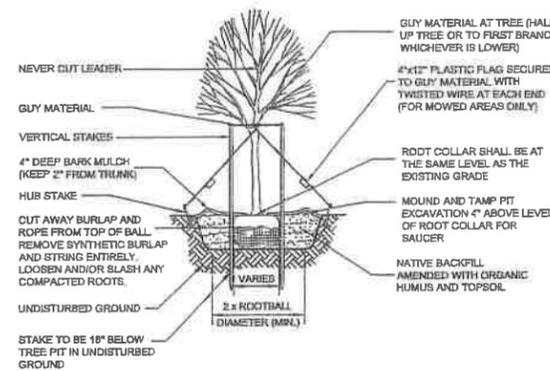
LANDSCAPE NOTES:

- ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
- IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
- PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
- PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.
- ALL STREET TREES SHALL BE PLANTED A MINIMUM OF 5'-6" BEHIND THE EDGE OF THE SIDEWALK.
- ALL LANDSCAPE MATERIAL INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH SECTION 650 OF THE CITY OF MANCHESTER CONSTRUCTION STANDARDS.



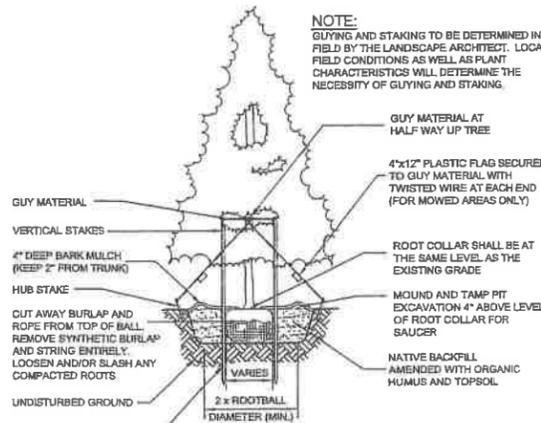
BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)

NOTE:
GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.

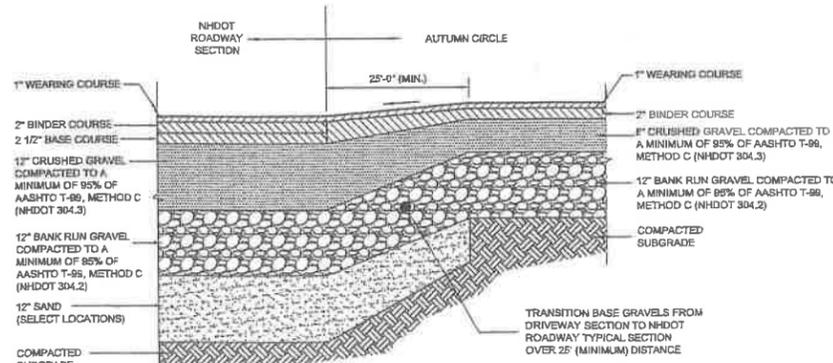


DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)

NOTE:
GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



DRIVEWAY TRANSITION TO STATE RIGHT-OF-WAY DETAIL
NOT TO SCALE

NOTE:
FIELD VERIFY DEPTHS OF EXISTING GRAVELS BENEATH NHDOT ROADWAY AND MATCH ACCORDINGLY.



WETLAND CONSERVATION DISTRICT
BOUNDARY MARKER
NOT TO SCALE
(MARCH 2010)

TURF ESTABLISHMENT SCHEDULE

PURPOSE:
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

- RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
- PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.
- FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED. TOP AND BOTTOM OF BLENDS SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
- APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
- APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
- DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT.
- AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
- SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNFITTABLE.
- WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH HAY. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDED.
- WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

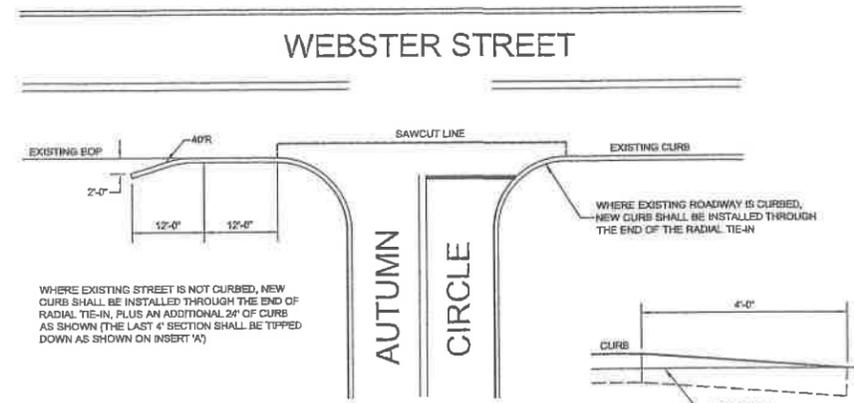
ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA. MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
- LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
- FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.8 POUNDS PER 1,000 S.F.
- MULCH SHALL BE APPLIED AT A RATE OF 80 POUNDS PER 1,000 S.F.

MATERIALS:

- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOIL LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE 10-20-20 COMMERCIAL GRADE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 98% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIGRA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE LITTLESTEM
15% NE-27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSPOOT TREFLOID
INOCULUM SPECIFIC TO BIRDSPOOT TREFLOID MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE 98% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
30% CREEPING RED FESCUE
40% PERENNIAL RYE GRASS
15% REDTOP
15% BIRDSPOOT TREFLOID
IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
15% SWITCH GRASS
10% FOX SEDGE
15% CREEPING BENTGRASS
10% FLATPEA
20% WILDFLOWER VARIETY
HAY USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.



CURB END
NOT TO SCALE

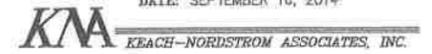
CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:

LEONARD A., SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:

LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014



Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 827-2881

SCALE: AS NOTED

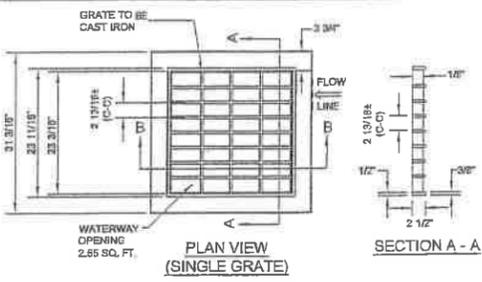
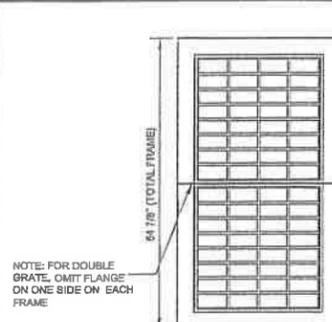
HUDSON: MAP 128; LOT 7 & 8

LITCHFIELD: MAP B; LOTS 1-1 & 1-2

PROJECT NO: 07-0511-4A SHEET 16 OF 23

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC
3	12/17/14	DATE ONLY	PRC
4	02/11/16	REV. PER CONDITIONS OF APPROVAL	PRC

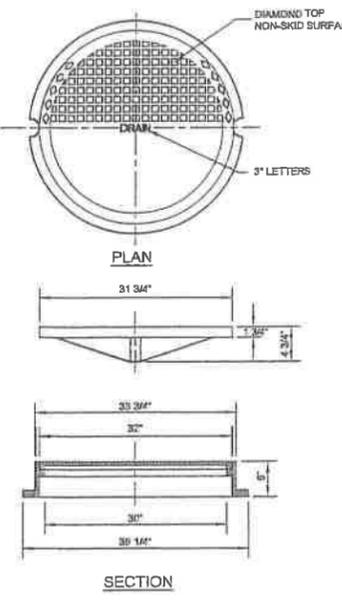
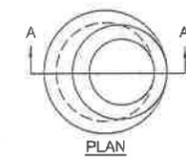
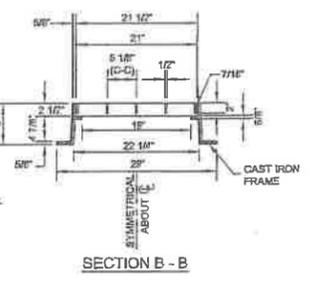




PLAN VIEW (DOUBLE GRATE)

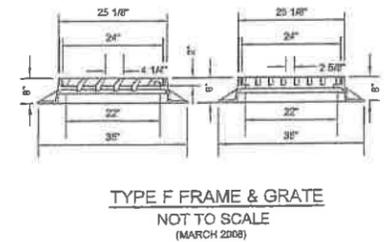
TYPE B FRAME & GRATE DETAIL NOT TO SCALE (MARCH 2008)

- NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI), CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
 3. RISER OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 4. MATERIALS AND CONSTRUCTION TO MHDOT STANDARDS.

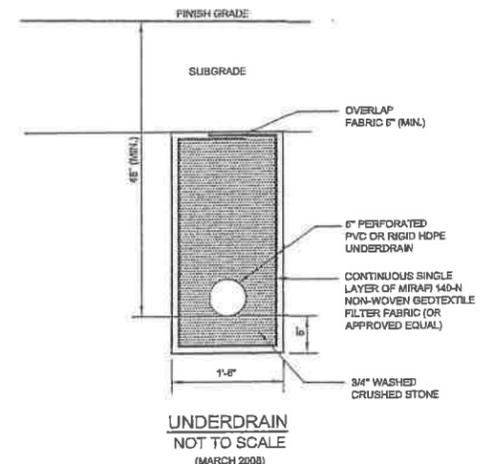


DRAIN MANHOLE FRAME AND COVER DETAIL NOT TO SCALE (JANUARY 2012)

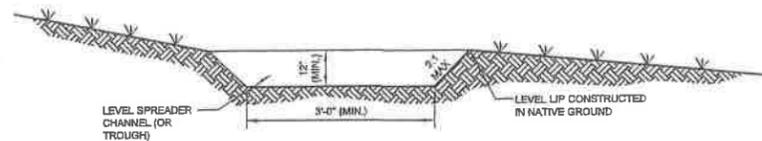
- NOTES:
- NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS.
- FEATURES:
- 3" LETTERING
 - COVERS MARKED DRAIN
 - NONROCKING COVER
 - DIAMOND SURFACE DESIGN
- SPECIFICATIONS:
- FULLY MACHINED FRAME AND COVER
 - 1-20 LOAD RATED
 - GRAY CAST IRON MEETS ASTM A48 CLASS 30



TYPE F FRAME & GRATE NOT TO SCALE (MARCH 2008)

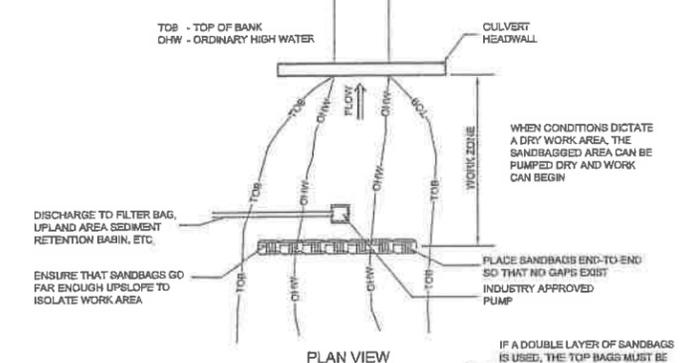


UNDERDRAIN NOT TO SCALE (MARCH 2008)



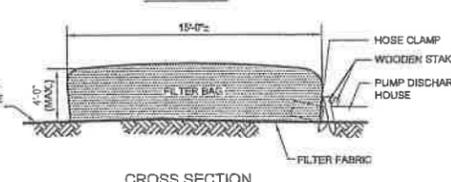
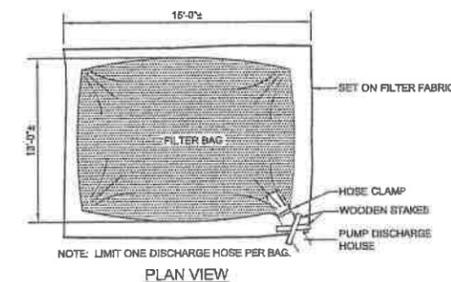
- NOTES:
1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUN-OFF.
 2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
 3. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET INTO STABILIZED AREAS. WATER SHOULD NOT RECONCENTRATE IMMEDIATELY BELOW THE SPREADER.
 4. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.

LEVEL SPREADER DETAIL NOT TO SCALE (APRIL 2010)



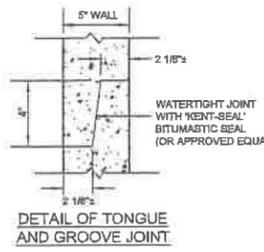
TEMPORARY SANDBAG COFFERDAM DETAIL NOT TO SCALE (AUGUST 2013)

- WHEN CONDITIONS DICTATE A DRY WORK AREA, THE SANDBAGGED AREA CAN BE PUMPED DRY AND WORK CAN BEGIN.
- DISCHARGE TO FILTER BAG, UPLAND AREA SEDIMENT RETENTION BASIN, ETC.
- ENSURE THAT SANDBAGS GO FAR ENOUGH UPSLOPE TO ISOLATE WORK AREA.
- PLACE SANDBAGS END-TO-END SO THAT NO GAPS EXIST. INDUSTRY APPROVED PUMP.
- IF A DOUBLE LAYER OF SANDBAGS IS USED, THE TOP BAGS MUST BE PLACED SUCH THAT NO GAPS ARE EVIDENT WITH THE LOWER LAYER OF BAGS.
- SANDBAGS CAN BE SINGLE OR DOUBLE LAYER.
- PLACE SANDBAGS SUCH THAT NO GAPS ARE EVIDENT.



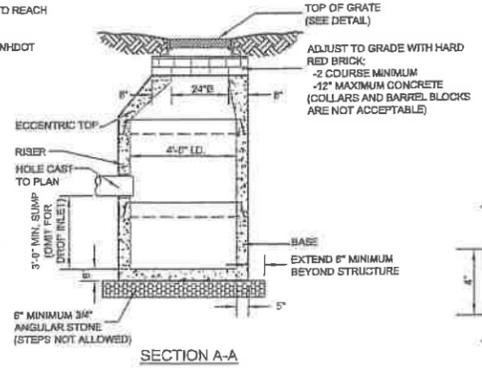
- NOTES:
- FILTER BAGS SHALL MEET THE FOLLOWING SPECIFICATIONS AND ADHERE TO THE FOLLOWING GUIDELINES:
- THEY ARE CONSTRUCTED OF A NON-WOVEN GEOTEXTILE FABRIC.
 - ONLY ONE SIX-INCH DISCHARGE HOSE WILL BE ALLOWED PER FILTER BAG.
 - BAG CAPACITY WILL BE EXCEEDED BEYOND 2,000 GALLONS PER MINUTE.
 - TYPICAL RECOMMENDED BAG DIMENSIONS ARE 15 FEET BY 13.25 FEET.
 - TO HELP PREVENT PUNCTURES, GEOTEXTILE FABRICS SHALL BE PLACED BENEATH THE FILTER BAG WHEN USED IN WOODED LOCATIONS.
 - HOSE CLAMPS SHALL BE USED TO SECURE THE DISCHARGE HOSE TO THE FILTER BAG.
- WHEN MAINTAINING FILTER BAGS TO ENSURE PROPER FUNCTION, THE FOLLOWING CONDITIONS SHALL APPLY:
- PRIOR TO REMOVING THE BAG FROM THE HOSE, THE BAG WILL BE TIED OFF BELOW THE END OF THE HOSE, ALLOWING THE BAG TO DRAIN.
 - TO AVOID RUPTURE, THE BAGS WILL BE ATTENDED AND PUMPING RATES MONITORED.
 - ONCE THE BAG IS INFLATED TO A HEIGHT OF FOUR (4) FEET, PUMPING SHALL STOP TO AVOID RUPTURE.
 - FILTER BAGS USED DURING CONSTRUCTION SHALL BE BUNDLED AND REMOVED FOR PROPER DISPOSAL.

FILTER BAGS FOR DEWATERING DISCHARGE NOT TO SCALE (AUGUST 2013)

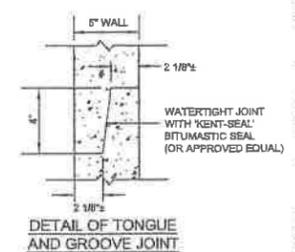


DETAIL OF TONGUE AND GROOVE JOINT

PRECAST REINFORCED CATCH BASIN NOT TO SCALE (MAY 2012)

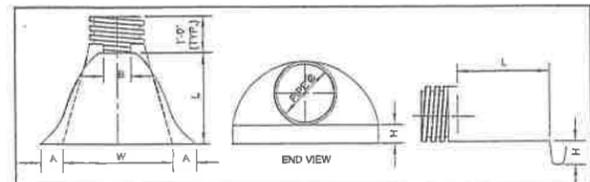


SECTION A-A



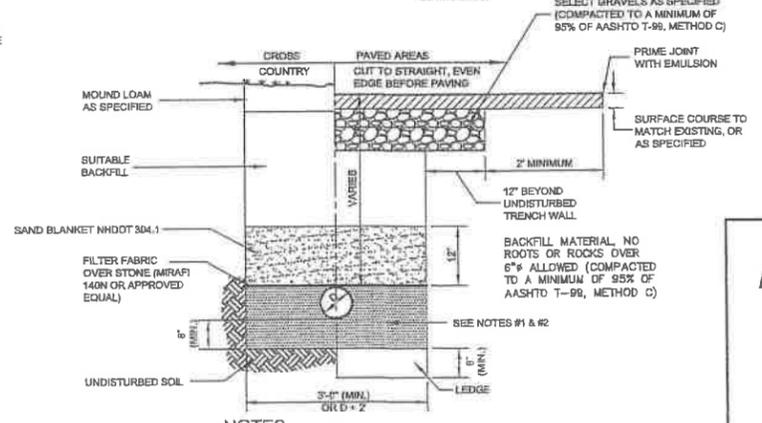
DETAIL OF TONGUE AND GROOVE JOINT

PRECAST REINFORCED DRAIN MANHOLE DETAIL NOT TO SCALE (MARCH 2008)



ADS END SECTION DETAIL NOT TO SCALE (MARCH 2008)

PIPE DIAMETER	DIMENSIONS, INCHES (MM)					
	PART No.	A (± 1")	B (MAX.)	H (± 1")	L (± 1/2")	W (± 2)
12" & 15"	1210 NP	6.5"	10"	6.5"	25"	25"
18"	1810 NP	7.5"	15"	6.5"	32"	35"
24"	2410 NP	7.5"	18"	6.5"	36"	45"
30"	3010 NP	10.5"	N/A	7.0"	53"	65"
36"	3610 NP	10.5"	N/A	7.0"	53"	65"



- NOTES:
1. COMPACT SCREENED GRAVEL TO A MINIMUM OF 95% OF AASHTO T-99B, METHOD C FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
 2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4" STONE TO THE TOP OF THE PIPE.

STORM DRAINAGE TRENCH DETAIL NOT TO SCALE

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBMISSION IMPROVEMENTS	PRC
3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
 300 WEBSTER STREET
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 LEONARD A., SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
 LEONARD A. SR. & JANE M. VIGEANT
 5 MOCKINGBIRD LANE
 HUDSON, NH 03051
 DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED
 HUDSON: MAP 128; LOT 7 & 8
 LITCHFIELD: MAP B; LOTS 1-1 & 1-2
 PROJECT NO: 07-0511-4A SHEET 17 OF 23

LOCATION	"A"	"B"	"C"	"D"	"E"
DP #1	115.00	115.0	115.0	NA	116.75
DP #2	109.00	109.0	109.0	112.5	115.0

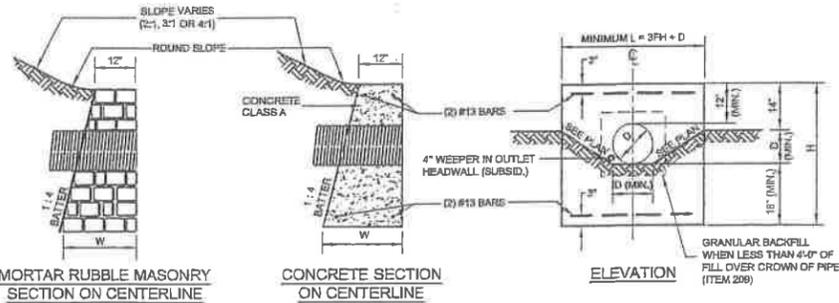
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



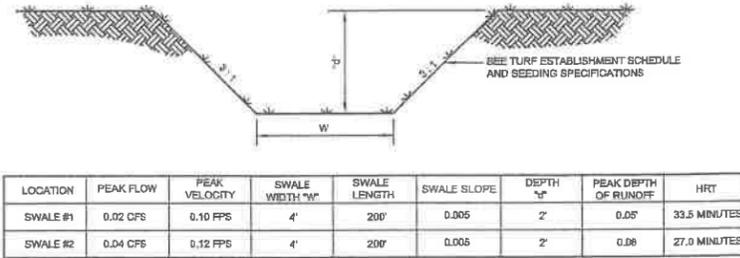
NOTE:
DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. YD.)	MASONRY PER STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1' DEPTH (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	MASONRY IN CORNER FRUSTRUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)
12"	0.79	0.186	1.00	0.51	0	3'-2"	0.111	0.788	0.36	3'-6"	3'-6"	16"	1'-10 1/2"	0.28	1.057
15"	1.23	0.202	1.73	0.85	11	3'-10"	0.150	0.947	0.36	4'-6"	3'-6"	14"	1'-11 1/2"	0.31	1.228
18"	1.77	0.272	2.55	1.15	14	4'-2"	0.190	1.111	0.36	5'-6"	4'-6"	12"	2'-0"	0.35	1.406
24"	3.14	0.280	4.71	1.76	20	7'-2"	0.148	1.491	0.48	7'-6"	4'-6"	11'-10"	2'-1 1/2"	0.42	1.776
30"	4.91	0.301	7.07	2.58	25	9'-2"	0.163	1.810	0.65	9'-6"	5'-6"	2'-4"	2'-5"	0.51	2.164
36"	7.07	0.344	11.43	3.53	31	11'-2"	0.222	2.187	0.85	11'-6"	5'-6"	2'-10"	2'-4 1/2"	0.61	2.572
42"	9.62	0.386	16.24	4.86	36	13'-2"	0.269	2.581	1.07	13'-6"	6'-6"	3'-4"	2'-6"	0.72	3.000
48"	12.57	0.436	21.89	6.95	42	15'-2"	0.296	3.000	1.31	15'-6"	6'-6"	3'-10"	2'-7 1/2"	0.84	3.447
54"	15.90	0.486	28.83	9.44	47	17'-2"	0.333	3.430	1.56	17'-6"	7'-6"	4'-4"	2'-8"	0.96	3.914
60"	19.63	0.538	36.92	12.13	52	19'-2"	0.370	3.883	1.87	19'-6"	7'-6"	4'-10"	2'-10 1/2"	1.12	4.401
66"	23.76	0.592	46.03	15.04	58	21'-2"	0.407	4.359	2.17	21'-6"	8'-6"	5'-4"	3'-0"	1.28	4.907
72"	28.27	0.649	56.55	19.17	63	23'-2"	0.443	4.838	2.50	23'-6"	8'-6"	5'-10"	3'-11 1/2"	1.46	5.433

NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS

NOT TO SCALE
(MARCH 2008)

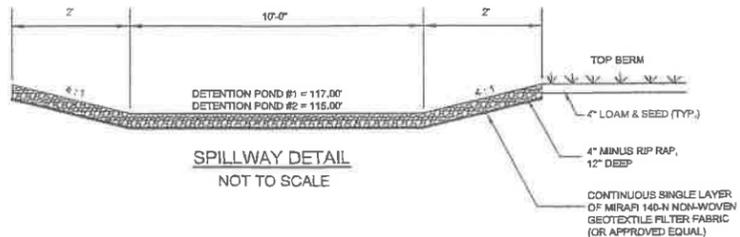


MAINTENANCE

- TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
- THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
- SWALE #2 TO BE LINED WITH A 6 MIL. POLYETHYLENE SHEETING ABOVE 4" OF SAND.

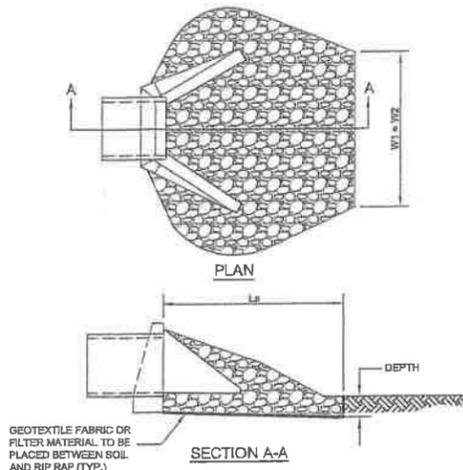
TREATMENT SWALE DETAIL

NOT TO SCALE
(MARCH 2008)



SPILLWAY DETAIL

NOT TO SCALE



PIPE OUTLET TO WELL DEFINED CHANNEL

NOT TO SCALE
(MARCH 2008)

LOCATION	L ₁	W ₁ x W ₂	d ₅₀	DEPTH
PROP. HW#1	35'	18'	4"	12"
PROP. HW#2	10'	4'	4"	12"
PROP. HW#3	10'	4'	4"	12"
PROP. HW#4	35'	35'	4"	12"

TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES

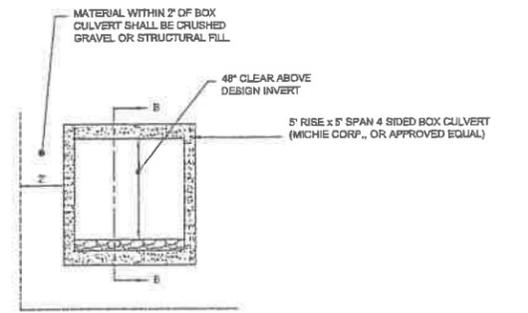
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d ₅₀
85%	1.3 TO 1.8 d ₅₀
50%	1.0 TO 1.5 d ₅₀
15%	0.5 TO 0.5 d ₅₀

CONSTRUCTION SPECIFICATIONS:

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR 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.

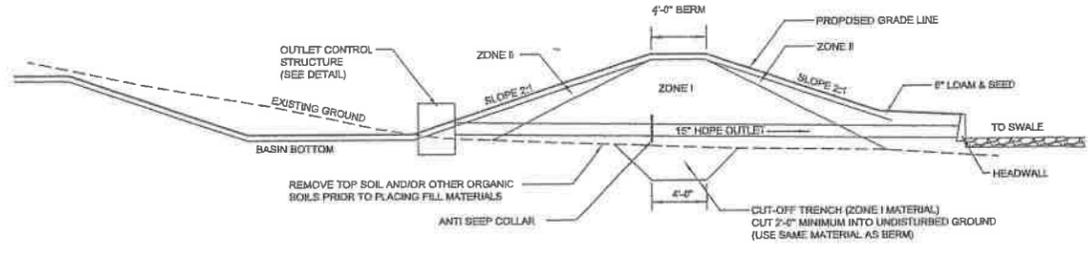
MAINTENANCE:

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. 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 FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



CONCRETE BOX CULVERT FOUNDATION AND BACKFILL DETAIL

NOT TO SCALE



TYPICAL CROSS SECTION DETENTION POND

NOT TO SCALE

STORMWATER PONDS CONSTRUCTION SEQUENCE

- CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
- CONSTRUCT OUTLET AND OVERFLOW STRUCTURE, CULVERT, ANTI SEEP COLLARS, HEADWALL AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS.
- CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF 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, SEEDING AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.

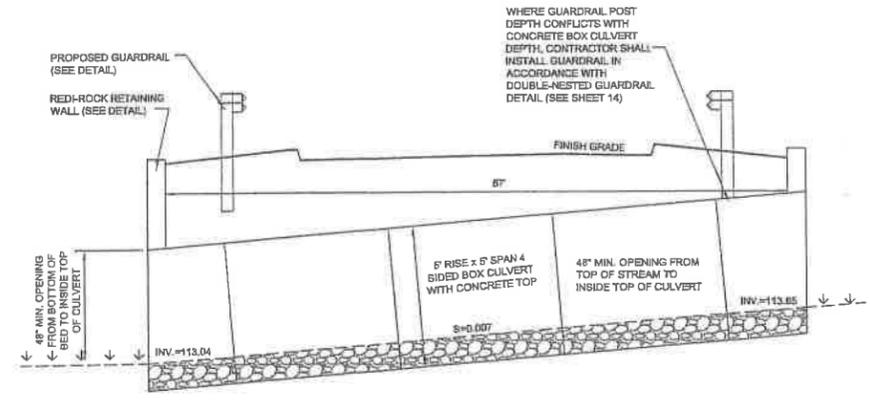
MATERIAL TYPE/SPECIFICATIONS

ZONE I
WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONE AND GEADATION AS INDICATED BELOW. PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SCARIFY SURFACE PRIOR TO PLACING SUBSEQUENT LIFT. IN ADDITION, REMOVE ORGANIC SOILS.

SIEVE SIZE	PERCENT BY WEIGHT PASSING
6-INCH	100
NO. 4	80 TO 100
NO. 40	30 TO 70
NO. 200	20 TO 40

ZONE II
DRAINAGE LAYER: PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557.

SIEVE SIZE	PERCENT BY WEIGHT PASSING
1-INCH	100
NO. 4	70-100
NO. 200	0-12 (IN SAND PORTION ONLY)



CONCRETE BOX CULVERT FOOTING LAYOUT DETAIL

NOT TO SCALE

CONSTRUCTION DETAILS LAND OF LEONARD VIGEANT

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A., SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

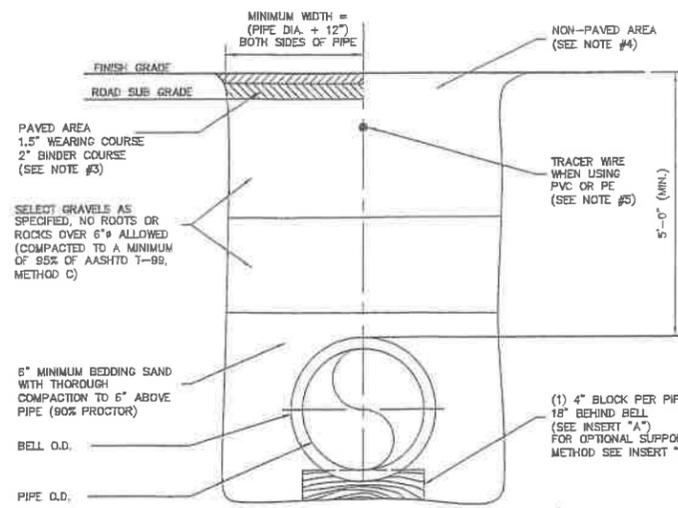
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone: (803) 627-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 18 OF 23

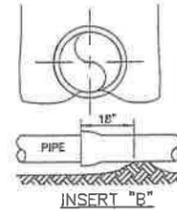
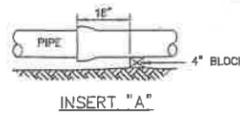
REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/21/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC
3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



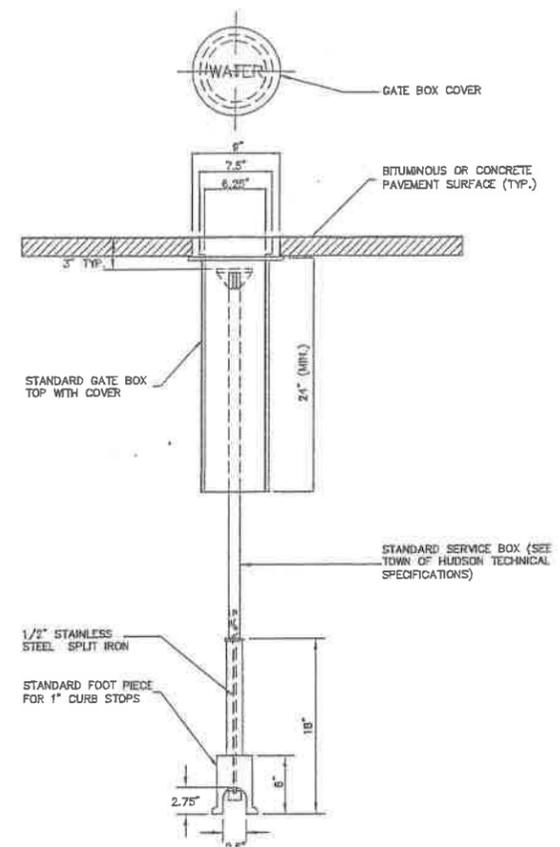


TYPICAL WATER LINE TRENCH DETAIL
NOT TO SCALE



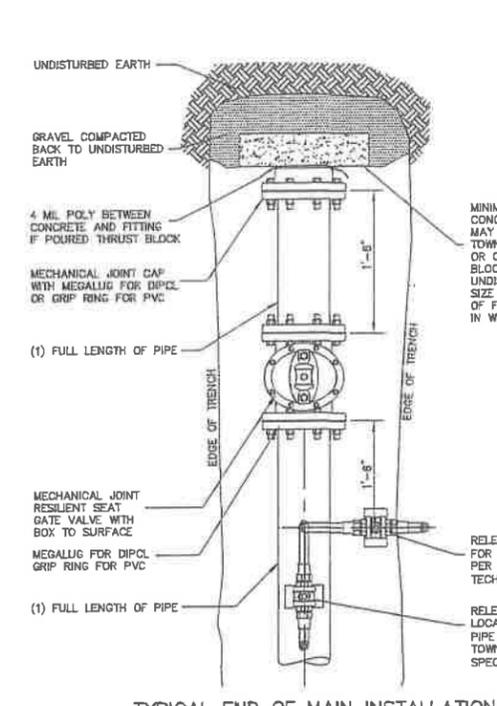
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE, UNLESS INSULATION IS SPECIFIED.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. TO GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.

OPTIONAL ONLY WHEN SOIL CONDITIONS ARE EQUAL TO 6" MINIMUM BEDDING SAND WITH THOROUGH COMPACTION



TYPICAL SERVICE BOX DETAIL IN PAVED AREAS
NOT TO SCALE

NOTE: ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.



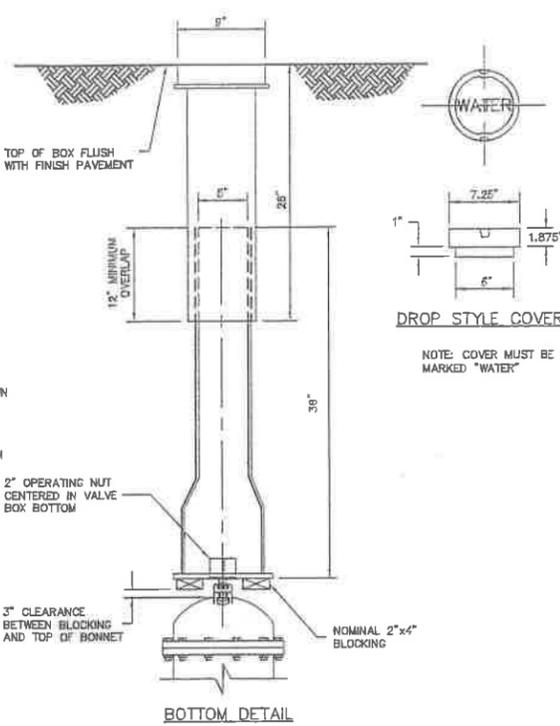
TYPICAL END OF MAIN INSTALLATION
NOT TO SCALE

MINIMUM 5'x3'x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH THE TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

RELEASE VALVE LOCATION FOR PVC PIPE (INSTALL PER TOWN OF HUDSON TECHNICAL SPECIFICATIONS)

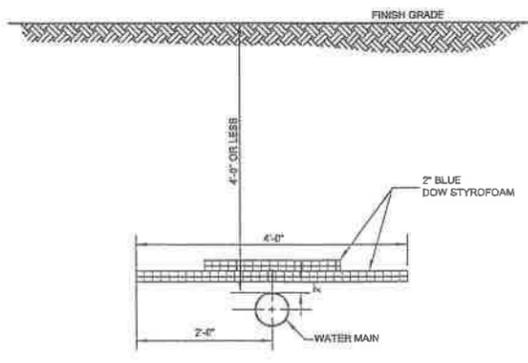
RELEASE VALVE LOCATION FOR DIPCL PIPE (INSTALL PER TOWN OF HUDSON TECHNICAL SPECIFICATIONS)



TYPICAL VALVE BOX DETAIL
NOT TO SCALE

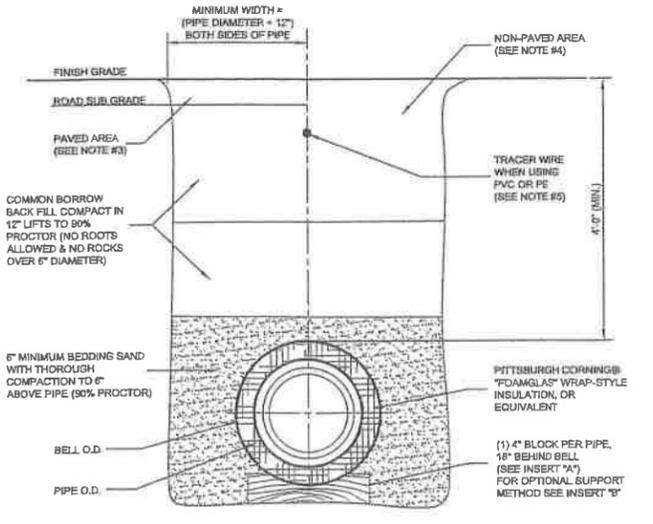
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

NOTE: COVER MUST BE MARKED "WATER"

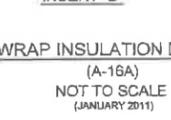
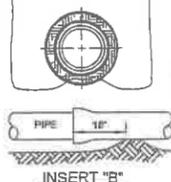


- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2" PIECE OF INSULATION CENTERED OVER SEAM.

INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER
(A-31)
NOT TO SCALE
(MARCH 2008)



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICKUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. TO GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.
 6. WRAP INSULATION TO EXTEND 5'-0" BEYOND CULVERT IN EACH DIRECTION.



WRAP INSULATION DETAIL
(A-16A)
NOT TO SCALE
(JANUARY 2011)

WATER DISTRIBUTION SYSTEM NOTES

1. ALL DISTRIBUTION MATERIAL INCLUDING: MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
2. ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
3. ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED "MEGALUG" OR APPROVED EQUAL, RETAINER KITS AT EACH JOINT.
4. ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8" AND 12" DIAMETER WATER MAIN AND APPURTENANCES SHALL BE AN APPROVED AWWA CLASS S2 CEMENT LINED DUCTILE IRON PIPE. PIPE SIZING IS AS SHOWN ON THE KEACH-NORDSTROM ASSOCIATES, INC. PLANS APPROVED BY THE TOWN PLANNING BOARD AND NHDWGB. FIRE HYDRANTS MEETING AWWA C-503 STANDARDS, OPEN LEFT AND TO BE INSTALLED AT LOCATIONS AS APPROVED BY THE HUDSON FIRE DEPARTMENT. ALL WATER MAIN AND SERVICE LINES TO BE INSTALLED WITH A MINIMUM OF 60" OF COVER AND SHALL BE PROPERLY SAND BEDDED, COMPACTED AND BACKFILLED WITH SUITABLE MATERIALS.
5. GATE VALVES SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE APPROVED UTILITY PLANS. ALL GATE VALVES SHALL BE AWWA APPROVED, EPOXY COATED, RESILIENT WEDGE TYPE, BEING OPEN LEFT (COUNTER CLOCKWISE). VALVE BOXES SHALL BE AWWA APPROVED, SLIP TYPE WITH 36" BASE, 36" TOP AND COVER ARE A ONE-PIECE CAST COVER LABELED "WATER".
6. FIRE HYDRANTS SHALL BE TOWN OF HUDSON APPROVED, OPEN LEFT (COW) INSTALLED AT LOCATION SHOWN ON THE PROJECT PLANS. DOMESTIC SERVICES SHALL HAVE SERVICE LINE SIZING BEING 2" DIAMETER COPPER TUBING BETWEEN MAIN AND CURB STOP, AND 2" PE-CBTS TUBING SIZE FROM STOP TO INSIDE HOME FOR THE FIRE SPRINKLER SERVICE, AND 1" PE-CBTS TUBING SIZE WITH A TEE FROM 2" FOR DOMESTIC WATER, USING BRASS COMPRESSION JOINTS FOR SERVICE FITTINGS AND CORPORATION STOPS, STAINLESS STEEL INSERTS ON HDPE PIPE, BALL VALVE SHUT OFFS AND ADJUSTABLE ERIE TYPE CURB BOXES. SERVICES SHALL BE RUN INTO EACH OF THE INDIVIDUAL HOMES FROM THE WATER MAINS.
7. SEPARATION OF WATER MAINS AND SEWER ARE IN ACCORDANCE WITH DWGB STANDARDS. ON PARALLEL INSTALLATION, WATER MAINS WERE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. IF LESS THAN TEN FEET, WATER MAIN LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHEL LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER WITH AT LEAST THREE FEET HORIZONTAL SEPARATION. AT CROSSINGS THERE IS A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE WATER MAIN AND SEWER. WATER MAIN WITH A MINIMAL LAYING LENGTH OF 10 FEET IS TO BE USED AT ALL CROSSINGS, WITH BOTH JOINTS BEING LOCATED AS FAR FROM THE SEWER AS POSSIBLE.
8. ALL WATER MAINS SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AWWA C-600 AND C-651, PRIOR TO ACCEPTANCE. WRITTEN CERTIFICATION OF TESTING AND BACTERIOLOGICAL TEST RESULTS BY A THIRD PARTY CONTRACTOR SHALL BE PROVIDED.
9. A RECORD DRAWING OF WATER MAINS AND APPURTENANCES SHALL BE PROVIDED FOLLOWING INSTALLATION, IN ACCORDANCE WITH NHDWGB AND TOWN OF HUDSON STANDARDS.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



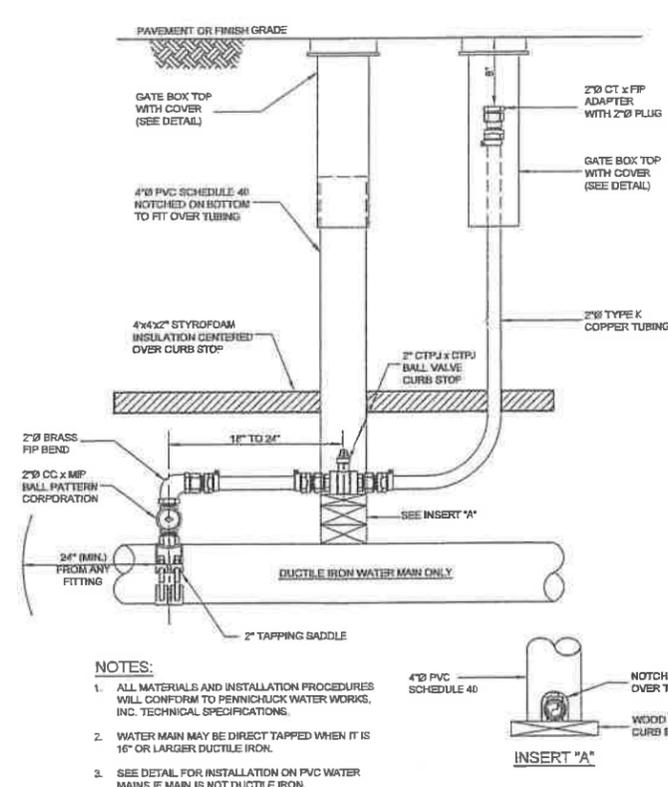
CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. 8652, PG. 2427

APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

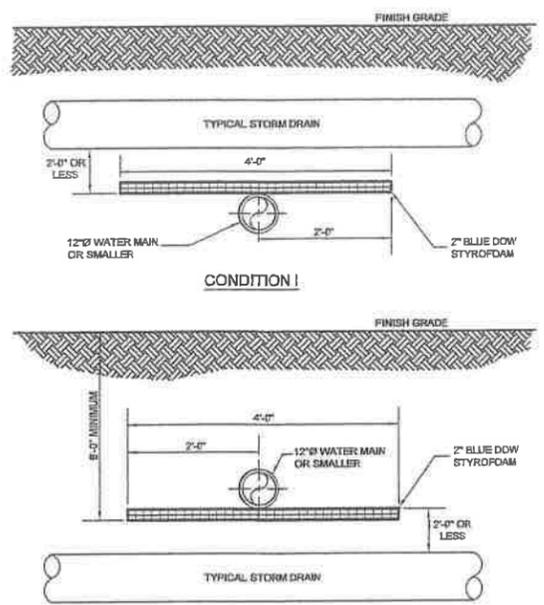
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 19 OF 23



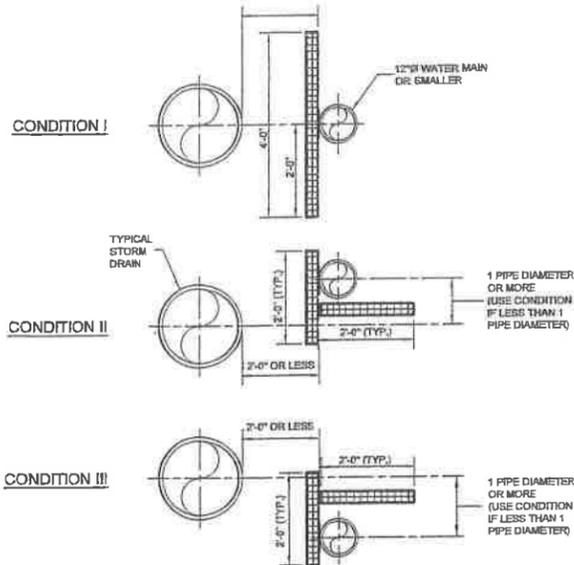
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICKUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. WATER MAIN MAY BE DIRECT TAPPED WHEN IT IS 16\"/>

2\"/>



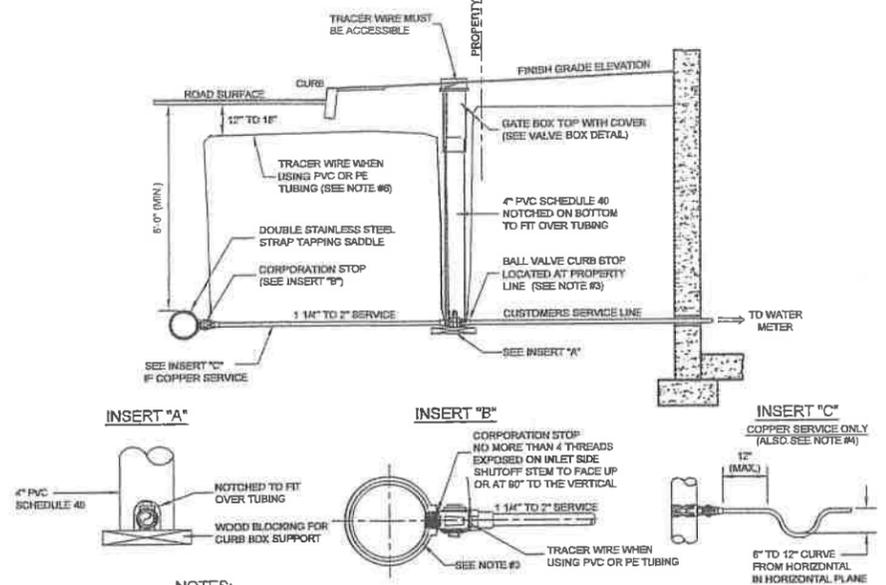
- NOTES:**
1. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2\"/>

STORM DRAIN/WATER MAIN INTERSECTION RUNS - ELEVATION VIEW (A-18) NOT TO SCALE



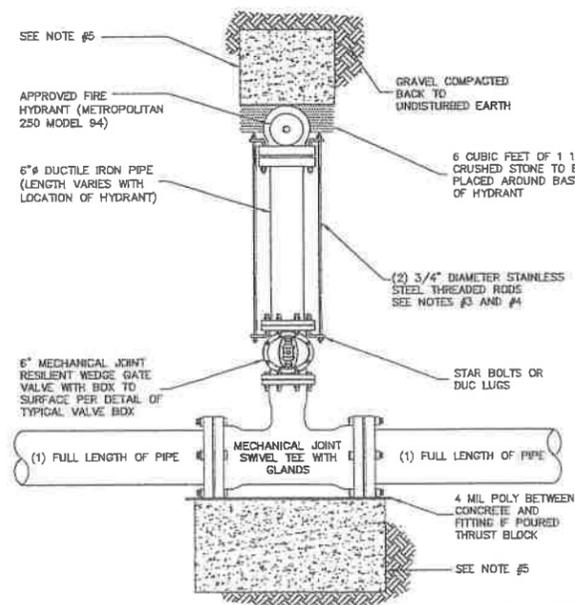
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5\"/>

STORM DRAIN / WATER MAIN PARALLEL RUNS - ELEVATION VIEW (A-17) NOT TO SCALE (MAY 2010)



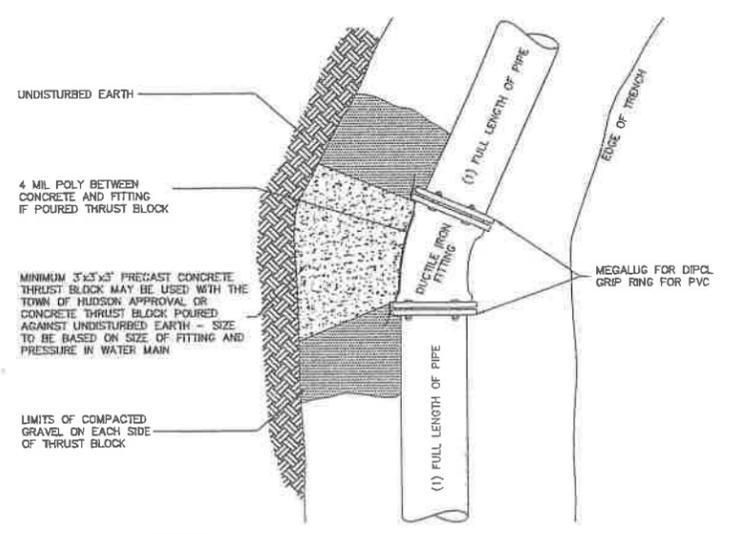
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICKUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5\"/>

1 1/4\"/>



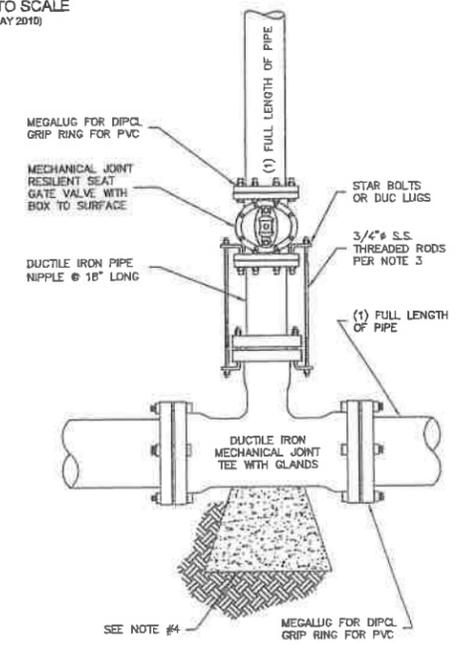
- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

TYPICAL HYDRANT INSTALLATION NOT TO SCALE



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

TYPICAL THRUST BLOCK BEHIND FITTINGS INSTALLATION NOT TO SCALE



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5\"/>

TYPICAL TEE INSTALLATION NOT TO SCALE

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC
3	12/17/14	REV. PER TOWN COMMENTS	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



- WATER DISTRIBUTION SYSTEM NOTES**
1. ALL DISTRIBUTION MATERIAL, INCLUDING MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
 2. ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
 3. ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED \"MEGA-LUG\" OR APPROVED EQUAL RETAINER KITS AT EACH JOINT.
 4. ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8\"/>

CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
 300 WEBSTER STREET
 HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 LEONARD A. SR. & JANE M. VIGEANT
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 HUDSON, NH 03051
 DATE: SEPTEMBER 16, 2014

KMA
 KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone: (603) 627-2881

SCALE: AS NOTED
 HUDSON: MAP 128; LOT 7 & 8
 LITCHFIELD: MAP B; LOTS 1-1 & 2
 PROJECT NO: 07-0511-4A SHEET 200F 23

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

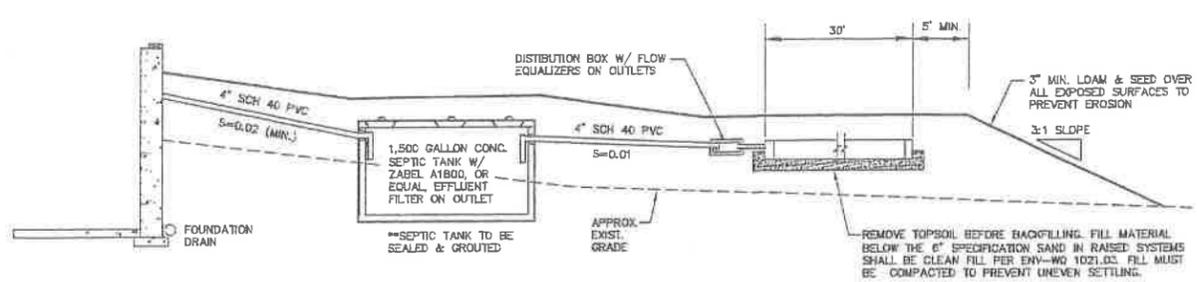
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____

SIGNATURE _____ DATE _____

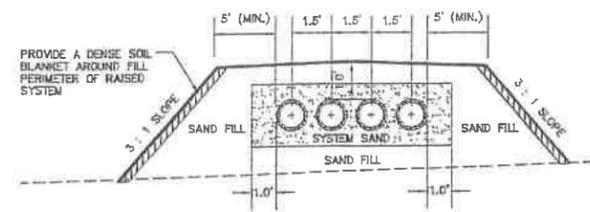
SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

T:_proj\0705114A\0705114A.dwg, DETAILS, 3/1/2015 10:01:42 AM, rlvb



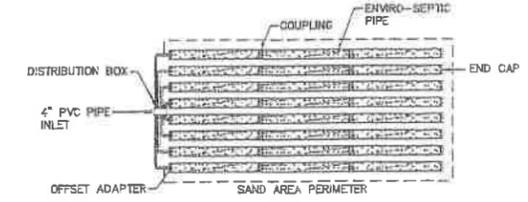
TYPICAL SECTION OF PROPOSED SEPTIC SYSTEM
NOT TO SCALE



PROVIDE A DENSE SOIL BLANKET AROUND FILL PERIMETER OF RAISED SYSTEM

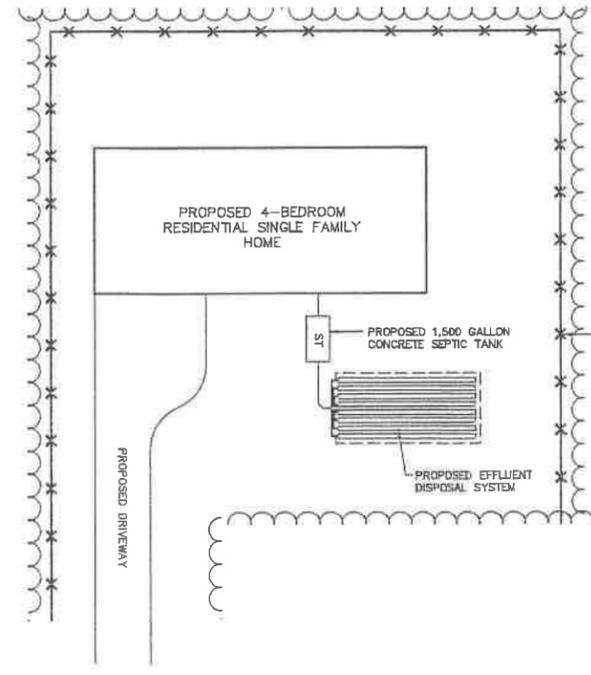
FILL SPECIFICATION
SYSTEM SAND TO BE 5" MINIMUM OF MEDIUM TO COARSE SAND WITH AN EFFECTIVE PARTICLE SIZE OF 0.25 MM TO 2.00 MM, WITH NO GREATER THAN 2% PASSING A #200 SIEVE AND NO PARTICLES LARGER THAN 3/4" AROUND THE CIRCUMFERENCE OF THE ENVIRO-SEPTIC PIPE. ALL OTHER FILL USED IN RAISED SYSTEMS SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGING, DEBRIS, OR STONES LARGER THAN 6 IN ANY DIMENSION IN ACCORDANCE WITH ENV-WD 1021.03

TYPICAL ENVIRO-SEPTIC CROSS SECTION
NOT TO SCALE



NOTE: EFFLUENT DISPOSAL AREA SHOWN IS A "DISTRIBUTION BOX SYSTEM" AS DEPICTED IN THE NEW HAMPSHIRE ENVIRO-SEPTIC DESIGN AND INSTALLATION MANUAL (2003 EDITION).

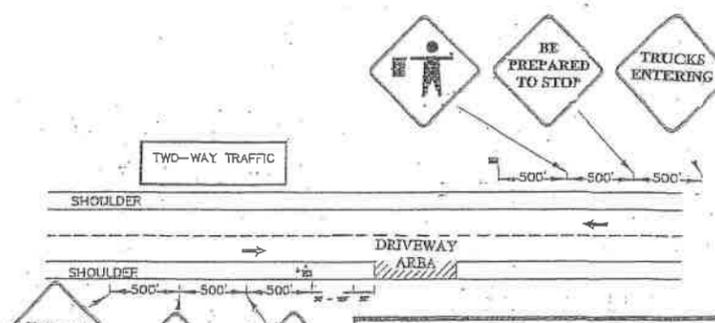
EDA PLAN DETAIL
SCALE: 1" = 10'



TYPICAL SCHEMATIC SEPTIC SYSTEM AND HOUSE LOT EROSION CONTROL PLAN
NOT TO SCALE

TYPICAL SEPTIC SYSTEM NOTE(S):
1. THE PURPOSE OF THESE DETAILS ARE TO ILLUSTRATE A TYPICAL SEPTIC SYSTEM LAYOUT AND THE CONSTRUCTION ASSOCIATED WITH THE SAME.
2. THIS INFORMATION IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION. ACTUAL SIZE AND LAYOUT OF PROPOSED SYSTEMS SHALL BE DETERMINED BY THE OWNER AND MAY VARY FROM WHAT IS DEPICTED HEREON.

CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES AROUND HOMES AND ALL PROPOSED WORK ADJACENT TO JURISDICTIONAL WETLANDS. SILT FENCE TO BE PLACED PARALLEL WITH CONTOURS AND NOT PERPENDICULAR TO PREVENT RILLING (TYP.)



LEGEND

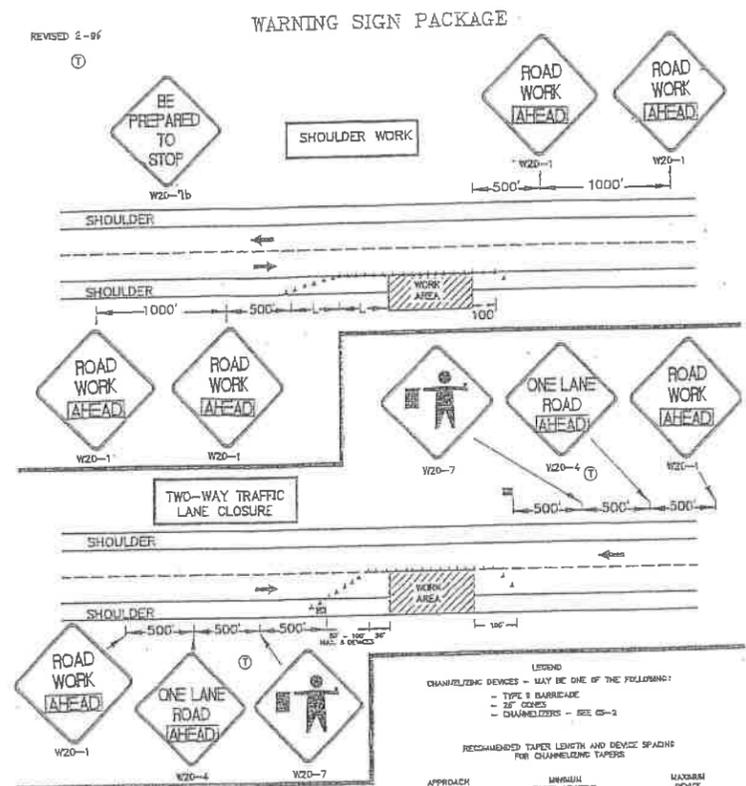
CHANNELIZING DEVICES - MAY BE ONE OF THE FOLLOWING:
- TYPE F BARRICADE
- 2" CONES
- CHANNELIZERS - SEE CS-2

RECOMMENDED TAPER LENGTH AND DEVICE SPACING FOR CHANNELIZING TAPERS

APPROACH SPEED OF TRAFFIC IN MILES/HOUR (S)	MINIMUM TAPER LENGTH FOR LANE WIDTHS (FT)	MAXIMUM DEVICE SPACING IN FEET		
10 FT	11 FT	12 FT		
20	70	75	80	20
25	100	110	120	25
30	130	150	180	30
35	205	225	245	35
40	285	305	330	40
45	430	485	540	45
50	500	560	600	50
55	600	660	690	55

GENERAL NOTES
MATERIALS AND FABRICATION SHALL CONFORM TO CURRENT SDP STANDARD SHEETS AND SECTION 810 OF THE STANDARD SPECIFICATIONS. OPTIONAL SIGN SUPPORT SYSTEMS ARE SUBJECT TO APPROVAL.
FOR DAYTIME USE CHANNELIZING DEVICES MAY BE CONES, CHANNELIZERS, TYPE I BARRICADES OR ALTERNATING CHANNELIZERS AND TYPE I BARRICADES.
WHEN ORDERED, CHANNELIZING DEVICES SHALL BE EQUIPPED WITH TYPE C STEADY BURN LIGHTS. EXCEPTOR THAT TYPE A FLASHING LIGHTS SHOULD BE USED AT THE FIRST AND LAST BARRICADES.
CONES SHALL NOT BE PERMITTED FOR PERMANENT NIGHTTIME CLOSURES. CONES USED FOR OPERATIONAL NIGHT CLOSURES WILL BE REFLECTORIZED.
IT MAY BE REQUIRED TO EXTEND LANE CLOSURE TAPERS TO EFFECT A SMOOTH TRANSITION WHERE GEOMETRIC ALIGNMENT REDUCES SIGHT DISTANCE.
ADDITIONAL SIGNING AS REQUIRED WILL BE AT THE DISCRETION OF THE ENGINEER. ARROW BOARD TO BE USED ON MULTIPLE LANE FACILITIES.

L = WS / (S * 40) * 100 OR LESS
L = WS / (S * 40) * 100 OR MORE
TAPER LENGTHS SHOWN ARE ROUNDED TO THE NEAREST 5 FEET
L = LENGTH OF TAPER
S = SPEED LIMIT
W = WIDTH OF ROADWAY TO BE CLOSED



LEGEND

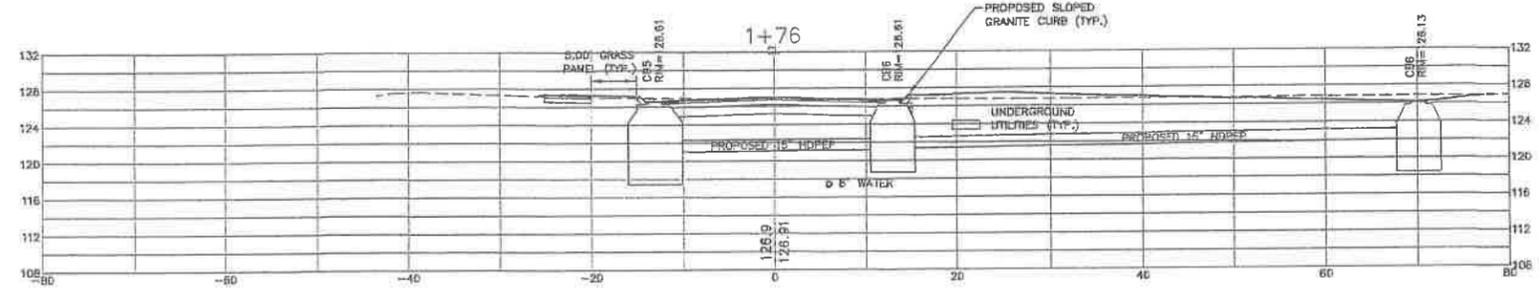
CHANNELIZING DEVICES - MAY BE ONE OF THE FOLLOWING:
- TYPE F BARRICADE
- 2" CONES
- CHANNELIZERS - SEE CS-2

RECOMMENDED TAPER LENGTH AND DEVICE SPACING FOR CHANNELIZING TAPERS

APPROACH SPEED OF TRAFFIC IN MILES/HOUR (S)	MINIMUM TAPER LENGTH FOR LANE WIDTHS (FT)	MAXIMUM DEVICE SPACING IN FEET		
10 FT	11 FT	12 FT		
20	70	75	80	20
25	100	110	120	25
30	130	150	180	30
35	205	225	245	35
40	285	305	330	40
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IT MAY BE REQUIRED TO EXTEND LANE CLOSURE TAPERS TO EFFECT A SMOOTH TRANSITION WHERE GEOMETRIC ALIGNMENT REDUCES SIGHT DISTANCE.
ADDITIONAL SIGNING AS REQUIRED WILL BE AT THE DISCRETION OF THE ENGINEER. ARROW BOARD TO BE USED ON MULTIPLE LANE FACILITIES.

L = WS / (S * 40) * 100 OR LESS
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TAPER LENGTHS SHOWN ARE ROUNDED TO THE NEAREST 5 FEET
L = LENGTH OF TAPER
S = SPEED LIMIT
W = WIDTH OF ROADWAY TO BE CLOSED



CRITICAL CROSS SECTIONS
SCALE: 1" = 10'

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

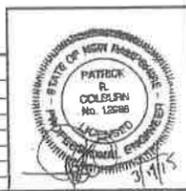
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

REVISIONS

No.	DATE	DESCRIPTION	BY
1	10/31/14	REV. PER TOWN COMMENTS	PRC
2	11/19/14	REV. PER SUBDIVISION IMPROVEMENTS	PRC
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4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC



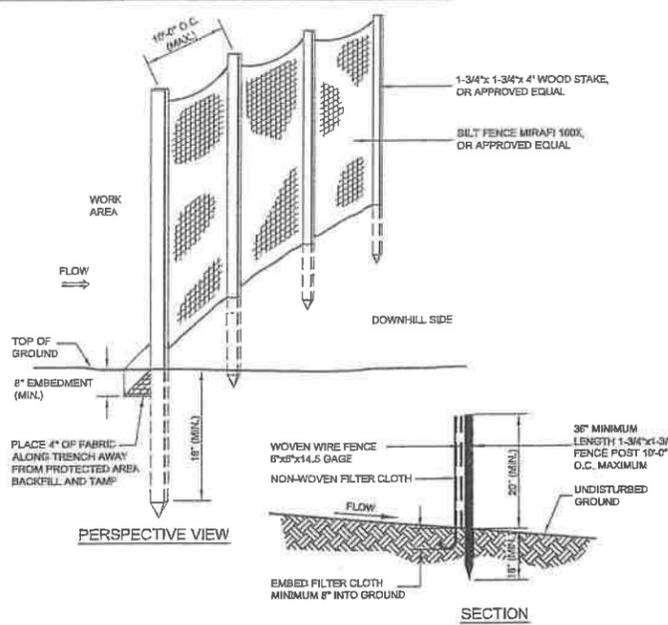
CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT
300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A., SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. B652, PG. 2427

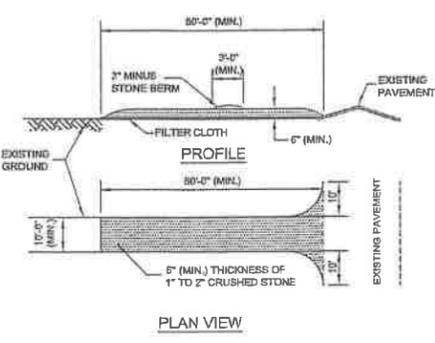
APPLICANT/SUBDIVIDER:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
DATE: SEPTEMBER 16, 2014

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 627-2881

SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 21 OF 23



SILT FENCE DETAIL
NOT TO SCALE
(MARCH 2008)



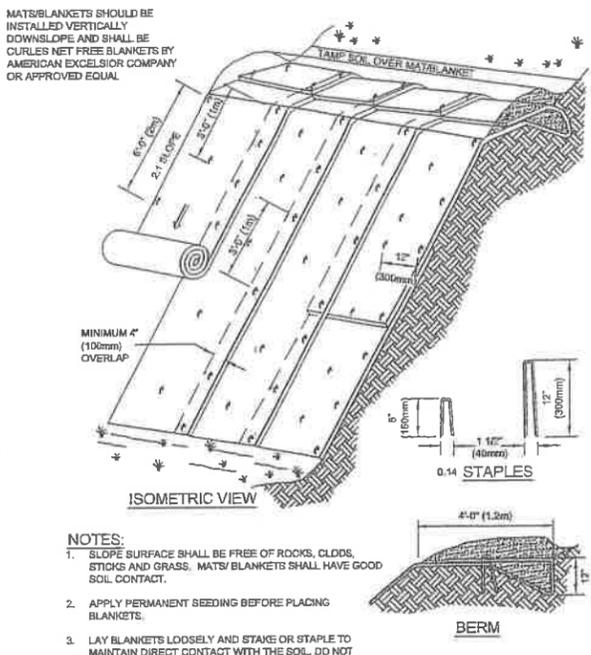
STABILIZED CONSTRUCTION EXIT DETAIL
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION SPECIFICATIONS:

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

MAINTENANCE:

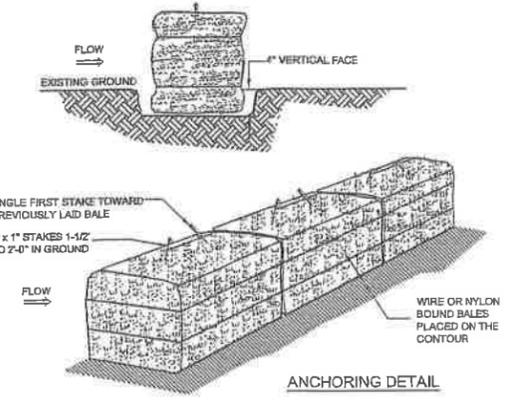
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE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



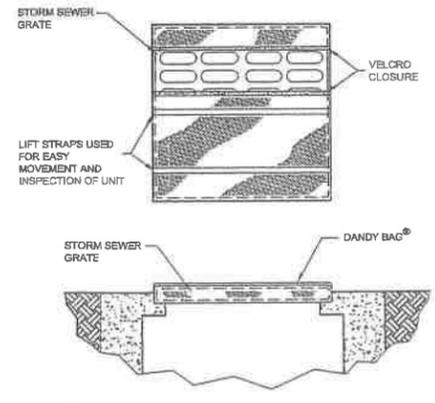
EROSION CONTROL BLANKETS - SLOPE INSTALLATION
NOT TO SCALE
(AUGUST 2011)

CONSTRUCTION SPECIFICATIONS:

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4\"
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAPLES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. BALES SHOULD BE FREE FROM ANY PLANT MATERIAL FOUND ON THE NEW HAMPSHIRE INVASIVE SPECIES LIST.



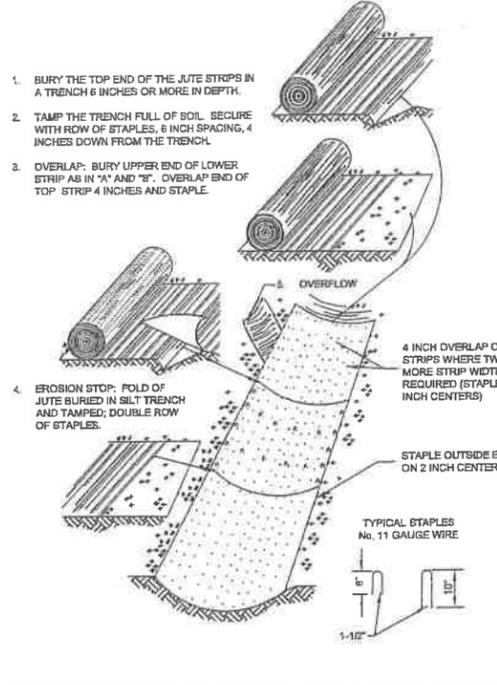
STRAW BALE BARRIER
NOT TO SCALE
(JULY 2010)



HI-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (lbs)	1.62 (365) x 0.26 (58)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 ± 16
PUNCTURE STRENGTH	ASTM D 4633	kN (lbs)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	gPa (psi)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.51 (115) x 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Min (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	mm/min ² (gpm/inch ²)	8007 (145)
PERMEABILITY	ASTM D 4491	Sec ⁻¹	2.1

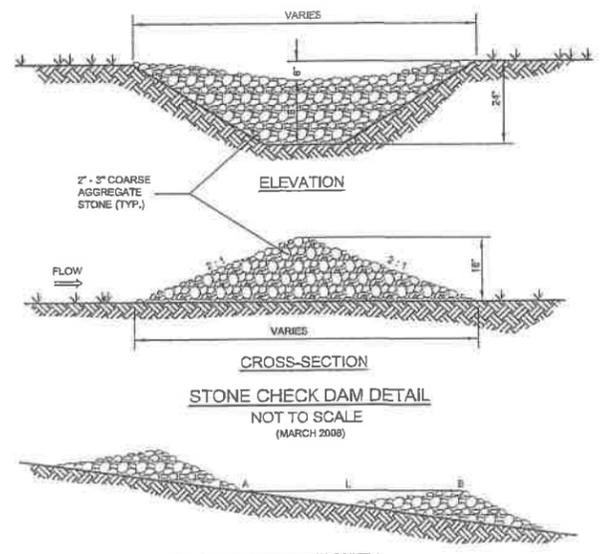
DANDY BAG®
NOT TO SCALE
(APRIL 2010)



EROSION CONTROL BLANKETS - SWALE INSTALLATION
NOT TO SCALE
(MARCH 2008)

WINTER CONSTRUCTION NOTES:

1. ALL PROPOSED POST-DEVELOPMENT 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 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE. SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT 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.
2. 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 WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 504.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - C. A MINIMUM OF 3\"
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.



STONE CHECK DAM SPACING DETAIL
NOT TO SCALE
(MARCH 2008)

REVISIONS

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1	10/31/14	REV. PER TOWN COMMENTS	PRC
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3	12/17/14	DATE ONLY	PRC
4	02/11/15	REV. PER CONDITIONS OF APPROVAL	PRC

CONSTRUCTION SEQUENCE

1. THE NOTES NOTICE OF INTENT SHALL BE PREPARED AND SUBMITTED PRIOR TO THE START OF CONSTRUCTION.
2. A PRECONSTRUCTION MEETING SHALL BE REQUESTED WITH THE TOWN AND ALL PARTIES REQUIRED BY THE TOWN CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS. INSTALL STABILIZED CONSTRUCTION EXIT AT LOCATION OF CONSTRUCTION ACCESS AT LOCATION OF INTERSECTION WITH EXISTING PAVEMENT.
4. BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR BY HAULING OFF SITE OR CHIPPING AND USED FOR EROSION CONTROL. NO STUMPS SHALL BE BURIED ON SITE. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:55 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
5. COMPLETE GRUBBING OPERATIONS UNDER THE ROADWAY AND SLOPE SECTIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND, IF NECESSARY, BE SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
6. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
7. STABILIZE ALL DITCHLINES AND PONDS PRIOR TO DIRECTING FLOW INTO THEM, CONSTRUCT SUBSURFACE DRAINAGE, WATER, AND UNDERDRAIN.
8. COMMENCE CONSTRUCTION OF ROADWAY, PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES, AND DRIVEWAY CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF HAY BALE SILTATION FENCES AS NECESSARY. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETION OF A FUNCTIONAL STORM DRAINAGE SYSTEM. SLOPES AND EMBANKMENTS SHALL BE STABILIZED AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
9. COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION.
10. TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION, TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF 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. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED.
11. PERFORM FINE GRADING OF ROADWAY BASE MATERIALS.
12. FURNISH AND INSTALL BINDER COURSE OF PAVEMENT AND COMPLETE GRAVEL SHOULDERS.
13. UPGRADE, REPAIR AND MAINTAIN TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
14. AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
15. MONITOR CONSTRUCTION ACTIVITIES ON INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO DANGEROUSLY ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES. ALL DITCHLINES SHALL HAVE CHALVERTS INSTALLED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
16. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ELECTRIC LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING UTILITY COMPANY.
17. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE OWNING TELEPHONE COMPANY.
18. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND WITHIN THE CONSTRUCTION AREA. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
19. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES AND ARRANGE FOR ALL INSPECTIONS.
20. UTILITY STUD CONNECTIONS SHOWN TO PROPOSED LOTS ARE APPROXIMATE AND INTENDED TO ILLUSTRATE FEASIBILITY OF CONSTRUCTING CONNECTIONS. THE CONTRACTOR SHALL PROVIDE SERVICE STUBS AS DIRECTED BY THE OWNING UTILITY COMPANY AND LOCAL AUTHORITY.
21. CONTRACTOR SHALL COORDINATE WITH PHONE, CABLE, AND ELECTRIC COMPANIES FOR POTENTIAL NEED OF INDIVIDUAL SECTORS AT EACH LOT SERVICE CONNECTION.
22. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
23. THE CONTRACTOR SHALL VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
24. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

EROSION CONTROL NOTES

1. EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRY (30) CALENDAR DAYS.
2. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH STORM EVENT. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
3. ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
4. ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
5. IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - C. A MINIMUM OF 3\"
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
7. DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH EM-A 1000.
8. IN NO WAY ARE THESE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
9. AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION."
10. THE TOWN SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
11. ALL DETENTION PONDS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING ACTIVITIES IN AREAS THAT DIRECT RUNOFF TO THE STRUCTURES.
12. ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
13. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

CONSTRUCTION DETAILS
LAND OF LEONARD VIGEANT

300 WEBSTER STREET
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
LEONARD A. SR. & JANE M. VIGEANT
5 MOCKINGBIRD LANE
HUDSON, NH 03051
VOL. B652, PG. 2427

APPLICANT/SUBDIVIDER:
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 30, Bedford, NH 03110 Phone (603) 627-2881
SCALE: AS NOTED
HUDSON: MAP 128; LOT 7 & 8
LITCHFIELD: MAP B; LOTS 1-1 & 1-2
PROJECT NO: 07-0511-4A SHEET 22OF 23



MAINTENANCE:
MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 4:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND 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.
8. 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.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

Zheng Garden Site Plan Extension Request

Staff Report
January 13, 2016

SITE: 143 Lowell Road Map 204/Lot 005 SP# 10-15

PURPOSE OF PLAN: To request a two-year extension to the Planning Board approved Site Plan on 12/10/14. This plan was recorded on 9/03/15 HCRD# 38615. Application Acceptance & Hearing.

ATTACHMENTS:

- 1) Letter from Project Eng., Brenton Cole, P.E., RE: Ext. Request – “A”.
- 2) Application for Site Plan Extension Request – “B”.
- 3) Notice of Approval, RE: 10 DEC 14 Zheng Garden Site Plan – “C”.

COMMENTS & RECOMMENDATION: In accordance with the attached letter from the project eng., Brenton Cole, P.E., “A”, the Applicant requests for the Planning Board to consider granting a 2-year extension for the approved Zheng Garden Site Plan. For this meeting, staff recommends granting the requested two-year extension in accordance with the below DRAFT MOTION.

DRAFT MOTION:

I move to grant a two-year extension (i.e., from December 10, 2015 to December 10, 2017) for the Zheng Garden Site Plan, which calls for the construction of a 2,360 sf restaurant and associated site appurtenances at 143 Lowell Rd., Map 204/Lot 005.

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

A

October 26, 2015

Mr. John Cashell, Town Planner
Planning Department
Town of Hudson
12 School Street
Hudson, New Hampshire 03051



**Subject: Zheng Garden Site Plan
Subdivision Approval SP# 13-14
Map 204; Lot 5
143 Lowell Road, Hudson, New Hampshire
KNA Project No. 14-0718-1**

Dear Mr. Cashell,

As you are aware, our office prepared site plans for the above referenced property in 2014. Further, on December 10, 2014, the Hudson Planning Board granted the Applicant Site Plan Approval. The plan proposed to raze the existing two-story house and construct a 2,360 square foot restaurant. The plan also includes significant improvements such as onsite stormwater management, connections to municipal water and sewer, access, parking, landscaping and lighting.

Due to the slow economic conditions, the applicant has not been able to move forward with the development. Therefore, we hereby respectfully request, on behalf of our client that the Hudson Planning Board grant a two-year extension to the previously approved site plans listed above.

Should you have any questions, or require further information, please do not hesitate to contact me at the office.

Respectfully,

A handwritten signature in black ink, appearing to read "Brenton Cole".

Brenton Cole, PE
Project Engineer

"B"



PRELIMINARY & FINAL SITE PLAN APPLICATION
FOR PLAN REVIEW (Also for Wireless)
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: October 2, 2014 Tax Map # 204 Lot # 5

Name of Project: Zheng Garden

Zoning District: _____ General SP# 10-15
(For Town Use) (For Town Use)

ZBA Action: N/A

PROPERTY OWNER:

DEVELOPER:

Name: Yue Yun & Zhou Deng Zheng

Same as owner

Address: 4 Paula Circle

Address: Hudson, NH 03051

Telephone # _____

Fax # _____

Email: _____

PROJECT ENGINEER

SURVEYOR

Name: Patrick Colburn, PE (KNA)

Anthony Basso, L.L.S (KNA)

Address: 10 Commerce Park No., Suite 3

10 Commerce Park No., Suite 3

Address: Bedford, NH 03110

Bedford, NH 03110

Telephone # (603) 627-2881

(603) 627-2881

Fax # (603) 627-2915

(603) 627-2915

Email: bcole@keachnordstrom.com

abasso@keachnordstrom.com

PURPOSE OF PLAN:

To propose a 2,360 sf restaurant and associated site appurtenances on Map 204;
Lot 5 in the town of Hudson, NH.

For Town Use

Plan Routing Date: _____ Sub/Site Date: _____

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

(Initials) Title: _____ Date: _____

DEPT:

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

Fees Paid: _____



KEACH-NORDSTROM ASSOCIATES, INC.

October 1, 2014

Project Narrative

Zheng Garden
Map 204; Lot 5
143 Lowell Road
Hudson, NH 03051

The subject parcel is located at 143 Lowell Road, and is referenced on Hudson's Tax Map 204 as Lot 5. The 0.668 acre parcel is in Hudson's Business (B) Zoning District. The site is currently developed with an existing two-story wood frame house. The site is accessed along Lowell Road.

The proposed project entails the construction of a 2,360 square foot restaurant. The existing house and shed will be razed and removed from the site. Additionally the site will include 22 parking spaces and two handicapped, van accessible parking spaces. The restaurant will tie into the town gas and water lines directly from Lowell road. It will connect via force main into the existing sewer system across Lowell Road on Tax Map 204, Lot 73. The site distance along Lowell Road is greater than 400 feet in both directions. Since the site is under 20,000 total square feet, a stormwater management report is not necessary. However, two proposed rain gardens with dry wells will store and treat surface water.

SITE DATA SHEET

PLAN NAME: Zheng Garden

PLAN TYPE: SITE PLAN

LEGAL DESCRIPTION: MAP 204 LOT 5

DATE: October 2, 2014

Location by Street 143 Lowell Road

Zoning: Business (B)

Proposed Land Use: Restaurant

Existing Use: Residential

Surrounding Land Use(s): Commercial/Residential

Number of Lots Occupied: One

Existing Area Covered by Building: 2,079 sf (758 sf Wood Shed)

Existing Buildings to be removed: 2,079 sf (758 sf Wood Shed)

Proposed Area Covered by Building: 2,360 sf

Open Space Proposed: 53 %

Open Space Required: 35%

Total Area: S.F.: 29,093 Acres: 0.668

Area in Wetland: 0 Area Steep Slopes: 0

Required Lot Size: 30,000

Existing Frontage: 142.62 (Lowell)

Required Frontage: 150

Building Setbacks: Required* Proposed

Front: 50 50

Side: 15 15

Rear: 15 15

SITE PLAN DATA SHEET
(Continued)

Flood Zone Reference: FIRM Map 33011C0656D, Panel # 656, 09/25/09 (Not in a Flood Zone)

Width of Driveways: 24'

Number of Curb Cuts: 1 (Existing)

Proposed Parking Spaces: 24 (including 2 handicap spaces)

Required Parking Spaces: 24

Basis of Required Parking (Use): 1 Space/100 SF (Restaurant) - No Bar

Dates/Case #/Description/Stipulations of ZBA, Conservation Commission, NH Wetlands Board Actions: N/A
(Attach stipulations on separate sheet)

Hudson Town Code		
<u>Waivers Requested:</u>	<u>Reference</u>	<u>Regulation Description</u>
	1. <u>HTC 275-8B-12C</u>	<u>Residential Buffer</u>
	2. <u>HTC 275-9C</u>	<u>Noise Study</u>
	3. <u>HTC 275-9D</u>	<u>Fiscal/Enviro. Impact Study</u>
	4. <u>HTC 275-9B</u>	<u>Traffic Study</u>
	5. <u>HTC 275-8B-31A</u>	<u>Interior Landscape</u>
	6. _____	_____
	7. _____	_____
	8. _____	_____

(Left column for Town Use)

Impact Fees:
C.A.P Fee: TBD

Development Agreement Proposed: _____

<i>For Town Use</i>	
Data Sheet Checked By: _____	Date: _____

APPLICATION FOR SITE PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE

Thirty (30) days prior to Planning Board Meeting, a complete site plan to include all supporting materials/documents must be submitted in final form. The site plan shall comply with the following specifications/requirements:

Applicant Initials		Staff Initials
<u>BJC</u>	a) Submission of nine (9) 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>BJC</u>	b) A Site Plan narrative, describing the purpose, locations, long-range plans, impacts on traffic, schools, and utilities	_____
<u>BJC</u>	c) Plan scale at not less the one inch equals fifty feet (1" = 50')	_____
<u>BJC</u>	d) Locus plan with 1,000' minimum radius of site to surrounding area	_____
<u>BJC</u>	e) Plan date by day/month/year	_____
<u>BJC</u>	f) Revision block inscribed on the plan	_____
<u>BJC</u>	g) Planning Board approval block inscribed on the plan	_____
<u>BJC</u>	h) Title of project inscribed on the plan	_____
<u>BJC</u>	i) Names and addresses of property owners and their signatures inscribed on the plan	_____
<u>BJC</u>	j) North point inscribed on the plan	_____
<u>BJC</u>	k) Property lines: exact locations and dimensions	_____
<u>BJC</u>	l) Square feet and acreage of site	_____
<u>BJC</u>	m) Square feet of each building (existing and proposed)	_____
<u>BJC</u>	n) Names and addresses of bordering abutters, as shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on the plan.	_____

Applicant
Initials

Staff
Initials

<u>BJC</u> o)	Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve areas, floodways/floodplains, driveways, travel areas, parking areas and natural features within 200 feet of the tract	_____
<u>BJC</u> p)	Locations of existing and proposed permanent monuments and bench marks within 200 feet of the development tract	_____
<u>BJC</u> q)	Pertinent highway projects	_____
<u>BJC</u> r)	Assessor's Map and Lot number(s)	_____
<u>BJC</u> s)	Waiver application form shall be submitted with the site plan application, note on plan listing waivers requested/granted; and all waivers granted to the site plan regulations shall be listed on the final plan; waivers to checklist shall be reduced to writing and be signed by the Planning Board Chairman and Planning Board Secretary and recorded with the plan	_____
<u>BJC</u> t)	Delineate zoning district on the plan	_____
<u>NA</u> u)	Storm water drainage plan	_____
<u>BJC</u> v)	Topographical elevations at 2-foot intervals contours: existing and proposed	_____
<u>BJC</u> w)	Utilities: existing and proposed	_____
<u>BJC</u> x)	Parking: existing and proposed	_____
<u>BJC</u> y)	Parking space: length and width	_____
<u>BJC</u> z)	Aisle width/maneuvering space	_____
<u>BJC</u> aa)	Landscaping: existing and proposed	_____
<u>BJC</u> ab)	Building and wetland setback lines	_____
<u>BJC</u> ac)	Curb cuts	_____
<u>BJC</u> ad)	Rights of way: existing and proposed	_____
<u>BJC</u> ae)	Sidewalks: existing and proposed	_____
<u>BJC</u> af)	Exterior lighting plan	_____
<u>BJC</u> ag)	Sign locations: size and design	_____
<u>BJC</u> ah)	Water mains and sewerage lines	_____
<u>BJC</u> ai)	Location of dumpsters on concrete pads	_____
<u>BJC</u> aj)	All notes from plats	_____

Applicant Initials		Staff Initials
<u>W</u> ak)	Buffer as required by site plan regulations	_____
<u>BJC</u> al)	Green and open space requirements met with both types of spaces inscribed on the plan	_____
<u>BJC</u> am)	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.	_____
<u>N/A</u> an)	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.	_____
<u>BJC</u> ao)	"Valid for one year after approval" statement inscribed on the plan.	_____
<u>N/A</u> ap)	Loading bays/docks	_____
<u>BJC</u> aq)	State of New Hampshire engineer's stamp, signature, surveyor's stamp, and signature	_____
<u>BJC</u> ar)	Error of closure (1 in 10,000 or better)	_____
<u>BJC</u> as)	Drafting errors/omissions	_____
<u>BJC</u> at)	Developer names, addresses, telephone numbers and signatures	_____
<u>BJC</u> au)	Photographs, electronic/digital display or video of site and area	_____
<u>BJC</u> av)	Attach one (1) copy of the building elevations	_____
<u>W</u> aw)	Fiscal impact study	_____
<u>W</u> ax)	Traffic study	_____
<u>W</u> ay)	Noise study	_____

Applicant
Initials

Staff
Initials

N/A az) Copies of any proposed or existing easements, covenants, deed restrictions,
right of way agreements or other similar documents _____

N/A ba) Copy of applicable Town, State, Federal approval/permits to include but
not limited to the following: _____

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

BJC bb) Presentation plan (colored, with color-coded bar chart) _____

BJC bc) Fees paid to clerk _____

BJC bd) Five (5) 22" x 34" copies of the plan shall be brought to the Planning
Board meeting and distributed to the Planning Board members at the
meeting. Note: for all subsequent meetings involving revised plans,
five 22" x 34" copies of said plan shall be brought to the meeting for
distribution to the board members. _____

*Under the purview of the Planning Board, any and all items may be waived.

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

I hereby apply for Site 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 Site Plan specifications or application form are incomplete, the application will be considered rejected.

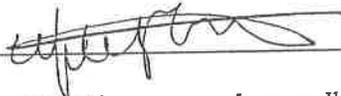
Pursuant to RSA 674:1-IV, the owner(s) by the filing of this application as indicated above, hereby given permission for any member of the Hudson Planning Board, the Town Engineer, the Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, 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 to 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/or inspections conducted on his/her (their) property in connection with this applications.

Signature of Owner: _____



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

Signature of Developer: _____



- ❖ 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.

APPLICATION IS DUE AT NOON 21 days prior to the Planning Board Meeting. (The date the Agenda is CLOSED.) Any applications received after that time will be deferred until the next available meeting.

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Zheng Garden

Street Address: 143 Lowell Road, Hudson, New Hampshire 03051

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 275-9C of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. (name of surveyor and engineer) dated August 28, 2014 for property Tax Map(s) 204 and Lot(s) 5 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.

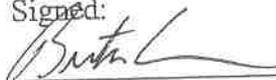
Hardship reason(s) for granting this waiver (if additional space is needed please attach the appropriate documentation hereto):

A Noise Impact Study would cause unnecessary financial burden 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):

The ordinance is in place to prevent noise pollution from occurring within areas of mixed use where it may cause disputes amongst neighbors. It is not expected that the proposed restaurant will bring any increased noise pollution to the site or to the residential and commercial uses surrounding it, therefore granting of the waiver is in keeping with the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Zheng Garden

Street Address: 143 Lowell Road, Hudson, New Hampshire 03051

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 275-9D of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. (name of surveyor and engineer) dated August 28, 2014 for property Tax Map(s) 204 and Lot(s) 5 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):

A Fiscal/Environmental Impact study beyond what we have provided through our Best Management Practices and the CAP fee required by the Town of Hudson would cause unnecessary financial burden 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):

This waiver request is not violating the spirit and intent of the ordinance due to the fact that the site is currently developed. Fiscally, the site is subject to a CAP fee to be determined.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Zheng Garden

Street Address: 143 Lowell Road, Hudson, New Hampshire 03051

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 275-9.B. of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. (name of surveyor and engineer) dated August 28, 2014 for property Tax Map(s) 204 and Lot(s) 5 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):

A Traffic Study would cause unnecessary financial burden on the applicant. The use is not a peak hour generator and will not affect traffic on Lowell Road.

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):

The ordinance is in place to assess existing traffic conditions and what proposed developments would do to the current traffic. It is not expected that the proposed building, being the size of the development and not a peak hour generator, will bring any increase in peak hour traffic to Lowell Road, therefore granting of the waiver is in keeping with the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Zheng Garden

Street Address: 143 Lowell Road, Hndson, New Hampshire 03051

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 275-8.B.(12) of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. (name of surveyor and engineer) dated August 28, 2014 for property Tax Map(s) 204 and Lot(s) 5 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):

The subject parcel is located within the Town of Hudson's Business zone. This particular business district is abutted by residential uses which require a residential buffer. It is not feasible to construct a restaurant (permitted use within this zone) outside the residential buffer. The proposed project's intent remove this building and construct a restaurant. To propose the building outside of the buffer would create significant hardship to the restaurant as the size of the building would be ineffective.

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):

Granting the waiver will allow a permitted use and appropriate use of the land to build a reasonably sized building to suit the needs required. The proposed development will revitalize this parcel to create a more ascetically pleasing site with an evergreen buffer along the property line and a new building. Therefore, granting the waiver is not contrary to the spirit and intent of the ordinance.

Signed: _____

Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

SUBDIVISION/SITE PLAN WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Zheng Garden

Street Address: 143 Lowell Road, Hudson, New Hampshire 03051

I Brenton Cole hereby request that the Planning Board waive the requirements of item HTC 275-8.B.(31) a. of the Subdivision/Site Plan Checklist in reference to a plan presented by Keach-Nordstrom Associates, Inc. (name of surveyor and engineer) dated August 28, 2014 for property Tax Map(s) 204 and Lot(s) 5 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):

The proposed development consists of parking stalls situated across from the proposed building. Since the development consists of only single row parking stalls there is no good opportunity for internal green space, without incorporating peninsula islands that greatly interfere with snow removal operations.

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):

Ample landscaping is provided around the proposed parking lots and travel lanes. The landscape plan that was designed by a Licensed Landscape Architect consisting of 7 shade trees and 47 shrubs. Given that the proposed plan provides the required number of trees and shrubs, just surrounding the parking lot and travel lane rather than within the parking areas, granting the waiver is in keeping with the spirit and intent of the ordinance.

Signed:



Applicant or Authorized Agent

Planning Board Action:

Waiver Granted: _____

Waiver Not Granted: _____

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

FOOTNOTES:

1. In the event of the denial of a plan, the recording fees collected will not be reimbursed, but will instead be used as an additional fee to help defray administrative costs associated with a denial.
2. The "Review Fees" are fees estimated necessary to offset costs incurred to review and/or compile plans, data, or other information relative to the proposal.
3. The "Amount Due" does not include fees for studies or reviews as authorized in Section G-2 of this regulation.
4. Fees must be paid in full prior to the commencement of any formal review by the Town of Hudson.

STATUS:

DATE:

_____ 1.	Application incomplete	_____
_____ 2.	Application complete. Include any applicable requested waivers, fees paid, routing sheet returned	_____
_____ 3.	Application formally accepted or denied by Planning Board (90-day review clock by RSA 674:43 to start upon acceptance granted)	_____
_____ 4.	Final approval granted or denied	_____
_____ 5.	Comments:	



Photo No. 1: An aerial view of the subject parcel (Map 204; Lot 5)

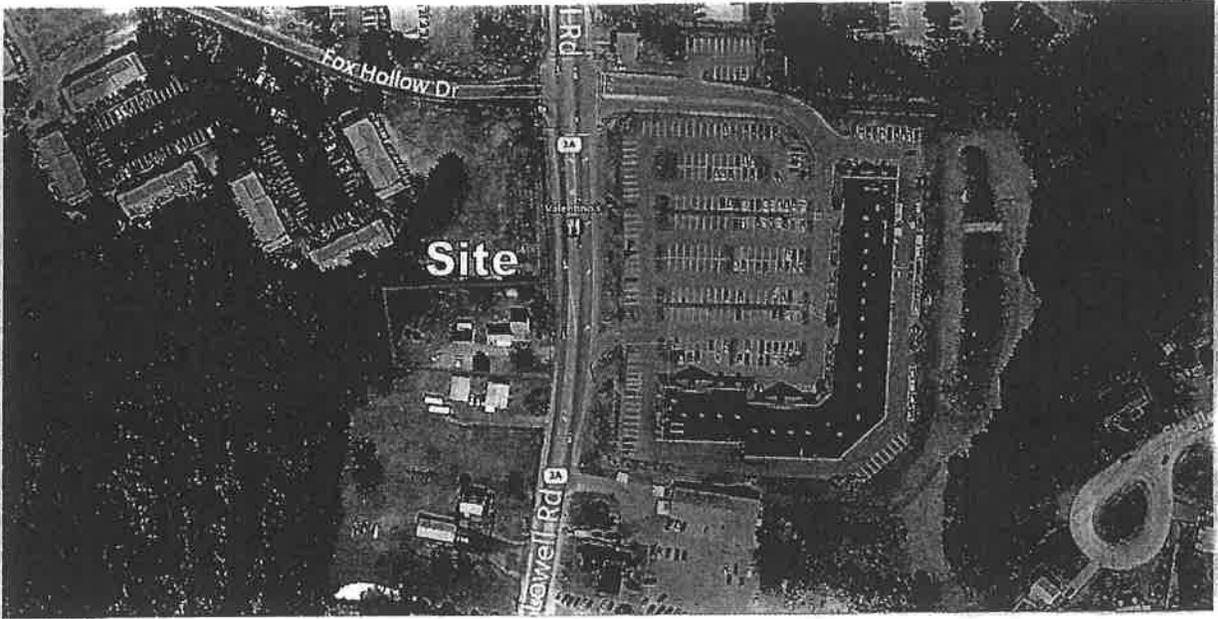


Photo No. 2: The existing two-story wood frame house.



Civil Engineering

Land Surveying

Landscape Architecture

Photo No. 3: Looking east at the existing house and shed.



Photo No. 4: A view from the back of the existing house.





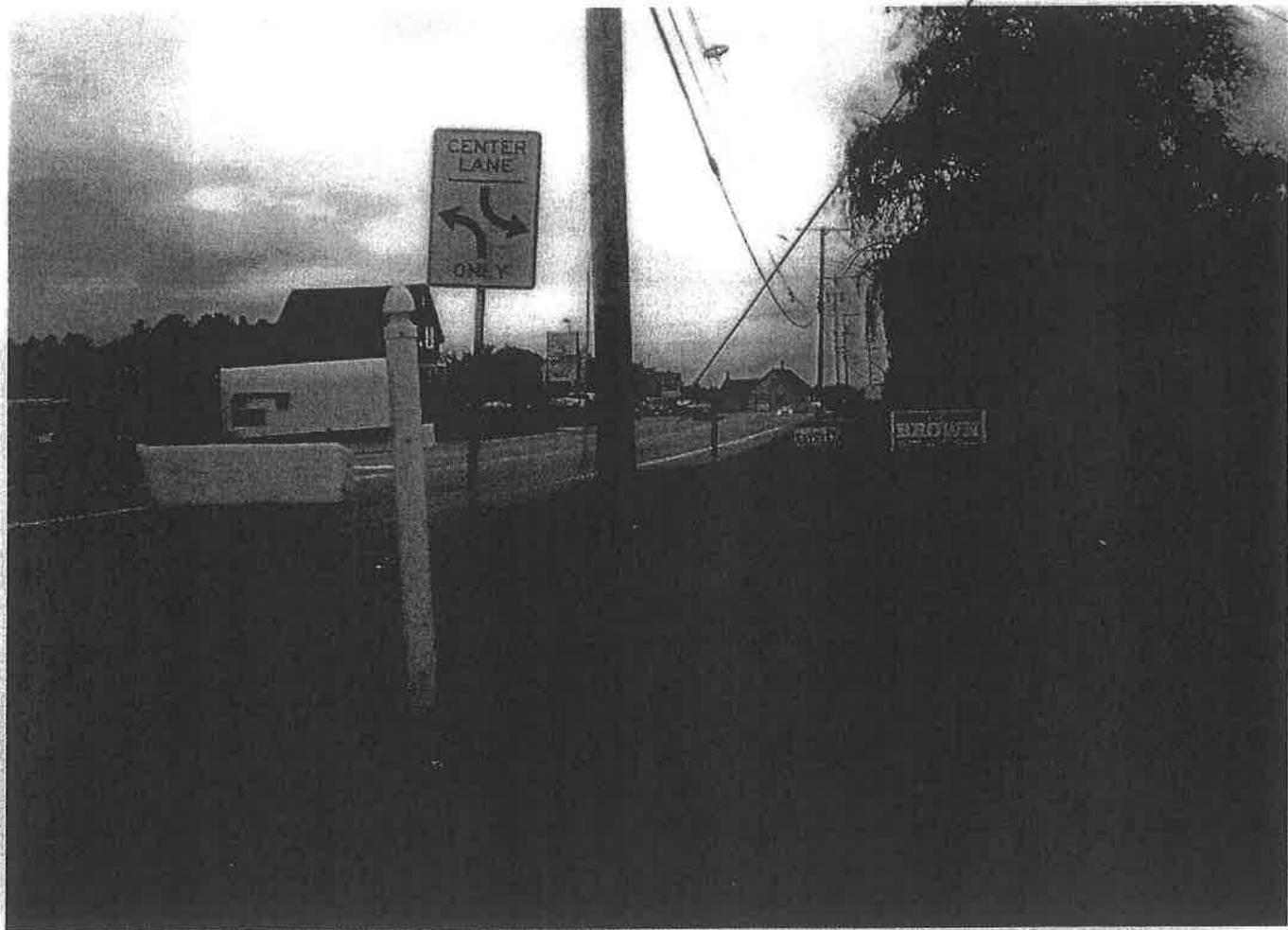
Photo No. 5: Sight distance looking north along Lowell Road toward a traffic cone, placed 400' away.

Location of target cone

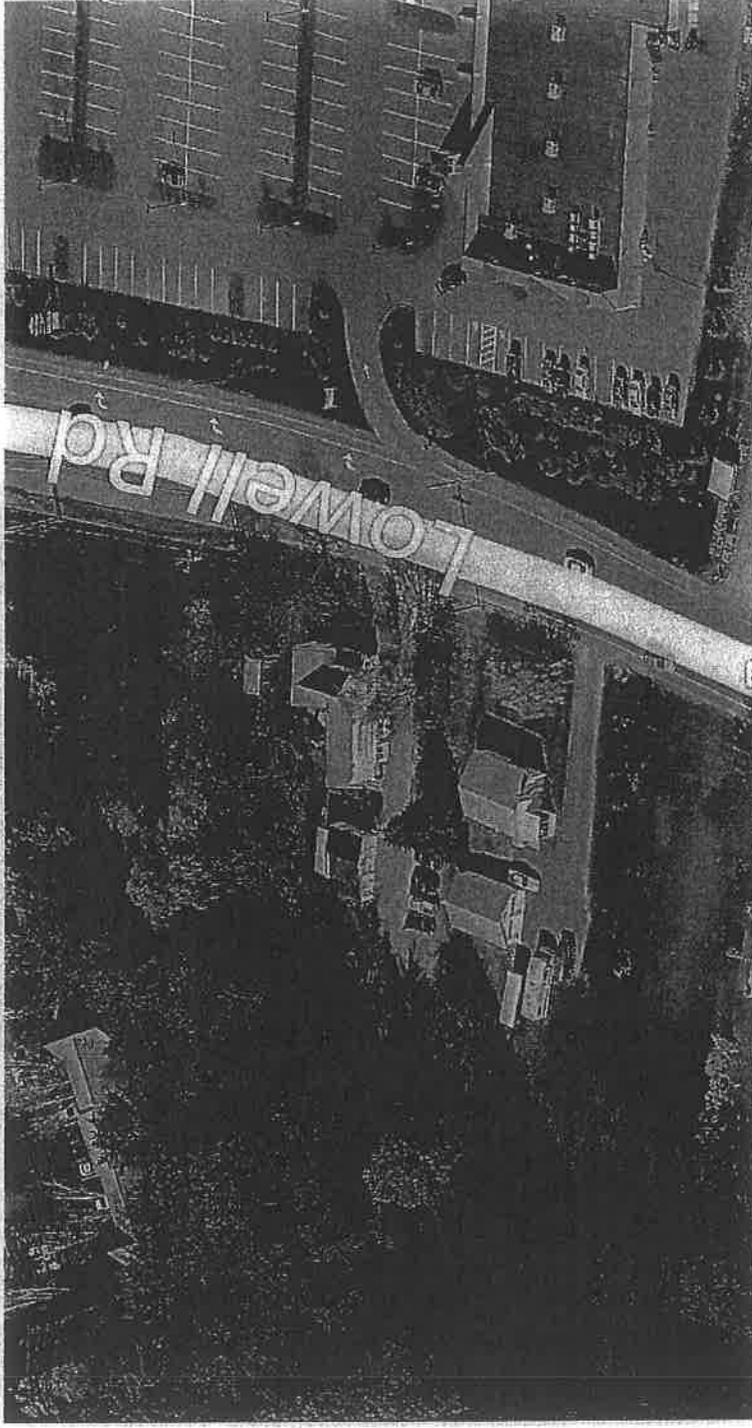


Photo No. 4: Sight distance looking south along Lowell Road toward a traffic cone, placed 400' away.

Location of target cone



143 Lowell Road – HUDSON, NEW HAMPSHIRE





Owner Affidavit

I, Yue Yun Zheng, owner of the property referenced on Tax Map 204; Lot 4, located on Lowell Road in Hudson, New Hampshire, hereby verify that I authorize Keach-Nordstrom Associates, Inc. (KNA) to prepare, submit and represent, on my behalf, throughout the federal, state and municipal application process.

Signature of Landowner: 

Printed Name of Landowner: Zhou Deng Zheng

Address of Owner: 4 Paula circle
Hudson NH 08051

Date: 10-14-14



TOWN OF HUDSON
PLANNING BOARD

"C"

NOTICE OF APPROVAL



12 School Street

Hudson, New Hampshire 03051

603/886-6008

December 15, 2014

Owner or Applicant: Yue Yun & Zhou Deng Zheng
4 Paula Circle
Hudson, NH 03051

On Wednesday, December 10, 2014, the Hudson Planning Board heard subject case SP# 13-14 "Zheng Garden Site Plan"

SUBJECT: Purpose of plan: To propose a 2,360 sf restaurant and associated site appurtenances on Map 204; Lot 5 in the Town of Hudson. Application Acceptance & Hearing.

LOCATION: Map 204/Lot 5 – 143 Lowell Road

You are hereby notified of the subject plat presented before the Planning Board and the following action:

The Planning Board voted to accept the Site Plan application calling for the construction of a 2,360 sf restaurant and associated site appurtenances at 143 Lowell Road, Map 204; Lot 5.

Waivers:

1) **HTC 275-8(B)12C – Residential Buffer**

The Planning Board voted to grant the requested waiver – HTC 275-8(B)12C – Residential Buffer – because the subject proposed restaurant is an allowed use in the Business Zoning District, with similar uses located along the same commercial corridor; further, the granting of this waiver will allow for an appropriate use of the land and reasonable sized building to suit the needs required, and also provides an evergreen buffer and 4 ft. fence along the property line closest to the residential abutter. In addition, the applicant's representative stated that the owner of the abutting Map 209/Lot 001, has no objection to the proposed use, as the probable business or commercial use of the subject property has been planned for through its zoning designation, and as such, the granting of this waiver is in keeping with the spirit and intent of the Town's ordinances.

2) HTC 275-9B – Traffic Study

The Planning Board voted to grant the requested waiver HTC 275-9B – Traffic Study – because the proposed restaurant use, with its expected low volume of traffic, will not adversely impact traffic conditions along Lowell Rd., and as such, the granting of this waiver is not contrary to the spirit and intent of the Site Plan Review regulations.

3) HTC 275-9(C) – Noise Study

The Planning Board voted to grant the requested waiver: HTC 275-9C – Noise Study – because the proposed use is not expected to create noise beyond that which is allowed by Town Code, as such, the granting of this waiver is in keeping with the spirit and intent of the ordinances.

4) HTC 275-9D – Fiscal and Environmental Impact Study

The Planning Board voted to grant the requested waiver: HTC 275-9D – Fiscal and Environmental Impact Study because in addition to the submitted plans and application documents, which include best management practices for stormwater control and a CAP Fee, said study is unnecessary in order to evaluate the fiscal and environmental impact of this project, and as such, the granting of this waiver is not contrary to the spirit and intent of the Site Plan Review regulations.

HTC 275-8.B.(31)a. – Interior Landscaping

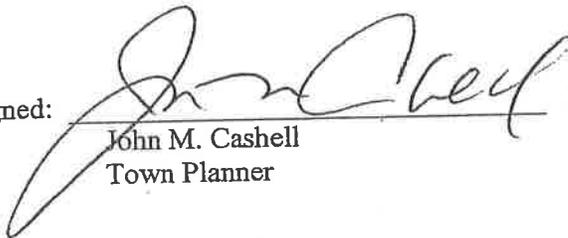
The Planning Board voted to grant the requested waiver – Section 275-8(31) – because landscaping along the perimeter of the site will be more effective to serve purposes of the ordinance enumerated in §334-2, as such, the granting of this waiver will not violate the purposes or general standards of this chapter.

The Planning Board voted to grant approval for the Site Plan entitled: “Non-Residential Site Plan Zheng Garden, Map 204, Lot 5, Lowell Road, Hudson, NH, prepared by Keach-Nordstrom Associates, Inc., dated: 25 August, 2014, last revised 5 November 2014, consisting of Sheets 1 – 15 and Notes 1 – 32 on Sheet 1, in accordance with the following terms and conditions:

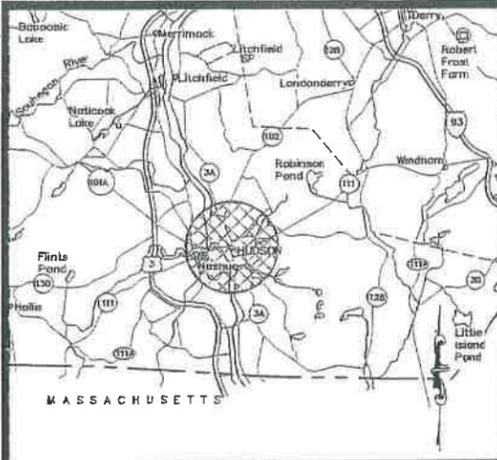
- 1) All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the Site Plan-of-Record (hereinafter referred to as the Plan).

- 2) Prior to the Planning Board endorsement of the Plan, the Development Agreement and any and all easement deeds shall be favorably reviewed and recommended on by Town Counsel.
- 3) All improvements shown on the Plan, including Notes 1 - 32, shall be completed in their entirety and at the expense of the Applicant or his assigns.
- 4) After the issuance of the foundation permit for the proposed building, and prior to the issuance of the framing permit thereof, the applicant shall submit to the Hudson Community Development Department a foundation "As-Built" plan on a transparency and to the same scale as the approved site plan. The foundation "As-Built" plan shall include all structural dimensions and lot line setback measurements to the foundation and be stamped by a licensed land surveyor. Any discrepancy between the approved site plan and foundation "As-Built" plans shall be documented by the applicant and be part of the foundation "As-Built" submission.
- 5) A CAP Fee of \$13,758.80 shall be submitted by the Applicant to the Town prior to the issuance of a Certificate of Occupancy for the project.
- 6) Prior to the issuance of a final certificate of occupancy, a L.L.S. certified "As-Built" Site Plan shall be provided to the Town of Hudson Community Development Department, confirming that the site conforms with the Planning Board approved Plan.
- 7) Onsite landscaping and exterior lighting shall be provided for in accordance with the Sheets 8 & 9 of the plan.
- 8) Exterior construction activities on the site shall be limited to between 7:00 AM and 7:00 PM Monday through Saturday. No construction activities shall occur on Sunday.
- 9) This approval shall be subject to final engineering review.
- 10) The applicant's engineer and/or contractor shall contact the Town of Hudson to schedule a preconstruction meeting, which will be held with Town staff prior to the start of construction.
- 11) Prior to Planning Board endorsement of the Plan, it shall be amended to include a 12 ft. in-width public access and utility easement along the entire length of street frontage for Map 204/Lot 005, and the deed for said easement shall be favorably reviewed by Town Counsel.
- 12) Prior to Planning Board endorsement of the Plan, it shall be amended to include a loading zone.

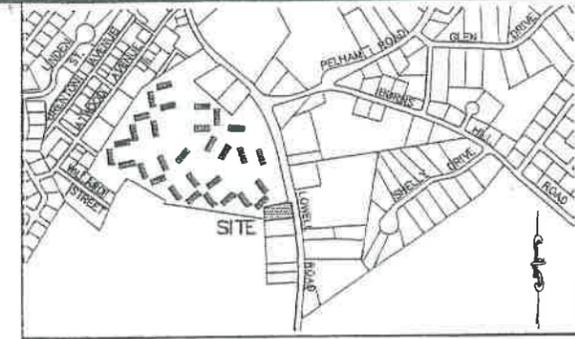
All representations of fact or intention made by the applicant or any applicant's representative during testimony before the Planning Board relative to the obtaining approval of this plan, shall be considered conditions of this approval regardless of the fact that such fact or intentions were not specifically stated as part of the motion to grant.

Signed:  Date: 12-15-14
John M. Cashell
Town Planner

cc: Keach-Nordstrom Associates, Inc.



VICINITY PLAN
NOT TO SCALE



VICINITY PLAN
SCALE: 1" = 1,000'



NON-RESIDENTIAL SITE PLAN ZHENG GARDEN

MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE

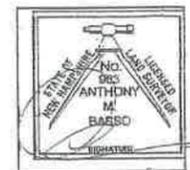
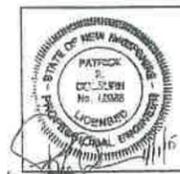
OWNER/APPLICANT:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051

PREPARED BY:
KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881

SHEET TITLE

SHEET No.

MASTER PLAN	1
EXISTING CONDITIONS PLAN	2
DEMOLITION/REMOVALS PLAN	3
NON-RESIDENTIAL SITE LAYOUT PLAN	4
GRADING AND DRAINAGE PLAN	5
EROSION CONTROL PLAN	6
UTILITY PLAN	7
LANDSCAPE PLAN	8
LIGHTING PLAN	9
CONSTRUCTION DETAILS	10-15



3/31/14

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

AUGUST 25, 2014
DECEMBER 11, 2014
PROJECT NO. 14-0718-1

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

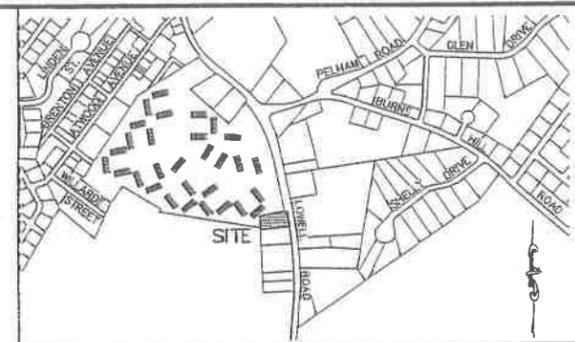
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- RAILROAD SPIKE FOUND
- ABUTTER LINE
- PROPERTY LINE
- TREELINE
- EDGE OF PAVEMENT
- STONEWALL
- BUILDING SETBACK
- PROP. EDGE OF PAVEMENT



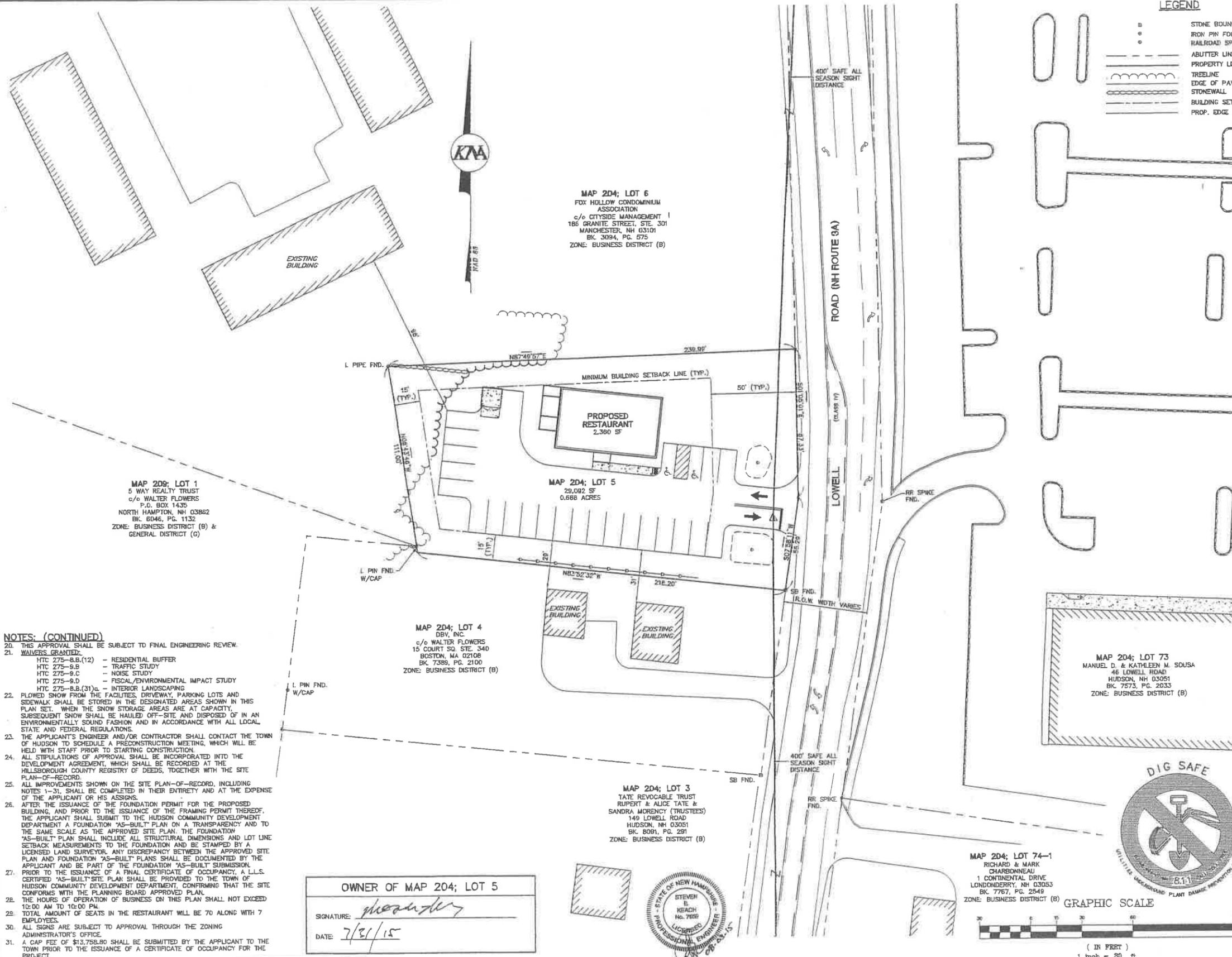
VICINITY PLAN

SCALE: 1" = 1,000'

- REFERENCE PLANS:**
- "PHASING PLAN, FOX HOLLOW CONDOMINIUMS, LOWELL ROAD - N.H. ROUTE 3A, HUDSON, NEW HAMPSHIRE," SCALE: 1"=50', DATED: 3 JANUARY 1984, WITH REVISIONS THROUGH 6/20/84, PREPARED BY ALLAN H. SWANSON, INC. H.C.R.D. PLAN NO. 24618.
 - "BOUNDARY AND CONSOLIDATION PLAN, LOWELL ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=100', DATED: SEPTEMBER 4, 1981, PREPARED BY ALLAN H. SWANSON, INC. H.C.R.D. PLAN NO. 14555.
 - "TAX MAP 13 LOT 6, SUBDIVISION PLAN, OF LAND OF DIGITAL EQUIPMENT CORPORATION, EXECUTIVE DRIVE AND LOWELL ROAD, HUDSON, N.H.," SCALE: 1"=200', DATED: JULY 26, 1996, PREPARED BY TDMORAN INC. H.C.R.D. PLAN NO. 28158.
 - "PLAN OF LAND OF PROVINCE OF ST. MARY OF THE CAPUCHIN ORDER, LOWELL ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=80', DATED: MARCH 1854, PREPARED BY NED SPAULDING. H.C.R.D. PLAN NO. 13738.
 - "CONSOLIDATION/LOT LINE RELOCATION PLAN, NOTTINGHAM SQUARE SITE PLAN, LOWELL ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=50', DATED: SEPTEMBER 18, 2006, PREPARED FOR MANUEL D. AND KATHLEEN SOUSA. H.C.R.D. PLAN NO. 35059.

NOTES:

- THE PURPOSE OF THIS PLAN IS TO SHOW THE OVERVIEW OF A PROPOSED 2,360 SF RESTAURANT AND ASSOCIATED SITE APPURTENANCES ON MAP 204; LOT 5 ASSOCIATED WITH PROPOSED IMPROVEMENTS ON TAX MAP 204; LOT 4 AND TAX MAP 204; LOT 74.
- TOTAL SITE AREA: 29,092 SF OR 0.668 ACRES.
- REFERENCE THIS PARCEL AS TOWN OF HUDSON TAX MAP 204; LOT 5.
- OWNER OF RECORD:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051
BK. 8462, PG. 806
- SUBJECT PARCEL IS LOCATED ENTIRELY IN THE BUSINESS (B) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REGULATIONS:
MINIMUM LOT REQUIREMENTS:
- LOT AREA 30,000 SF (WITH WATER AND SEWER)
43,560 SF (WITHOUT WATER OR SEWER)
- LOT FRONTAGE 150 FT
MINIMUM BUILDING SETBACKS:
- FRONT 50 FT
- SIDE 15 FT
- REAR 15 FT
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE ON JULY 31 AND AUGUST 1, 2014.
- HORIZONTAL DATUM IS NAD 83. VERTICAL DATUM IS NGVD 29. THE DATA WAS OBTAINED FROM NHDDT DISK - 225-0320 SET IN LEDGE ON WASON ROAD, HUDSON, NH.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, COMMUNITY PANEL NUMBER 330100050 PANEL NUMBER 85 OF 70, EFFECTIVE DATE SEPTEMBER 25, 2009, INDICATES THAT THE SUBJECT PREMISES IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
- SITE IS CURRENTLY SERVICED BY MUNICIPAL WATER AND PRIVATE SEPTIC. PROPOSED SITE WILL BE SERVICED BY SEWER.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- PARKING CALCULATION:
REQUIRED: 1 SPACE FOR EVERY 100 SF (NO BAR) = 24 SPACES
PROVIDED: 24 SPACES (INCLUDING 1 HANDICAP SPACE)
*NO DESIGNATED LOADING SPACE PROVIDED. DELIVERIES OCCUR IN THE MORNING PRIOR TO THE RESTAURANT OPENING.
- OPEN SPACE:
REQUIRED: 35%
PROVIDED: 53%
- SITE LIGHTING SHALL BE AS SHOWN ON THE PLAN, DIRECTED ONTO SITE, AND SHALL CONFORM WITH ALL APPLICABLE TOWN OF HUDSON ZONING REGULATIONS.
- SITE IMPROVEMENTS DEPICTED ON THE PLAN SHALL CONFORM WITH TITLE III OF THE AMERICANS WITH DISABILITIES ACT WITH REGARD TO DIMENSION AND GRADE.
- IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE TOWN OF HUDSON PLANNING BOARD.
- TRASH PICK-UP SHALL NOT OCCUR EARLIER THAN 7:00 AM NOR LATER THAN 7:00 PM, MONDAY THROUGH FRIDAY ONLY.
- EXTERIOR CONSTRUCTION ACTIVITIES ON THE SITE SHALL BE LIMITED TO BETWEEN 7:00 AM AND 7:00 PM MONDAY THROUGH SATURDAY. NO CONSTRUCTION ACTIVITIES SHALL OCCUR ON SUNDAYS.
- IF LOT DEVELOPMENT INVOLVES BLASTING AND/OR RAMMING OF BEDROCK MATERIALS, SAID ACTIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 5:00 PM MONDAY THROUGH FRIDAY ONLY. SAID BLASTING/RAMMING ACTIVITIES SHALL BE PROHIBITED ON WEEKENDS.
- ON AUGUST 22, 2014, REPRESENTATIVES FROM KEACH-NORDSTROM ASSOCIATES, INC. VERIFIED THAT ADEQUATE SIGHT DISTANCE EXISTS FROM THE PROPOSED DRIVEWAY ALONG LOWELL ROAD.



- NOTES: (CONTINUED)**
- THIS APPROVAL SHALL BE SUBJECT TO FINAL ENGINEERING REVIEW.
 - WARRANTS GRANTED:
HTC 275-B.B.(12) - RESIDENTIAL BUFFER
HTC 275-S.B - TRAFFIC STUDY
HTC 275-S.C - NOISE STUDY
HTC 275-S.D - FISCAL/ENVIRONMENTAL IMPACT STUDY
HTC 275-B.B.(31) - INTERIOR LANDSCAPING
 - PLOWED SNOW FROM THE FACILITIES, DRIVEWAY, PARKING LOTS AND SIDEWALK SHALL BE STORED IN THE DESIGNATED AREAS SHOWN IN THIS PLAN SET. WHEN THE SNOW STORAGE AREAS ARE AT CAPACITY, SUBSEQUENT SNOW SHALL BE HAULED OFF-SITE AND DISPOSED OF IN AN ENVIRONMENTALLY SOUND FASHION AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
 - THE APPLICANT'S ENGINEER AND/OR CONTRACTOR SHALL CONTACT THE TOWN OF HUDSON TO SCHEDULE A PRECONSTRUCTION MEETING, WHICH WILL BE HELD WITH STAFF PRIOR TO STARTING CONSTRUCTION.
 - ALL STIPULATIONS OF APPROVAL SHALL BE INCORPORATED INTO THE DEVELOPMENT AGREEMENT, WHICH SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS, TOGETHER WITH THE SITE PLAN-OF-RECORD.
 - ALL IMPROVEMENTS SHOWN ON THE SITE PLAN-OF-RECORD, INCLUDING NOTES 1-31, SHALL BE COMPLETED IN THEIR ENTIRETY AND AT THE EXPENSE OF THE APPLICANT OR HIS ASSIGNS.
 - AFTER THE ISSUANCE OF THE FOUNDATION PERMIT FOR THE PROPOSED BUILDING, AND PRIOR TO THE ISSUANCE OF THE FRAMING PERMIT THEREOF, THE APPLICANT SHALL SUBMIT TO THE HUDSON COMMUNITY DEVELOPMENT DEPARTMENT A FOUNDATION "AS-BUILT" PLAN ON A TRANSPARENCY AND TO THE SAME SCALE AS THE APPROVED SITE PLAN. THE FOUNDATION "AS-BUILT" PLAN SHALL INCLUDE ALL STRUCTURAL DIMENSIONS AND LOT LINE SETBACK MEASUREMENTS TO THE FOUNDATION AND BE STAMPED BY A LICENSED LAND SURVEYOR. ANY DISCREPANCY BETWEEN THE APPROVED SITE PLAN AND FOUNDATION "AS-BUILT" PLANS SHALL BE DOCUMENTED BY THE APPLICANT AND BE PART OF THE FOUNDATION "AS-BUILT" SUBMISSION. PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY, A L.L.S. CERTIFIED "AS-BUILT" SITE PLAN SHALL BE PROVIDED TO THE TOWN OF HUDSON COMMUNITY DEVELOPMENT DEPARTMENT, CONFIRMING THAT THE SITE CONFORMS WITH THE PLANNING BOARD APPROVED PLAN.
 - THE HOURS OF OPERATION OF BUSINESS ON THIS PLAN SHALL NOT EXCEED 10:00 AM TO 10:00 PM.
 - TOTAL AMOUNT OF SEATS IN THE RESTAURANT WILL BE 70 ALONG WITH 7 EMPLOYEES.
 - ALL SIGNS ARE SUBJECT TO APPROVAL THROUGH THE ZONING ADMINISTRATOR'S OFFICE.
 - A CAP FEE OF \$13,758.80 SHALL BE SUBMITTED BY THE APPLICANT TO THE TOWN PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE PROJECT.

OWNER OF MAP 204; LOT 5
SIGNATURE: *[Signature]*
DATE: 7/21/15



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

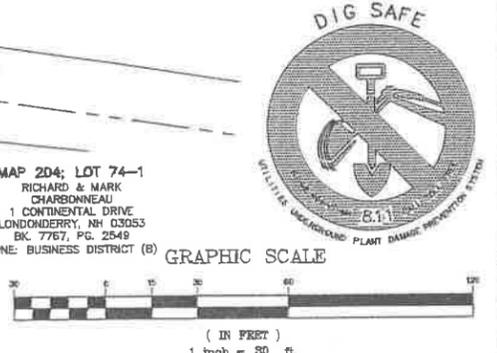
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
SIGNATURE: _____ DATE: _____
SIGNATURE: _____ DATE: _____
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

ZONING NOTE
THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY KEACH-NORDSTROM ASSOCIATES, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

UTILITY NOTE
THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM THE FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION BETWEEN JULY 31 AND AUGUST 1, 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS CODIFIED IN THE STATE OF NEW HAMPSHIRE ADMINISTRATIVE RULES.

7/23/15
DATE



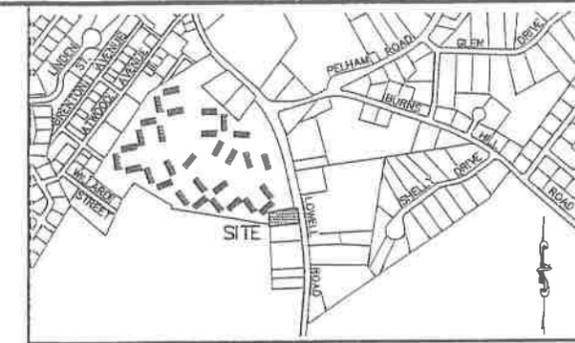
MASTER PLAN
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051 H.C.R.D. BK. 8462; PG. 906	APPLICANT: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051
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KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2E, Bedford, NH 03110 Phone (603) 627-2881

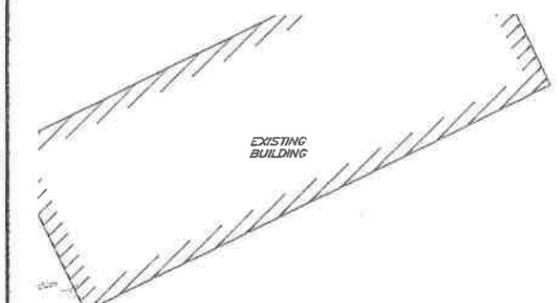
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/5/14	PER TOWN COMMENTS	BJC
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJC
3	6/18/15	REV. PER EASEMENT CHANGES	BJC

DATE: AUGUST 25, 2014
PROJECT NO: 14-0718-1
SCALE: 1" = 30'
SHEET 1 OF 15



VICINITY PLAN
SCALE: 1" = 1,000'

SEE SHEET 1 FOR NOTES

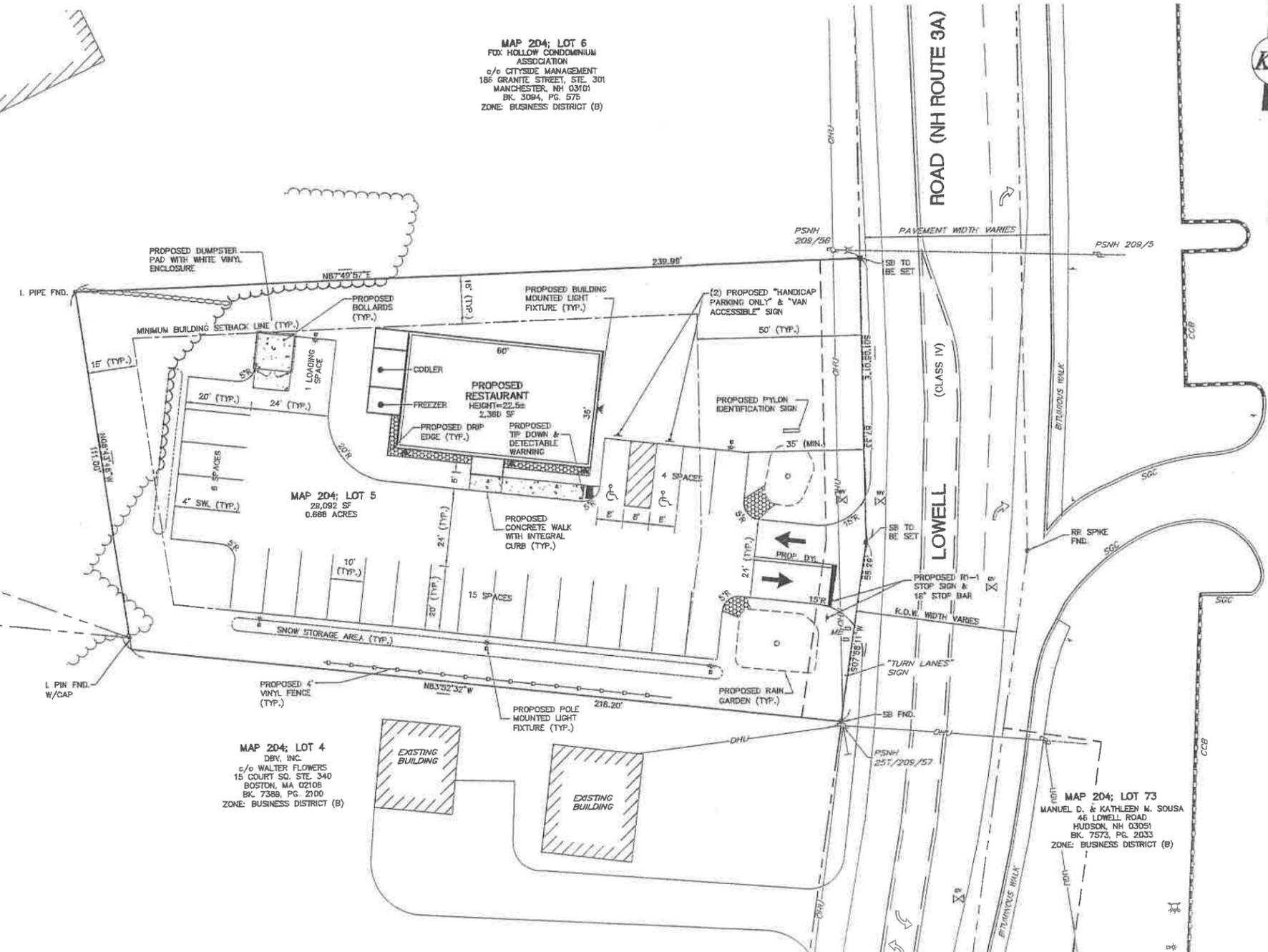


MAP 204; LOT 6
FOX HOLLOW CONDOMINIUM
ASSOCIATION
c/o CITYSIDE MANAGEMENT
186 GRANITE STREET, STE. 301
MANCHESTER, NH 03101
BK. 3084, PG. 575
ZONE: BUSINESS DISTRICT (B)

MAP 209; LOT 1
5 WAY REALTY TRUST
c/o WALTER FLOWERS
P.O. BOX 1436
NORTH HAMPTON, NH 03862
BK. 8046, PG. 1132
ZONE: BUSINESS DISTRICT (B) &
GENERAL DISTRICT (C)

MAP 204; LOT 4
DBV, INC.
c/o WALTER FLOWERS
15 COURT SQ., STE. 340
BOSTON, MA 02108
BK. 7389, PG. 2100
ZONE: BUSINESS DISTRICT (B)

MAP 204; LOT 73
MANUEL D. & KATHLEEN M. SOUSA
46 LOWELL ROAD
HUDSON, NH 03051
BK. 7573, PG. 2033
ZONE: BUSINESS DISTRICT (B)



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊕ RAILROAD SPIKE FOUND
- ⊕ UTILITY POLE
- ⊕ SIGN
- ⊕ UTILITY POLE WITH LIGHT
- ⊕ GAS VALVE
- ⊕ WATER SHUT OFF
- ⊕ WATER VALVE
- ⊕ HYDRANT
- ⊕ PROPOSED DRYWELL
- ⊕ ABUTTER LINE
- ⊕ PROPERTY LINE
- ⊕ OVERHEAD UTILITIES
- ⊕ TREELINE
- ⊕ EDGE OF PAVEMENT
- ⊕ STONEWALL
- ⊕ BUILDING SETBACK
- ⊕ PROPOSED EDGE OF PAVEMENT

NON-RESIDENTIAL SITE LAYOUT PLAN
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051
H.C.R.D. BK. 8462; PG. 906

APPLICANT:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051

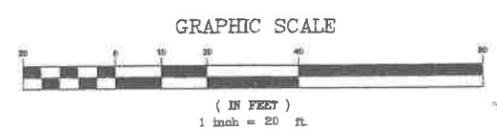
KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 38, Bedford, NH 03110 Phone (603) 627-2801



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/14	PER TOWN COMMENTS	BJC
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJC

DATE: AUGUST 25, 2014 SCALE: 1" = 20'
PROJECT NO: 14-0718-1 SHEET 4 OF 15



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

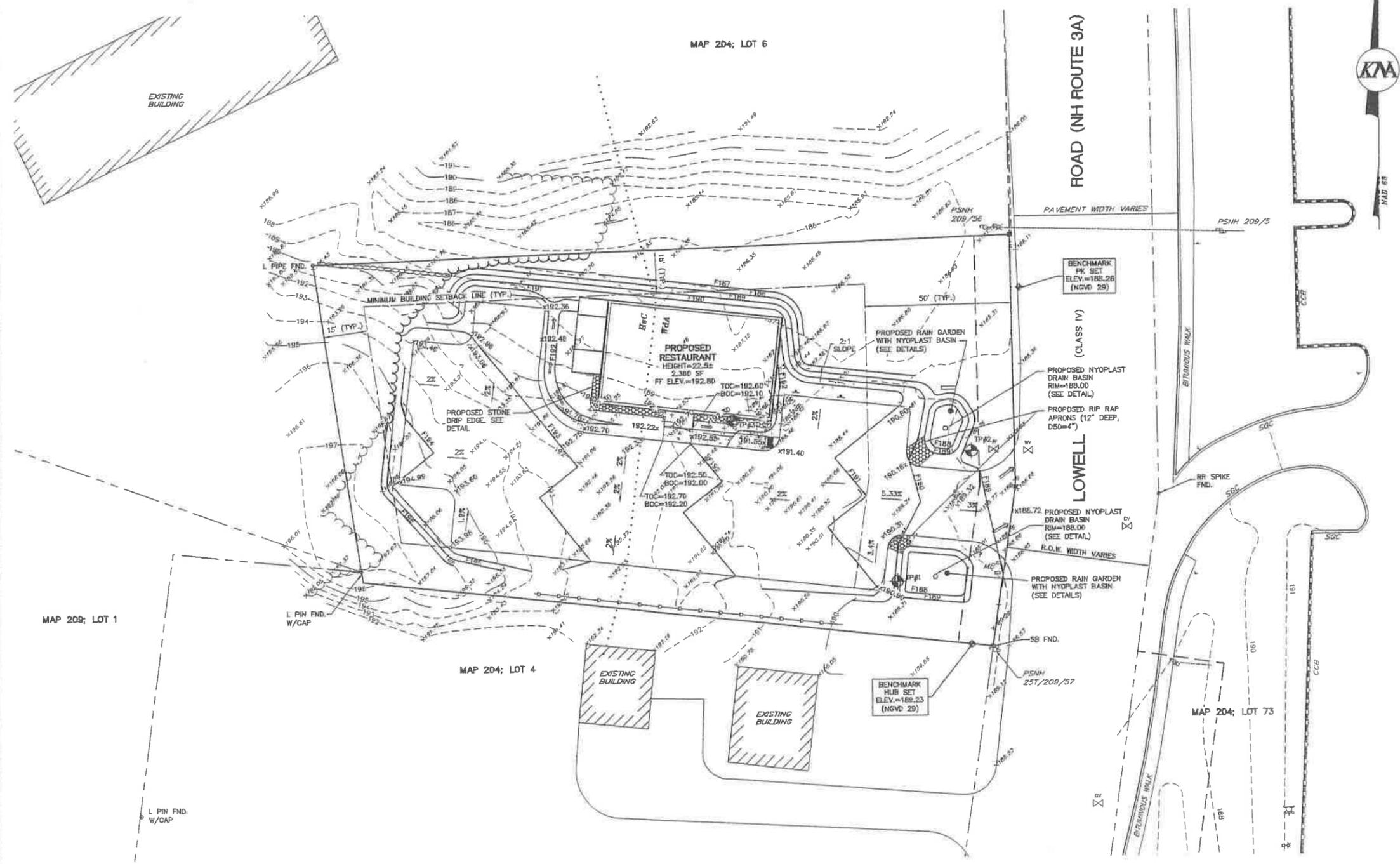
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

- CONSTRUCTION NOTES:**
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
 2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, HUDSON, NEW HAMPSHIRE.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS. PRIOR TO THE START OF ANY CONSTRUCTION THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 611 AT LEAST 72 HOURS BEFORE DIGGING.
 4. SEE CONSTRUCTION DETAILS FOR SPECIFIC CONSTRUCTION INFORMATION.

LOAM & SEED ALL DISTURBED AREAS (TYP.)

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- RAILROAD SPIKE FOUND
- UTILITY POLE
- SIGN
- UTILITY POLE WITH LIGHT
- GAS VALVE
- WATER SHUT OFF
- WATER VALVE
- HYDRANT
- PROPOSED DRYWELL
- ABUTTER LINE
- PROPERTY LINE
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- 5' CONTOUR
- 1' CONTOUR
- STONEMALL
- BUILDING SETBACK
- SCS SOIL LINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED 1' CONTOUR

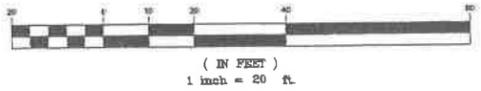


SCS LEGEND

- HsC HINCKLEY LOAMY SAND, 8 TO 15% SLOPES
- WdA WINDSOR LOAMY SAND, 0 TO 3% SLOPES



GRAPHIC SCALE



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

GRADING AND DRAINAGE PLAN

ZHENG GARDEN

MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051 H.C.R.D. BK. 8462; PG. 906	APPLICANT: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051
--	--



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/5/14	PER TOWN COMMENTS	BJE
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJE

DATE: AUGUST 25, 2014 SCALE: 1" = 20'
PROJECT NO: 14-0718-1 SHEET 5 OF 15

D:\projects\140718\141107181\141107181-STEPHAN-REV2.dwg, 08/05, 3:17:05 PM, 10/24/2014, New, HP DesignPlot 4000 HPGL2/RTL

PLANT LIST

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
Ac	11	ABIES CONCOLOR	WHITE FIR	5-6" B&B
Ar	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2"-2.5" CAL
Gb	3	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY MAIDENHAIR TREE	2-2.5" CAL
Px	2	PRUNUS X 'OKAME'	OKAME CHERRY	2-2.5" CAL
Pp	9	FICIA PUNGENS 'BLUE SELECT'	BLUE SELECT SPRUCE	5-6" B&B
SHRUBS				
Ab	8	AZALEA 'BLOOM A THON PINK'	BLOOM A THON PINK AZALEA	18-24"
Ap	2	ACER P. DISSECTUM 'RED DRAGON'	RED DRAGON JAPANESE MAPLE	3-4" B&B
Co	6	CHAMAECYPARIS OBTUSA 'VERDONI'	VERDONI HINOKI FALSECYPRESS	3-4" B&B
Ho	5	HYDRANGEA ARBORESCENS 'INCREDIBALL'	INCREDIBALL SMOOTH HYDRANGEA	2-2.5"
Po	4	PHYSCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL NINBARK	18-24"
Ps	3	PINUS STROBUS 'BLUE SHAG'	BLUE SHAG WHITE PINE	2.5-3"



LANDSCAPE NOTES:

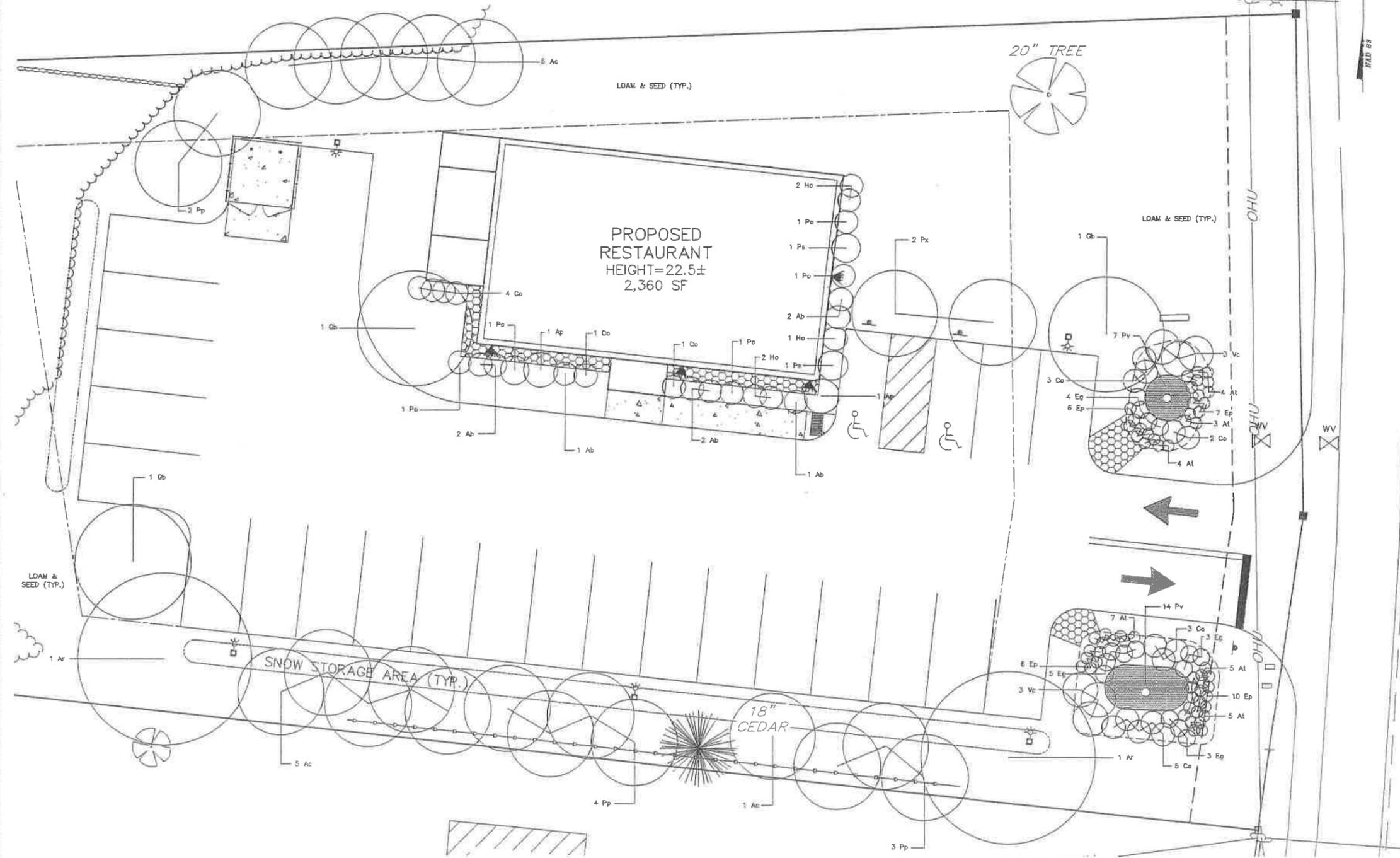
- ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOWN HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
- IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% COMPOST AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
- PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5 OZ. POLYPROPYLENE WEED CONTROL FABRIC.
- PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED ABOVE.

LANDSCAPE CALCULATIONS

REQUIRED PARKING LOT INTERIOR LANDSCAPE AREA:	9,176 SF
PROPOSED PARKING AREA PAVED:	9,176 SF
10% REQUIRED LANDSCAPE AREA:	918 SF
PROVIDED LANDSCAPE AREA:	+0 SF

REQUIRED PARKING LOT SHADE TREES AND SHRUBS:	9,176 SF
PROPOSED PAVED AREA:	9,176 SF
SHADE TREES REQUIRED (9,176/1,600):	6 TREES REQUIRED
(OR 1 TREE/75 PROP. PARKING SPACES)	5 TREES PROVIDED
SHADE TREES PROVIDED:	7 TREES PROVIDED
SHRUBS REQUIRED (9,176/200):	46 SHRUBS OR
(OR 1.6 x 24 PROP. PARKING SPACES)	38 SHRUBS REQUIRED
SHRUBS PROVIDED:	47 SHRUBS PROVIDED

* WAIVER REQUESTED

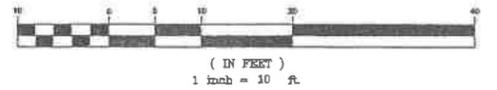


LOWELL (CLASS IV)

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊕ RAILROAD SPIKE FOUND
- ⊙ UTILITY POLE
- ⊗ SIGN
- ⊕ UTILITY POLE WITH LIGHT
- ⊕ GAS VALVE
- ⊕ WATER SHUT OFF
- ⊕ WATER VALVE
- ⊕ HYDRANT
- ⊕ PROPOSED DRYWELL
- ⊕ ABUTTER LINE
- ⊕ PROPERTY LINE
- ⊕ OVERHEAD UTILITIES
- ⊕ TREELINE
- ⊕ EDGE OF PAVEMENT
- ⊕ STONEWALL
- ⊕ BUILDING SETBACK
- ⊕ PROPOSED EDGE OF PAVEMENT

GRAPHIC SCALE



RAIN GARDEN PLANT LIST

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
SHRUBS				
Co	13	CLETHRA ALNIFOLIA 'COMPACTA'	COMPACT SUMMERSWEET	18-24"
Vc	6	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	2-2.5"
PERENNIALS				
At	28	ASCLEPIAS TUBEROSA	BUTTERFLY WEED	#1
Eg	15	EUPATORIUM 'GATEWAY'	GATEWAY JOE PYE WEED	#2
Ep	29	ECHINACEA PURPUREA	PURPLE CONEFLOWER	#2
Pv	21	PANICUM VIRGATUM 'PRAIRIE FIRE'	PRAIRIE FIRE SWITCH GRASS	#2

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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DATE OF MEETING: _____

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LANDSCAPE PLAN
ZHENG GARDEN

MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051 H.C.R.D. BK. 8462; PG. 906	APPLICANT: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051
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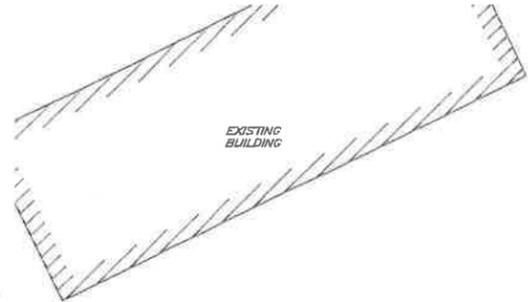
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS

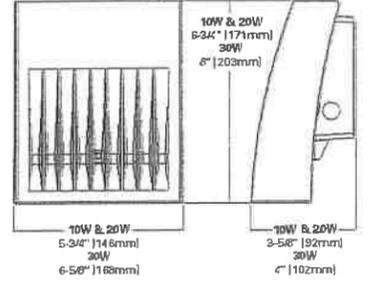
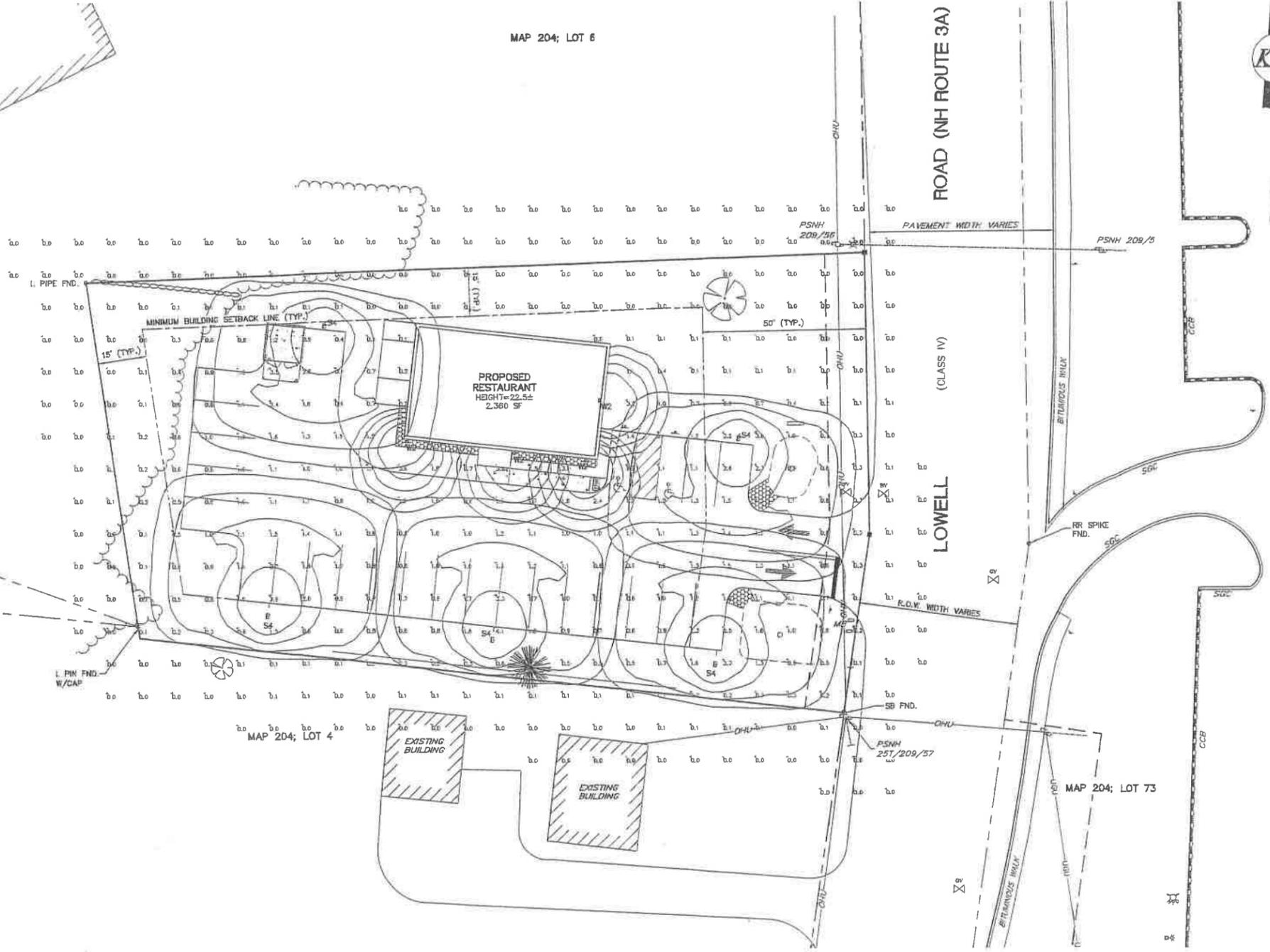
No.	DATE	DESCRIPTION	BY
1	11/25/14	PER TOWN COMMENTS	BJC
2	12/11/14	DATE ONLY	BJC

DATE: AUGUST 25, 2014 SCALE: 1" = 10'
PROJECT NO: 14-0718-1 SHEET 8 OF 15

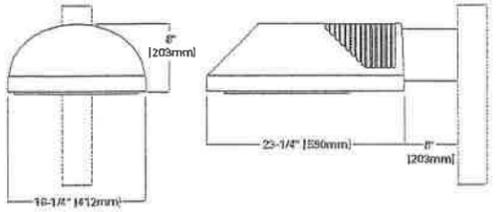
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MAP 204; LOT 6



XTOR CROSSTOUR LED
NOT TO SCALE



TLM TALON MEDIUM LED
NOT TO SCALE

IN ASSOCIATION WITH:
CHARRON
INCORPORATED
P.O. BOX 4550
MANCHESTER, NH 03004
(603) 624-4827
FAX (603) 624-5764

LIGHTING PLAN
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

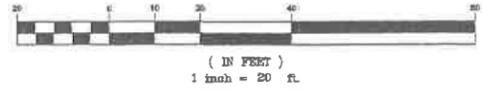
OWNER OF RECORD:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051
H.C.R.D. BK. B462; PG. 906

APPLICANT:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2E, Bedford, NH 03110 Phone (603) 827-2881



GRAPHIC SCALE



STATAREA_1
ILLUMINANCE (FC)
AVERAGE = 1.26
MAXIMUM = 3.9
MINIMUM = 0.7
AVG./MIN. RATIO = 1.83
MAX./MIN. RATIO = 5.57

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
	5	S4	SINGLE	TLM-B02-LED-E1-SL4/ 15' AFC
	4	W2	SINGLE	XTOR2A/ WALL MTD 10' AFC

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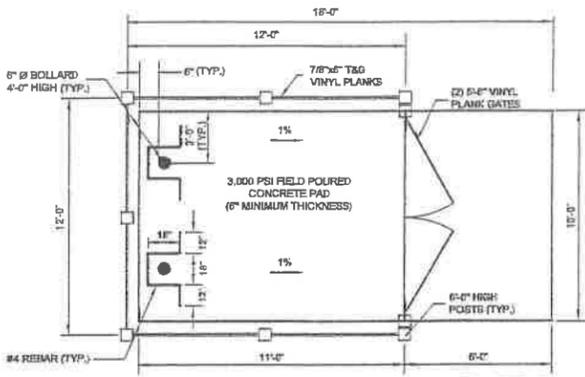
SIGNATURE _____ DATE _____

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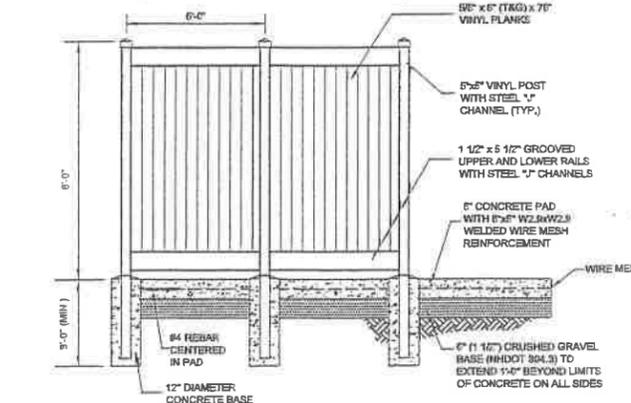


REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/6/14	PER TOWN COMMENTS	B.J.C.
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	B.J.C.

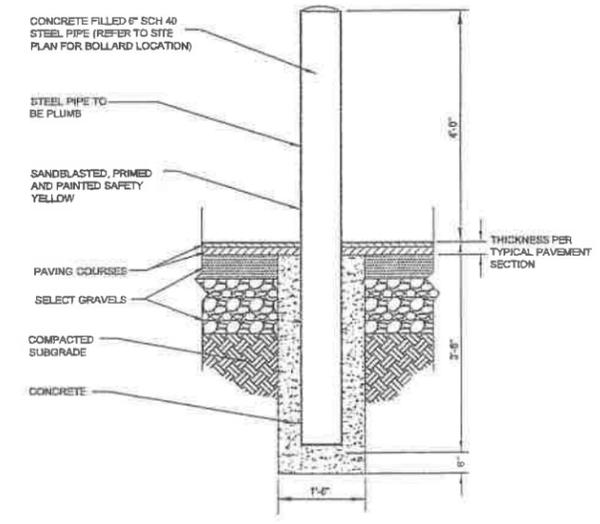
DATE: AUGUST 25, 2014 SCALE: 1" = 20'
PROJECT NO: 14-071E-1 SHEET 9 OF 15



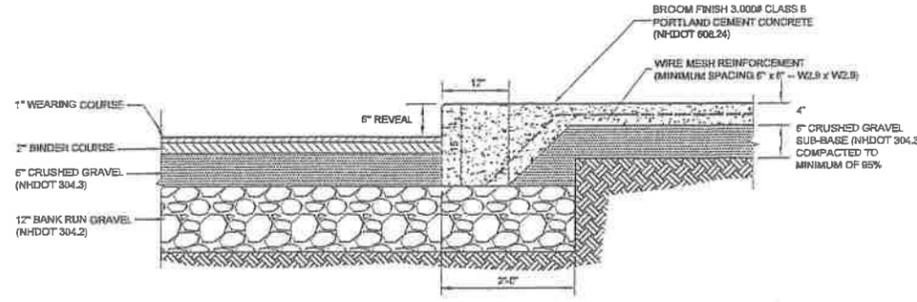
VINYL TRASH ENCLOSURE DETAIL
NOT TO SCALE
(MARCH 2008)



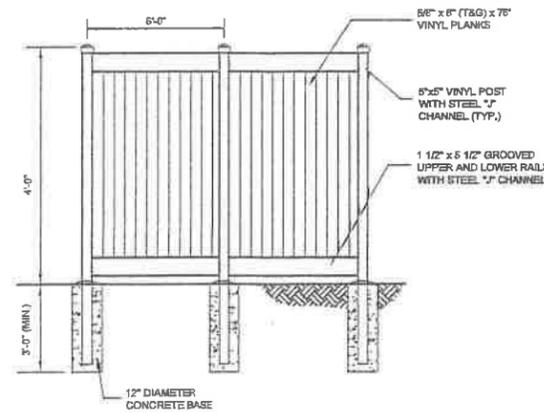
VINYL FENCE DETAIL
NOT TO SCALE
(MARCH 2008)



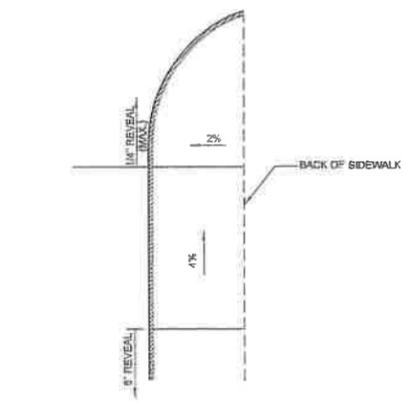
BOLLARD DETAIL
NOT TO SCALE
(MARCH 2008)



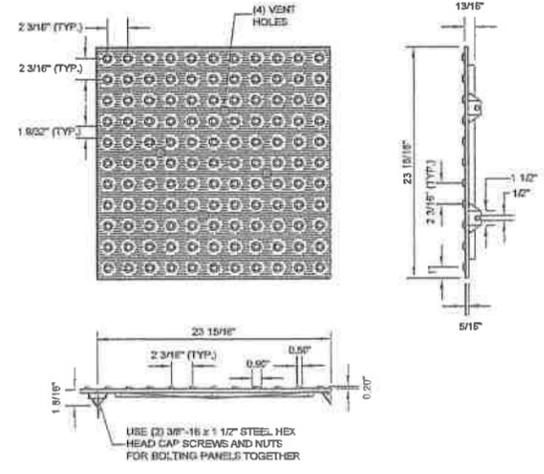
INTEGRAL CURB AND WALK DETAIL
NOT TO SCALE
(MARCH 2008)



DRIVEWAY AND PARKING LOT SECTION
NOT TO SCALE
(MARCH 2008)



NOTES:
1. A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
2. MAINTAIN THE NORMAL GUTTER PROFILE THROUGHOUT THE RAMP AREA.
3. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP.
4. MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP, SEE SECTION A-A.
CORNER SIDEWALK RAMP DETAIL
NOT TO SCALE
(MARCH 2008)

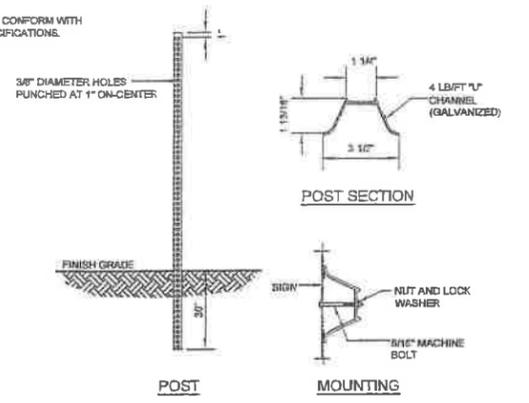


NOTES:
1. DETECTABLE WARNING PLATE SHALL BE NEEDHAM FOUNDRY OR APPROVED EQUAL.
2. THE PLATE MUST COMPLY WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND ARCHITECTURAL BARRIER ACT GUIDELINES.
3. MATERIAL SHALL BE CAST GRAY IRON.
4. FINISH: NO PAINT.
24"x24" DETECTABLE WARNING PLATE DETAIL
NOT TO SCALE
(MARCH 2008)

TRAFFIC SIGN NOTES:
1. ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
2. ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.

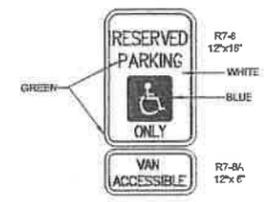


STOP SIGN DETAIL
NOT TO SCALE
(MARCH 2008)



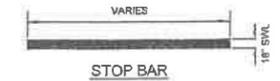
NOTE:
POST SHALL CONFORM TO NHDOT 616.2.5.3

STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

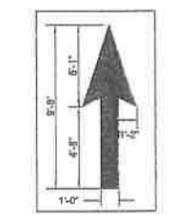


VAN ACCESSIBLE HANDICAP PARKING SIGN DETAIL
NOT TO SCALE
(MARCH 2008)

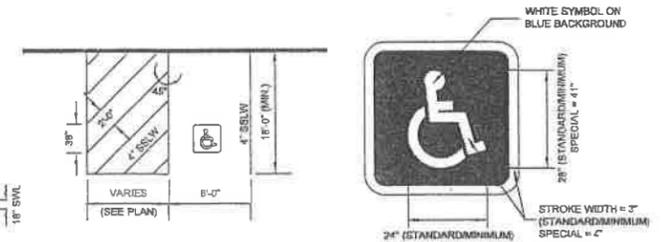
STRIPING NOTES:
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
2. WIDTH OF LINES SHALL VARY NO MORE THAN 1/4 INCH FROM THAT SPECIFIED.
3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.



STOP BAR



THROUGH (STRAIGHT) ARROW



HANDICAP STRIPING DETAIL
NOT TO SCALE
(MARCH 2012)

CONSTRUCTION DETAILS
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051
H.C.R.D. BK. B462; PG. 906

APPLICANT:
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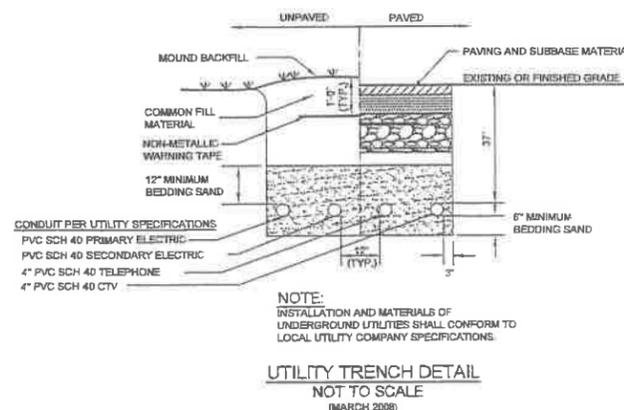
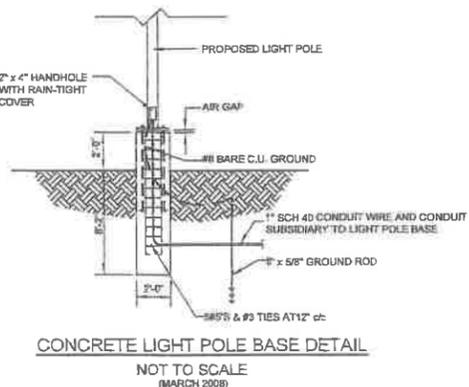
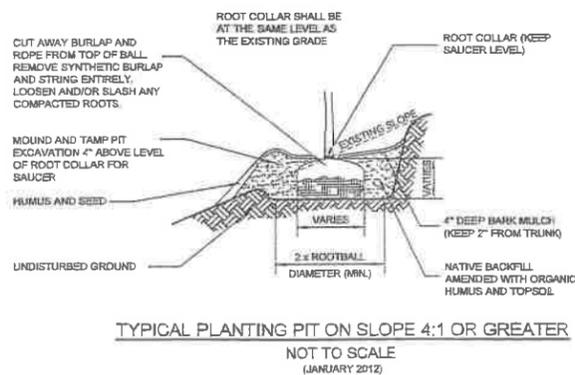
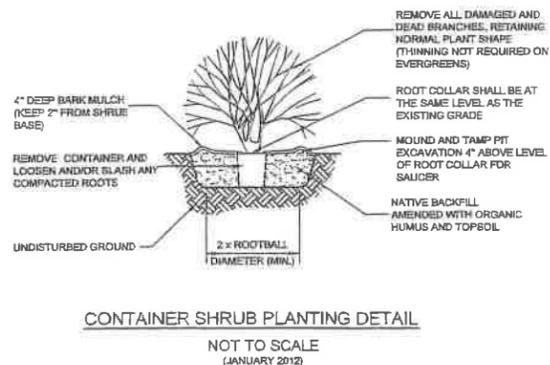
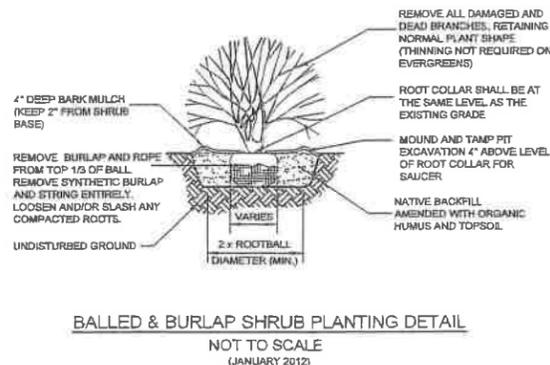
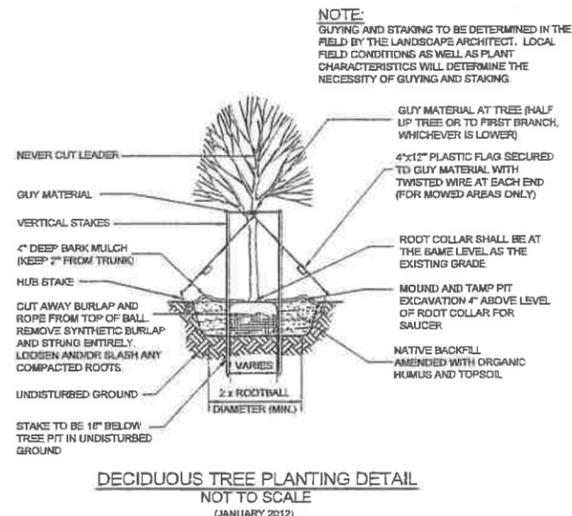
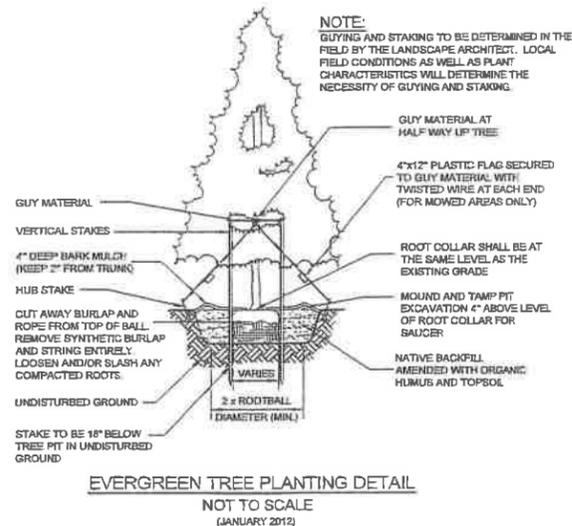


REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/5/14	PER TOWN COMMENTS	BJC
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJC

DATE: AUGUST 25, 2014
PROJECT NO: 14-0715-1
SCALE: AS SHOWN
SHEET 10 OF 15

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

- PURPOSE:**
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.
- PREPARATION AND EXECUTION:**
- RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
 - PLACE LOAM OVER AREAS TO BE SEED AND SPREAD.
 - FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED, TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
 - APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
 - APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
 - DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDING BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
 - SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 16 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNFITTABLE.
 - WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH HAY. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
 - PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEED.
 - WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

ALL SEEDING AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDING AREA. MAINTAIN SEEDING AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
- LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
- FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
- MULCH SHALL BE APPLIED AT A RATE OF 80 POUNDS PER 1,000 S.F.

MATERIALS:

- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM, FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOIL LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 85% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE 10-20-20 COMMERCIAL GRADE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 98% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
 - 25% CREEPING RED FESCUE
 - 25% KENTUCKY BLUEGRASS
 - 25% REDTOP
 - 25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
 - 15% BLACKWELL OR SHELTER SWITCHGRASS
 - 30% NIAGARA OR KAW BIG BLUESTEM
 - 30% CAMPER OR BLAZE LITTLESTEM
 - 15% NE-27 OR BLAZE SAND LOVEGRASS
 - 10% VIKING BIRDSFOOT TREFOL

INOCULUM SPECIFIC TO BIRDSFOOT TREFOL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STOCKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE 98% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
 - 30% CREEPING RED FESCUE
 - 40% PERENNIAL RYE GRASS
 - 15% REDTOP
 - 15% BIRDSFOOT TREFOL

IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:
 - 25% CREEPING RED FESCUE
 - 15% SWITCH GRASS
 - 15% FOX SEDGE
 - 15% CREEPING BENTGRASS
 - 10% FLATFEA
 - 20% WILDFLOWER VARIETY
- HAY USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

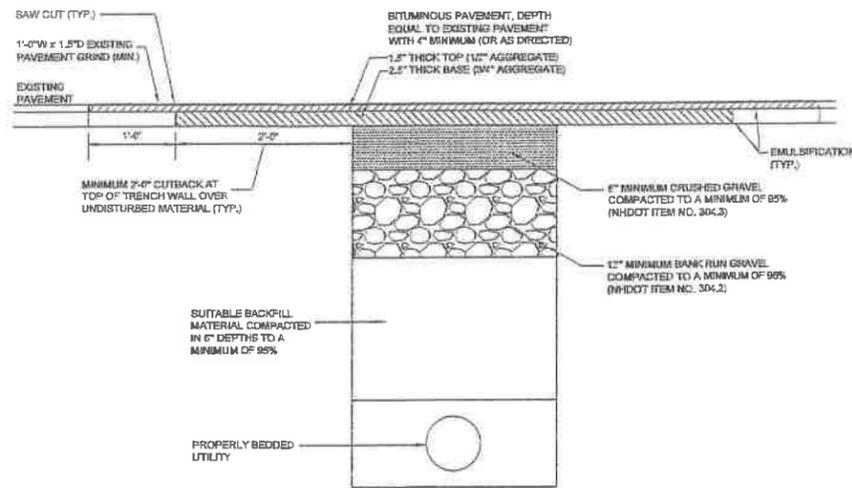
CONSTRUCTION DETAILS
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051 H.C.R.D. BK. B462; PG. 906	APPLICANT: YUE YUN & ZHOU DENG ZHENG 4 PAULA CIRCLE HUDSON, NH 03051
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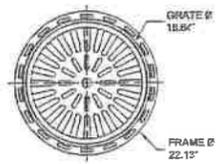
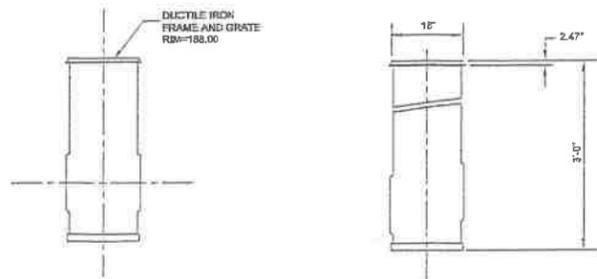
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
30 Commerce Park North, Suite 3E, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/5/14	DATE ONLY	BJC
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJC

DATE: AUGUST 25, 2014
PROJECT NO: 14-0716-1
SCALE: AS SHOWN
SHEET 11 OF 15

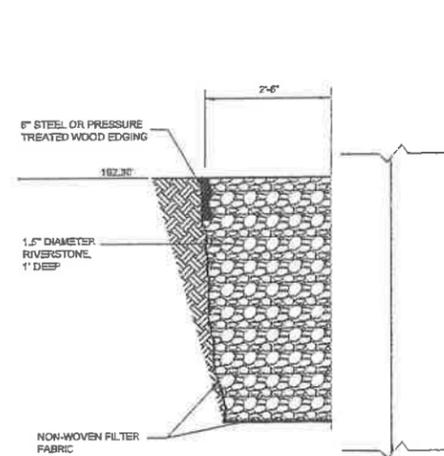


18" DRAIN BASIN
NOT TO SCALE
(MARCH 2008)

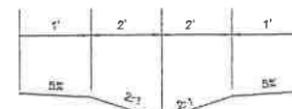


DOMES GRATE

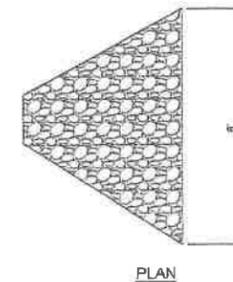
NYLOPLAST NEW STYLE 18" GRATES/COVERS
NOT TO SCALE



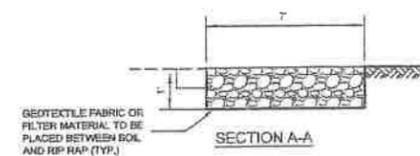
STONE DRIP EDGE DETAIL
NOT TO SCALE



TYPICAL DITCH SECTION
NOT TO SCALE



PLAN



PAVEMENT TO RAIN GARDEN EROSION STONE
NOT TO SCALE
(MARCH 2008)

BASIN SIZE	A' ANGLE BETWEEN HOLES	B' NUMBER OF HOLES	C' DISTANCE BETWEEN HOLES	Ø D DIAMETER OF HOLE
10"	80	4	2.00	0.375
12"	80	6	2.00	0.375
15"	60	6	2.00	0.375
18"	45	6	2.00	0.375
24"	45	8	2.00	0.375
30"	30	10	2.00	0.375

- NOTES:
- PERFORATIONS NOT TO BE ON OR WITHIN 1' OF ADAPTERS
 - STAGGERED HOLES EVERY OTHER ROW AS SHOWN.
 - TO PREVENT BLOCKAGE OF PERFORATIONS, DRAIN BASIN OR INLINE DRAIN SHOULD BE WRAPPED IN GEO-CLOTH AND/OR SHOULD BE PACKED WITH GRAVEL.

10" - 30" PERFORATION SCHEDULE
NOT TO SCALE
(MARCH 2008)

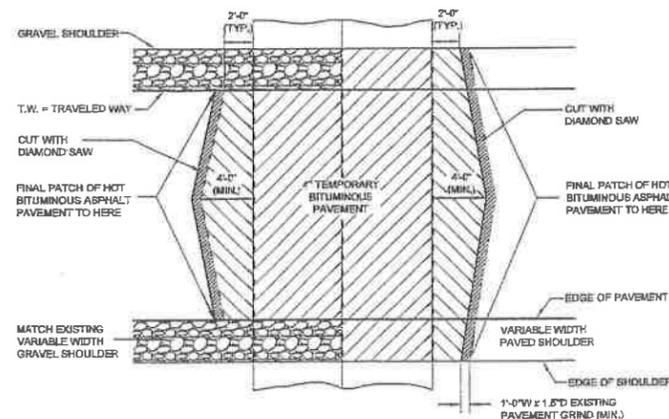
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d50
85%	1.3 TO 1.8 d50
60%	1.0 TO 1.6 d50
15%	0.3 TO 0.6 d50

CONSTRUCTION SPECIFICATIONS:

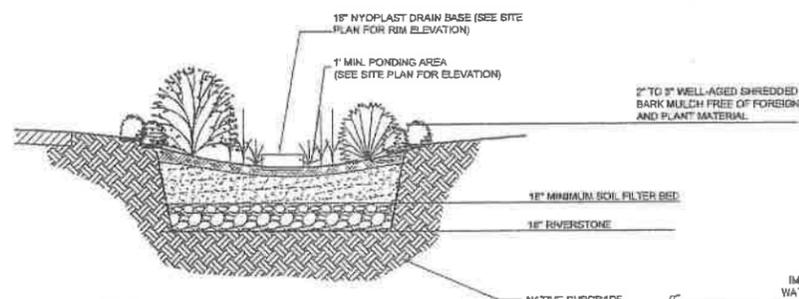
- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT 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 PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. 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 FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



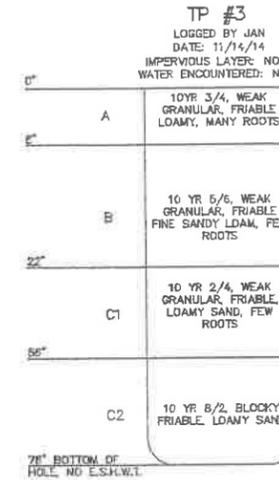
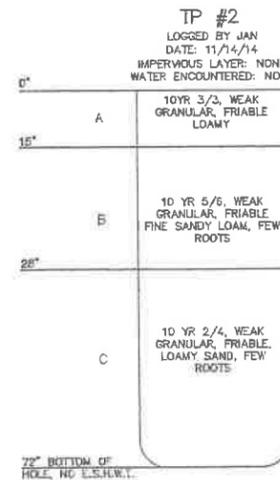
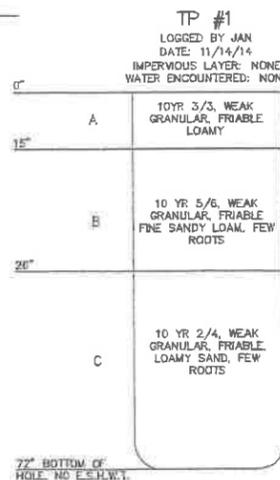
PERMANENT PAVEMENT REPAIR
NOT TO SCALE
(MARCH 2008)



NOTE:
THIS SYSTEM SHALL NOT BE IN SERVICE UNTIL THE SPECIFIED PLANTINGS ARE INSTALLED AND THE CONTRIBUTING SURFACE AREA IS STABILIZED.

TYPICAL RAIN GARDEN SECTION
NOT TO SCALE
JUNE 2012

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL	
		SIEVE NO.	PERCENT BY WEIGHT PASSING STANDARD SIEVE
FILTER MEDIA OPTION A			
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH WITH FINES AS INDICATED	20 TO 30	200	<5
FILTER MEDIA OPTION B			
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH WITH FINES AS INDICATED	20 TO 30	200	<5
LOAMY COARSE SAND	70 TO 80	10	85 TO 100
		20	70 TO 100
		60	15 TO 40
		200	5 TO 15



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
SIGNATURE: _____ DATE: _____
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CONSTRUCTION DETAILS
ZHENG GARDEN
MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

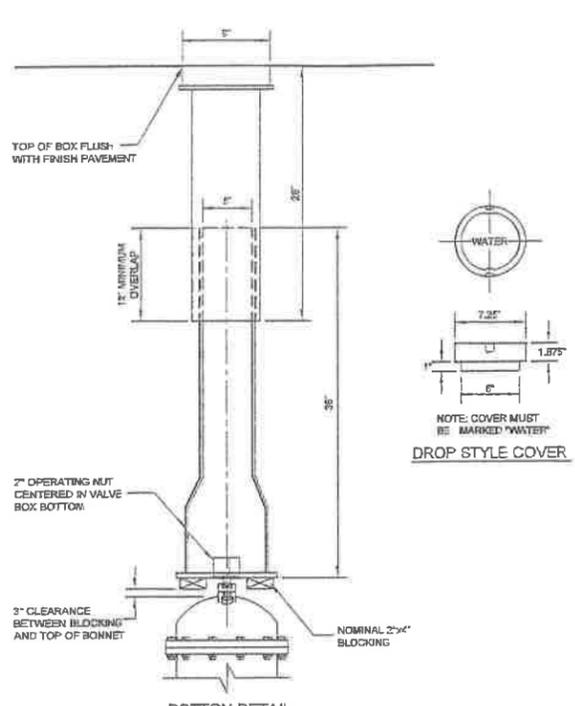
OWNER OF RECORD:
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/25/14	PER TOWN COMMENTS	BJC
2	12/11/14	REV. PER CONDITIONS OF APPROVAL	BJC

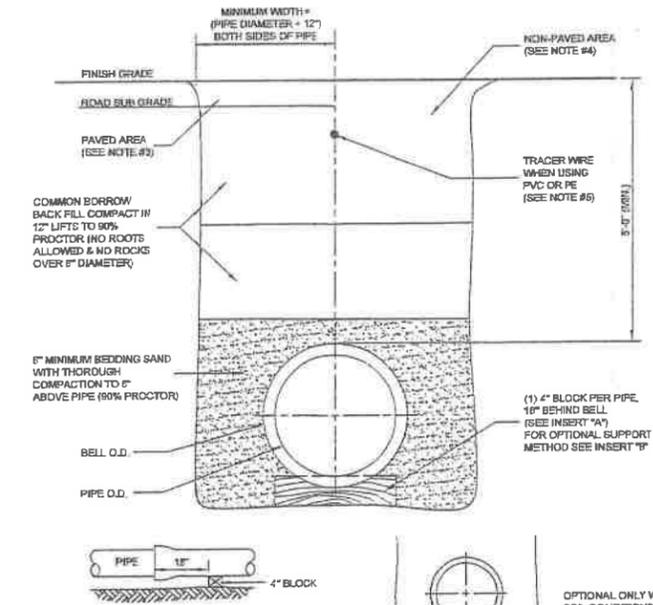
DATE: AUGUST 25, 2014 SCALE: AS SHOWN
PROJECT NO: 14-0718-1 SHEET 12 OF 15



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

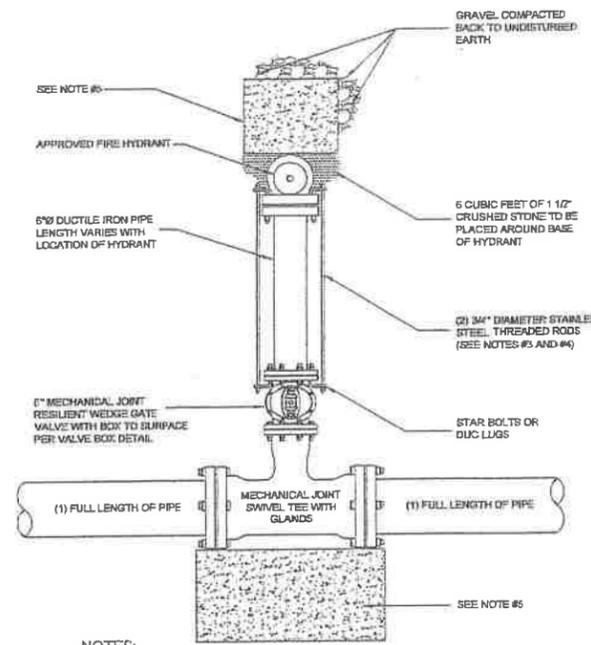
VALVE BOX DETAIL
(A-09)
NOT TO SCALE
(MARCH 2008)



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBEMASTER CORP., AVON, MA OR EQUIVALENT.

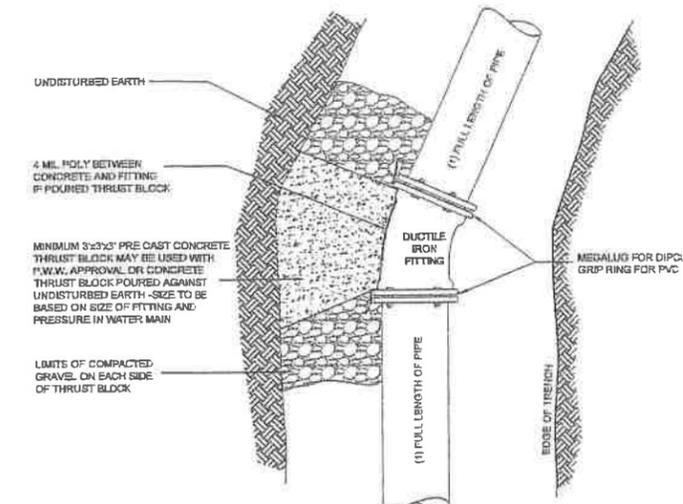
TRENCH DETAIL
(A-02)
NOT TO SCALE
(MARCH 2008)



NOTES:

1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOCIATED HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOCIATED HARDWARE.
4. WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10'-0" SUBSTITUTE MEGALUGS (OR GRIP RINGS) IN LIEU OF THREADED RODS.
5. MINIMUM 3x3x3" PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH PENNICHUCK WATER WORKS, INC. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE THRUST BLOCK BEHIND FITTINGS DETAIL.

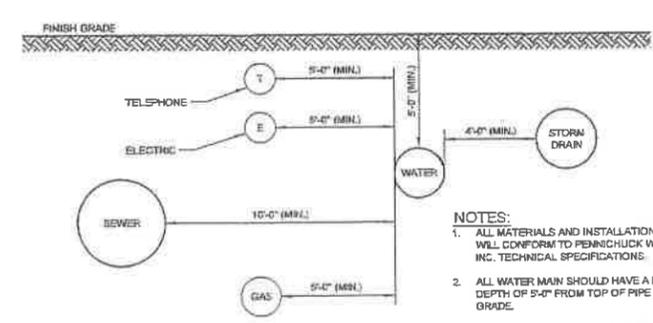
HYDRANT INSTALLATION
(A-10)
NOT TO SCALE
(MARCH 2008)



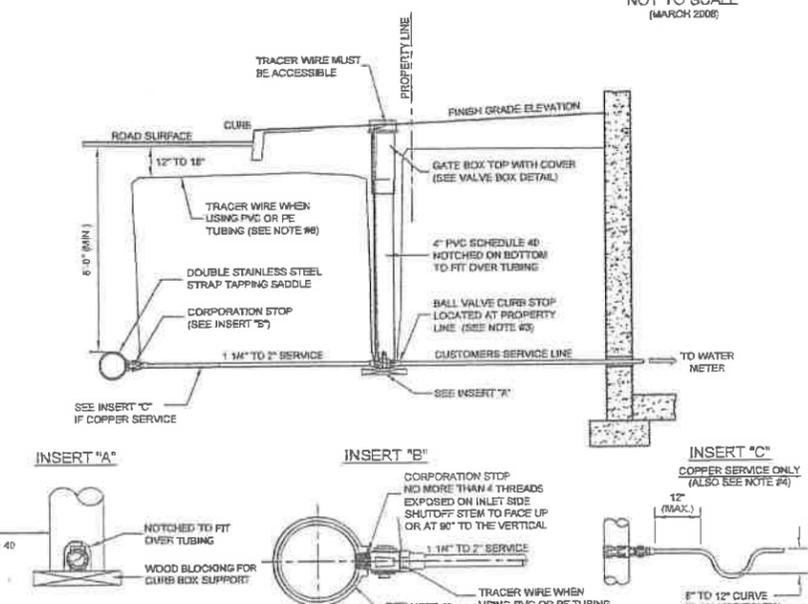
NOTES:

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THRUST BLOCK BEHIND FITTINGS INSTALLATION
(A-07)
NOT TO SCALE
(MARCH 2008)



UTILITY SEPARATION (MAIN) DETAIL
(A-01)
NOT TO SCALE
(MARCH 2008)



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER, THEN SEE THE APPROPRIATE DETAIL.
5. IF WATER MAIN IS A FIRE SERVICE, THEN SEE THE APPROPRIATE DETAIL.
6. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBEMASTER CORP., AVON, MA OR EQUIVALENT.

1 1/4" TO 2" SERVICE AND VALVE BOX INSTALLATION DETAIL
(A-12)
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION DETAILS
ZHENG GARDEN

MAP 204; LOT 5
LOWELL ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
YUE YUN & ZHOU DENG ZHENG
4 PAULA CIRCLE
HUDSON, NH 03051
H.C.R.D. BK. 8462; PG. 906

APPLICANT:
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HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	11/5/14	DATE ONLY	BJC
2	12/11/14	DATE ONLY	BJC

DATE: AUGUST 25, 2014 SCALE: AS SHOWN
PROJECT NO: 14-0718-1 SHEET 14 OF 15

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

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Sullivan Road 2 Lot Subdivision

STAFF REPORT

January 13, 2016

SITE: 75 Sullivan Road -- Map 162/Lot 023 -- SB# 01-16

ZONING: R-2 - Minimum lot size 1 Acre and 150 ft. (Sullivan Rd.) & 120 ft. (Paget Dr.) of frontage.

PURPOSE OF PLAN: to depict the subdivision of Map 162/Lot 023, into two separate lots. Application Acceptance & Hearing.

PLAN UNDER REVIEW ENTITLED: Proposed Subdivision Plan Prepared for Mary Jo Chiklis, Owner and Applicant, Lot 162-23, 75 Sullivan Road, Hudson, NH, prepared by Jeffery Land Survey LL, 1 Burgess Drive, Litchfield, NH, dated: SEPT 2015 (no revision date), consisting of Sheets 1 & 2 and Notes 1 – 16 (said plans are attached hereto).

ATTACHMENTS:

- 1) Project Narrative, Subdivision Application, Waiver Request Forms, and Aerial Photo, showing features within 200 ft. of the subdivision, date stamped 9 APR 15 – “A”.
- 2) Comments from: Zoning Administrator, Kevin Desmond, Town Eng., Elvis Dhima, Asst. Assessor, Jim Michaud, Fire Chief, Rob Buxton, Highway Dept. Asst. Supervisor, Jess Forrence and Police Lt. Dave Bianchi – “B”.
- 3) CAP Fee Worksheet – “C”.

OUTSTANDING ISSUES:

1. The Hall Chart, shown on Sheet 1 of 2 of the Plan, indicates that both proposed lots meet or exceed the following minimum lot requirements in the R-2 District, which requires a minimum lot size of 1 acre (43,560 sf) of contiguous upland and 150 ft. of frontage on a Class VI or better Highway, which both Sullivan Rd. and Paget Dr. qualify as.
2. The Plan indicates that there are no structures on proposed Lot 23-1, and there is 1-dwelling on proposed Lot 23, together with an existing barn; both structures are located inside the required building setbacks.

REQUESTED WAIVERS:

- 1) HTC 289-6(D) -- Fiscal Impact
- 2) HTC 289-6 (D) --Traffic Study
- 3) HTC 289-20C -- Drainage Study

3) HTC 289-20C -- Drainage Study

I move to grant the requested waiver HTC -289-20C – Drainage Study - based on the testimony of the Applicant's representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

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

MOTION to APPROVE:

I move to approve the subdivision plan entitled: Proposed Subdivision Plan Prepared for Mary Jo Chiklis, Owner and Applicant, Lot 162-23, 75 Sullivan Road, Hudson, NH, prepared by Jeffery Land Survey LL, 1 Burgess Drive, Litchfield, NH, dated: SEPT 2015 (no revision date), consisting of Sheets 1 & 2 and Notes 1 – 16, in accordance with the following terms and conditions:

1. All stipulations of approval shall be incorporated into the Decision of Approval, which shall be recorded at the HCRD, together with the Plan.
2. A cost allocation procedure (CAP) amount of \$787.48, per residential unit shall be paid prior to the issuance of a Certificate of Occupancy.
3. 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.
4. A recreation contribution in the amount of \$400.00, per residential unit shall be paid prior to the issuance of a Certificate of Occupancy.
5. All monumentation shall be set or bonded for prior to the Planning Board endorsing the Plan-of -Record.
6. Approval of this plan shall be subject to final engineering review, including the location of the driveway for Lot 23-1.
7. Construction activities involving the proposed undeveloped lots shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Saturday. No exterior construction activities shall occur on Sunday.

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

JEFFREY LAND SURVEY LLC

1 BURGESS DRIVE, LITCHFIELD, NH 03052
(603) 424-4089



"A"

October 1, 2015
Hudson Planning Board
12 School Street
Hudson, NH 03051
RE: Subdivision Narrative

Dear Board Members,

The applicant proposes a two lot subdivision of Tax Map 162 Lot 23, currently with a street address of 75 Sullivan Road, Hudson. One lot will retain its address on Sullivan Road, and the new single-family residence will have frontage on Paget Drive.

Both lots have adequate frontage and area.

The existing lot has private septic and well while the proposed lot is to tie into Town sewer and water services.

There are to be no new roadways built.

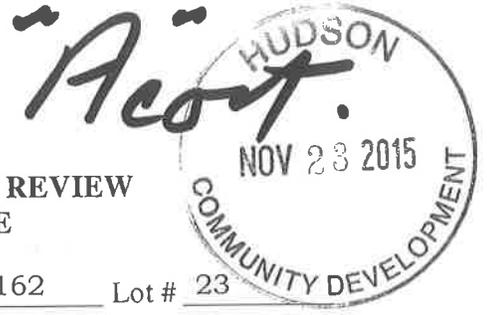
There are to be no new drainage structures installed.

At this time, there are no firm house design plans, as it is to be left to the buyer.

Because this is a single buildable lot, it is expected to have a minimal impact on traffic, schools, and sewer.

Please do not hesitate to let me know if you have any further questions.

Gregg R. Jeffrey, LLS
Jeffrey Land Survey LLC
1 Burgess Drive
Litchfield, NH 03052



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

Date of Application: _____ Tax Map # 162 Lot # 23
Name of Project: SUBDIVISION FOR LOT 162/23
Zoning District: _____ General SB# 01-16
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

PURPOSE OF PLAN:

TO SUBDIVIDE LOT 162/23 INTO TWO CONFORMING LOTS. ONE LOT WITH THE
EXISTING HOME, AND ONE LOT TO BE A BUILDABLE LOT FOR A SINGLE-FAMILY
DWELLING.

(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

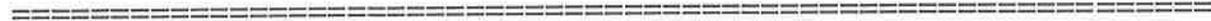
Plan Name: SUBDIVISION FOR LOT 162/23

Plan Type: Subdivision Plan

Legal Description: Map 162 Lot 23

 Map _____ Lot _____

Date: SEPT. 2015



Location: 75 SULLIVAN ROAD, HUDSON, NH

Total Area: S.F. 130,832 Acres: 3.00

Area in Wetlands: 37,122 sf INCLUDES NON-CONTIGUOUS WETLAND

Zoning: R-2

Lots Not Meeting
Required Dimensions: N/A

Required Area: 30,000 sf (TOWN WATER AND SEWER)

Required Frontage: 120'

Water and Waste System
Proposed: TOWN WATER AND SEWER

Number of Lots With
Existing Buildings: 1

Existing Buildings
To Be Removed: NONE

Flood Zone Reference: N/A

Proposed Linear Feet
Of New Roadway: NONE

LOT AREA CALCULATION TABLE

LOT #	TOTAL AREA	WETLAND AREA	AREA > 25% SLOPE	BUILDABLE AREA (net contiguous upland useable)	FRONTAGE
1.	46,548 sf	0 sf	0 sf	46,548 sf	404.29'
2.	NEW LOT 84,283 sf	37,122 sft	3,575 sft	43,586 sft	331.27'
3.					
4.					
5.					
6.					
7.					
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	<hr/>	<hr/>
	<hr/>	<hr/>
	<hr/>	<hr/>
Cap Fees	<hr/>	<hr/>
	<hr/>	<hr/>

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>MJC</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. | JC
JC |
| <u>MC</u> | b) Seventeen (17)-subdivision narratives, describing the project. | JC |
| <u>MC</u> | c) Plan scale at not less than one inch equals fifty feet (example: 1" = 50' acceptable). | JC |
| <u>MC</u> | d) Locus plan with 1,000 minimum radius of site to surrounding area. | JC |
| <u>MC</u> | e) Plan dated by day/month/year. | JC |
| <u>MC</u> | f) Revision block. | JC |
| <u>MC</u> | g) Planning Board approval block. | JC |
| <u>MC</u> | h) Title of project inscribed on plan. | JC |
| <u>MC</u> | i) Name(s) and address of property owner(s) and signature(s) shall be inscribed on plan. | JC |
| <u>MC</u> | j) North point shall be inscribed on plan. | JC |
| <u>MC</u> | k) Property lines-exact locations and dimensions. | JC |
| <u>MC</u> | l) Acreage/sq. ft. of entire subdivision. | JC |
| <u>MC</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. | JC |

Applicant
Initials

Staff
Initials

ML 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.

JC

ML 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.

JC

ML p)

Locations of existing and proposed permanent monuments and benchmarks within 200 feet of the tract.

JC

ML q)

Pertinent highway projects.

JC

ML r)

Assessor map and lot number.

JC

ML 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.

JC

ML t)

Delineate zoning.

JC

_____ u)

Storm water drainage plan. N/A

N/A No Road
Construction

ML v)

Topographical contours at 2-foot intervals existing and proposed.

JC

ML w)

Utilities: existing and proposed.

JC

ML x)

Building and wetland setback lines.

JC

ML y)

Rights of way, existing and proposed.

JC

_____ z)

Location of dedicated recreational public use land(s) proposed. N/A

N/A

_____ aa)

Detailed designs of bridges and culverts. N/A

N/A

_____ ab)

Typical roadway cross-section, road profile, stationing, and curve data, etc. N/A

N/A

Applicant
Initials

Staff
Initials

- _____ 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. N/A
- ML ad) All notes from plats.
- ML ae) Buffers as required by subdivision regulations.
- _____ 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. N/A
- _____ 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. N/A
- ML ah) Easements, existing and proposed.
- ML ai) State of New Hampshire Engineer's seal and signature. Surveyor's seal and signature.
- ML aj) Error of closure (1 in 10,000 or better).
- ML ak) Drafting errors/omissions.
- ML al) Note outlining phasing schedule.
- W am) Narrative description stating the purpose, location, N/A long range plans impacts on traffic, schools, and utilities.
- ML an) Aerial photograph of site and area within 200 feet of the subdivision parcel.
- W ao) Fiscal impact study. N/A
- W ap) Traffic study. N/A
- W aq) Drainage calculations and supporting data. N/A

N/A
LOTS HAVE MUNI.
SEWER WATER.

JC

JC

N/A

MUNI
N/A SEWER WATER
PROVIDED

JC

JC

JC

JC

JC

~~W~~ JC N/A

JC

W

W

W

Applicant
Initials

Staff
Initials

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

JC

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

JC

- 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.

MC at) Off-site agreement(s).

JC

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

JC

MC av) Fees paid to clerk.

JC

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

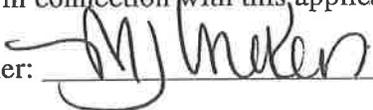
JC

- 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.

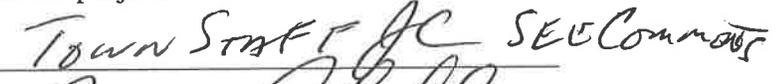
Pursuant to RSA 674:1-IV, the owner(s), by the filing of this application as indicated above, hereby give permission for any member of the Hudson Planning Board, the Town Engineer, the Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, 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.

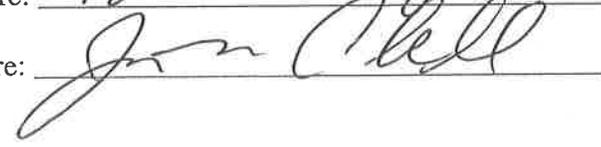
Signature of Owner: 

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

Signature of Developer: _____

- ❖ 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: 

Planner Approval Signature: 

"B"



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

Date of Application: _____ Tax Map # 162 Lot # 23

Name of Project: SUBDIVISION FOR LOT 162/23

Zoning District: _____ (For Town Use) General SB# 01-114 (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

PURPOSE OF PLAN:

TO SUBDIVIDE LOT 162/23 INTO TWO CONFORMING LOTS. ONE LOT WITH THE
EXISTING HOME, AND ONE LOT TO BE A BUILDABLE LOT FOR A SINGLE-FAMILY
DWELLING.

(FOR TOWN USE)

Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16

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

DAM Title: Acting Zoning Administrator Date: 12-28-15
(Initials)

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

Fees Paid \$ 522.52



TOWN OF HUDSON

FIRE DEPARTMENT

INSPECTIONAL SERVICES DIVISION



12 SCHOOL STREET, HUDSON, NEW HAMPSHIRE 03051

Emergency 911
Business 603-886-6005
Fax 603-594-1142

Robert M. Buxton
Chief of Department

November 24, 2015

Re: 75 Sullivan Road, zoning Input (Map 162/ Lot 023) Residential-Two (R-2) District

The table of minimum dimensional requirements requires 43,560sqft of area. The plans show 30,000sqft.

No wetland buffer indicated on plans.

David Hebert
Acting Zoning Administrator / Code Enforcement Officer

cc: File



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

Date of Application: _____ Tax Map # 162 Lot # 23

Name of Project: SUBDIVISION FOR LOT 162/23

Zoning District: _____ General SB# 01-10
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

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DWELLING.

(FOR TOWN USE)

Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16

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

PJO Title: TOWN ENGINEER Date: _____

(Initials)

DEPT:

Zoning Engineering Assessor Police Fire Planning

Consultant Highway Department

Fees Paid \$522.52



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

Date of Application: _____ Tax Map # 162 Lot # 23

Name of Project: SUBDIVISION FOR LOT 162/23

Zoning District: _____ (For Town Use) General SB# 01-14 (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

PURPOSE OF PLAN:

TO SUBDIVIDE LOT 162/23 INTO TWO CONFORMING LOTS. ONE LOT WITH THE EXISTING HOME, AND ONE LOT TO BE A BUILDABLE LOT FOR A SINGLE-FAMILY DWELLING.

(FOR TOWN USE)

Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16

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

JOB (Initials) Title: Deputy Fire Chief Date: 12/11/15

DEPT:

Zoning Engineering Assessor Police Fire Planning

Consultant Highway Department

Fees Paid \$ 522.52



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

Date of Application: _____ Tax Map # 162 Lot # 23

Name of Project: SUBDIVISION FOR LOT 162/23

Zoning District: _____ General SB# 01-114
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

PURPOSE OF PLAN:

TO SUBDIVIDE LOT 162/23 INTO TWO CONFORMING LOTS. ONE LOT WITH THE
EXISTING HOME, AND ONE LOT TO BE A BUILDABLE LOT FOR A SINGLE-FAMILY
DWELLING.

(FOR TOWN USE)

Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16

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

KB Title: ROAD AGENT Date: 12/10/15
(Initials)

DEPT:

Zoning Engineering Assessor Police Fire Planning

Consultant Highway Department

Fees Paid \$ 522.52



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

Date of Application: _____ Tax Map # 162 Lot # 23

Name of Project: SUBDIVISION FOR LOT 162/23

Zoning District: _____ General SB# 01-116
(For Town Use) (For Town Use)

ZBA Action: _____

PROPERTY OWNER:

DEVELOPER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

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DWELLING.

(FOR TOWN USE)

Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16

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

(Initials) Title: Asst. Assessor Date: 12-10-15

DEPT:

Zoning Engineering Assessor Police Fire Planning

Consultant Highway Department

Fees Paid: \$ 522.52



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

Date of Application: _____ Tax Map # 162 Lot # 23
Name of Project: SUBDIVISION FOR LOT 162/23
Zoning District: _____ General SB# 01-14
(For Town Use) (For Town Use)
ZBA Action: _____

PROPERTY OWNER:

Name: MARY JO CHIKLIS
Address: 75 SULLIVAN ROAD
Address: HUDSON, NH 03051
Telephone # 603-881-3721
Fax # _____
Email: mjochik@comcast.net

DEVELOPER:

PROJECT ENGINEER

Name: GREGG R. JEFFREY, SURVEYOR
Address: 1 BURGESS DRIVE
Address: LITCHFIELD, NH

Telephone # 603-424-4089
Fax # _____
Email: gjeffrey@jeffreylandsurvey.com

PURPOSE OF PLAN:

TO SUBDIVIDE LOT 162/23 INTO TWO CONFORMING LOTS. ONE LOT WITH THE
EXISTING HOME, AND ONE LOT TO BE A BUILDABLE LOT FOR A SINGLE-FAMILY
DWELLING.

(FOR TOWN USE)
Plan Routing Date: 12/10/15 Sub/Site Date: 1/13/16
 I have no comments I have comments (attach to form)
DR Title: LIEU TENANT Date: 12/11/15
(Initials)
DEPT: _____ Zoning _____ Engineering _____ Assessor DR Police _____ Fire _____ Planning _____
_____ Consultant _____ Highway Department

Fees Paid \$522.52

61
C

CAP FEE WORKSHEET - 2015

Date: 12/09/15 Sector # 2 Map/Lot: 162/023

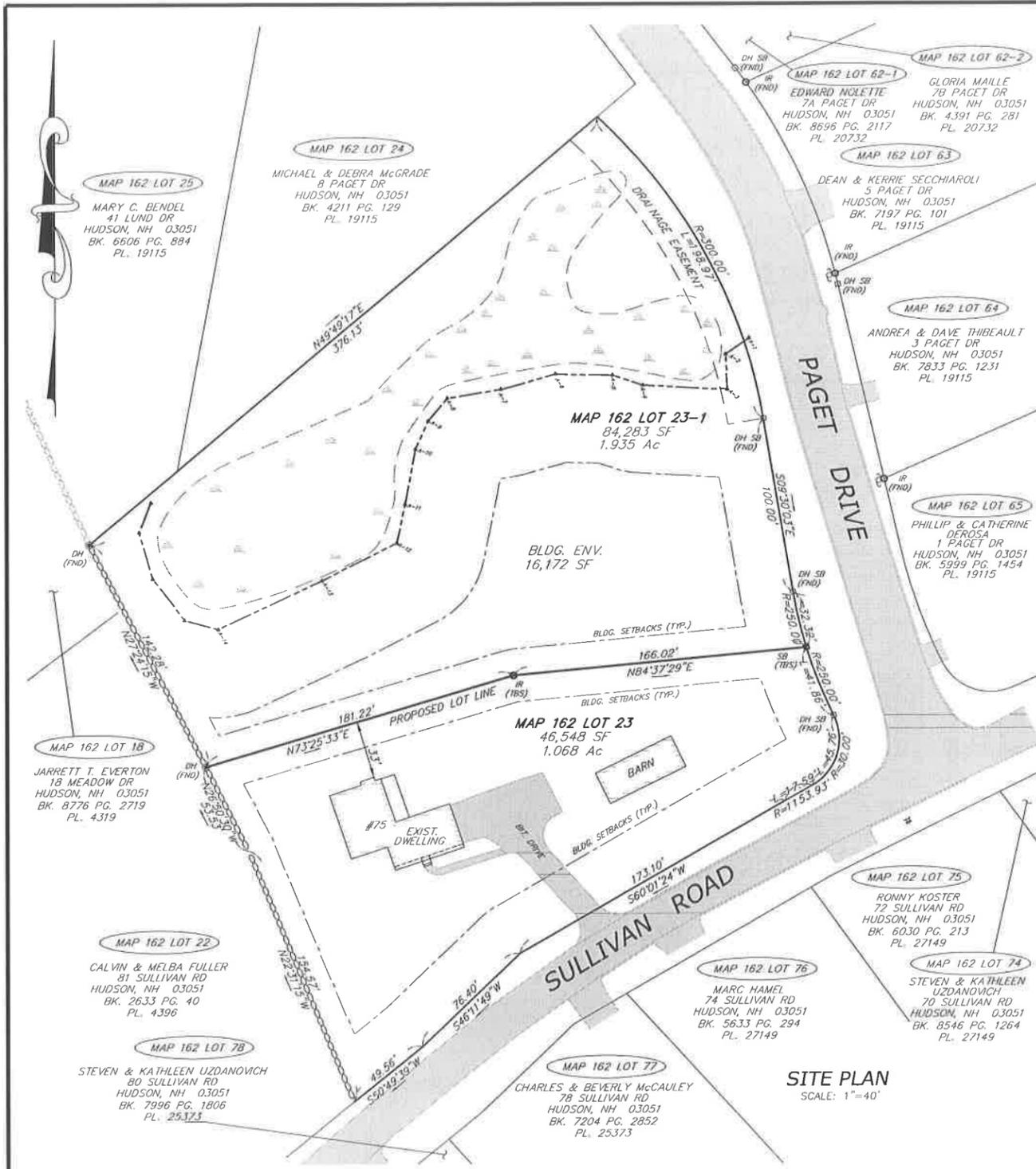
Project Name: 75 Sullivan Road

Proposed ITE Use #1: Single Family

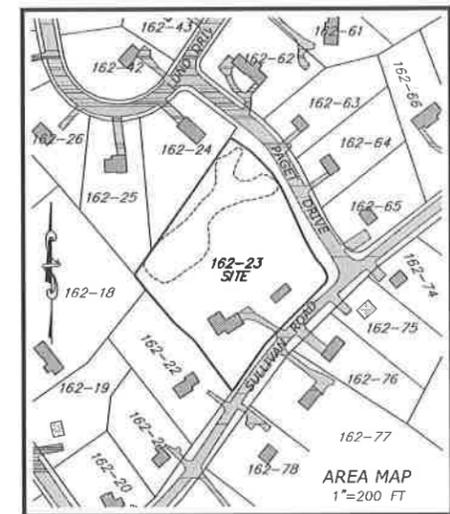
Proposed Building Area (square footage): N/A S.F.

CAP FEES: (ONE CHECK NEEDED)

1.	(2070-702 Zone Two) Sector #2		\$ <u>787.48</u>
		Total CAP Fee	\$ <u>787.48</u>
2.	(Bank 09) 2050-182	Recreation	\$ <u>400.00</u>
3.	(Bank 09) 2080-051	School	\$ <u>3,578.00</u>
		Total CAP Fee	\$ <u>4,765.48</u>



REFERENCE PLAN:
 1. REFERENCE PLAN: "OVERALL CONSOLIDATION & SUBDIVISION PLAN LOT 34 & 61/MAP 32 BRIAROOKS ESTATES, HUDSON, NH" DATED AUGUST 1984 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HCRD) AS PLAN 19115.



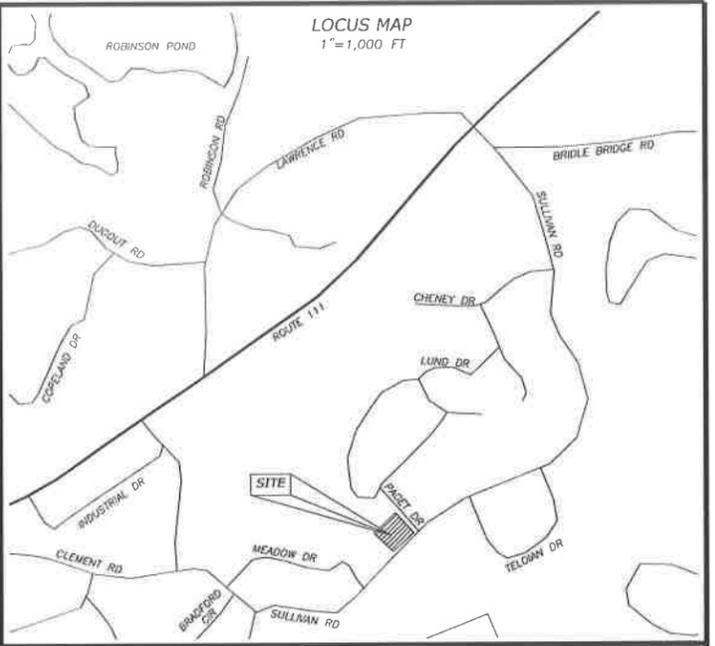
PLAN LEGEND

IRON ROD FOUND	IR (FND)
DRILL HOLE IN STONE BOUND FOUND	DH SB (FND)
DRILL HOLE FOUND	DH (FND)
PROPERTY LINE	---
SETBACK LINE	---
WETLAND AREA	W
WETLAND LINE	---
SLOPES >25%	---
STONE WALL	○-○-○-○

WAIVERS REQUESTED

CHECKLIST ITEM	DESCRIPTION	HTC-289-6D
HTC 289-60	FISCAL/ENVIRONMENTAL STUDY	
HTC 289-20C	STORM WATER DRAINAGE PLAN	
HTC-289-6D	TRAFFIC STUDY	

LOT NUMBER	TOTAL AREA (PROPOSED)	WETLAND AND NON-CONTIGUOUS W/PLAND	AREA >25% SLOPES	BUILDABLE AREA (NET CONTIGUOUS UPLAND USEABLE)	FRONTAGE
162-23	46,548 SF±	0 SF±	0 SF±	46,548 SF±	404.29'
162-23-1	84,283 SF±	37,122 SF±	3,575 SF±	43,586 SF±	331.27'



- PLAN NOTES:
- THE PURPOSE OF THIS PLAN IS TO CREATE TWO LOTS OUT OF HUDSON TAX MAP 163 LOT 23, BRIAROOKS ESTATES, HUDSON, NH DATED AUGUST 1984 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HCRD) AS PLAN 19115.
 - AREA OF PARCEL BEFORE SUBDIVISION = 130,832 SF OR 3.003 AC.
 - PROPOSED LOT AREA
 TAX MAP 163 LOT 23 = 46,548 SF OR 1.068 AC.
 TAX MAP 163 LOT 23-1 = 84,283 SF OR 1.934 AC.
 - REFERENCE THIS PARCEL AS TOWN OF HUDSON TAX MAP 163 LOT 23.
 - OWNER OF RECORD: MARY JO CHIKLIS, 75 SULLIVAN RD., HUDSON, NH 03051
 - CURRENT ZONING DISTRICT: R-2
 MINIMUM SETBACKS: FRONT= 30'
 SIDE= 15'
 REAR= 15'
 MIN. AREA (TOWN WATER & SEWER)= 30,000 SF
 MIN. FRONTAGE= 120'
 - WETLAND DELINEATION PERFORMED BY BRUCE A. GILDAY, CERTIFIED WETLAND SCIENTIST #88 OF B.A.G. LAND CONSULTANTS OF CONCORD, NH IN AUGUST, 2015.
 - FOR BOUNDARY INFORMATION SEE PLAN REFERENCE 1.
 - TOPOGRAPHIC INFORMATION DEPICTED HEREON IS A RESULT OF AN ON-THE-GROUND SURVEY PREPARED BY THIS OFFICE SEPTEMBER 2015.
 - NO PORTION OF THE PROPERTY IS WITHIN THE 100-YEAR FLOOD PLAN AS PER FIRM MAP NUMBER 33011G0538D
 - NEW LOT TO BE SERVICED BY MUNICIPAL WATER AND SEWER.
 - THE LOCATION OF ANY UNDERGROUND UTILITIES SHOWN IS APPROXIMATE. JEFFREY LAND SURVEY MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. CONTRACTOR IS TO CONTACT DIGSAFE PRIOR TO ANY EXCAVATION.
 - A COST ALLOCATION PROCEDURE (C.A.P.) FOR LOT 163-23-1, IN AN AMOUNT OF \$787.48 IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - A RECREATION CONTRIBUTION FOR LOT 163-23-1, IN THE AMOUNT OF \$400, IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - A PUBLIC SCHOOL IMPACT FEE FOR LOT 163-23-1, IN THE AMOUNT OF \$3,578, IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - HOURS OF CONSTRUCTION OF NEW LOT SHALL BE LIMITED TO THE HOURS OF 7AM TO 7PM MONDAY THROUGH SATURDAY. NO EXTERIOR CONSTRUCTION ACTIVITIES SHALL OCCUR ON SUNDAYS.

REV. 3		BY:
REV. 2		BY:
REV. 1		BY:

PROPOSED SUBDIVISION PLAN
 PREPARED FOR
MARY JO CHIKLIS
 OWNER AND APPLICANT, LOT 162-23
 75 SULLIVAN ROAD
 HUDSON, NH
 HILLSBOROUGH COUNTY, NH

PURSUANT TO THE SUBDIVISION OF LAND REGULATIONS OF THE HUDSON PLANNING BOARD, SUBDIVISION APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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

SUBDIVISION PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

BRUCE A. GILDAY, CERTIFIED WETLAND SCIENTIST #88 OF B.A.G. LAND CONSULTANTS OF CONCORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN AUGUST OF 2015 USING THE TECHNICAL CRITERIA IN THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-B7-1, JANUARY 1987).

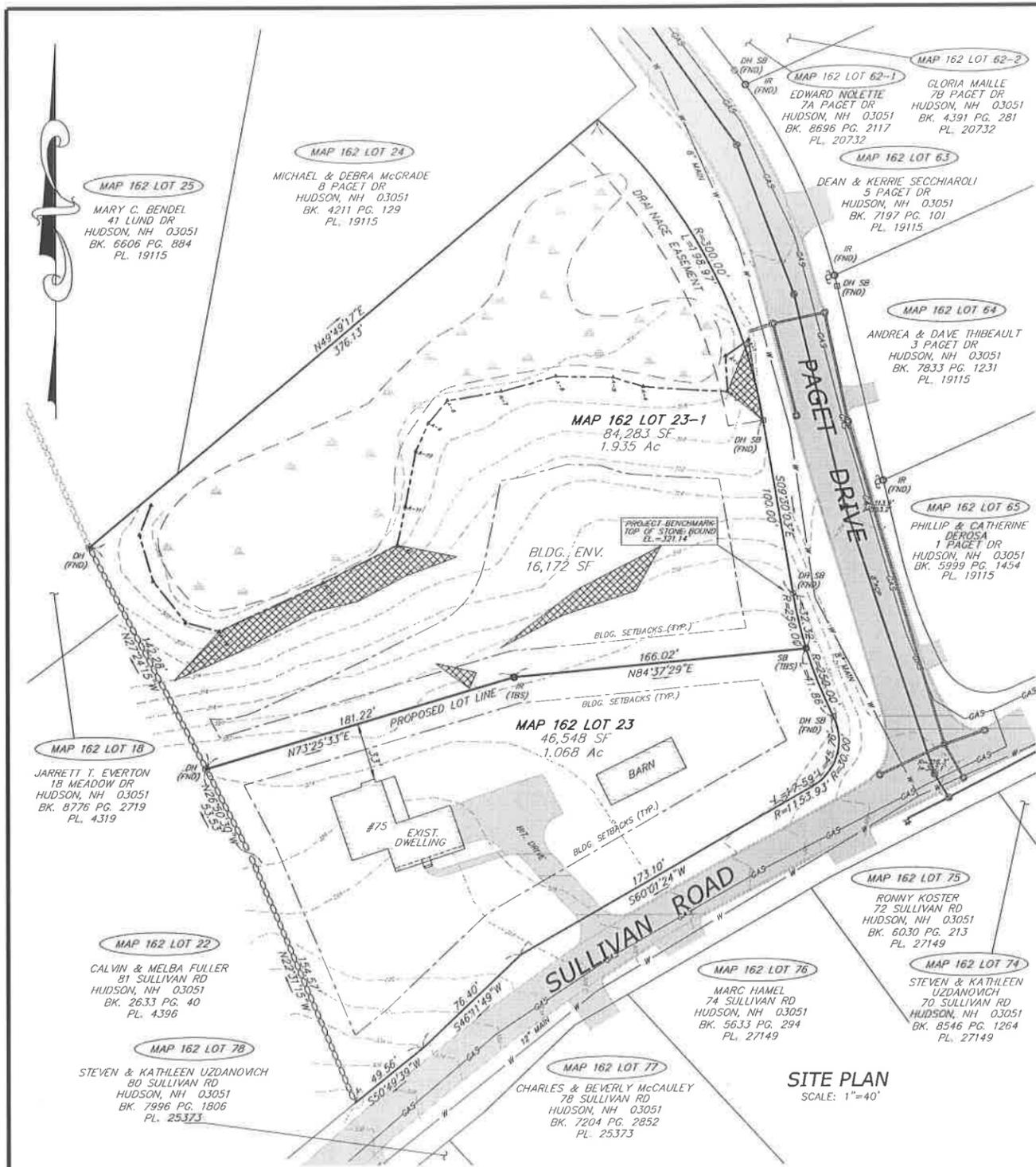
OWNER OF MAP 162 LOT 23
 SIGNATURE _____
 DATE _____

CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION, FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING SEPTEMBER OF 2015. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

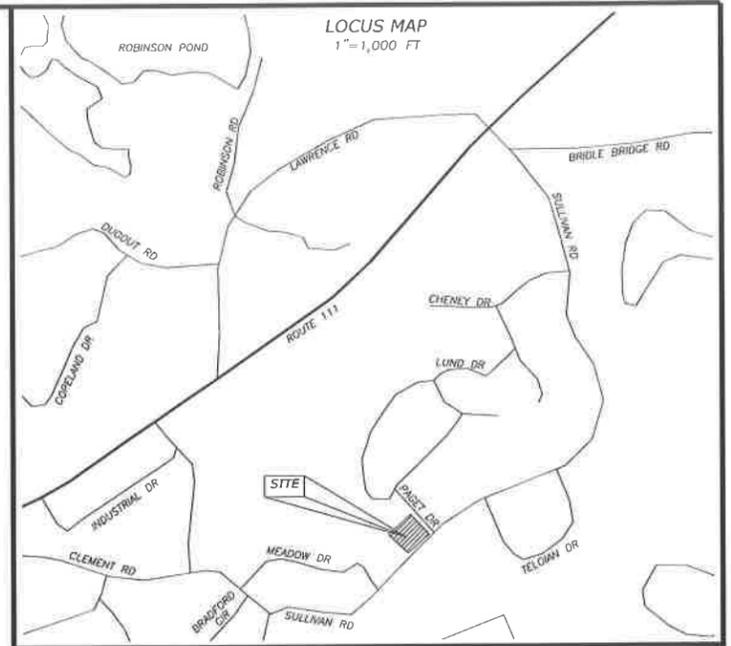
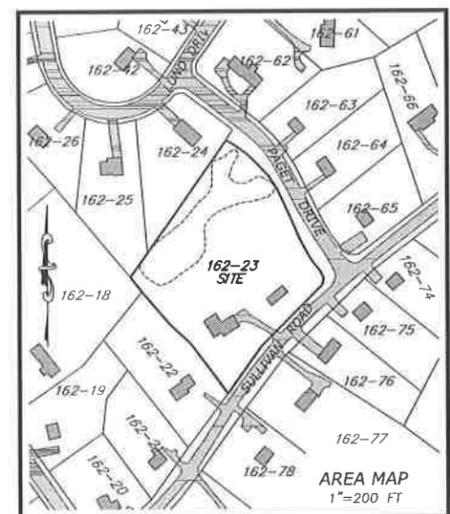
LICENSED LAND SURVEYOR _____ DATE _____



JEFFREY LAND SURVEY, LLC
 1 BURGESS DRIVE
 LITCHFIELD, NH 03052
 (603) 424-4089



REFERENCE PLAN:
 1. REFERENCE PLAN: "OVERALL CONSOLIDATION & SUBDIVISION PLAN LOT 34 & 61/MAP 32 BRIAROAKS ESTATES, HUDSON, NH" DATED AUGUST 1984 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HCRD) AS PLAN 19115.



- PLAN NOTES:**
- THE PURPOSE OF THIS PLAN IS TO CREATE TWO LOTS OUT OF HUDSON TAX MAP 163 LOT 23, BRIAROAKS ESTATES, HUDSON, NH DATED AUGUST 1984 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS (HCRD) AS PLAN 19115.
 - AREA OF PARCEL BEFORE SUBDIVISION = 1,30,832 SF OR 3,003 AC.
 - PROPOSED LOT AREA
 TAX MAP 163 LOT 23 = 46,548 SF OR 1.068 AC.
 TAX MAP 163 LOT 23-1 = 84,283 SF OR 1.934 AC.
 - REFERENCE THIS PARCEL AS TOWN OF HUDSON TAX MAP 163 LOT 23.
 - OWNER OF RECORD: MARY JO CHIKLIS, 75 SULLIVAN RD., HUDSON, NH 03051
 - CURRENT ZONING DISTRICT: R-2
 MINIMUM SETBACKS: FRONT= 30'
 SIDE= 15'
 REAR= 15'
 MIN. AREA (TOWN WATER & SEWER)= 30,000 SF
 MIN. FRONTAGE= 120'
 - WETLAND DELINEATION PERFORMED BY BRUCE A. GILDAY, CERTIFIED WETLAND SCIENTIST #88 OF B.A.G. LAND CONSULTANTS OF CONCORD, NH IN AUGUST, 2015.
 - FOR BOUNDARY INFORMATION SEE PLAN REFERENCE 1.
 - TOPOGRAPHIC INFORMATION DEPICTED HEREON IS A RESULT OF AN ON-THE-GROUND SURVEY PREPARED BY THIS OFFICE SEPTEMBER 2015.
 - NO PORTION OF THE PROPERTY IS WITHIN THE 100-YEAR FLOOD PLAN AS PER FIRM MAP NUMBER 33011C0538D.
 - NEW LOT TO BE SERVICED BY MUNICIPAL WATER AND SEWER.
 - THE LOCATION OF ANY UNDERGROUND UTILITIES SHOWN IS APPROXIMATE. JEFFREY LAND SURVEY MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. CONTRACTOR IS TO CONTACT DIGSAFE PRIOR TO ANY EXCAVATION.
 - A COST ALLOCATION PROCEDURE (C.A.P.) FOR LOT 163-23-1, IN AN AMOUNT OF \$787.48 IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - A RECREATION CONTRIBUTION FOR LOT 163-23-1, IN THE AMOUNT OF \$400, IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - A PUBLIC SCHOOL IMPACT FEE FOR LOT 163-23-1, IN THE AMOUNT OF \$3,578, IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - HOURS OF CONSTRUCTION OF NEW LOT SHALL BE LIMITED TO THE HOURS OF 7AM TO 7PM MONDAY THROUGH SATURDAY. NO EXTERIOR CONSTRUCTION ACTIVITIES SHALL OCCUR ON SUNDAYS.

PLAN LEGEND

IRON ROD FOUND	○ IR (FND)
DRILL HOLE IN STONE BOUND FOUND	○ DH SB (FND)
DRILL HOLE FOUND	○ DH (FND)
PROPERTY LINE	—
SETBACK LINE	- - -
MAJOR CONTOUR LINE	~ ~ ~
MINOR CONTOUR LINE	~ ~ ~
WETLAND AREA	▨
WETLAND LINE	—
SLOPES >25%	▨
STONE WALL	—

WAIVERS REQUESTED

CHECKLIST ITEM	DESCRIPTION	HTC-289-6D
HTC 289-6D	FISCAL/ENVIRONMENTAL STUDY	
HTC 289-20C	STORM WATER DRAINAGE PLAN	
HTC-289-6D	TRAFFIC STUDY	

LOT NUMBER	TOTAL AREA (PROPOSED)	WETLAND AND NON-CONTIGUOUS UPLAND	AREA >25% SLOPES	BUILDABLE AREA (NET CONTIGUOUS UPLAND USEABLE)	FRONTAGE
162-23	46,548 SF±	0 SF±	0 SF±	46,548 SF±	404.29'
162-23-1	84,283 SF±	37,122 SF±	3,575 SF±	43,586 SF±	331.27'

PURSUANT TO THE SUBDIVISION OF LAND REGULATIONS OF THE HUDSON PLANNING BOARD, SUBDIVISION APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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

SUBDIVISION PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

SHEET 2 OF 2
 ONLY SHEET 1 TO BE RECORDED

BRUCE A. GILDAY, CERTIFIED WETLAND SCIENTIST #88 OF B.A.G. LAND CONSULTANTS OF CONCORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN AUGUST OF 2015 USING THE TECHNICAL CRITERIA IN THE CORP'S OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

OWNER OF MAP 162 LOT 23
 SIGNATURE _____
 DATE _____

CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION, FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING SEPTEMBER OF 2015. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

 LICENSED LAND SURVEYOR DATE _____



JEFFREY LAND SURVEY, LLC
 1 BURGESS DRIVE
 LITCHFIELD, NH 03052
 (603) 424-4089

Amend §334-14. - Building Height

Staff Report
January 13, 2016

The below two Zoning Amendments emerged through the request of commercial interests, working in conjunction with the NH Dept. of Resources and Economic Development (DRED), relative to increasing Hudson's chances to attract warehouse/distribution centers for e-commerce companies -- one of the fastest growing sectors of the economy. In this regard, and in preparation for the public hearing on the proposed two Zoning amendments, as cited below, please read the attached 2 articles and "white paper" on warehouse/distribution centers and what they can provide in terms of tax dollars and jobs creation for municipalities.

ATTACHMENTS:

- 1) Wall Street Journal article entitled: Raising the Roof Making All the Difference in Warehousing – "A".
- 2) Londonderry opens Pettengill Road, paving the way for development – "B".
- 3) White Paper entitled: Clear heights beyond 36' – "C".
- 4) Public Hearing Notice – "D":

A. Amend §334-14. - Building height – of the Zoning Ordinance, by adding language to the end of the first sentence of this section, so that said sentence shall read in its entirety as follows (added language shown in bold-print): No habitable structure may exceed 38 feet in height in any district, **except as provided in Sub-section A. below.**

B. Amend §334-14. - Building height – of the Zoning Ordinance, by adding new Sub-Section "A.", allowing in the Sagamore Industrial Park a maximum habitable building height of 50 feet, restricted to those areas of buildings used exclusively for warehouse and/or distribution space only.

RECOMMENDATION: Even though these two zoning amendments have not been reviewed by the Planning Board prior to this coming Wednesday night's meeting, staff recommends for the board to conduct the hearing, and to consider taking favorable action on these amendments for the following reasons:

- 1) The storage/warehouse/distribution height requirement for e-commerce companies was brought to my attention after the Planning Board's Dec. 9th Meeting, and the only opportunity to include these amendments as warrant articles for the 2016 Town Meeting, is/was to schedule the hearing for Jan. 13th.
- 2) The proposed amendments, if approved by the Town, have the potential to both create new jobs and enhance Hudson's commercial tax base. Note: in the future, the Town may wish to expand the subject height allowance to other commercial /industrial districts.
- 3) Staff reviewed the aforementioned matter with Selectman Maddox, the Town's chief elected official and a longstanding member/former Chairman/most recent Acting Chairman of the Planning Board. After reviewing the proposed amendments with Sel.

Maddox, he favorably recommended moving forward with the hearing on the 2 subject amendments, as long as the amendments were exclusive to Sagamore IP.

DRAFT MOTIONS:

I move to approve/disapprove for the 2016 Town Warrant, the proposed zoning amendment to Amend §334- 14. - Building height – of the Zoning Ordinance, by adding language to the end of the first sentence of this section, so that said sentence shall read in its entirety as follows (added language shown in bold-print): No habitable structure may exceed 38 feet in height in any district, **except as provided in Sub-section A. below.**

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

I move to approve/disapprove for the 2016 Town Warrant, the proposed zoning amendment to Amend §334- 14. - Building height – of the Zoning Ordinance, by adding new Sub-Section “A.”, allowing in the Sagamore Industrial Park a maximum habitable building height of 50 feet, restricted to those areas of buildings used exclusively for warehouse and/or distribution space only.

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

In effect, if adopted, §334- 14. - Building height will read in its entirety, as follows (added language shown in bold-print):

§334- 14. - Building height

No habitable structure may exceed 38 feet in height in any district, **except as provided in Sub-section A. below.** Height is measured from the average elevation of the finished grade within five feet of the structure to the highest point of the roof, excluding accessory, unoccupied protuberances such as antennas, flagpoles and the like. Nonhabitable structures such as church spires, steeples, smokestacks, flagpoles, lightpoles and other similar structures may not exceed 100 feet in height in any district, except as provided for in Article VI, Special Exceptions. In all cases, a nonhabitable structure shall not be capable of falling or collapsing beyond the bounds of the property on which it is situated. The maximum heights and special exception conditions for communications towers, masts and antennas are separately addressed within Article XVIII, Commercial Wireless Telecommunication, Radio Service and Receive-Only Facilities.

A. In the Sagamore Industrial Park (IP), which is zoned Industrial (I) in its entirety, the maximum allowed habitable building height shall be 50 feet, and said maximum height shall be restricted to those areas of buildings used exclusively for warehouse and/or distribution space only. Note: the subject Sagamore IP is bordered by Sagamore Bridge Road along its south border, the Merrimack River along its west border, the existing General (G) district along its north border and the existing Business (B) district, which abuts Lowell Road (Rte. 3A), along its east border.

"A"

THE WALL STREET JOURNAL.

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<http://www.wsj.com/articles/raising-the-roof-making-all-the-difference-in-warehouses-1431451962>

REAL ESTATE

Raising the Roof Making All the Difference in Warehouses

Growth of e-commerce leading to higher demand for 40-foot ceilings



A rendering of Prologis' proposed warehouse with 40-foot ceiling clearance in Tracy, Calif. ILLUSTRATION: PROLOGIS

By **ROBBIE WHELAN**

May 12, 2015 1:32 p.m. ET

Eight feet of added ceiling height may not seem like a lot, but for warehouse builders, the extra clearance can be the difference between an empty building and one that attracts a tenant such as Walmart.com or Amazon.com.

Real-estate firm Prologis Inc. 's latest project, a one-million-square-foot warehouse in Tracy, Calif., will boast a 40-foot-high ceiling, 25% taller than the typical 32 feet. The project isn't pre-leased, making this the first speculative building of such dimension that the company has built.

Prologis executives said it is going bigger to tap into the e-commerce boom, which is changing the way industrial properties such as warehouses and fulfillment centers are built. E-commerce retailers need more space than do wholesalers that ship goods in bulk to stores, because they transport a vastly wider variety of products in much smaller batches.

PROPERTY REPORT

"If
your

- Ian Schrage Targets Luxury Hotels With New York City Opening (<http://www.wsj.com/articles/ian-schrager-targets-luxury-hotels-with-new-york-city-opening-1431423001>)

than the industry-standard 32 feet, allow a distributor to build three levels above the ground floor instead of two, and still leave room for light fixtures and fans.

The share of retail sales conducted online has been growing steadily since at least 2005, clocking in at 6.7% in the fourth quarter, according to the Census Bureau. The increasing sales online stimulate the need for more spaces to stock, sort and pack shipments to send to shoppers.

Most warehouse construction in recent years has been of structures with ceiling clearances of 28 to 36 feet. Since 2011, of the 554 large warehouses built in the U.S., 89% have had ceilings between 28 and 36 feet high, according to brokerage CBRE Inc. Only 52, or 9.4%, have had heights of 36 feet to 40 feet, and only 11 have had heights above 40 feet.

Consultants and executives at logistics firms say larger warehouses with taller ceilings are becoming more prevalent.

Warehouses began to get taller in the U.S. even before the recent, explosive growth of e-commerce, as new automation technologies such as racking robots and new forklifts came into use, allowing logistics companies to access items stored at loftier heights. That saves money by allowing retailers to build vertically, rather than horizontally, which requires more land. Overall size is rising as online retailing grows, forcing retailers to keep a wider variety of products on hand.

“Those investments are being made pretty aggressively,” said Will O’Brien, president of Sedlak Management Consultants Inc., a supply-chain consultancy. “One million square feet, or even 1.2 million or 1.4 million are still considered big, but they’re not unusual anymore. And clearly, it’s because omni-channel retail is growing faster than brick-and-mortar retail.”

Prologis says large e-commerce users can keep as many as 1 million distinct items known as stock keeping units, or SKUs, on hand at their distribution centers. A typical e-retailer uses three times as much warehousing space to generate \$1 billion in revenue as a traditional brick-and-mortar retailer does, Prologis says.

“Buildings have been getting larger and larger over time,” said Prologis Chief Executive Hamid Moghadam in an interview. “Twenty-five years ago it was 24 feet. Then came 30 foot ceilings. They’re really using the height of the building.”

The Tracy Calif., warehouse is part of a larger 1,800-acre project known as the International Park of Commerce, which is under construction and set to be completed in August. Prologis says several large distributors already have expressed interest in the park’s first building. FedEx Corp. and medical products manufacturer Medline Industries Inc. said in late April that they had signed up to be the park’s first tenants, and construction has begun on two other buildings to serve them.

Stifel real-estate analyst John Guinee said Prologis is betting the Tracy project will benefit from growth at the Port of Oakland, about 50 miles to the west, including from retailers that sell goods manufactured in Asia via their online stores.

“They’re basically counting on one of about five big tenants being in that market for the long-term,” Mr. Guinee said. “They’re basing their construction on an educated guess on what these tenants need, and making the building generic-enough that any one of a few tenants could use it.”

Corrections & Amplifications

Scott Lamson is president of Prologis’ northwest division. An earlier version of this article incorrectly spelled Mr. Lamson’s surname as Lamsen. (May 15)

"B"

December 22, 2015 12:24AM

Londonderry opens Pettengill Road, paving way for development

LONDONDERRY — Elected officials and business leaders celebrated the grand opening Monday morning of a relocated and extended Pettengill Road, both gateway to and symbol of the economic development boom in the works just south of the Manchester-Boston Regional Airport.



(/storyimage/UL/20151222/NEWS0606/151229759/AR/0/AR-151229759.jpg?q=100)

Janusz Czyzowski, Londonderry's director of public works and engineering, prepares to cut the ribbon alongside town and state officials, including Rep. Frank Guinta, Sen. Kelly Ayotte and Gov. Maggie Hassan Monday morning to celebrate the opening of Pettengill Road. (Eli Okun)

"Four governors, six commissioners, three airport directors, two New Hampshire project managers, three town managers and countless councils later, we have ourself a road!" declared Janusz Czyzowski, the town's director of public works and engineering, who has spearheaded the long-gestating project.

With Gov. Maggie Hassan, Sen. Kelly Ayotte, Rep. Frank Guinta and several other local officials looking on, Czyzowski told the wind-bitten crowd that the area was set to become "the state's premier business development setting."

Town leaders said Pettengill Road exemplified a strong public-private partnership, with funding, planning or other support from the state Department of Transportation, local government bodies, the airport and landowners.

Three major companies — FedEx, Milton CAT and UPS/Pratt and Whitney — have already landed facilities in the area. Two more major additions are in the works, though they haven't yet been announced.

One of those will be about 30-percent bigger than the joint facility for UPS and Pratt and Whitney, which takes up about 600,000 square feet.

In all, the area development could bring 5,000 to 15,000 jobs, \$200 million to \$300 million of new assessed value, and \$7 million of net annual property taxes.

Much of that forecast success comes down to location: The roughly 1,000 acres of industrial land along Pettengill, which connects Industrial Drive with Raymond Wiczorek Drive, are situated right near the airport and major highways. They also are served by water and sewer lines, and fall under the control of just three owners.

Czyzowski said new development could include manufacturing, retail and lodging.

And though Pettengill is now a two-lane road, all the underlying infrastructure is in place to expand to four lanes if and when that becomes necessary.

Councilor Tom Dolan told the New Hampshire Union Leader that the economic development could help retain young adults who move elsewhere for jobs, a common concern throughout the state. And he said Londonderry's timing on Pettengill was perfect.

"We've hit the upswing of the economy just at the right time, and so a lot of places are looking for places to go," Dolan said. "We're competing now nationally for locations."

The town council-established Pettengill Road tax increment financing (TIF) district — which is set to expire at the end of the month, to be replaced by a smaller TIF district in January — helped offset some construction costs, Czyzowski said.

Construction began in summer 2014, entailing 4,000 feet of road and 8,000 feet of different sewer systems. Developers and landowners paid for most of the construction — without any impact on the town's tax rate.

Town manager Kevin Smith thanked Hassan, Ayotte and others for helping to shepherd the project past various obstacles in its development.

Hassan and Ayotte said the Pettengill Road project epitomized the importance of investing in infrastructure. "When we make this kind of investment," Hassan told the crowd, "it makes it possible to do this kind of economic development."

Ayotte noted that Congress earlier this month passed a five-year transportation bill — the longest in a decade. "We need to continue to pass these long-term bills, so that projects like this can have a certainty going forward," she said.

“C”

Clear heights beyond 36'



The HPA white paper from 2012 on going to 36' clear height in large scale distribution buildings is already a bit behind the times. This document presents a brief discussion about issues specific to configurations of ESFR that allow for 40' clear and 43' clear buildings.

The keys to clear height decisions are in weighing the added cost to go higher with the potential gain in capacity the increase brings. The discussion below looks at the constraints imposed by ESFR systems at high clear heights, the possible caveats of capacity increase, an issue with plastic commodities, and the wave of new e-commerce distribution models.

Our conclusion is that there is a good case for 40' clear when e-commerce models are forefront but a less compelling case in conventional distribution.

ESFR as of today; July 19, 2015

This table shows the current state of the art for using ESFR systems in distribution buildings. It shows that a 36' clear building with a maximum roof deck height of 45' can be designed using several ESFR configurations to cover class I through class IV commodities.

We show two lines with 45' maximum deck height to differentiate between the 36' clear configuration that can be used in a deep building and a normal roof structure. The 40' clear version requires a slimmer building and a more expensive roof system.

ESFR design standards							
Required pressure at sprinkler head specified by FM Global Rev 5 May 20 2014							
For class I-IV, Group A plastic heights vary by configuration							
40' deck height allows 35' maximum storage height							
45' deck is 40' maximum storage height							
48' deck is 43' maximum storage height, note that this configuration is not recognized by FM							
Max deck Ht	Bldg clear ht	K-14.0 head	K-16.8 head	K-22.4 head	K-25.2 head		
30	26	50 psi	35 psi	25 psi	15 psi		
40	32	75 psi	52 psi	40-50 psi	25-60 psi		
45	36	NA	NA	40 psi	40 psi		
45	40	NA	NA	40 psi	40 psi		
48	40	NA	NA	55 psi	45 psi		

The last line shows that there is now a UL approved ESFR configuration to go to 43' clear height and maximum 48' deck height with two ESFR configurations. There are restrictions on the rack systems in this configuration that allow only single deep racks and require 8' minimum aisle widths. This limits a tenant's options. These 48' deck configurations are not recognized by FM at this time making buildings configured with these systems unsuitable for FM underwriting by a tenant.

This above table is for Type I through type IV commodities but there are tenants who need to deal with Group A plastics as well. There are 4 types of Group A plastic commodities to consider:

- Unexpanded carton enclosed plastics
- Unexpanded exposed plastics
- Expanded carton enclosed plastics
- Expanded exposed plastics

Expanded plastics either carton enclosed or exposed are only approved for ESFR with a special rack configuration in a 36' clear building that includes vertical barriers. We can concentrate then on the issues of unexpanded plastics in ESFR high clear buildings.

ESFR and Plastics

The following set of tables indicate the ESFR configurations that can accommodate the Group A plastics to take advantage of the clear height:

35' maximum deck height (28' clear) and Group A plastics					
Head design	PSI	Unexpanded Max height		Expanded Max height	
		Carton	Exposed	Carton	Exposed
K 14	75	30'	30'	NA	NA
K 16.8	52	30'	30'	NA	NA
K 22.4	35	30'	NA	NA	NA
K 25.2	20	30'	NA	NA	NA

40' maximum deck height (32' clear) and Group A plastics					
Head design	PSI	Unexpanded Max height		Expanded Max height	
		Carton	Exposed	Carton	Exposed
K 16.8	52	35'	35'	NA	NA
K 22.4	40	30'	NA	NA	NA
K 22.4	50	30'	35'	NA	NA
K 25.2	25	35'	NA	NA	NA
K 25.2	50	30'	35'	NA	NA
<i>With special rack requirements</i>					
K 25.2	60	35'	35'	35'	35'

45' maximum deck height (36' & 40' clear) and Group A plastics					
Head design	PSI	Unexpanded Max height		Expanded Max height	
		Carton	Exposed	Carton	Exposed
K 22.4	40	40'	NA	NA	NA
K 25.2	40	40'	NA	NA	NA

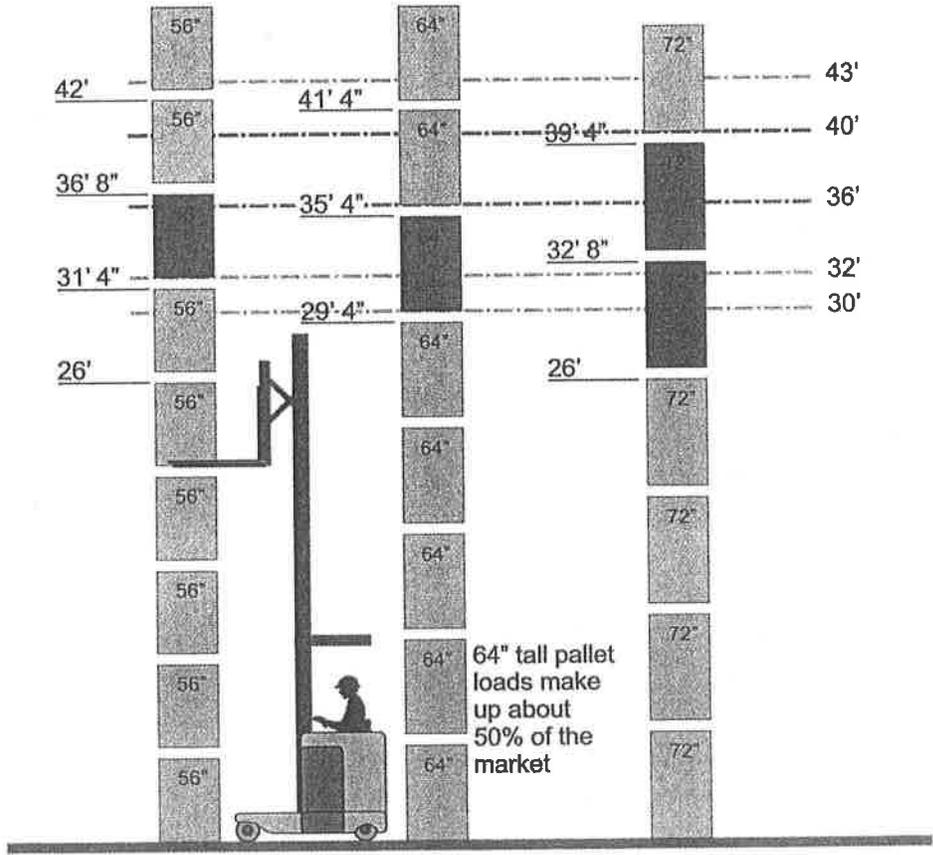
Let's not forget the 48' deck height UL listed configuration on the next page:

48' maximum deck height (40' clear) and Group A plastics					
Head design	PSI	Unexpanded Max height		Expanded Max height	
		Carton	Exposed	Carton	Exposed
K 22.4	55	43'	NA	NA	NA
K 25.2	45	43'	NA	NA	NA

These tables indicate that moving above 40' deck height eliminates the possibility of storing unexpanded exposed plastics above 35' without in-rack systems. That may not be an issue for many tenants and plastics can always be accommodated with an in-rack system in specific areas of a building.

Rack storage capacity increases

In terms of the actual pallet stacking dimensions there is some increase in capacity moving from 36' clear to 40' clear but it is generally less dramatic than the increase that can be gained going from 32' clear to 36' clear. The diagram below is an update from the HPA 2012 paper:



This shows the 3 most common pallet load height in use. While the move from 32' clear to 36' clear shows easy increases for all three load heights, the move from 36' clear to 40' is a clear increase for only the 72" load height. There are many different load heights in use however, and many tenants mix load heights within their operations so it is still possible for many tenants to optimize for a 40' clear building as well as a 36' clear building.

The theoretical increase for going 40' clear over 36' clear appears to translate to somewhere between 0% and 20% depending on how a tenant can configure load heights.

It should be noted that in these high buildings top of the line reach fork lift equipment is necessary to pick that top level. This equipment needs an aisle close to 10' wide to operate. This aisle is most efficiently accommodated with a 56' structural bay, a bit larger than standards from a year or two ago. Of course, very narrow aisle equipment that is significantly more expensive can take advantage of the clear height and use 5' or 6' aisles.

E-Commerce

So far we have seen that the move to 40' clear narrows the options for ESFR configurations and for stacking unexpanded exposed plastics. We have also seen that 40' clear can provide capacity increases, but it depends on manipulating pallet load heights.

There is, however, another way to look at the clear height increase in light of recent trends in e-commerce distribution. A number of e-commerce distribution centers (sometimes referred to as fulfillment centers) look to replace tall racking and high reach fork lifts with picking individual product units by hand. These tenants look to use clear height to put in working platforms so they keep the pick height to 6' or under.

In a seismic zone like the west coast structural requirements make it difficult to squeeze more than one working platform into a 36' clear building cost effectively. The extra 4' in a 40' clear building provides enough relief to use more efficient structural systems and reduces the overall cost of the working platforms significantly. When working on a build to suit facility with two levels of working platforms above grade, 40' clear provides the best configuration.

When does 40' clear make sense?

Our analysis looks at both 36' clear and 40' clear in buildings using the 45' maximum deck height ESFR systems. The difference between these two configurations is in the roof structural systems. A large cross dock distribution building is typically over 600' wide. To achieve a clear height of 36' and an economical roof system the deck height at the ridge climbs over 40' and the 45' ESFR system comes into play. If a building width is limited to 600' and a more expensive roof system, or possibly using an interior drain system, it is possible to get 40' clear into a 45' maximum deck height system. The 40' clear proposition then becomes an economical calculation of increased utility versus increased expense.

If a building is to be marketed for an e-commerce user that wants to use two levels of working pick platforms, then 40' clear is the best solution.

If that market is not of high consideration then there is a muddier picture. There is a potential capacity increase of up to 20% over a 36' clear building but it would take the right pallet load height configurations to take advantage of it.

The restrictions on the 48' high deck ESFR system that has UL approval only means using it to go over 40' clear has significant risks.

"D"

PUBLIC HEARING

Please take notice, in accordance with NH RSA 675:6, the Town of Hudson, New Hampshire, Planning Board will hold a public hearing on Wednesday, January 13, 2016, at 7:00 P.M. in the Buxton Meeting Room (lower level) of Town Hall at 12 School Street, Hudson to consider the following amendments to the Town's Zoning Ordinance, i.e.,

Amend §334-14. Building height, by adding the following language to the end of the first sentence of this section, so that said sentence shall read in its entirety as follows (added language shown in bold-print):

No habitable structure may exceed 38 feet in height in any district, **except as provided in Sub-section A. below.**

Amend §334-14. Building height, by adding new Sub-Section "A." to said §334-14, and for this new Sub-Section to read in its entirety as follows:

A. In the Sagamore Industrial Park (IP), which is zoned Industrial (I) in its entirety, the maximum allowed habitable building height shall be 50 feet, and said maximum height shall be restricted to those areas of buildings used exclusively for warehouse and/or distribution space only. Note: the subject Sagamore IP is bordered by Sagamore Bridge Road along its south border, the Merrimack River along its west border, the existing General (G) district along its north border and the existing Business (B) district, which abuts Lowell Road (Rte. 3A), along its east border.

A copy of the above-described amendments to the Town's Zoning Ordinance can be reviewed/obtained prior to the hearing at the Community Development Department Office, 12 School St., Town Hall.

The public is invited to attend.

John M. Cashell
Town Planner

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