CITY OF DOVER

PLANNING TECHNICAL REVIEW COMMITTEE –AGENDA

REVISED

Meeting Type: Regular Meeting
Meeting Location: 2nd Floor Auditorium – City Hall, Dover NH
Meeting Date: **Thursday, October 18, 2018**
Meeting Time: **10:30 am**

1. 10:30 AM – 11:15 AM: Subdivision Using Transfer of Development Rights for R.V. Paolini Construction LLC, Assessor's Map M, Lot 6, zoned R-40, located at 56-58 Dover Point Road. (Proposal is to construct 6 single family detached homes and 1 garage as well as a 400 ft long private roadway.) (P18-45)

2. 11:30 AM – 12:00 PM: Site Review for Johnson Creek Village (Owner: Aramis Black/Real McKoy LLC), Assessor's Map H, Lot 1, zoned B-4, located at 301 Durham Road. (Proposal is to change the classification from Elderly Assisted Care to Assisted Living, increasing beds from 12 to 24, adding parking, lighting and other minor changes.) (P15-38A)

CITY OF DOVER

TECHNICAL REVIEW COMMITTEE MINUTES – P08-09A

Application Type:	Site Plan Review
Applicant(s):	R& P Singh, LLC
Owner(s):	Aranosian Oil Company
Location:	52 Central Ave (Tax Map 15, Lot 71)
Date:	August 30, 2018

INTENT: Proposal is to amend a previously approved site plan to add a drive-thru window service

LOTS/UNITS PROPOSED: N/A

AGENDA ITEM #: 1

ACREAGE: 0.63 acres

ZONING DISTRICT: Gateway District (B-5)

EXISTING LAND USE: Commercial

SURROUNDING LAND USE: Residential and commercial

ZBA ACTION:
-Z99-17: Variance granted on October 21, 1999 for setback of gas pump canopy
-Z07-17: Variance granted on 11/15/2007 for the canopy within 30' of the front property line and within 25' of a side property line
-Z17-04: Variance granted on March 16, 2017 to permit drive-through setbacks of 72 and 84 feet from structures where 100 feet is required, and 27 and 44 feet from lot lines where 50 feet is required, with conditions regarding hours of operation and the installation of a fence

PERMITS REQUIRED: None

WAIVERS REQUESTED: None, but Streetscape and Architectural renderings are required if not

ATTENDANCE:
Members:

Others:

Approval of 8/23/2018 Meeting Minutes
_____ moved to approve the minutes of August 23, 2018. _____ seconded. Vote: ____

Planning Comments:
- Water and sewer investment fees will be assessed if necessary
- Provide:
  - Indication that the applicant has paid Sebago for their peer-review
- Please revise the plan set to:
  - Add signature and stamp of the LLS and PE
  - Revise stacking plan to exclude car(s) from "no stacking beyond" point
  - Add note that the site will need to go be monitored and reports sent to the Assistant City Manager
  - Add note that if stacking or traffic issues are a concern due to this site in the future that the owner needs to come back for further review
  - Add a note that there will be a deed restriction that if a chain operates the drive-thru in the future, further review is needed

Police Department Comments:
- The Police Department concurs with Recommendation #1 in the Traffic Impact and Access Study Peer Review memorandum, dated April 10, 2017 by Sebago Technics, that the Central Avenue driveway be limited to "in-only".
- The Traffic Assessment memo, dated March 13, 2017 by TEPP LLC, fails to adequately address/compare the vehicle-trip generation between the existing site and the addition of drive-up window service. If 31 new exiting vehicles are added during the AM-street-peak hour *(page 7, Results for Proposed Use)* to the current 33 exiting vehicles *(page 5, Existing Site Traffic)*, it cannot be concluded that "this project will have no impact on the Locust Street signal" *(page 2, Responses to Technical Review Committee minutes dated September 28, 2017 by TriTech Engineering Corp.)*

Engineering Comments:
- Add note that if pedestrian or vehicular traffic are negatively affecting public right-of-way may be reviewed for revocation of approval

Fire/Inspections Comments:
- Remove the added parking space in the fire lane
- Clarify how a vehicle parked in the right front corner of the parking lot will be able to back out and exit the parking lot

- Provide no stacking signage and shorten painted line one car length northwest of the Central Ave entrance and a sign "no blocking intersection" to be seen from the right-of-way per the Committee's decision

Economic Development Comments:

- Concerned about drive-thru on this site and small trucks maneuvering site and drive-thru
- Having an increase in traffic to Locust street is not a good solution

Planning Board Comments:

Next Steps:

S:\Department\Planning\Planning_Share\Planning Board\TRC\2018 TRC\MINUTES\2018.08.30_PlanningTechnicalReviewCommittee.Aranosian oil drive-thru.docx

Adjournment:

_____ moved to adjourn at _____. Seconded by _____. Vote: _____.

City of Dover, New Hampshire
SUBDIVISION APPLICATION

[Revision Date: August 02, 2017]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: R.V. Paolini Construction LLC Telephone #603-781-1636

Address of Applicant: 54 Dover Point Road, Dover, NH 03820

Name of Property Owner (*if different from applicant*): Same as applicant Telephone #

Address of Property Owner:

E-Mail Address:

PROPERTY INFORMATION

Address of Property: 56/58 Dover Point Road

Assessor's Map # M Lot(s) # 6

Zoning District(s) Rural Residential (R-40) Overlay District(s)

Size of Parcel: 84,234 SF, 1.93 Acres Property Deed: Book 4526 Page: 1

Existing Use of Property: 2 Existing Single Family Residences

SUBDIVISION INFORMATION

Subdivision Type: Major (4 + net new lots): X Open Space: TDR

Existing Number of Lots: 2 Units Proposed Number of Lots: 6 Units (Total 8 Units)

City Water? X Yes ___ No How far is city water from the property? Approx. 20 Feet

City Sewer? X Yes ___ No How far is city sewer from the property? On property

Highway Access (check where applicable): X City Street ____ State Highway

Estimated Length of Proposed Roads: 400 feet Public or Private Road? Private

WAIVER REQUESTS

Subdivision Regulations section(s) to be waived: 155-48 Roadway width

Justification for waiver request(s) (*attach additional sheets as needed*): See attached waiver request narrative.

SURVEYOR INFORMATION

Name of Surveyor and Company (Licensed in N.H.) Kenneth A. Berry, PE, LLS
Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: K.Berry@BerrySurveying.com

ENGINEER INFORMATION

Name of Engineer and Company (Licensed in N.H.) Kenneth A. Berry, PE, LLS
Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: K.Berry@BerrySurveying.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. Furthermore, I/We submit that the existing conditions sheet of the plan represents the lot in question, and that no alteration of the site shall take place during Planning Board review up to and including the pre-construction meeting. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: Date: 9-21-18

Signature of Applicant (*if different from owner*): Date: 9-21-18

Signature of Agent: Date: 9-21-18

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: Date: 9-21-18

AUTHORIZATION TO COMPLETE THE PROJECT ON SUBJECT PROPERTY

I, and my successors, hereby authorize the City of Dover and its assigns to enter my property for the purpose of completing the site work as required by the approved plan should the letter or credit or other surety be called. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 9-21-18

Signature of Applicant (*if different from owner*): _____ Date: 9-21-18

CERTIFICATION OF FEES

I, and my successors, hereby certify that I understand that the City of Dover collects impact fees, utility investment fees and inspection fees for projects developed in Dover. Said fees must be paid before a Certificate of Occupancy can be obtained for a structure, unless a different payment schedule is agreed to by the applicant and the City prior to approvals being issued by the Dover Planning Board. Additionally, should the property be in "Current Use" it will be subject to the Land Use Change Tax.

Signature of Property Owner: _____ Date: 9-21-18

Signature of Applicant (*if different from owner*): _____ Date: 9-21-18

CERTIFICATION OF PUBLIC ROADWAY ACCEPTANCE

I, and my successors, hereby certify that I understand that the acceptance of a roadway as a public road is an action of the City Council in its sole and complete discretion. In order for the City Council to consider accepting a road as public, it must be free of encumbrances. No roadway with private utility easements shall be accepted as a public road by the City unless the easements are expunged prior to the transfer of land to the City. License agreements for any and all private utilities within the right of way may be granted by the City upon acceptance of the unencumbered roadway consistent with applicable state law.

Signature of Property Owner: _____ Date: 9-21-18

Signature of Applicant (*if different from owner*): _____ Date: 9-21-18

PLANNING BOARD
ESTIMATED FEE SCHEDULE

This is only provided to give you an estimate of the application fees. *After you submit an application, staff will invoice you a total.* All fees must be paid two weeks before the Planning Board meeting. **If the Fee has not been paid, the item will not be placed upon the agenda.**

A. TOTAL FEE paid by cash or check made payable to "City of Dover"

1. Application fee for the following:
   - SUBDIVISION $150.00 x # _____ new lots created = $ _____
   - LOT LINE ADJUSTMENT $200.00 (if more than two lots involved, add $100.00 per lot) = $ _____
   - SITE REVIEW - RESIDENTIAL $100.00 x # 6 per dwelling unit = $ 600.00
   - SITE REVIEW – NON-RESIDENTIAL (not to exceed $10,000)
     New construction $.15 sq. ft. x # _____ sq. ft. = $ _____
     Additions (new floor space) $.10 per sq. ft. x # _____sq. ft. = $ _____
   - IMPERVIOUS PAVED AREA (for new development) OR IMPERVIOUS PARKING LOT ADDITIONS (not to exceed $10,000) $.07 sq. ft. x # 12,424 = $ 869.68
   - MOTEL/HOTEL $35.00 x # ___ per lodging unit = $ _____
   - CHANGE OF USE (not to exceed $5,000)
     Existing floor space $.10 per sq. ft. x # ____ sq. ft. = $ _____
   - CONDITIONAL USE PERMIT $150.00 x # _____ per application = $ _____
   - GRAVEL PIT/ EXCAVATIONS - Application fee $50.00 & Permit fee $75.00 = $ _____
   - EXTENSIONS OF/AMENDMENTS TO/WAIVERS FOR AN APPROVED PLAN ($150.00 minimum) $50.00 x # ____ per hour of review $ _____
   - REQUEST FOR REZONING $150.00 = $ _____
   - DRIVEWAY WAIVER – $100.00 application fee =
     Letter of rejection from Engineering Department, diagram & letter from owner $ _____

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will need to provide to this office the engineer, architect, land surveyor or soil scientist whose professional seal appears on the plan with names and addresses for notices. You will be notified with the amount due, once this has been completed.

1. Applicant & Owner, engineer, architect, land surveyor or soil scientist Certified letters fee # _____ of x $8.00 =
2. Certified letters fee: # of abutters _____ X $8.00 = $ _____
3. First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X $1.00 = $ _____
4. Creating/Printing Abutter Labels in triplicate per sheet _____ x $10.00 = $ _____

C. Foster's newspaper public notice fee **$ 80.00**

D. Digital Version of the Plan in PDF/A format or Archive Fee $1.00 x # _____ per sheet of plan set = $ _____

(Revised May 15, 2017)

TOTAL FEE **$** 1,549.68

City of Dover, New Hampshire
SUBDIVISION SUBMISSION CHECKLIST

[Revision Date: December 15, 2017]

This review checklist is intended to assist the applicant in the planning process of preparing a Subdivision application for Planning Board action. The size of the project will determine the types of information required for review, therefore, a **pre-application conference** with the Planning Department to determine the list of items that must be completed is strongly encouraged.

Fees will be invoiced and are due along with fifteen (15), folded, copies of the plan set and materials, including response to TRC comments, will be due 3 weeks prior to the Planning Board meeting.

The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all subdivision requirements. Please refer to the Subdivision Regulations for full details.

APPLICANT: RV Paolini Construction LLC File Number: _____

PROJECT TITLE: Falabella Lane

PROPERTY LOCATION: 56 Dover Point Road Tax Map: M Lot: 6

	Explain How Provided	Reviewed
1. Completed and signed Application form		
2. Electronic copy of the surveyed plat layout	CD	
3. Electronic copy of supplementary materials and application	CD	
4. Traffic Impact Assessment and Analysis (Standard or Advanced)	CD Standard	
5. Fiscal Impact Analysis (For more than 10 units)	N/A	
6. Waiver requests to the Subdivision Regulations, with written justification	X	
7. Conditional Use Permit applications	N/A	
8. Narrative describing yield plan and cost analysis	N/A	
9. List of all professional agents to be notified for Planning Board	BS+E & SRE	
10. Letter to Serve from Public and Private Utilities	X	
11. Eight folded copies of subdivision plan w/scale of not less than 1"=50' or 1"=100' for larger subdivisions, for TRC. Plans shall contain the following items as appropriate:	X	
Location map at appropriate scale	X	
Proposed subdivision name and title and Planning File #	X	
Date, north arrow and scale	X	
Names of all abutting property owners	X	
Name and address of owners and/or applicants	X	
Signature & stamp of NH licensed land surveyor and/or engineer	X	
Zoning District boundaries, including any special or overlay districts	X	
Location of Conservation District areas	X	
Location, names and widths of existing and proposed streets, including pavement widths, grades, curbs and crosswalks	X	
Location and widths of existing & proposed easements & right of ways	X	
Location and widths of existing and proposed sidewalks	X	
Existing and proposed property lines with dimensions and bearings tied into Dover's Geographic Information System coordinate system	X	
Existing and proposed lot areas in square feet	X	
Existing and proposed topographic information at two foot intervals	X	

	Explain How Provided	Reviewed
Existing and proposed buildings and structure locations	X	
Minimum building setbacks or build to lines on all lots	X	
Location and size of existing and proposed electric, telephone, gas cable and other underground utilities	X	
Existing and proposed water lines and fire hydrants, including materials and capacity needed	X	
Location and materials of sanitary sewage facilities within project site and projected additional peak hour sewer load	X	
Existing and proposed septic system, including test pit locations and results and NHDES subdivision permit number	N/A	
Existing and proposed stormwater lines and facilities	X	
Existing and proposed streetlights	X	
Location of Flood Hazard Zone	X	
Location of all bodies of water and watercourses	N/A	
Location of wetlands and buffers	X	
Neighborhood plan with aerial underlay showing how project relates to abutting uses	X	
Existing natural features and/or significant vegetation on property	X	
Depict existing contours up to 100 ft. beyond project limits	X	
Soil types	X	
Map and lot numbers for existing and proposed lots as assigned by Tax Assessor	X	
Location of all land offered for dedication for public use or land to be held in common by property owners of the subdivision	X	
Location, material and size of existing and proposed permanent monuments	X	
Existing railroad lines	N/A	
Note regarding solid waste disposal	X	
All applicable Dover Common Subdivision notes	X	
12. Construction Detail Sheets shall contain the following information:		
Profiles showing existing & proposed elevations along the center lines of proposed streets & within 100' of intersections with existing streets	X	
Profiles showing the locations & a typical cross-section detail of streets	X	
Location of street trees, street lighting poles and street signs	X	
Location, size and invert elevations of existing and proposed sanitary sewers, stormwater drains and fire hydrants	X	
Location and size of all water, gas and other underground utilities	X	
13. Additional Information if appropriate		
Stormwater Management Plan depicting the existing and proposed storm drainage system and engineered drainage analysis	X	
Stormwater Management System Operation and Maintenance Plan	X	
Erosion and Sedimentation Control Plan	X	
Perimeter Landscaping Plan	X	
Proposed restrictive covenants or homeowners association documents	X	
Dates and permit numbers of all required state and federal permits	X	
If wetland buffer, indicate placards locations, as applicable	X	
Hydrogeologic study if located in Groundwater Protection Zone	N/A	
Provide additional exhibits/technical data determined appropriate by the Planning Board or its staff as required	N/A	

REVIEWED BY: _____ DATE_____ TRC DATE_____

City of Dover, New Hampshire
TRANSFER OF DEVELOPMENT RIGHTS APPLICATION

[Revision Date: August 16, 2018]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: R.V. Paolini Construction LLC Telephone #603-781-1636

Address of Applicant: 54 Dover Point Road, Dover, NH 03820

E-Mail Address: crownpoint62@yahoo.com

Name of Property Owner (if different from applicant): Same as applicant Telephone #

Address of Property Owner:

PROPERTY INFORMATION

Assessor's Map # M Lot(s) # 6

Address of Property: 56/58 Dover Point Road

Zoning District(s) Rural Residential (R-40) Overlay District(s) N/A

Existing Use of Property: 2 Existing Single Family Residences

TRANSFER OF DEVELOPMENT RIGHTS INFORMATION

Type of TRANSFER OF DEVELOPMENT RIGHT REQUEST (Check All That Apply):

☒ Residential ☐ Residential (reduced size) ☐ Industrial | ☐ Purchase ☐ Land Preservation

Relief sought (Check All That Apply):

☐ Lot Size ☐ Frontage ☐ Setback ☒ Increase by 5 units

Describe Proposed Use or Activity that requires TDR; describe any impacts and document mitigation:

See attached narrative

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES Sewer Discharge (Pending), EPA Notice of Intent (NOI) (Pending)

Name of Professional That Prepared TDR Plans: Kenneth A. Berry, PE, LLS
Christopher R. Berry
Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: K.Berry@BerrySurveying.com
crberry@metrocast.net

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 9/21/18

Signature of Applicant (if different from owner): Same as owner Date: 9/21/18

Signature of Agent: _____ Date: 9/21/18

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 9/21/18

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com
crberry@metrocast.net

September 21, 2018

City of Dover
Attention: Assistant City Planner Donna Benton
288 Central Ave
Dover, NH 03820

Re: RV Paolini Construction LLC
Residential Subdivision (TDR)
56 Dover Point Road
Dover, NH
Tax Map M, Lot 6

Dear Mrs. Benton,

On behalf of our client RV Paolini Construction LLC., Berry Surveying & Engineering (BS&E) is submitting for TRC to discuss a proposed development at 56 Dover Point Road, known as Falabella Lane.

Background and General Narrative:

RV Paolini Construction LLC owns the parcel known as 56 Dover Point Road in Dover, NH (Tax Map M, Lot 6). BS&E has conducted an on-site survey of the parcel which includes a topographic analysis as well as a wetlands analysis. Please note there are no wetlands found on the parcel, however, part of the 50' wetland buffer from an abutting lot does encroach onto the subject parcel. The site contains two single family dwellings which sit towards the front of the lot, accessed by a single drive off Dover Point Road. As it sits currently the lot is lightly wooded towards the rear and along the side, with an open field in the middle.

The Proposal:

The proposal is to construct a private roadway from the side of lot, coming off existing Centennial Drive. The private roadway will provide access to 6 additional single family detached homes and 1 proposed garage. The 6 units will all be purchased through TDR. The existing single family homes will continue to use the existing driveway off Dover Point Road. The proposed private roadway will be approximately 400 feet long. The roadway will be 20 feet wide and will have a turn around so emergency vehicles can access and site safely and effectively.

After careful consideration, the total of 9 units was determined to be the most appropriate for this project site. These lots will be serviced by municipal water and sewer. This Residential Subdivision utilizing TDR, will allow for the more dense use of land while still having natural wooded buffers between the subject parcels and the abutters. By design there will be open spaces closest to abutting land owners. Furthermore, the design was pulled towards the middle of the lot so that a natural buffer would remain along the perimeter.

Four rain gardens will also be constructed throughout the proposed site. These rain gardens will serve to capture, treat and re-infiltrate the runoff generated from the proposed units and roadway. A full comprehensive drainage analysis is included with the submission to show that the proposed drainage system will be more than sufficient.

Various erosion and sediment control measures will also be taken to ensure that the sediment is contained throughout the construction process so as not to run off onto abutting lots or damage the rain gardens. Forebays will also be constructed adjacent to Rain Gardens 101 and 102, in order to provide pretreatment and protection for the rain gardens.

As part of the Transfer of Development Rights, we are asking that the board increase the maximum lot coverage for this development based on Zoning Regulation 170-27.2.G.2, which states "*Regardless of the method utilized, any other provision in this Chapter to the contrary, the density or intensity of development of a receiving parcel may be increased by the TRANSFER OF DEVELOPMENT RIGHTS so long as the increase in density or intensity, is consistent with the Master Plan and is not incompatible with the uses on neighboring lots*". By increasing the maximum lot coverage in this instance, it would allow for the development to be built as proposed.

We look forward to working with staff on this proposal.

BERRY SURVEYING & ENGINEERING

James F. Hayden
Project Engineer

Christopher R. Berry
Principal, President

BERRY SURVEYING & ENGINEERING
335 Second Crown Pt. Rd., Barrington, NH 03825
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335 Second Crown Point Road
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September 21, 2018

City of Dover Planning Board
Attn: Assistant City Planner Donna Benton
288 Central Ave
Dover, NH 03820

RE: RV Paolini Construction LLC
Residential Subdivision (TDR)
56 Dover Point Road
Dover, NH
Tax Map M, Lot 6

Mr. Chairperson & Members of the Dover Planning Board:

In accordance with to the subdivision standards Article 155-51, the following waiver is hereby requested:

1. **Identification of Waiver Request**: Minimum roadway width of 24 feet based on the number of units, per Subdivision Regulation 155-48.
   - Proposed 20' private roadway for Transfer of Development Rights (TDR) subdivision.

2. **Explanation:**

The applicant is proposing to construct a 20' roadway off Centennial Drive, in order to provide access to the center of Tax Map M, Lot 6. The proposed roadway will service a proposed TDR development of 6 new units, while the existing 2 units will continue to use the existing driveway off Dover Point Road. The proposed development will be serviced by City Water and on site City Sewer. In addition to the construction of the roadway, 4 rain gardens will also be constructed to capture, treat and re-infiltrate the runoff generated from the site. The roadway is proposed to be 20' given the close proximity of existing structures and the lot configuration.

3. **Waiver Justification**:

a. Granting the waiver will properly carry out the purpose and intent of the regulations.

The purpose and intent of the 24' roadway based on the number of units is to allow for safe and efficient vehicular traffic while also maintain proper access for emergency vehicles. The 20' wide roadway would not reduce the safety or inhibit any emergency response vehicles from accessing the development.

An in depth traffic analysis was done to determine how many trips would be generated from the proposed development. This analysis shows that there is a total of 18 vehicle trips in the AM peak hour and 21 vehicle trips in the PM peak hour. Both of these numbers are relatively

low compared to the existing traffic on Dover Point Road. Given the low amount of traffic generated from the site, it was determined that a 20' wide roadway would be more than enough to accommodate the traffic that will be generated from the development, this is supported by the AASHTO Low Volume Manual. Furthermore, the 2 existing units will continue to use the existing driveway off Dover Point Road, reducing the unit use of the road to 6.

The proposed roadway is 400' long with a turnaround for emergency vehicles, in order to provide an efficient way to enter and exit the site. In addition to the turn around, a hydrant is proposed to be installed on the side of the turnaround. Although the road is 20' wide, it was deemed more than sufficient for emergency vehicles given the turn around, proposed hydrant and short road length of 400'.

b. Strict conformity to the regulations would pose an unnecessary hardship to the applicant.

Requiring a 24' road for one additional unit poses a hardship to the environment and the applicant. Increasing the road size would not only increase the lot disturbance but it will also cause the units to move away from the center of the lot and reduce the natural buffer that is trying to be upheld.

Thank you for your time and attention to this matter and we hope you look favorably upon the request.

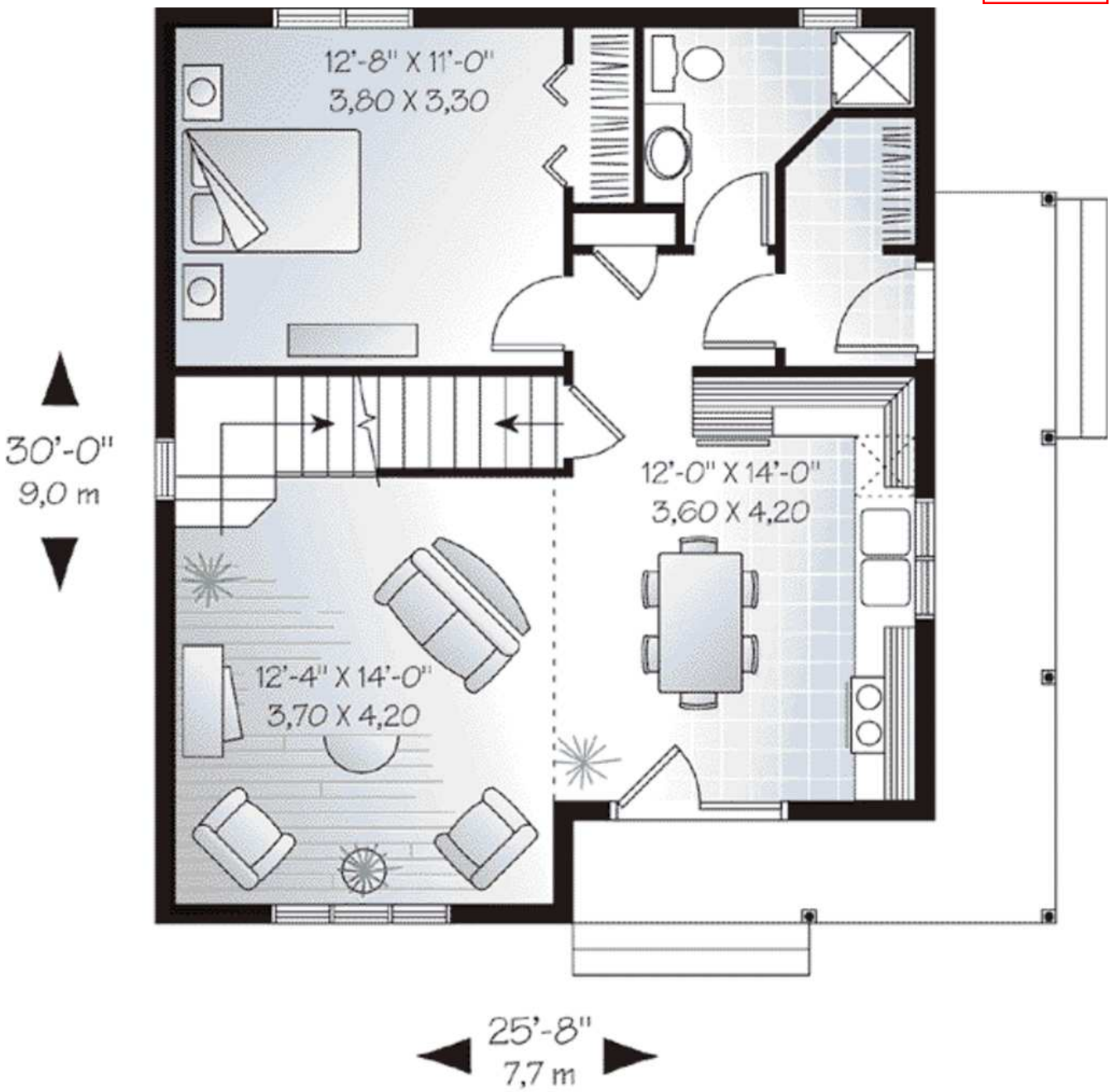
BERRY SURVEYING & ENGINEERING

James F. Hayden
Project Engineer

Christopher R. Berry
Principal, President

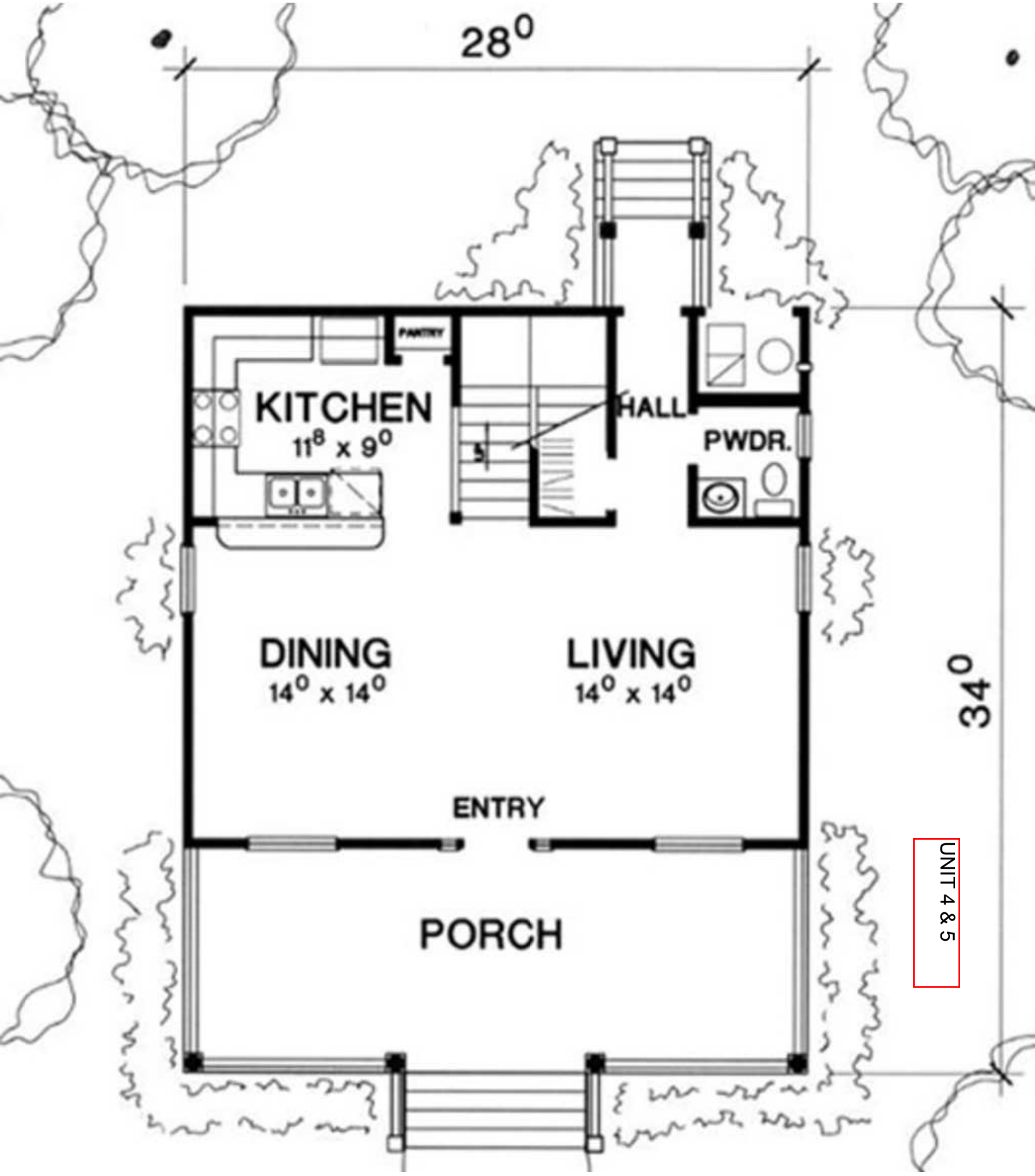

UNIT 3

UNIT 3

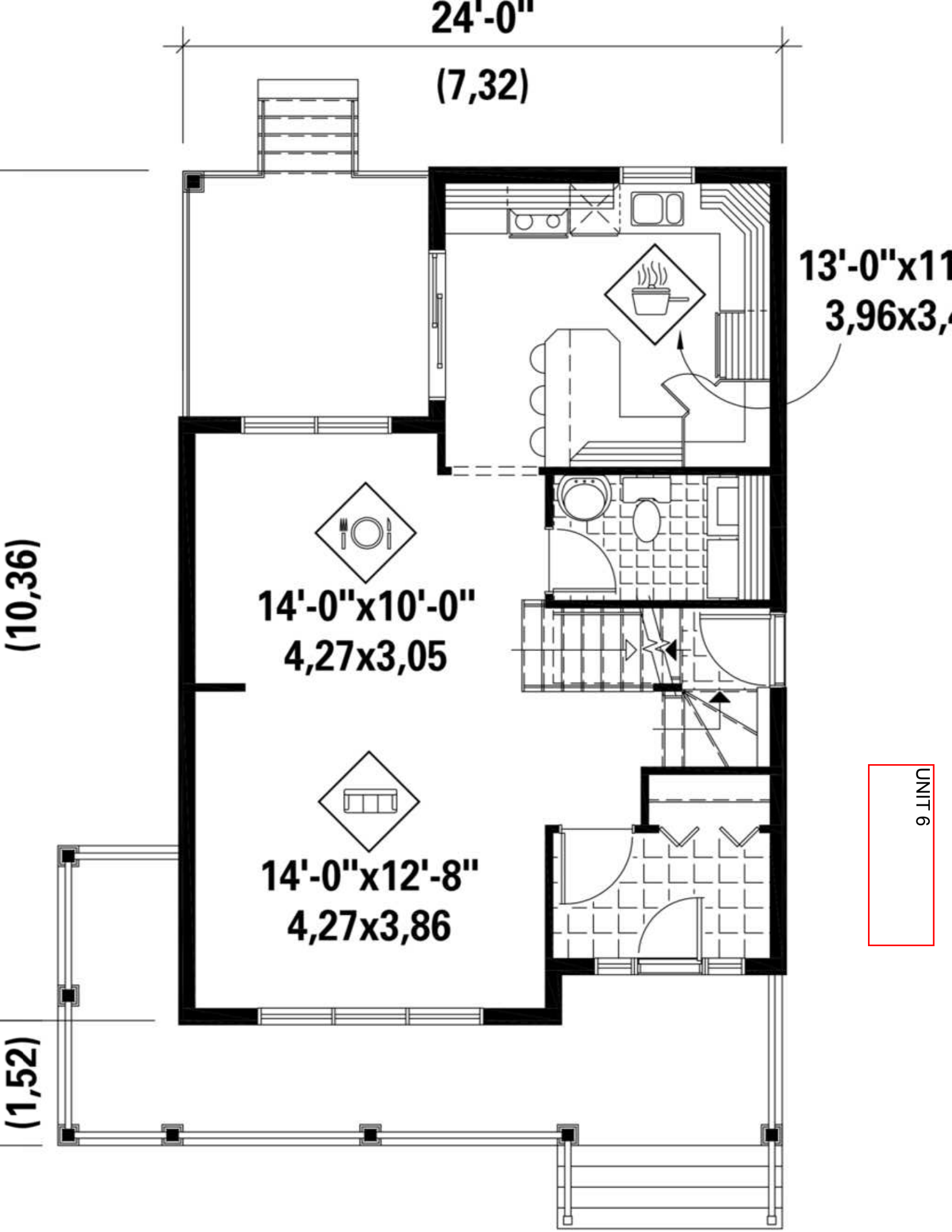

12'-8" X 11'-0"
3,80 X 3,30
12'-0" X 14'-0"
3,60 X 4,20
12'-4" X 14'-0"
3,70 X 4,20
30'-0"
9,0 m
25'-8"
7,7 m

UNIT 4 & 5



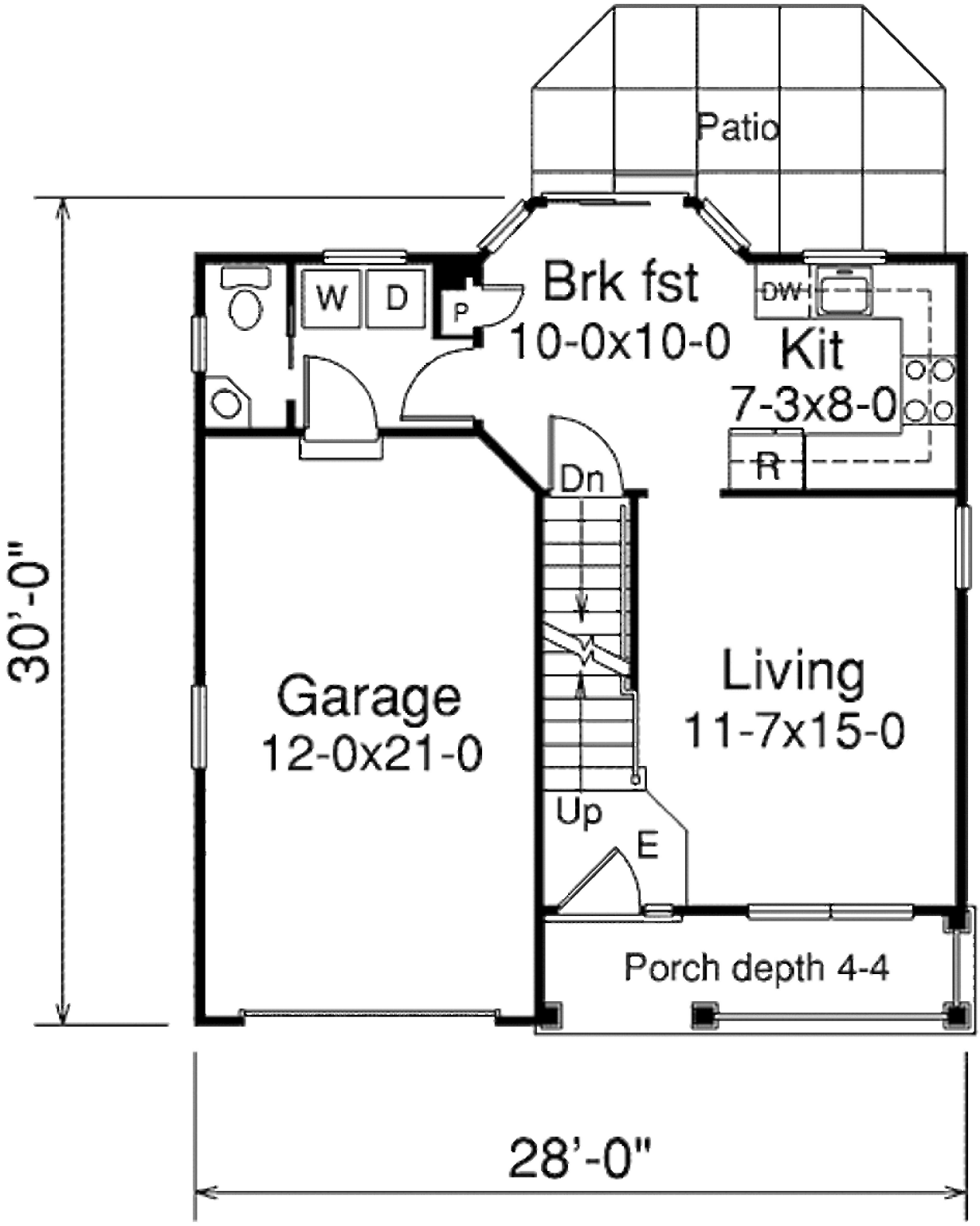

28⁰
PANTRY
KITCHEN
11⁸ x 9⁰
HALL
PWDR.
DINING
14⁰ x 14⁰
LIVING
14⁰ x 14⁰
34⁰
ENTRY
PORCH
UNIT 4 & 5

UNIT 6


24'-0"
(7,32)
13'-0"x11
3,96x3,
14'-0"x10'-0"
4,27x3,05
14'-0"x12'-8"
4,27x3,86
(10,36)
(1,52)
UNIT 6


UNIT 7 & 8

UNIT 7 & 8


Patio
Brk fst
10-0x10-0
W
D
P
DW
Kit
7-3x8-0
R
Dn
Garage
12-0x21-0
Living
11-7x15-0
Up
E
Porch depth 4-4
30'-0"
28'-0"

TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION FOR RV PAOLINI CONSTRUCTION, LLC DOVER POINT ROAD DOVER, N.H. TAX MAP M, LOT 6

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SHEET 2 ~ EXISTING CONDITIONS PLAN
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SHEET 4 ~ SITE PLAN
SHEET 5 ~ LANDSCAPING PLAN
SHEET 6 ~ GRADING PLAN
SHEET 7 ~ PLAN AND PROFILE FALABELLA LANE 0+00–END
SHEET 8 ~ RAIN GARDEN #101
SHEET 9 ~ RAIN GARDEN #102
SHEET 10 ~ RAIN GARDEN #103 AND #104
SHEET 11 ~ EROSION & SEDIMENT CONTROL PLAN
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SHEET 13 ~ CROSS SECTIONS FALABELLA LANE 0+00 – END
SHEET 14 ~ HIGHWAY ACCESS PLAN NORTH BOUND
SHEET 15 ~ HIGHWAY ACCESS PLAN SOUTH BOUND
SHEET 16 ~ HIGHWAY ACCESS DETAILS
SHEET 17 ~ E101–EROSION & SEDIMENT CONTROL DETAILS
SHEET 18 ~ E102–EROSION & SEDIMENT CONTROL DETAILS
SHEET 19 ~ D101 DRAINAGE DETAILS
SHEET 20 ~ C101–CONSTRUCTION DETAILS
SHEET 21 ~ C102–CONSTRUCTION DETAILS
SHEET 22 ~ U101–UTILITY DETAILS
SHEET 23 ~ U102–UTILITY DETAILS
SHEET 24 ~ L101–LANDSCAPING CONSTRUCTION DETAILS

NOTE:

BERRY SURVEYING & ENGINEERING HAS PREPARED AN INSPECTION & MAINTENANCE MANUAL AS PART OF THIS PROJECTS DOCUMENTATION. ALL USERS ARE BOUND TO THIS DOCUMENT AS PART OF THE APPROVAL OF THE PLANNING BOARD. COPIES OF THE YEARLY INSPECTIONS ARE TO BE DELIVERED TO THE CITY OF DOVER COMMUNITY SERVICES DEPARTMENT.

OWNER: RV PAOLINI CONSTRUCTION, LLC
54 DOVER POINT ROAD, SUITE 103
DOVER, NH 03820

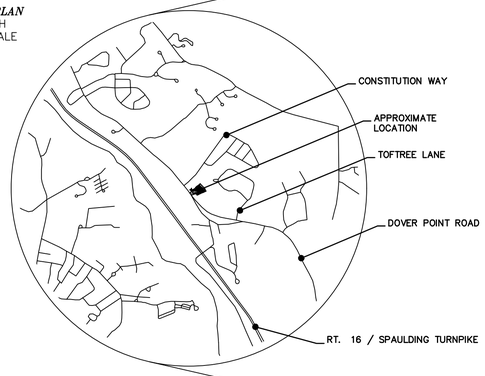
APPLICANT: RV PAOLINI CONSTRUCTION, LLC
54 DOVER POINT ROAD, SUITE 103
DOVER, NH 03820

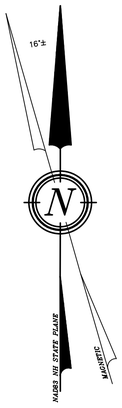
SURVEYOR OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

ENGINEER OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

WETLAND SCIENTIST: STONEY RIDGE ENVIRONMENTAL
CYNTHIA M. BALCIUS, CSS, CWS, CPESC
229 PROSPECT MOUNTAIN ROAD
ALTON, NH 03809
(603) 776–5825

LOCATION PLAN
DOVER, NH
NOT TO SCALE





VICINITY SKETCH
DOVER, NH
SCALE: 1" = 300' ±



REQUIRED PERMITS:

1.) NHDES SEWER DISCHARGE PERMIT: PENDING
2.) EPA NOTICE OF INTENT (NOI): PENDING

GENERAL PLAN SET NOTES:

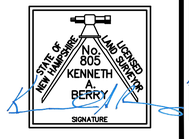
1.) 11x17" PLANS ARE HALF THE PUBLISHED SCALE.

2.) ALL PLANS ARE CONSIDERED TO BE NOT FOR CONSTRUCTION UNLESS THEY CONTAIN THE APPROVAL STAMP OF THE CITY OF DOVER.

WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE PLAN, THE SITE PLAN APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/SUBDIVIDER/DEVELOPER OF ALL TERMS, CONDITIONS, PROVISIONS AND SPECIFICATIONS OF THE CITY OF DOVER LAND SITE PLAN REGULATIONS AS AMENDED OR AS MAY LATER BE AMENDED, IN EFFECT ON THE DATE OF APPROVAL, UNLESS OR EXCEPT INSOFAR AS EXPRESSLY WAIVED, IN ANY PARTICULAR, BELOW. NON – ADHERENCE MAY RESULT IN A REVOCATION OF APPROVAL. ANY VARIATION FROM THE APPROVED PLAN WILL REQUIRE A RESUBMISSION FOR SITE PLAN APPROVAL.

OWNER'S SIGNATURE DATE

APPLICANT'S SIGNATURE DATE



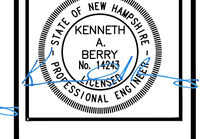
DOVER FILE #P18–045

REVISION	DATE	DESCRIPTION

T.D.R. SUBDIVISION PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : AS SHOWN
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051



ABBREVIATION LEGEND:

S.G.C.	SLOPED GRANITE CURB
V.G.C.	VERTICAL GRANITE CURB
E.O.P.	EDGE OF PAVEMENT
B.C.C.	BITUMINOUS CONCRETE CURB
BITUM.	BITUMINOUS
E.O.P.	EDGE OF PAVEMENT
E.S.H.W.T	ESTIMATE SEASONAL HIGH WATER TABLE
TYP.	TYPICAL
T. BLOCK	THRUST BLOCK
CONC.	CONCRETE
U.G.E.	UNDER GROUND ELECTRIC / UTILITY
U.D.	UNDER DRAIN
F.E.S.	FLARED END SECTION
HDPE	HIGH DENSITY POLYETHYLENE
RCP	REINFORCED CONCRETE PIPE
F.G.	FINISHED GRADE
E.G.	EXISTING GRADE
T.W.	TRAVELED WAY
T.B.R.	TO BE REMOVED
'/.	FEET / FEET

{ } SSL ( ) ~ {SIZE} SINGLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ } DSL ( ) ~ {SIZE} DOUBLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ } SSB ( ) ~ {SIZE} SINGLE SOLID W/ BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ } SBL ( ) ~ {SIZE} SINGLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ } DBL ( ) ~ {SIZE} DOUBLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)

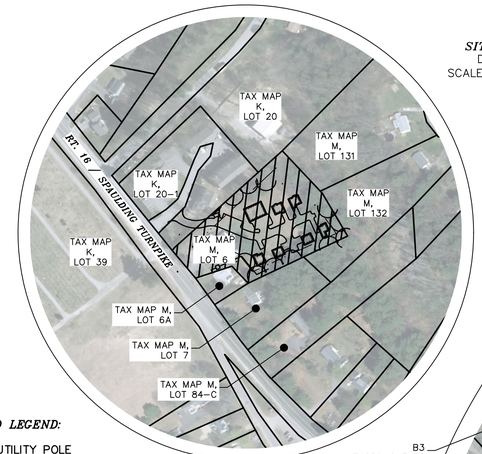
EXISTING LEGEND:

- IRON BOUND ~TBS~
- IRON BOUND ~FND~
- GRANITE BOUND ~FND~
- STONE BOUND ~FND~
- UTILITY POLE
- GUY WIRE
- CURB STOP
- GATE VALVE
- GAS VALVE
- FIRE HYDRANT
- CATCH BASIN
- SEWER MANHOLE
- SINGLE POST SIGN
- TEST PIT
- TREE
- BUILDING SETBACK LINE
- EASEMENT LINE
- GAS LINE
- WATER LINE
- SEWER LINE
- OVERHEAD UTILITIES
- HIGHWAY FENCE
- SOILS LINE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- EXISTING CULVERT PIPE
- EXISTING AREAS OF GREATER THAN 20% SLOPE
- ZONE LINE

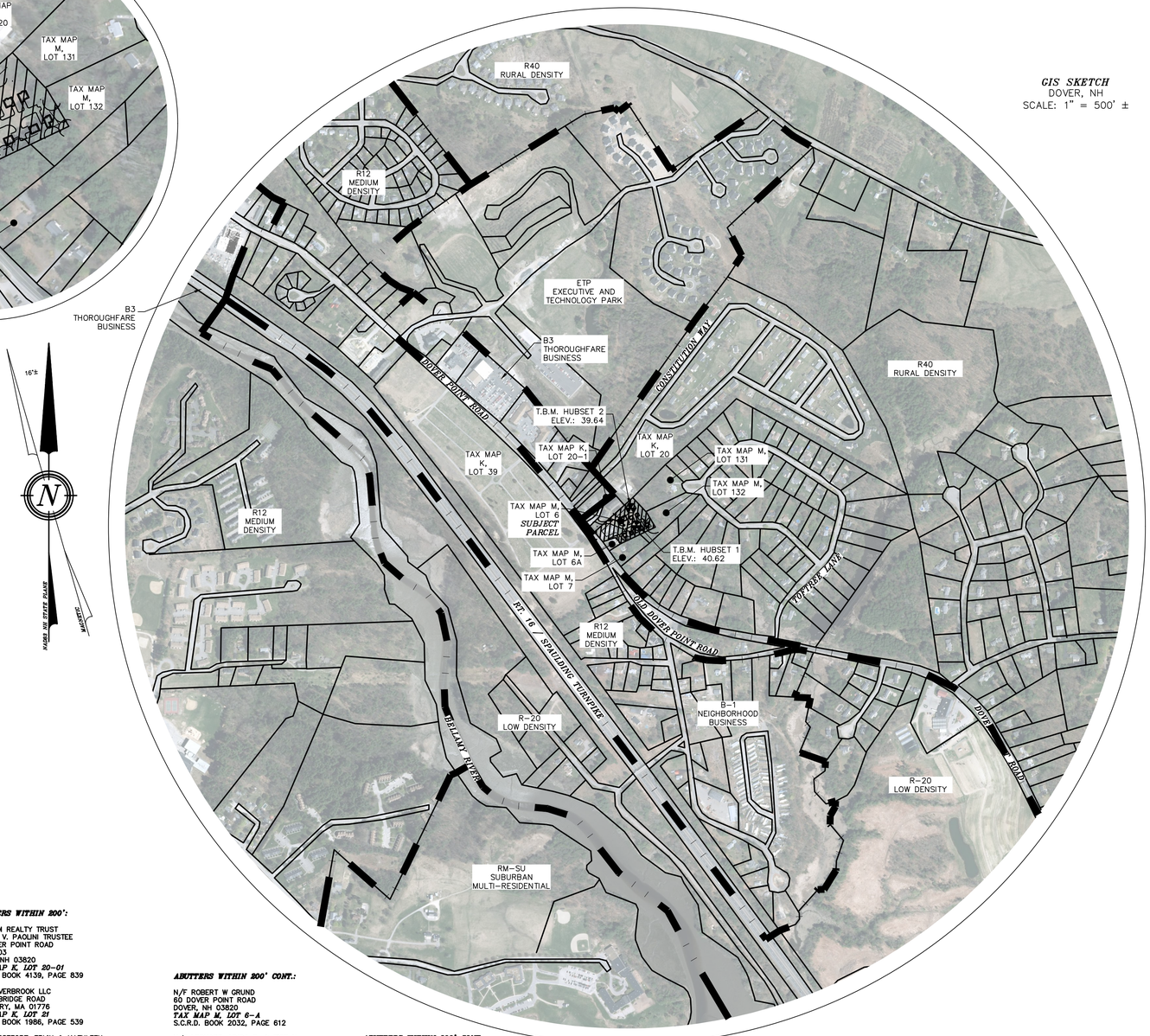
PROPOSED LEGEND:

- UTILITY POLE
- UTILITY PADS
- SEWER MANHOLE
- WATER SHUT OFF / VALVE
- HYDRANT
- THRUST BLOCK
- LIGHTING
- CATCH BASIN / DRAIN MANHOLE
- SIGNAGE
- LAMP
- CONTOUR MINOR
- CONTOUR MAJOR
- SPOT GRADE
- CULVERT W/ FLARED END SECTION (F.E.S.)
- DETAIL SHEET / DETAIL
- TREE LINE
- CENTER LINE
- UNDERGROUND UTILITY TRANSFORMER / J.BOX
- UNDER DRAIN
- WATER LINE
- SEWER LINE
- GAS LINE
- SILT FENCE / EROSION MIX BERM
- FILTREXX 12" SILT SOXX
- ORANGE CONSTRUCTION PERIMETER FENCE
- 50' WETLANDS BUFFER
- EASEMENT
- (S) SINGLE FAMILY LOT
- (D) DUPLEX LOT
- MULCH BERM
- STOCK PILE

SITE SKETCH
DOVER, NH
SCALE: 1" = 200' ±



GIS SKETCH
DOVER, NH
SCALE: 1" = 500' ±



SIGN ID NUMBER	SIGN SIZE (WIDTH x HEIGHT)	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACKGROUND	LEGEND	BORDER	POST SIZE & QUANTITY
R1-1	30"x30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	RED	WHITE	WHITE	SQUARE (1)
R2-1	12"x18"	SPEED LIMIT 25	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	WHITE	GREEN	GREEN	SQUARE (1)
R8-31	12"x18"	NO PARKING FIRE LANE	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	3	WHITE	RED	RED	SQUARE (3)
W14-2	30"x30"	NO OUTLET	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	YELLOW	BLACK	BLACK	U-CHANNEL (1)

ABUTTERS WITHIN 200':

N/F JNM REALTY TRUST
ROBERT V. PAOLINI TRUSTEE
54 DOVER POINT ROAD
SUITE 103
DOVER, NH 03820
TAX MAP K, LOT 20-01
S.C.R.D. BOOK 4139, PAGE 839

N/F DOVERBROOK LLC
40 NEWBRIDGE ROAD
SALISBURY, MA 01776
TAX MAP K, LOT 21
S.C.R.D. BOOK 1986, PAGE 539

N/F HESSEFORT, ERVIN & KATHLEEN
1 HERITAGE DRIVE
ROLLINSFORD, NH 03869
TAX MAP M, LOT 131
S.C.R.D. BOOK 2914, PAGE 324

N/F FORGET, JEFFERY D. & ELLEN L.
53 TOFTREE LANE
DOVER, NH 03820
TAX MAP M, LOT 132
S.C.R.D. BOOK 3628, PAGE 940

N/F MARJORIE E. COMISKY REVOCABLE LIVING TRUST
MARJORIE E. & GARY COMISKY TRUSTEES
62 DOVER POINT ROAD
DOVER, NH 03820
TAX MAP M, LOT 7
S.C.R.D. BOOK, 4420, PAGE 138

ABUTTERS WITHIN 200' CONT.:

N/F ROBERT W GRUND
60 DOVER POINT ROAD
DOVER, NH 03820
TAX MAP M, LOT 6-A
S.C.R.D. BOOK 2032, PAGE 612

N/F LEONARD, LINDA P. & TICE N.
64 DOVER POINT ROAD
DOVER, NH 03820
TAX MAP M, LOT 84-C
S.C.R.D. BOOK 955, PAGE 287

N/F JNM REALTY TST
ROBERT V PAOLINI TSTEE
54 DOVER POINT ROAD
DOVER, NH 03820
TAX MAP K, LOT 20E
S.C.R.D. BOOK 3892, PAGE 537

N/F HOFFMAN, WANDA LOU & WITHAM, LORI L .
55 TOFTREE LANE
DOVER, NH 03820
TAX MAP M, LOT 133
S.C.R.D. BOOK 3684, PAGE 873

ABUTTERS WITHIN 200' CONT.:

N/F HAMILTON, PAMELA & DAVID
57 TOFTREE LANE
DOVER, NH 03820
TAX MAP M, LOT 134
S.C.R.D. BOOK 1199, PAGE 508

N/F HABIB, RICHARD R. JR. & RIISKA, ELLEN M.
72 DOVER POINT RD
DOVER, NH 03820
TAX MAP M, LOT 84-A
S.C.R.D. BOOK 3298, PAGE 309

N/F ROMAN CATHOLIC BISHOP
577 CENTRAL AVE
DOVER, NH 03820
TAX MAP K, LOT 39

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

NEIGHBORHOOD PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : AS SHOWN
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

JURISDICTIONAL WETLANDS WERE DELINEATED BY CINDY BALCIUS OF STONEY RIDGE ENVIRONMENTAL LLC IN SEPTEMBER OF 2018 UTILIZING THE FOLLOWING STANDARDS:

1) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7.0. 2010. L.M. VASILAS, G.W. HURT, AND C.V. NOBLE (EDS.). UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.
2) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND. VERSION 3. APRIL 2004. NEIWPCC WETLANDS WORKGROUP. WILMINGTON, MA 01887.
3) NORTH AMERICAN DIGITAL FLORA: NATIONAL WETLAND PLANT LIST, VERSION 2.1.0 (HTTP://WETLAND_PLANTS.USACE.ARMY.MIL). U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, COLD REGIONS RESEARCH AND ENGINEERING LABORATORY, HANOVER, NH, AND BONAP, CHAPEN HILL.
4) STATE OF NEW HAMPSHIRE 2014 WETLAND PLANT LIST. LICHVAR, R.W., M. BUTTERWICH, N.C. MELVIN, AND W.N. KIRCHNER. 2014. THE NATIONAL WETLAND PLANT LIST: 2014 UPDATE OF WETLAND RATINGS. PHYTONEURON 2014–41:1–42.
5) CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. JANUARY 1987. WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y–87–1.
6) REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. JANUARY 2012, VERSION 2. U.S. ARMY CORPS OF ENGINEERS. ENVIRONMENTAL LABORATORY ERDC/EL TR–12–1.
7) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. DECEMBER 1979. L. COWARDIN, V. CARTER, F. GOLET, AND E. LAROE. US DEPARTMENT OF THE INTERIOR. FISH AND WILDLIFE SERVICE. FWS/OBS–79/31.

STONEY RIDGE ENVIROMENTAL, LLC.
CYNTHIA BALCIUS, CWS #61

TEST PIT DATA:

TEST PIT #101–104

0–6" 10YR 3/2, FINE SANDY LOAM, GRANULAR, FRIABLE
6–12" 10YR 4/6, VERY FINE FINE SAND, SINGLE GRAIN, LOOSE
12–102" 2.5Y 6/2, VERY FINE SAND, SINGLE GRAIN, LOOSE

E.S.H.W.T. @ N/A
GROUND WATER @ N/A
REFUSAL @ N/A
P = < 2 MIN/IN

SOIL DATA:

WdA ~ WINDSOR LOAMY SAND, 0 TO 3% SLOPES

ScB ~ SCANTIC SILT LOAM, 0 TO 3% SLOPES

SEE WEBSOIL

LEGEND:

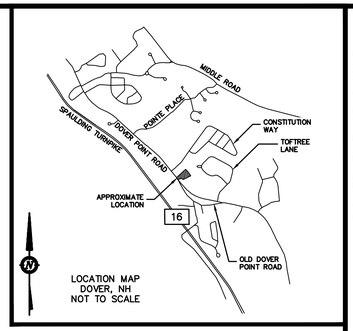
- IRON BOUND (FND)
- IRON PIPE (FND)
- BENCHMARK
- SEWER MANHOLE
- DRAIN MAN HOLE
- CATCH BASIN
- CURB STOP
- TEST PIT
- BUILDING SETBACK LINE
- 50' WETLAND BUFFER
- EX. EASEMENT LINE
- 0.2% ANNUAL CHANCE FLOOD LINE
- NRCS SOIL LINES
- EXISTING OVERHEAD UTILITIES
- EXISTING WATER LINE
- EXISTING GAS LINE
- ZONE LINE
- 20% OR GREATER SLOPES

PLAN REFERENCES:

1. "SUBDIVISION, PLAN OF LAND IN DOVER, NEW HAMPSHIRE, COUNTY OF STRAFFORD, OWNED BY SAMUEL TAMPOSI & EDWARD LEHOULLIER: BY: TOWN PLANNING & ENGINEERING ASSOC. INC. DATED: AUGUST 28, 1978 S.C.R.D. PLAN #19–65
2. "PLAN OF LOT LILLIAN M. GAFFNEY, DOVER N.H." BY: GL.L. DAVIS & ASSOCIATES DATED: JULY 1984 NOT RECORDED
3. "FEDERAL AID N.R.M. 262" PAGES 18–19 DATED: 1933
4. "EASEMENT PLAN BENEFITING PAOLNI BROTHERS DEVELOPMENT, LLC. ON LAND OF KEVIN R. COOPER JR., DOVER POINT ROAD, DOVER, N.H. TAX MAP M, LOT 6" BY: BERRY SURVEYING & ENGINEERING DATED: MARCH 14, 2008 S.C.R.D. PLAN #97–92 FILE NO.: DB 2006–057
5. "PROPOSED SITE PLAN REVISION FOR JNM REALTY TRUST, DOVER POINT ROAD, DOVER N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: JANUARY 31, 2011 FILE NO.: DB 2006–057 DOVER PLANNING NO P08–15B
6. "EASEMENT PLAN BENEFITING PAOLNI BROTHERS DEVELOPMENT, LLC. ON LAND OF JEFFERY D. & ELLEEN L. FORGET, DOVER POINT ROAD, DOVER, N.H. TAX MAP M, LOT 132" BY: BERRY SURVEYING & ENGINEERING DATED: MARCH 14, 2008 S.C.R.D. PLAN #97–93 FILE NO.: DB 2006–057

PLAN REFERENCES CONT:

7. "CONDOMINIUM SITE PLAN FOR PAOLINI BROTHERS DEVELOPMENT, LLC., 54 DOVER POINT ROAD, DOVER, N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: OCTOBER 2, 2009 S.C.R.D. PLAN #97–96 FILE NO. DB 2009–103
8. "PROPOSED SUBDIVISION PLAN FOR JNM REALTY TRUST, DOVER POINT ROAD, DOVER N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: JANUARY 31, 2011 S.C.R.D. PLAN #102–2 FILE NO. DB 2006–057 SUB



LOCATION MAP
DOVER, NH
NOT TO SCALE

NOTES:

1. OWNER: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD, STE 103 DOVER, NH 03820
1A. APPLICANT: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD, STE 103 DOVER, NH 03820
2. TAX MAP M, LOT 6
3. LOT AREA: 84,234 Sq. Ft., 1.93 Ac.
4. S.C.R.D. BOOK 4526, PAGE 1.
5. RURAL RESIDENTIAL (R–40) DISTRICT:
   FRONTAGE ~ 150.0 Ft.
   MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
   FRONT SETBACK ~ 40 Ft.
   ABUT A STREET SETBACK ~ 40 Ft.
   REAR SETBACK ~ 30 Ft.
   SIDE SETBACK ~ 25 Ft.
   WETLAND BUFFER ~ 50 Ft.
   MAX. BUILDING HEIGHT: 35 Ft.
   MAX. LOT COVERAGE: 10%

   TRANSFER OF DEVELOPMENT RIGHTS (TDR):
   MINIMUM DISTANCE AROUND INDIVIDUAL UNITS IN CLUSTERS:
   STREET SIDES OF UNITS ~ 20 Ft.
   BETWEEN UNITS ~ 20 Ft.

. THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS OF TAX MAP M, LOT 6 AS OF THE DATE OF THIS PLAN.

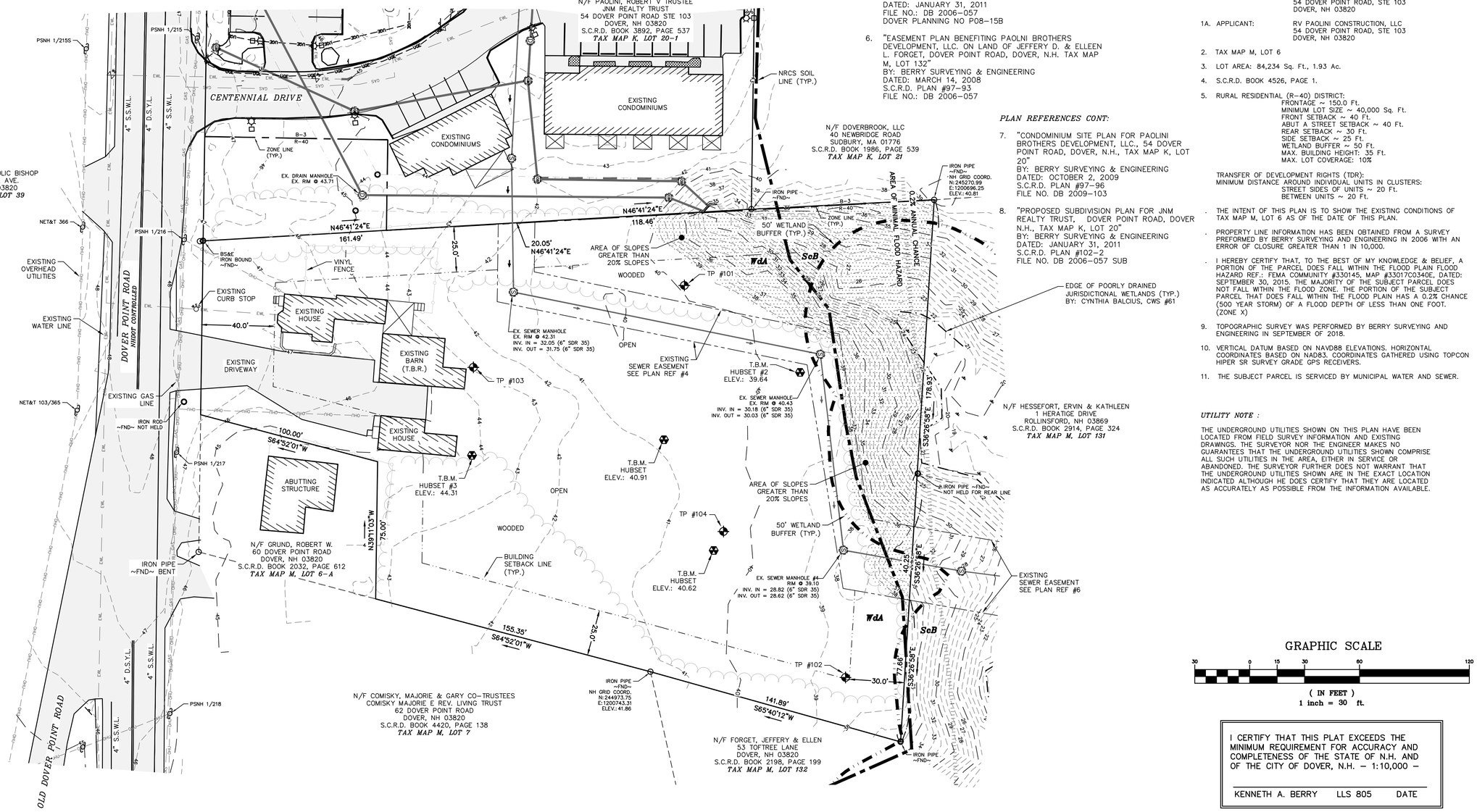
. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PREFORMED BY BERRY SURVEYING AND ENGINEERING IN 2006 WITH AN ERROR OF CLOSURE GREATER THAN 1 IN 10,000.

. I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, A PORTION OF THE PARCEL DOES FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF.: FEMA COMMUNITY #330145, MAP #33017C0340E, DATED: SEPTEMBER 30, 2015. THE MAJORITY OF THE SUBJECT PARCEL DOES NOT FALL WITHIN THE FLOOD ZONE. THE PORTION OF THE SUBJECT PARCEL THAT DOES FALL WITHIN THE FLOOD PLAIN HAS A 0.2% CHANCE (500 YEAR STORM) OF A FLOOD DEPTH OF LESS THAN ONE FOOT. (ZONE X)

9. TOPOGRAPHIC SURVEY WAS PERFORMED BY BERRY SURVEYING AND ENGINEERING IN SEPTEMBER OF 2018.
10. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS, HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
11. THE SUBJECT PARCEL IS SERVICED BY MUNICIPAL WATER AND SEWER.

UTILITY NOTE :

THE UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR NOR THE ENGINEER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN 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 HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

I CERTIFY THAT THIS PLAT EXCEEDS THE MINIMUM REQUIREMENT FOR ACCURACY AND COMPLETENESS OF THE STATE OF N.H. AND OF THE CITY OF DOVER, N.H. – 1:10,000 –

KENNETH A. BERRY LLS 805 DATE

DOVER FILE #P18–045

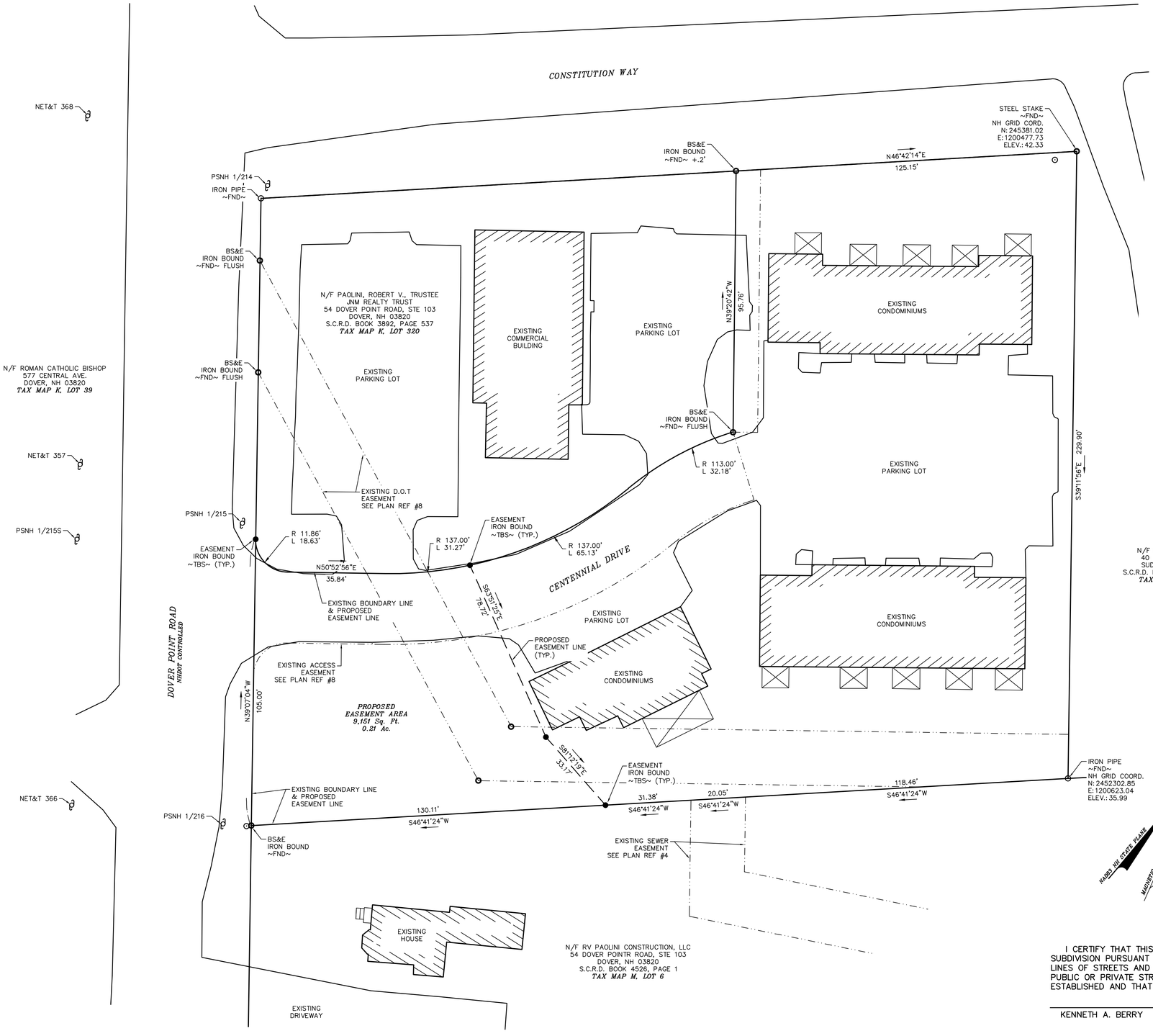
REVISION	DATE	DESCRIPTION

EXISTING CONDITIONS PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

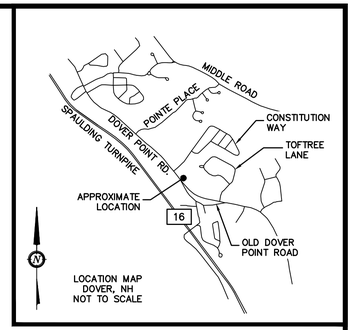
SCALE : 1 IN. EQUALS 30 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE — No. 805 KENNETH A. BERRY — LICENSED LAND SURVEYOR
SIGNATURE



PLAN REFERENCES:

1. "SUBDIVISION, PLAN OF LAND IN DOVER, NEW HAMPSHIRE, COUNTY OF STRAFFORD, OWNED BY SAMUEL TAMPOSI & EDWARD LEHOULLIER: BY: TOWN PLANNING & ENGINEERING ASSOC. INC. DATED: AUGUST 28, 1978 S.C.R.D. PLAN #19-65
2. "PLAN OF LOT LILLIAN M. GAFFNEY, DOVER N.H." BY: G.L.L. DAVIS & ASSOCIATES DATED: JULY 1984 NOT RECORDED
3. "FEDERAL AID N.R.M. 262" PAGES 18-19 DATED: 1933
4. "EASEMENT PLAN BENEFITING PAOLNI BROTHERS DEVELOPMENT, LLC. ON LAND OF KEVIN R. COOPER JR., DOVER POINT ROAD, DOVER, N.H. TAX MAP M, LOT 6" BY: BERRY SURVEYING & ENGINEERING DATED: MARCH 14, 2008 S.C.R.D. PLAN #97-92 FILE NO.: DB 2006-057
5. "PROPOSED SITE PLAN REVISION FOR JNM REALTY TRUST, DOVER POINT ROAD, DOVER N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: JANUARY 31, 2011 FILE NO.: DB 2006-057 DOVER PLANNING NO P08-15B
6. "EASEMENT PLAN BENEFITING PAOLNI BROTHERS DEVELOPMENT, LLC. ON LAND OF JEFFERY D. & ELLEEN L. FORGET, DOVER POINT ROAD, DOVER, N.H. TAX MAP M, LOT 132" BY: BERRY SURVEYING & ENGINEERING DATED: MARCH 14, 2008 S.C.R.D. PLAN #97-93 FILE NO.: DB 2006-057
7. "CONDOMINIUM SITE PLAN FOR PAOLINI BROTHERS DEVELOPMENT, LLC., 54 DOVER POINT ROAD, DOVER, N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: OCTOBER 2, 2009 S.C.R.D. PLAN #97-96 FILE NO. DB 2009-103
8. "PROPOSED SUBDIVISION PLAN FOR JNM REALTY TRUST, DOVER POINT ROAD, DOVER N.H., TAX MAP K, LOT 20" BY: BERRY SURVEYING & ENGINEERING DATED: JANUARY 31, 2011 S.C.R.D. PLAN #102-2 FILE NO. DB 2006-057 SUB



NOTES:

1. OWNER: ROBERT V. PAOLINI, TRUSTEE JNM REALTY TRUST 54 DOVER POINT ROAD, STE 103 DOVER, NH 03820
1A. APPLICANT: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD, STE 103 DOVER, NH 03820
2. TAX MAP K, LOT 20-1
3. LOT AREA: 46,448 Sq. Ft., 1.07 Ac.
4. S.C.R.D. BOOK 3892, PAGE 537
6. THE INTENT OF THIS PLAN IS TO SHOW A PROPOSED ACCESS, UTILITY, AND GRADING EASEMENT ON TAX MAP K, LOT 20-1 IN FAVOR OF TAX MAP K, LOT 6. SEE CORRESPONDING SITE PLAN.
7. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PREFORMED BY BERRY SURVEYING AND ENGINEERING IN 2006 WITH AN ERROR OF CLOSURE GREATER THAN 1 IN 10,000.
8. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
9. THE BEARINGS ON THIS PLAN DIFFER FROM PLAN REF #8 DUE TO UPDATING THE WORK TO SURVEY GRADE GPS POINTS.

LEGEND:

- ● EASEMENT BOUND (TBS)
- ○ IRON BOUND (FND)
- ○ IRON PIPE (FND)
- ○ UTILITY POLE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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

KENNETH A. BERRY L.L.S. 805 DATE

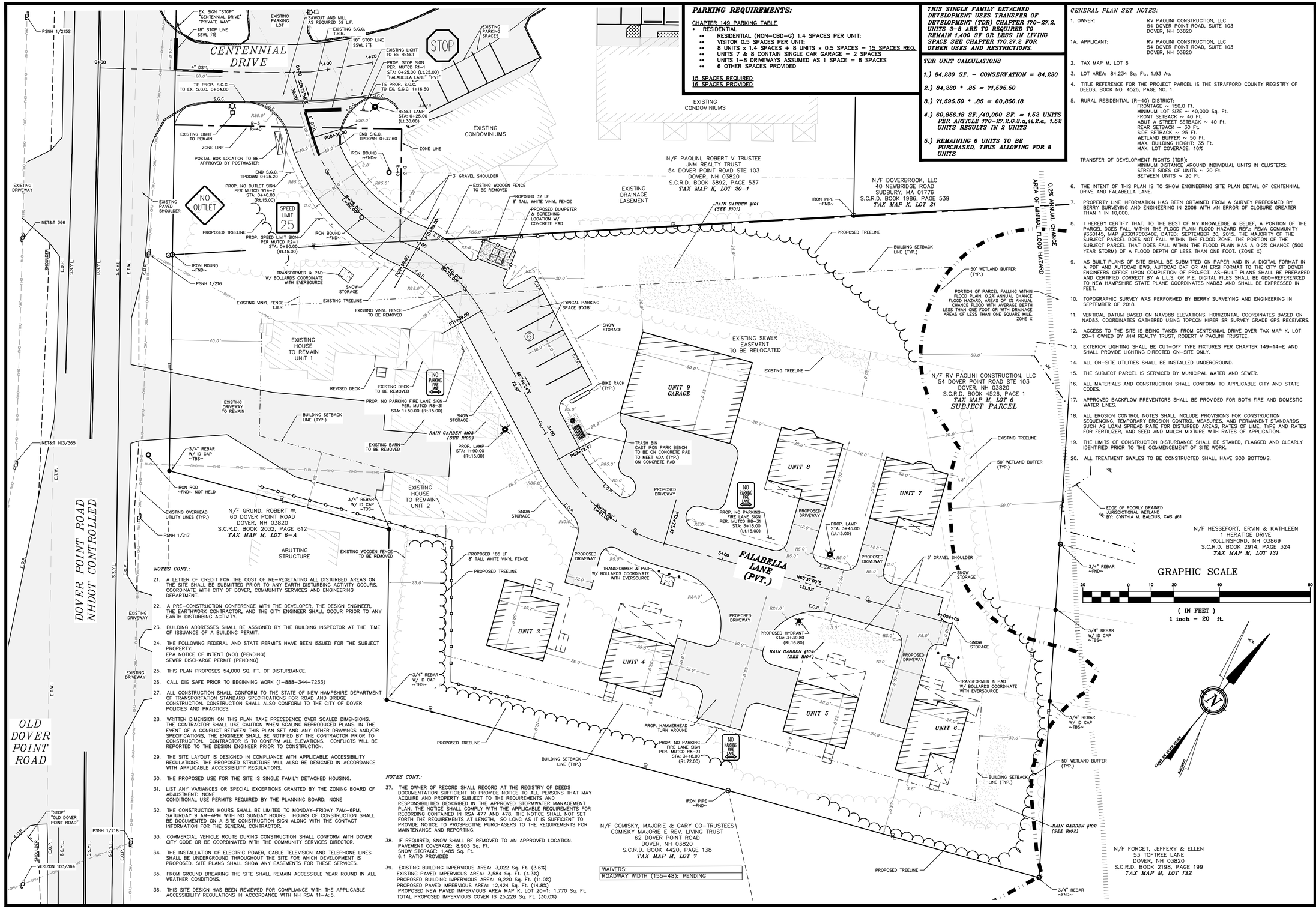
REVISION	DATE	DESCRIPTION

EASEMENT PLAN
FOR
RV PAOLINI CONSTRUCTION, LLC
LAND OF
JNM REALTY TRUST
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP K, LOT 20-1

STATE OF NEW HAMPSHIRE NO. 805 LICENSED LAND SURVEYOR KENNETH A. BERRY SIGNATURE

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON, N.H. (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018-051



PARKING REQUIREMENTS:

CHAPTER 149 PARKING TABLE

- RESIDENTIAL
  - •• RESIDENTIAL (NON-CBD-G) 1.4 SPACES PER UNIT:
  - •• VISITOR 0.5 SPACES PER UNIT:
  - •• 8 UNITS x 1.4 SPACES + 8 UNITS x 0.5 SPACES = 15 SPACES REQ.
  - •• UNITS 7 & 8 CONTAIN SINGLE CAR GARAGE = 2 SPACES
  - •• UNITS 1-8 DRIVEWAYS ASSUMED AS 1 SPACE = 8 SPACES
  - •• 6 OTHER SPACES PROVIDED

15 SPACES REQUIRED
16 SPACES PROVIDED

THIS SINGLE FAMILY DETACHED DEVELOPMENT USES TRANSFER OF DEVELOPMENT (TDR) CHAPTER 170-27.2. UNITS 3-8 ARE TO REQUIRED TO REMAIN 1,400 SF OR LESS IN LIVING SPACE SEE CHAPTER 170.27.2 FOR OTHER USES AND RESTRICTIONS.

TDR UNIT CALCULATIONS

1.) 84,230 SF. - CONSERVATION = 84,230

2.) 84,230 * .85 = 71,595.50

3.) 71,595.50 * .85 = 60,856.18

4.) 60,856.18 SF./40,000 SF. = 1.52 UNITS PER ARTICLE 170-27.2.C.3.a,(4.2.a, 1.52 UNITS RESULTS IN 2 UNITS

5.) REMAINING 6 UNITS TO BE PURCHASED, THUS ALLOWING FOR 8 UNITS

GENERAL PLAN SET NOTES:

1. OWNER: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD, SUITE 103 DOVER, NH 03820
1A. APPLICANT: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD, SUITE 103 DOVER, NH 03820
2. TAX MAP M, LOT 6
3. LOT AREA: 84,234 Sq. Ft., 1.93 Ac.
4. TITLE REFERENCE FOR THE PROJECT PARCEL IS THE STRAFFORD COUNTY REGISTRY OF DEEDS, BOOK NO. 4526, PAGE NO. 1.
5. RURAL RESIDENTIAL (R-40) DISTRICT:
   FRONTAGE ~ 150.0 Ft.
   MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
   FRONT SETBACK ~ 40 Ft.
   ABUT A STREET SETBACK ~ 40 Ft.
   REAR SETBACK ~ 30 Ft.
   SIDE SETBACK ~ 25 Ft.
   WETLAND BUFFER ~ 50 Ft.
   MAX. BUILDING HEIGHT: 35 Ft.
   MAX. LOT COVERAGE: 10%

   TRANSFER OF DEVELOPMENT RIGHTS (TDR):
   MINIMUM DISTANCE AROUND INDIVIDUAL UNITS IN CLUSTERS:
   STREET SIDES OF UNITS ~ 20 Ft.
   BETWEEN UNITS ~ 20 Ft.
6. THE INTENT OF THIS PLAN IS TO SHOW ENGINEERING SITE PLAN DETAIL OF CENTENNIAL DRIVE AND FALABELLA LANE.
7. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PREFORMED BY BERRY SURVEYING AND ENGINEERING IN 2006 WITH AN ERROR OF CLOSURE GREATER THAN 1 IN 10,000.
8. I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, A PORTION OF THE PARCEL DOES FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF.: FEMA COMMUNITY #330145, MAP #33017C0340E, DATED: SEPTEMBER 30, 2015. THE MAJORITY OF THE SUBJECT PARCEL DOES NOT FALL WITHIN THE FLOOD ZONE. THE PORTION OF THE SUBJECT PARCEL THAT DOES FALL WITHIN THE FLOOD PLAIN HAS A 0.2% CHANCE (500 YEAR STORM) OF A FLOOD DEPTH OF LESS THAN ONE FOOT. (ZONE X)
9. AS BUILT PLANS OF SITE SHALL BE SUBMITTED ON PAPER AND IN A DIGITAL FORMAT IN A PDF AND AUTOCAD DWG, AUTOCAD DXF OR AN ERSI FORMAT TO THE CITY OF DOVER ENGINEERS OFFICE UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILES SHALL BE GEO-REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.
10. TOPOGRAPHIC SURVEY WAS PERFORMED BY BERRY SURVEYING AND ENGINEERING IN SEPTEMBER OF 2018.
11. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
12. ACCESS TO THE SITE IS BEING TAKEN FROM CENTENNIAL DRIVE OVER TAX MAP K, LOT 20-1 OWNED BY JNM REALTY TRUST, ROBERT V PAOLINI TRUSTEE.
13. EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 149-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.
14. ALL ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.
15. THE SUBJECT PARCEL IS SERVICED BY MUNICIPAL WATER AND SEWER.
16. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
17. APPROVED BACKFLOW PREVENTORS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.
18. ALL EROSION CONTROL NOTES SHALL INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.
19. THE LIMITS OF CONSTRUCTION DISTURBANCE SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO THE COMMENCEMENT OF SITE WORK.
20. ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.

NOTES CONT.:

21. A LETTER OF CREDIT FOR THE COST OF RE-VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS. COORDINATE WITH CITY OF DOVER, COMMUNITY SERVICES AND ENGINEERING DEPARTMENT.
22. A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR, AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.
23. BUILDING ADDRESSES SHALL BE ASSIGNED BY THE BUILDING INSPECTOR AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
24. THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:
    EPA NOTICE OF INTENT (NOI) (PENDING)
    SEWER DISCHARGE PERMIT (PENDING)
25. THIS PLAN PROPOSES 54,000 SQ. FT. OF DISTURBANCE.
26. CALL DIG SAFE PRIOR TO BEGINNING WORK (1-888-344-7233)
27. ALL CONSTRUCTION SHALL CONFORM TO THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CONSTRUCTION SHALL ALSO CONFORM TO THE CITY OF DOVER POLICIES AND PRACTICES.
28. WRITTEN DIMENSION ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS TO CONFIRM ALL ELEVATIONS. CONFLICTS WILL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.
29. THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. THE PROPOSED STRUCTURE WILL ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS.
30. THE PROPOSED USE FOR THE SITE IS SINGLE FAMILY DETACHED HOUSING.
31. LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT: NONE
    CONDITIONAL USE PERMITS REQUIRED BY THE PLANNING BOARD: NONE
32. THE CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7AM-6PM, SATURDAY 9 AM-4PM WITH NO SUNDAY HOURS. HOURS OF CONSTRUCTION SHALL BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR.
33. COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH DOVER CITY CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.
34. THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND THROUGHOUT THE SITE FOR WHICH DEVELOPMENT IS PROPOSED. SITE PLANS SHALL SHOW ANY EASEMENTS FOR THESE SERVICES.
35. FROM GROUND BREAKING THE SITE SHALL REMAIN ACCESSIBLE YEAR ROUND IN ALL WEATHER CONDITIONS.
36. THIS SITE DESIGN HAS BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE ACCESSIBILITY REGULATIONS IN ACCORDANCE WITH NH RSA 11-A:5.

NOTES CONT.:

37. THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS THAT MAY ACQUIRE AND PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN. THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE SHALL NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING.
38. IF REQUIRED, SNOW SHALL BE REMOVED TO AN APPROVED LOCATION.
    PAVEMENT COVERAGE: 8,903 Sq. Ft.
    SNOW STORAGE: 1,485 Sq. Ft.
    6:1 RATIO PROVIDED
39. EXISTING BUILDING IMPERVIOUS AREA: 3,022 Sq. Ft. (3.6%)
    EXISTING PAVED IMPERVIOUS AREA: 3,584 Sq. Ft. (4.3%)
    PROPOSED BUILDING IMPERVIOUS AREA: 9,220 Sq. Ft. (11.0%)
    PROPOSED PAVED IMPERVIOUS AREA: 12,424 Sq. Ft. (14.8%)
    PROPOSED NEW PAVED IMPERVIOUS AREA MAP K, LOT 20-1: 1,770 Sq. Ft.
    TOTAL PROPOSED IMPERVIOUS COVER IS 25,228 Sq. Ft. (30.0%)

WAIVERS:
ROADWAY WIDTH (155-48): PENDING

DOVER FILE #P18-045

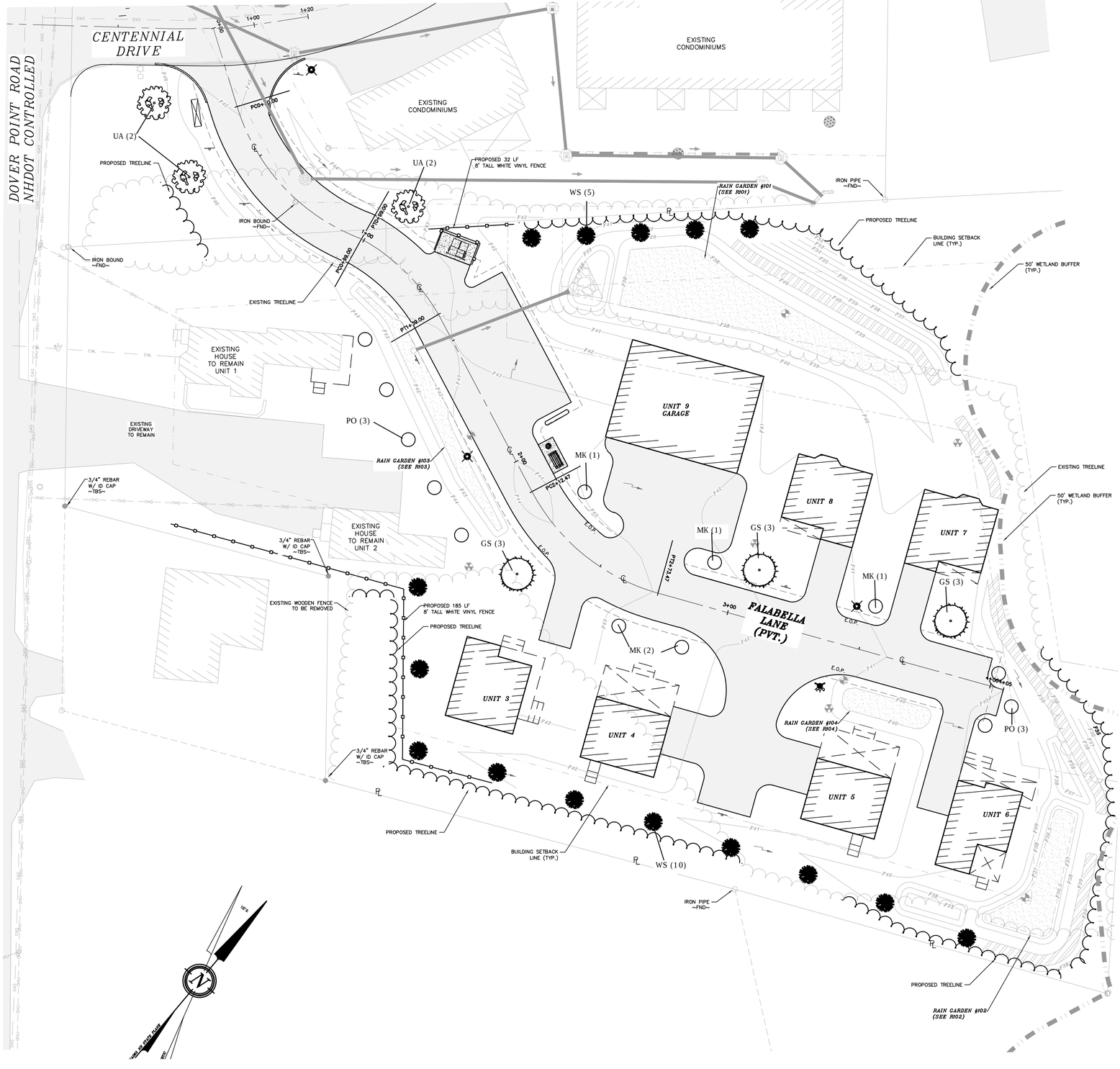
REVISION	DATE	DESCRIPTION

SITE PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER



terrain
planning & design llc

General Plant Maintenance Guide

General Plant Bed Maintenance:

- All plant maintenance should be performed by a qualified horticulturalist or licensed arborist. Cleaning the dead material out of the planting bed in the fall helps keep litter from building up around the plants and in some cases killing the plants. Watering the first year during dry periods will help get the plants established. Mulching every year is not necessary. Raking the old mulch and turning it over is all that is needed. When necessary only install one inch of mulch and do not place the mulch closer than 3" to the trunks or stems of woody plants.

Trees

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the trunk.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after trees have dropped their leaves for the year.
- Prune dead wood once a year.
- Depending on the amount of compaction the bed area receives, deep root aeration may be needed over time

Woody Shrubs

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the stems.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after shrubs have dropped their leaves or gone dormant for the year.
- Prune dead wood once a year.

Grasses

- Grasses only need to be clipped back at the end of the growing season and all the clippings removed from the area.
- Do not over mulch. Too much mulch will prohibit the grass from developing into a strong clump.

Perennials

- All perennials need to be pruned back after the first or second hard frost. A two-step method; first dead head all the flower heads and let drop to the ground for re-seeding. Second cut the stems back to 3" above the ground and remove the stem and leaf litter and place in compost. Do not over mulch. Too much mulch will prohibit the growth and development
- Fertilizing perennials once in the spring with a low phosphate fertilizer will help the plants to get started in the spring.

www.terrainplanning.com 311 kast hill road hopkinton nh 03229 T:603-491-2322

PLANTING NOTES

1. CONTRACTOR SHALL OBTAIN APPROVAL FROM L.A. PRIOR TO PURCHASING &/OR INSTALLING SUBSTITUTE PLANT MATERIAL PRIOR TO PURCHASE OF ANY SUBSTITUTE MATERIALS.

2. CONSTRUCTION ACCESS WILL BE AS DIRECTED BY L.A. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ACCESS ROUTE AND ALL AREAS DISTURBED BY PLANTING OPERATIONS UPON COMPLETION OF CONSTRUCTION OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER.

3. LAYOUT OF ALL PLANTING BEDS AND LOCATION OF PLANTS TO BE APPROVED BY L.A. ON SITE PRIOR TO CONSTRUCTION AND INSTALLATION.

4. CONTRACTOR TO REMOVE ALL DEBRIS GENERATED BY PLANT INSTALLATION. DEBRIS TO BE DISPOSED OF IN A LEGAL MANNER.

5. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD, HEALTHY & FLOURISHING CONDITION FOR ONE YEAR FROM THE DATE OF FINAL INSTALLATION APPROVAL BY L.A. CONTRACTOR SHALL REPLACE, WITHOUT COST TO OWNER, AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD AND NON-FLOURISHING PLANTS AS DETERMINED BY THE L.A. REPLACEMENT PLANTS SHALL BE BE GUARANTEED IDENTICALLY TO ORIGINAL PLANTS, TIME PERIOD COMMENCING FROM DATE OF REPLACEMENT PLANTING APPROVAL BY L.A.

6. ALL BEDS TO BE MULCHED WITH 3" DEPTH SHREDDED BARK MULCH UNLESS NOTED OTHERWISE.

7. CONTRACTOR TO PROVIDE NECESSARY TEMPORARY IRRIGATION IF NEEDED BASED ON TIME OF YEAR THE PROJECT IS IMPLEMENTED.

8. ALL PLANT MATERIAL TO COMPLY WITH THE CITY OF DOVER'S SITE REVIEW REGULATIONS, 149-14(G), SUCH THAT THERE SHALL BE DECIDUOUS SHADE TREES PLANTED 40 FEET O.C. ALONG THE PERIMITERE OF THE PARKING LOTS AND SHRUBS PLANTED 5 FEET O.C. WITHIN THE PERIMETER BUFFER. SEE PLANT LIST FOR SPECIES AND SIZE OF PLANTS.

9. SEE NOTE PAGE FOR ALL OTHER LANDSCAPING NOTES.

TEMPORARY WATERING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL PLANT MATERIAL HAS ADEQUATE WATER DURING THE ESTABLISHMENT PERIOD.

2. THE USE OF GATOR BAGS, SOAKER HOSE, HAND WATERING AND OTHER TECHNIQUES SHOULD BE USED TO ASSURE PROPER HYDRATION OF THE PLANTINGS IS MAINTAINED.

3. TEMPORARY IRRIGATION SYSTEMS CAN BE SET UP TO ASSIST IN WATERING ACTIVITIES.

PLANTING SCHEDULE
56 Dover Point Road
Botanical Name/ Common Name

	Size	Qty	Label
Trees			
Gleditsia 'Shademaster' / Shademaster Honeylocust	3" Cal.	3	GS
Ulmus americana 'Princeton' / Princeton American Elm	3" Cal.	2	UA
Picea glauca / White Spruce	6' high	15	WS
Shrubs			
Physocarpus opulifolius 'Summer Wine' / Summer Wine Ninebark	2-3' B&B	8	PO
Syringa patula 'Miss Kim' / Miss Kim Lilac	2-3' B&B	5	MK

terrain
planning & design llc
311 kast hill road
hopkinton, nh 03229
603. 491. 2322
terrainplanning.com

56 Dover Point Road

Site Location:
56 Dover Point Road
DOVER, NH
Tax Map: M, LOT 6

Prepared For:
Berry Surveying & Engineering
335 Second Crown Point Rd
Barrington, NH 03825

LANDSCAPE PLAN

DATE: 9-20-18

SCALE: 1" = 20'

PROJECT #: 1802

Drawn By: CRB

Checked By: ERB

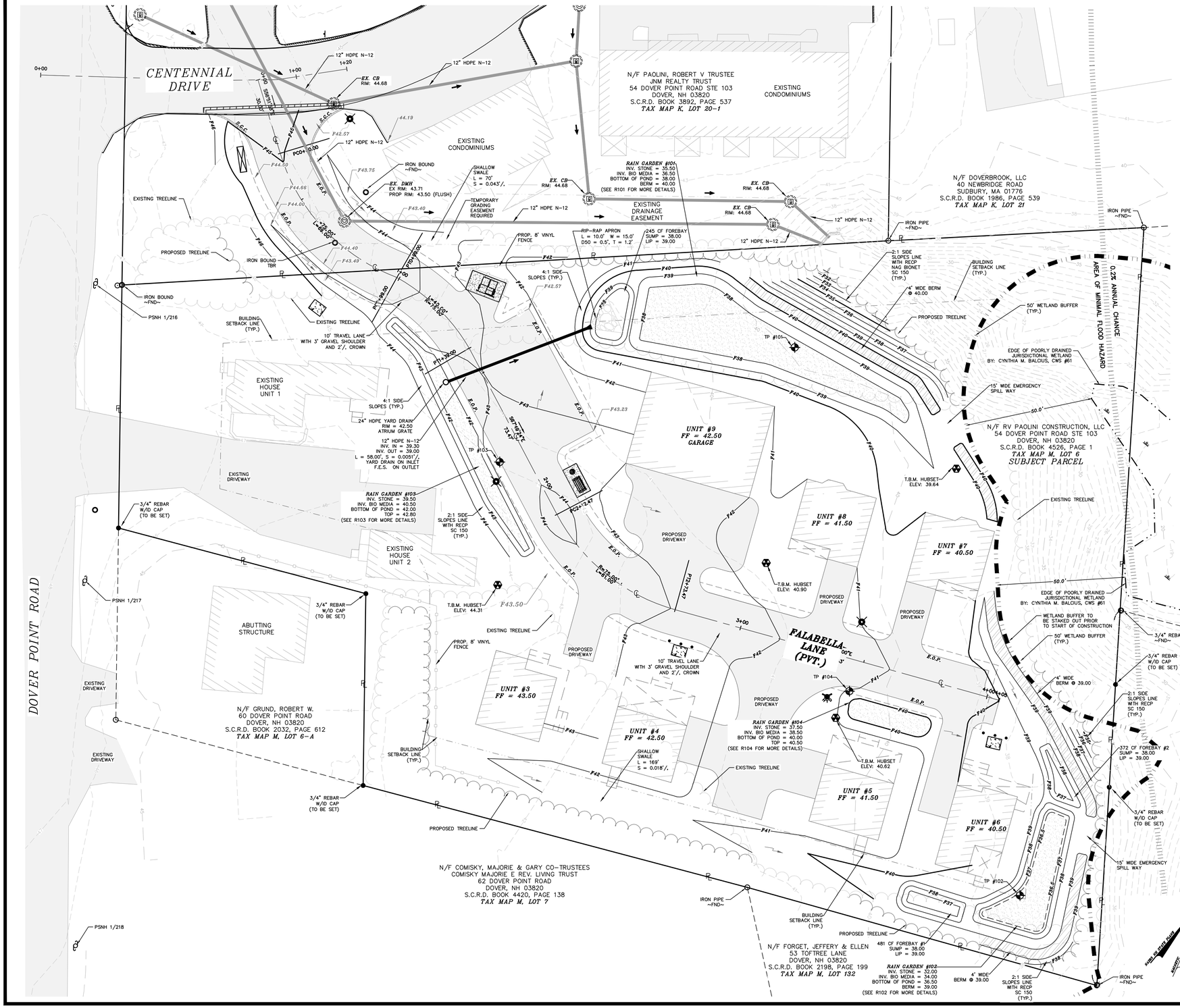
REVISIONS: DATE:

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L - 01

SHEET 5 OF 24

LICENSED LANDSCAPE ARCHITECT
ERIC R BUCK
078
STATE OF NEW HAMPSHIRE



GENERAL PLAN SET NOTES:

1. OWNER: RV PAOLINI CONSTRUCTION, LLC
54 DOVER POINT ROAD, STE. 103
DOVER, NH 03820

1A. APPLICANT: RV PAOLINI CONSTRUCTION, LLC
54 DOVER POINT ROAD, STE. 103
DOVER, NH 03820

2. TAX MAP M, LOT 6

3. LOT AREA: 84,234 Sq. Ft., 1.93 Ac.

4. TITLE REFERENCE FOR THE PROJECT PARCEL IS THE STRAFFORD COUNTY REGISTRY OF DEEDS, BOOK NO. 4526, PAGE NO. 1.

5. THE INTENT OF THIS PLAN SET IS TO DEMONSTRATE THE GRADING DESIGN OF THE SITE AT 56-58 DOVER POINT ROAD.

STANDARD CONSTRUCTION NOTES:

1.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE.

2.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2010, CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

3.) CONTRACTOR SHALL TAKE SPECIAL CARE IN NOT DISTURBING EXISTING MONUMENTS BOUNDS, AND OR BENCHMARKS WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION

4.) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION

5.) WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

6.) THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.

7.) AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

8.) THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R & R)

9.) ALL SYMBOLS, WORDS, TRANSVERSE MARKINGS (STOP BARS, CROSSWALK LINES, AND RAILROAD SYMBOLS), LANE LINES, AND ALL OTHER MARKINGS NOTED WITH [†] SHALL BE THERMOPLASTIC

10.) THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED OR ARE PENDING FOR THE SUBJECT PROPERTY:
EPA NOTICE OF INTENT (NOI) (PENDING)
NHDES SEWER DISCHARGE PERMIT (PENDING)

11.) ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM PLACED AND SEEDED. THE LOAM SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.

12.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

13.) NOTE THAT THE PROJECT IS SUBJECT TO THE EPA NPDES PHASE II. THE NOTICE OF INTENT (NOI) MUST BE FILED ALONG WITH A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). WEEKLY INSPECTIONS WILL BE CONDUCTED BY THE DESIGN ENGINEER.

14.) UPON FINAL COMPLETION AND 85% STABILIZATION THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS TO INCLUDE THE PUMPING OF THE BASIN SUMPS.

15.) ALL UNPAVED AREAS ARE TO RECEIVE 4" QUALITY LOAM AND SEED

16.) ALL BASINS AND DRAINS ARE TO HAVE BOOTS INSTALLED ON ALL INLETS AND OUTLETS

17.) ALL TREATMENT SWALE TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS UNLESS OTHERWISE INSTRUCTED BY THE DESIGN ENGINEER DURING CONSTRUCTION.

18.) A LETTER OF CREDIT FOR THE COST OF RE-VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS, AS MAY BE APPLICABLE.

19.) A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND DOVER CITY STAFF SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

20.) BUILDING ADDRESSES SHALL BE DETERMINED BY THE BUILDING OFFICIAL.

21.) THIS SITE PLAN PROPOSES 54,000 ± SQ. FT. OF DISTURBANCE. PER ENV-WQ 1503.12 (B) AN ALTERATION OF TERRAIN PERMIT IS NOT REQUIRED.

22.) WRITTEN DIMENSION ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS TO CONFIRM ALL ELEVATIONS. CONFLICTS WILL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

23.) COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH CITY OF DOVER CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.

24.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

25.) SEE DETAILS CONCERNING SITE LAYOUT, DRAINAGE, UTILITY, AND SEDIMENT AND EROSION CONTROLS.

26.) ALL DRAINAGE PIPE IS TO BE HDPE N-12. INDIVIDUAL PIPE SIZES ARE SPECIFIED, RECYCLED PIPE IS APPROVED FOR PROJECT SITE. RECYCLED HDPE PIPE "GREEN PIPE" IS ACCEPTABLE FOR THIS PROJECT SITE.

DOVER FILE #P18-045

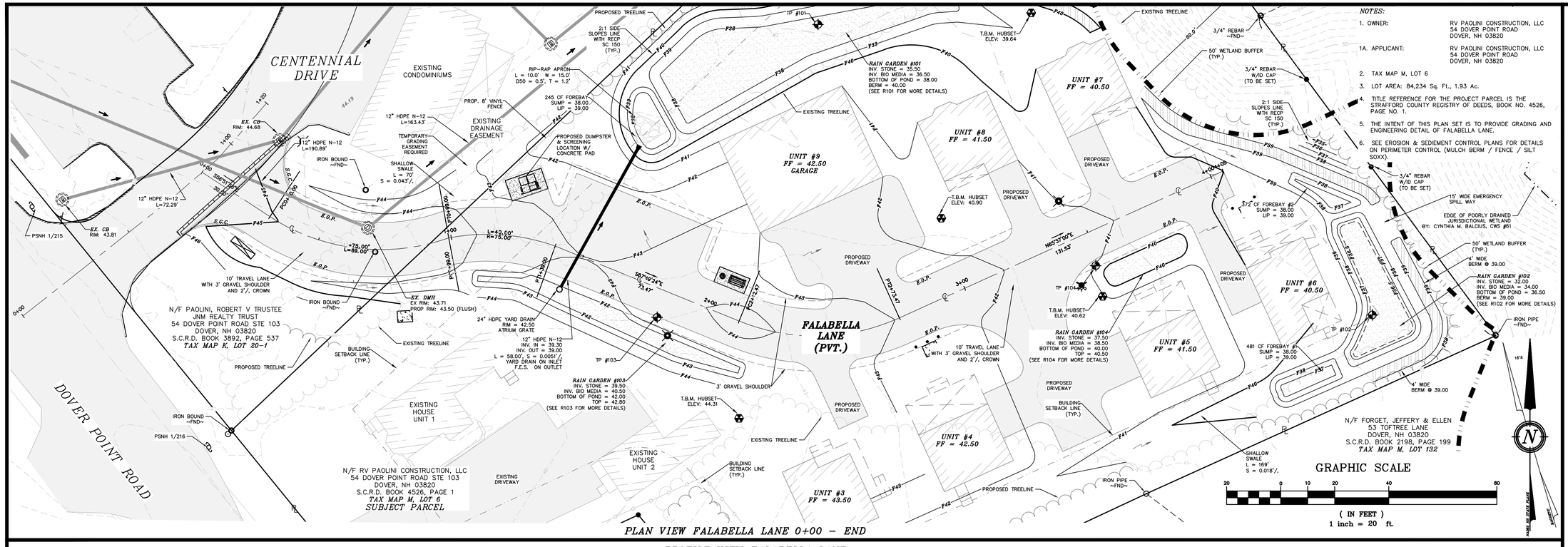
REVISION	DATE	DESCRIPTION

OVERVIEW GRADING PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

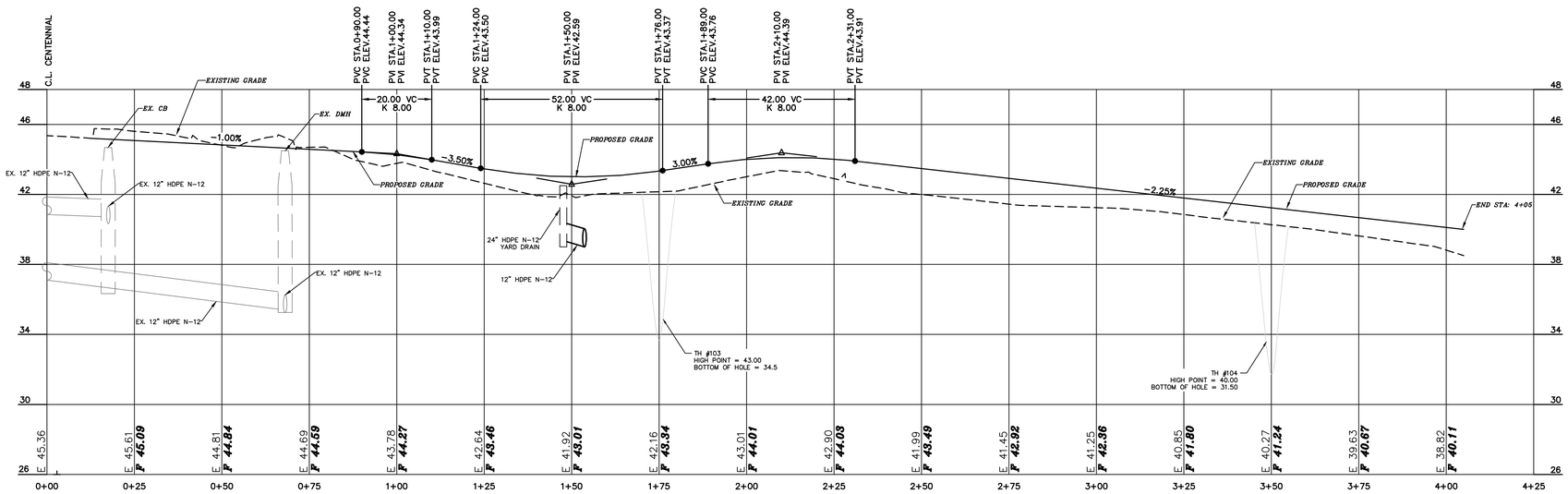
SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER



PLAN VIEW FALABELLA LANE 0+00 – END

PROFILE VIEW FALABELLA LANE



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET) 1 inch = 20 ft.

VERTICAL SCALE: 1" = 4'

NOTES:

1. OWNER: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD DOVER, NH 03820
1A. APPLICANT: RV PAOLINI CONSTRUCTION, LLC 54 DOVER POINT ROAD DOVER, NH 03820
2. TAX MAP M, LOT 6
3. LOT AREA: 84,234 Sq. Ft., 1.93 Ac.
4. TITLE REFERENCE FOR THE PROJECT PARCEL IS THE STRAFFORD COUNTY REGISTRY OF DEEDS, BOOK NO. 4526, PAGE NO. 1.
5. THE INTENT OF THIS PLAN SET IS TO PROVIDE GRADING AND ENGINEERING DETAIL OF FALABELLA LANE.
6. SEE EROSION & SEDIEMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

PLAN AND PROFILE FALABELLA LANE 0+00–END
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE – KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER

FILTER MEDIA MIXTURES			
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

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
3/8"	20 – 55
# 4	0 –10
# 8	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	90 – 100
#4"	20 – 55
# 8	5 –30
# 16	0 – 10
# 50	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL BE AS SHOWN ABOVE.
3. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
4. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
6. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
7. BUILD RAIN GARDENS FIRST TO DIRECT SITE RUN OFF TO THEM.

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

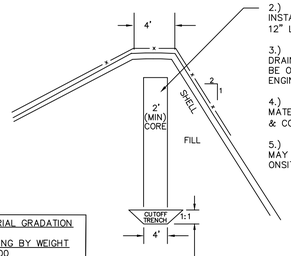
2 PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.

3 AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.

4 VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.



1.) 2' CORE IS TO BE CONSTRUCTED OF COMPACTED LOAM MATERIAL.

2.) CORE IS TO BE INSTALLED & COMPACTED IN 12" LIFTS.

3.) INSTALLATION OF ENTIRE DRAINAGE STRUCTURE IS TO BE OVERSEEN BY DESIGN ENGINEER.

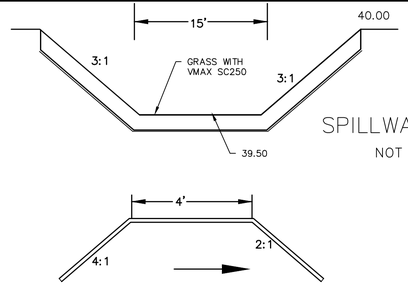
4.) GENERAL FILL MATERIALS ARE TO PLACED & COMPACTED IN 12" LIFTS.

5.) GENERAL FILL MATERIAL MAY BE INSTALLED USING ONSITE MATERIALS.

LOW PERMEABILITY MATERIAL GRADATION

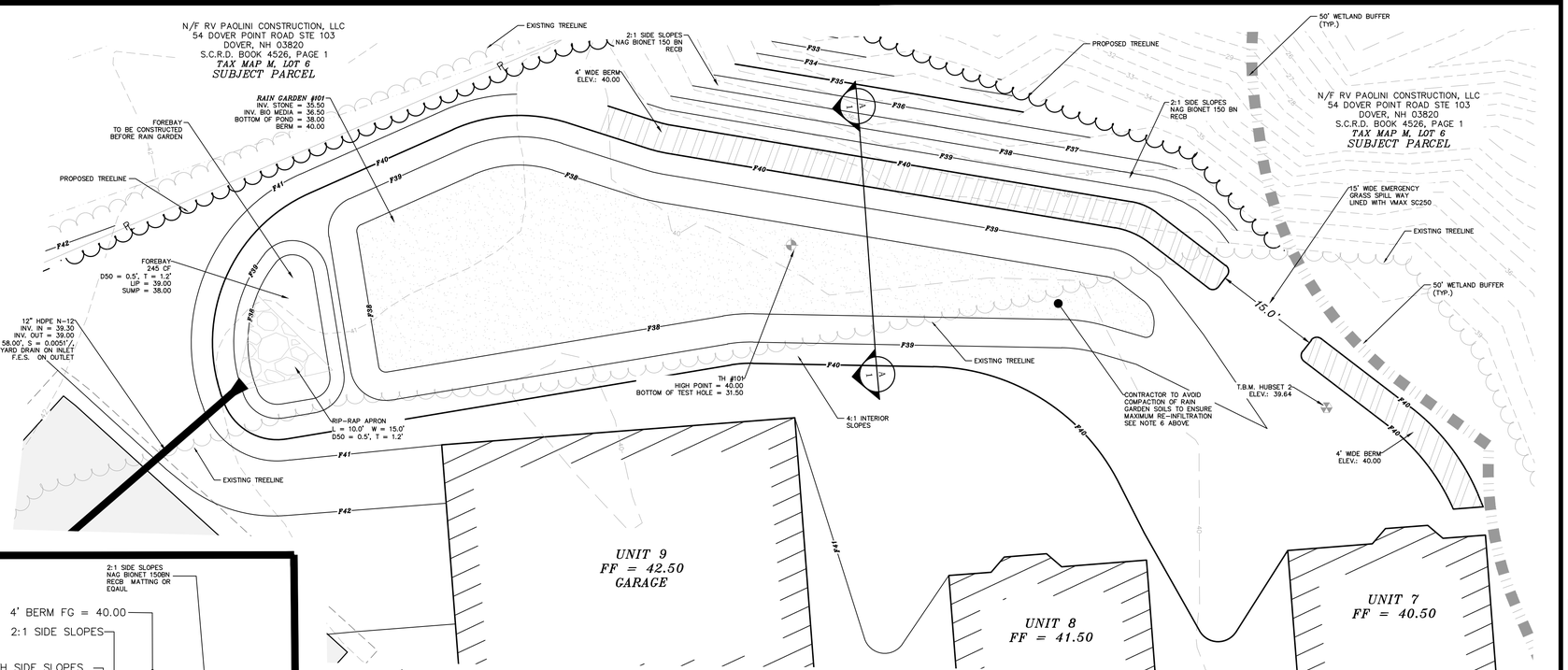
SIEVE SIZE	% PASSING BY WEIGHT
#4	95 – 100
#40	60 – 95
#100	40 – 60
#200	25 – 45

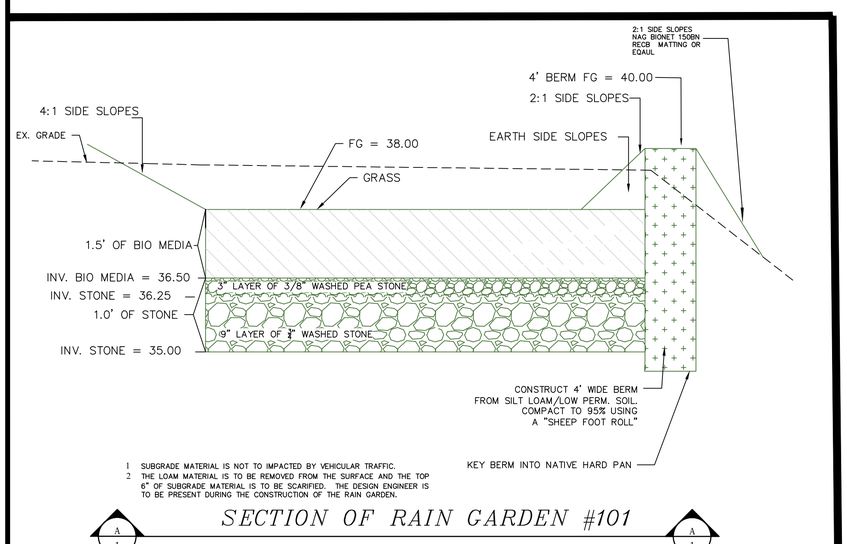
EXCAVATE TO RELATIVELY IMPERVIOUS SOIL LAYER, BUT NOT LESS THAN 3'



SPILLWAY DETAILS
NOT TO SCALE

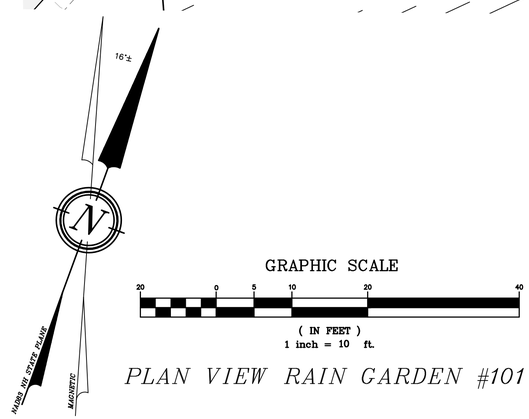
EMERGENCY SPILLWAY PROFILE





1 SUBGRADE MATERIAL IS NOT TO IMPACTED BY VEHICULAR TRAFFIC.
2 THE LOAM MATERIAL IS TO BE REMOVED FROM THE SURFACE AND THE TOP 6" OF SUBGRADE MATERIAL IS TO BE SCARIFIED. THE DESIGN ENGINEER IS TO BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDEN.

SECTION OF RAIN GARDEN #101



GRAPHIC SCALE
20 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

PLAN VIEW RAIN GARDEN #101

R101

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

RAIN GARDEN #101 WITH INFILTRATION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 10 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

FILTER MEDIA MIXTURES			
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

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
3/8"	20 – 55
# 4	0 –10
# 8	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	90 – 100
#4"	20 – 55
# 8	5 –30
# 16	0 – 10
# 50	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL BE AS SHOWN ABOVE.
3. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
4. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
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7. BUILD RAIN GARDENS FIRST TO DIRECT SITE RUN OFF TO THEM.

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

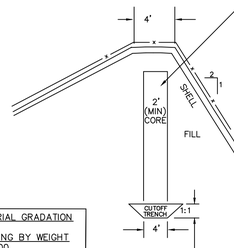
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DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.



1.) 2' CORE IS TO BE CONSTRUCTED OF COMPACTED LOAM MATERIAL.

2.) CORE IS TO BE INSTALLED & COMPACTED IN 12" LIFTS.

3.) INSTALLATION OF ENTIRE DRAINAGE STRUCTURE IS TO BE OVERSEEN BY DESIGN ENGINEER.

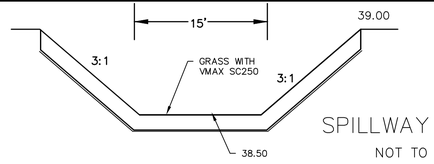
4.) GENERAL FILL MATERIALS ARE TO PLACED & COMPACTED IN 12" LIFTS.

5.) GENERAL FILL MATERIAL MAY BE INSTALLED USING ONSITE MATERIALS.

LOW PERMEABILITY MATERIAL GRADATION

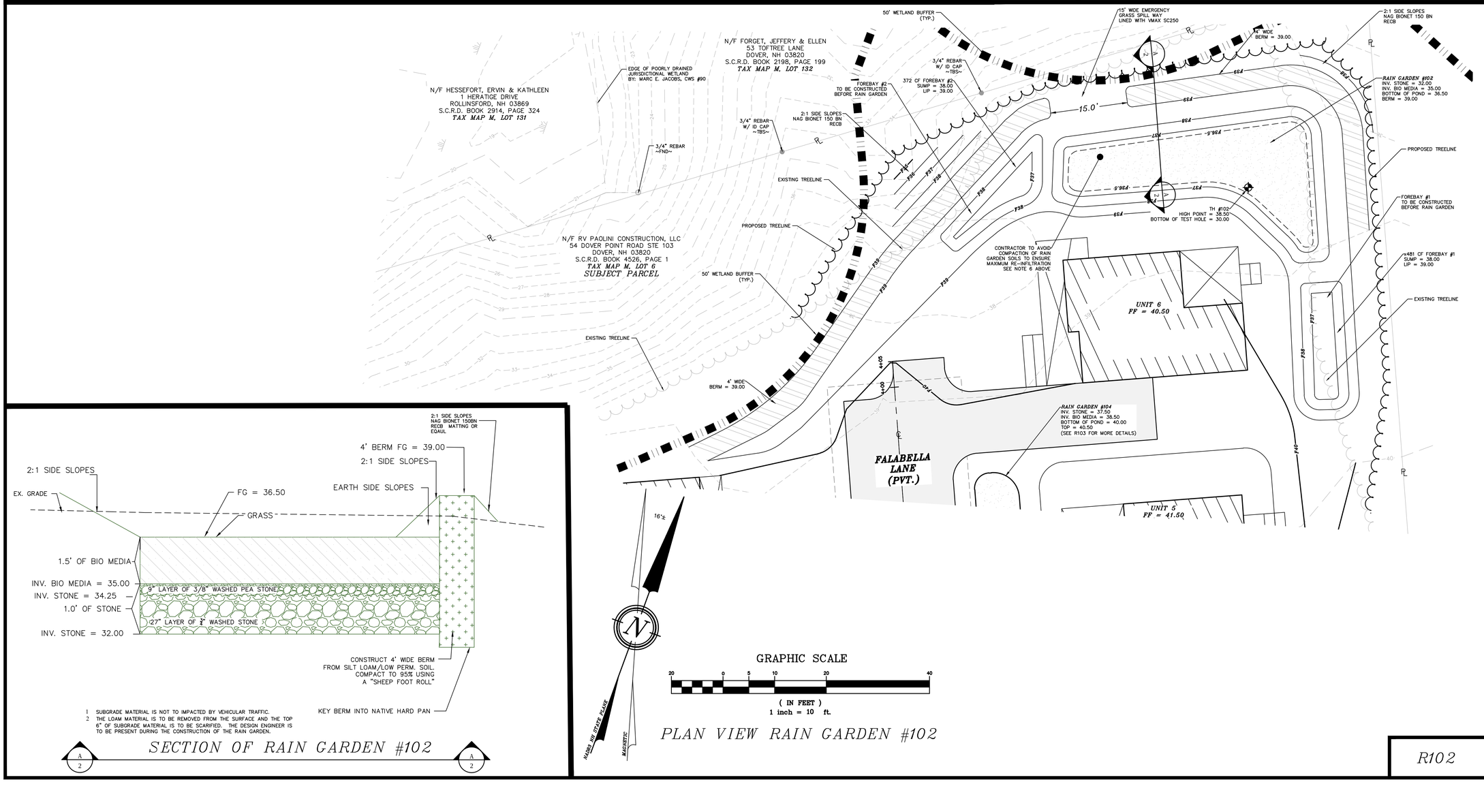
SIEVE SIZE	% PASSING BY WEIGHT
#4	95 – 100
#40	60 – 95
#100	40 – 60
#200	25 – 45

EXCAVATE TO RELATIVELY IMPERVIOUS SOIL LAYER, BUT NOT LESS THAN 3'



SPILLWAY DETAILS
NOT TO SCALE

EMERGENCY SPILLWAY PROFILE



PLAN VIEW RAIN GARDEN #102

1 SUBGRADE MATERIAL IS NOT TO IMPACTED BY VEHICULAR TRAFFIC.
2 THE LOAM MATERIAL IS TO BE REMOVED FROM THE SURFACE AND THE TOP 6" OF SUBGRADE MATERIAL IS TO BE SCARIFIED. THE DESIGN ENGINEER IS TO BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDEN.

SECTION OF RAIN GARDEN #102

A 2 A 2

R102

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

RAIN GARDEN #102 WITH INFILTRATION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 10 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

FILTER MEDIA MIXTURES			
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

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
3/8"	20 – 55
# 4	0 –10
# 8	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

WASHED CRUSHED STONE *

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	90 – 100
#4"	20 – 55
# 8	5 –30
# 16	0 – 10
# 50	0 – 5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL BE AS SHOWN ABOVE.
3. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
4. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
6. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
7. BUILD RAIN GARDENS FIRST TO DIRECT SITE RUN OFF TO THEM.

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

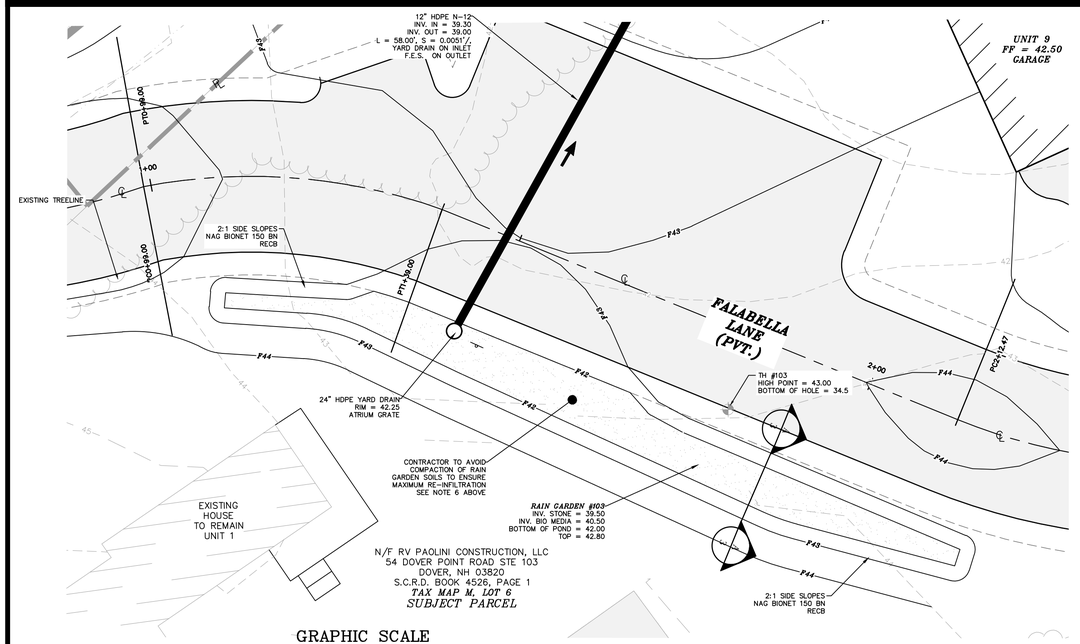
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DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

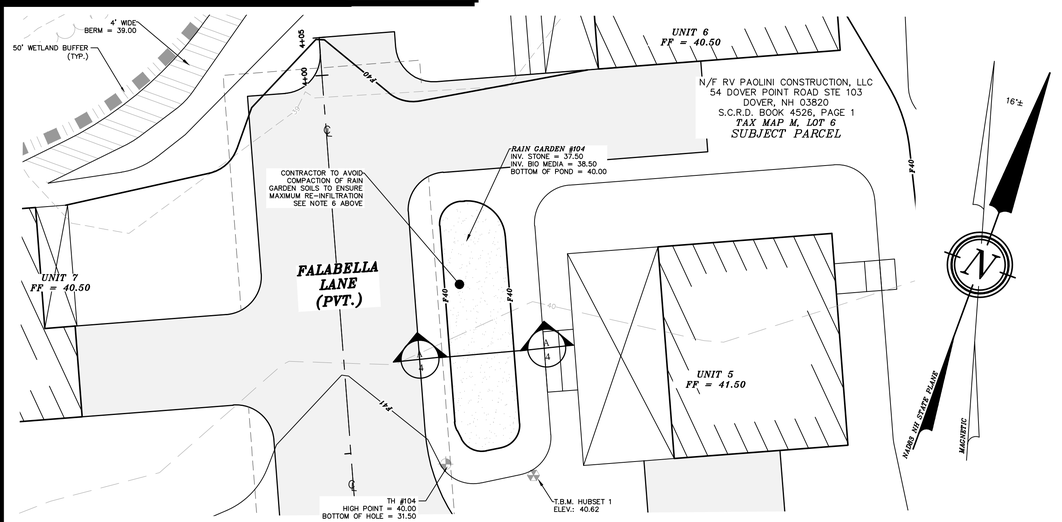


GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

PLAN VIEW RAIN GARDEN #103



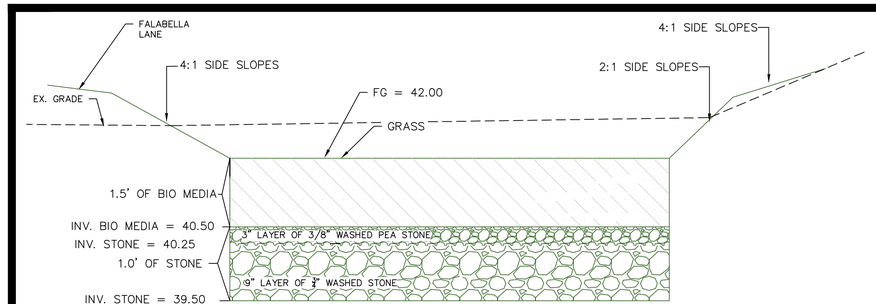
GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

PLAN VIEW RAIN GARDEN #104

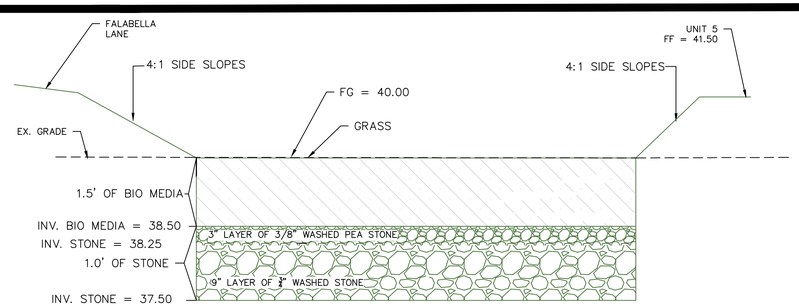
16'±
NADRS NH STATE PLANE
MAGNETIC



1 SUBGRADE MATERIAL IS NOT TO IMPACTED BY VEHICULAR TRAFFIC.
2 THE LOAM MATERIAL IS TO BE REMOVED FROM THE SURFACE AND THE TOP 6" OF SUBGRADE MATERIAL IS TO BE SCARIFIED. THE DESIGN ENGINEER IS TO BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDEN.

SECTION OF RAIN GARDEN #103

A 3 A 3



1 SUBGRADE MATERIAL IS NOT TO IMPACTED BY VEHICULAR TRAFFIC.
2 THE LOAM MATERIAL IS TO BE REMOVED FROM THE SURFACE AND THE TOP 6" OF SUBGRADE MATERIAL IS TO BE SCARIFIED. THE DESIGN ENGINEER IS TO BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDEN.

SECTION OF RAIN GARDEN #104

A 4 A 4

R103

DOVER FILE #P18-045

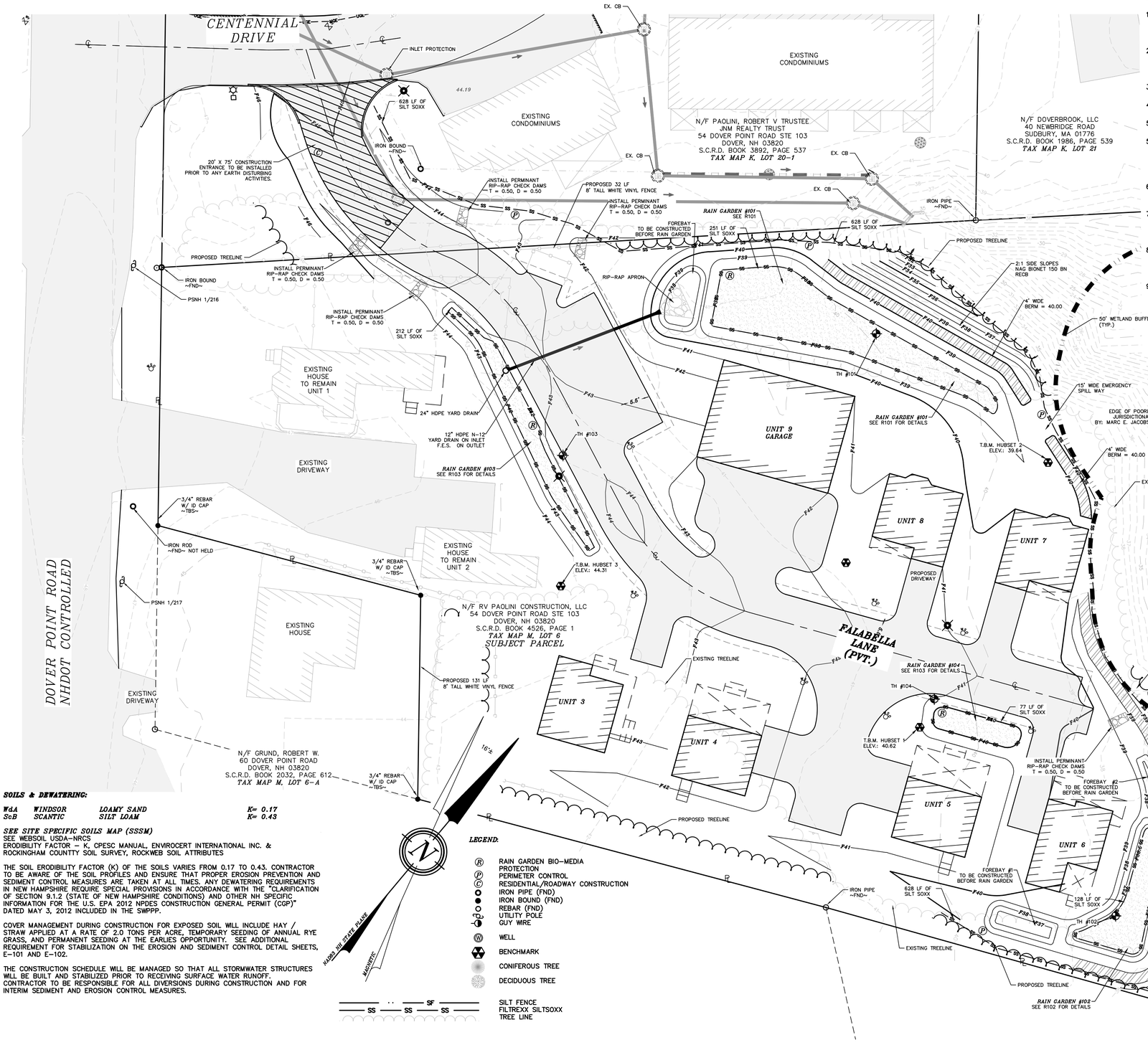
REVISION	DATE	DESCRIPTION

RAIN GARDEN #103 AND #104 WITH INFILTRATION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 10 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER



NOTES:

1.) THE INTENT OF THIS PLAN SET IS TO DEMONSTRATE THE EROSION AND SEDIMENT CONTROL DESIGN OF THE SITE AT 56 DOVER POINT ROAD.

2.) OWNER: RV PAOLINI CONSTRUCTION LLC
54 DOVER POINT ROAD, STE 103
DOVER, NH 03820

3.) TAX MAP M, LOT 6

4.) LOT AREA: 84,234 Sq. Ft., 1.93 Ac.

5.) SEE NOTE SHEET FOR EROSION AND SEDIMENT CONTROL NOTES

5.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

6.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

7.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

8.) UPON FINAL COMPLETION AND 85% STABILIZATION, THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS. SEDIMENT CONTROL PRACTICES REMOVED AND DISPOSED OF PROPERLY, AND ANNUAL MAINTENANCE PREFORMED ON ALL DRAINAGE PRACTICES.

9.) EROSION AND SEDIMENT CONTROL INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24-HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP 4.1.1 AND INSPECTION REPORTS SUBMITTED
TO THE CITY OF DOVER, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE NOTICE OF TERMINATION (NOT) IS SUBMITTED. SEE ALSO CITY OF DOVER ADDITIONAL INSPECTION REQUIREMENTS BELOW.

NOTES CONTINUED:

10.) SILT FENCE MAY BE SUBSTITUTED WITH FILTREXX SILT SOXX OR EROSION CONTROL MIX BERM. SIILT FENCE IS NOT A SUBSTITUTE FOR FILTREXX SILT SOXX OR APPROVED EQUAL, WITHIN THE RAIN GARDENS.

11.) PER EPA CGP Z.1.2.2 (INSTALL PERIMETER CONTROL), "YOU MUST INSTALL SEDIMENT CONTROLS ALONG THOSE PERIMETER AREAS OF YOUR SITE THAT WILL RECEIVE STORMWATER FROM EARTH DISTURBING ACTIVITIES." AS A RESULT OF SWPPP INSPECTIONS, THE CONTRACTOR MAY HAVE TO EXPAND PERIMETER CONTROLS TO MEET THIS REQUIREMENT. THE E&SC PLAN IS INITIAL GUIDANCE AS TO THE ANTICIPATED REQUIREMENTS AND IT THE CONTRACTORS RESPONSIBILITY TO ENSURE THE STORMWATER VIOLATION DO NOT OCCUR.

14.) CITY OF DOVER: IN ACCORDANCE WITH SITE PLAN REVIEW REGULATIONS (149-14) THE FOLLOWING STORMWATER MEASURES ARE REQUIRED. THIS SITE DEVELOPMENT QUALIFIES AS A REDEVELOPMNET PROJECT. THE EXISTING IMPERVIOUS AREA IS 93.3% AND PROPOSED IMPERVIOUS AREA IS 85.7%. THE CONTIGUOUS LAND DISTURBANCE IS 33,073 SQUARE FEET.

A.) ALL PROPOSED BMPs WILL CONFORM TO THE NH STORMWATER MANUAL VOLUME 3.
B.) EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY COMMUNITY SERVICE.
C.) TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN CALENDAR DAYS FOR EXPOSED SOILS AREAS THAT ARE WITHIN ONE HUNDRED FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOKL AREAS.
D.) ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL STABILIZATION IS ACCOMPLISHED.
E.) COMMUNITY SERVICES DEPARTMENT OR THEIR DESIGNATED AGENT SHALL HAVE ACCESS TO THE SITE TO COMPLETE ROUTINE INSPECTIONS AND SHALL BE NOTIFIED 24-HOURS PRIOR TO INSTALLATION OF A STORMWATER BMP IN ORDER TO SCHEDULE AN INSPECTION, DURING NORMAL WORKING HOURS.
F.) THE PLANNING BOARD OR COMMUNITY SERVICES MAY REQUIRE THE DESIGN ENGINEER AND/OR AN INDEPENDENT, THIRD-PARTY INSPECTION AND OVERSIGHT OF THE CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND EROSION AND SEDIMENT CONTROL AT THEIR DISCRETION. THE OWNER / APPLICANT IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH INSPECTIONS.
G.) ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSW), OR A CERTIFIED PROFESSIONAL IN STORMWATER QUALITY (CPSWQ). INSPECTION REPORTS WILL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT.
H.) RAIN GARDENS SHALL BE BUILT FIRST TO DIRECT SITE RUNOFF INTO THEM DURING CONSTRUCTION.

SOILS & DEWATERING:

WdA	*WINDSOR*	*LOAMY SAND*	*K= 0.17*
ScB	*SCANTIC*	*SILT LOAM*	*K= 0.43*

SEE SITE SPECIFIC SOILS MAP (SSSM)
SEE WEBSOIL USDA-NRCS
ERODIBILITY FACTOR - K, CPESC MANUAL, ENVIROCERT INTERNATIONAL INC. &
ROCKINGHAM COUNTTY SOIL SURVEY, ROCKWEB SOIL ATTRIBUTES

THE SOIL ERODIBILITY FACTOR (K) OF THE SOILS VARIES FROM 0.17 TO 0.43. CONTRACTOR TO BE AWARE OF THE SOIL PROFILES AND ENSURE THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TAKEN AT ALL TIMES. ANY DEWATERING REQUIREMENTS IN NEW HAMPSHIRE REQUIRE SPECIAL PROVISIONS IN ACCORDANCE WITH THE "CLARIFICATION OF SECTION 9.1.2 (STATE OF NEW HAMPSHIRE CONDITIONS) AND OTHER NH SPECIFIC INFORMATION FOR THE U.S. EPA 2012 NPDES CONSTRUCTION GENERAL PERMIT (CGP)" DATED MAY 3, 2012 INCLUDED IN THE SWPPP.

COVER MANAGEMENT DURING CONSTRUCTION FOR EXPOSED SOIL WILL INCLUDE HAY / STRAW APPLIED AT A RATE OF 2.0 TONS PER ACRE, TEMPORARY SEEDING OF ANNUAL RYE GRASS, AND PERMANENT SEEDING AT THE EARLIES OPPORTUNITY. SEE ADDITIONAL REQUIREMENT FOR STABILIZATION ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS, E-101 AND E-102.

THE CONSTRUCTION SCHEDULE WILL BE MANAGED SO THAT ALL STORMWATER STRUCTURES WILL BE BUILT AND STABILIZED PRIOR TO RECEIVING SURFACE WATER RUNOFF. CONTRACTOR TO BE RESPONSIBLE FOR ALL DIVERSIONS DURING CONSTRUCTION AND FOR INTERIM SEDIMENT AND EROSION CONTROL MEASURES.

DOVER FILE #P18-045

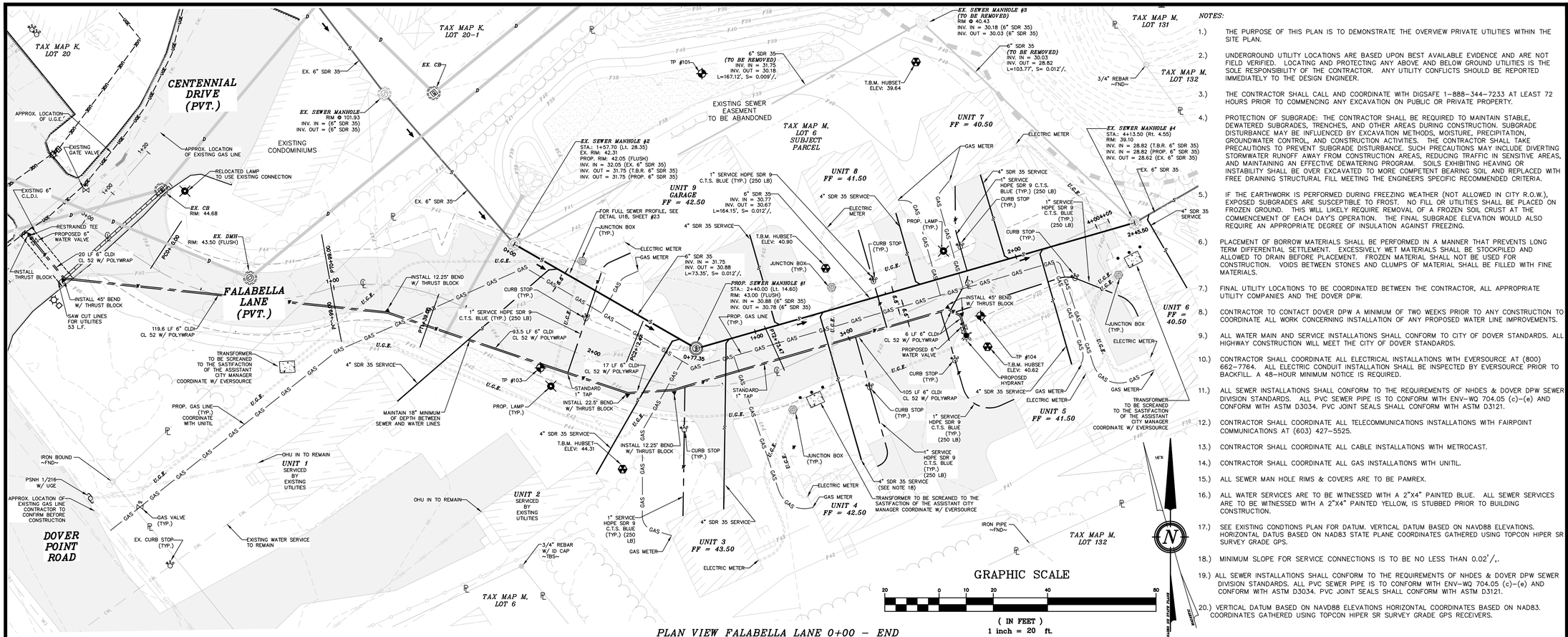
REVISION	DATE	DESCRIPTION

EROSION AND SEDIMENT CONTROL PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER



PLAN VIEW FALABELLA LANE 0+00 – END

NOTES:

1.) THE PURPOSE OF THIS PLAN IS TO DEMONSTRATE THE OVERVIEW PRIVATE UTILITIES WITHIN THE SITE PLAN.

2.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

3.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 1–888–344–7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

4.) PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES, TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL MEETING THE ENGINEERS SPECIFIC RECOMMENDED CRITERIA.

5.) IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER (NOT ALLOWED IN CITY R.O.W.), EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATION. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.

6.) PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION. VOIDS BETWEEN STONES AND CLUMPS OF MATERIAL SHALL BE FILLED WITH FINE MATERIALS.

7.) FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES AND THE DOVER DPW.

8.) CONTRACTOR TO CONTACT DOVER DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY CONSTRUCTION TO COORDINATE ALL WORK CONCERNING INSTALLATION OF ANY PROPOSED WATER LINE IMPROVEMENTS.

9.) ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO CITY OF DOVER STANDARDS. ALL HIGHWAY CONSTRUCTION WILL MEET THE CITY OF DOVER STANDARDS.

10.) CONTRACTOR SHALL COORDINATE ALL ELECTRICAL INSTALLATIONS WITH EVERSOURCE AT (800) 662–7764. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL. A 48–HOUR MINIMUM NOTICE IS REQUIRED.

11.) ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV–WQ 704.05 (c)–(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121.

12.) CONTRACTOR SHALL COORDINATE ALL TELECOMMUNICATIONS INSTALLATIONS WITH FAIRPOINT COMMUNICATIONS AT (603) 427–5525.

13.) CONTRACTOR SHALL COORDINATE ALL CABLE INSTALLATIONS WITH METROCAST.

14.) CONTRACTOR SHALL COORDINATE ALL GAS INSTALLATIONS WITH UNITIL.

15.) ALL SEWER MAN HOLE RIMS & COVERS ARE TO BE PAMREX.

16.) ALL WATER SERVICES ARE TO BE WITNESSED WITH A 2"X4" PAINTED BLUE. ALL SEWER SERVICES ARE TO BE WITNESSED WITH A 2"X4" PAINTED YELLOW, IS STUBBED PRIOR TO BUILDING CONSTRUCTION.

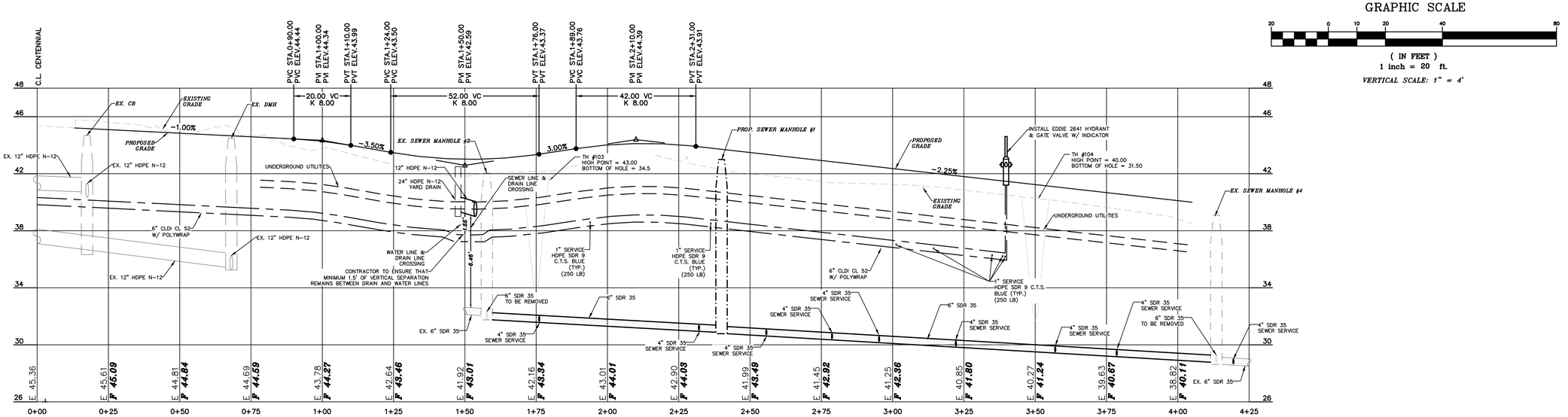
17.) SEE EXISTING CONDTIONS PLAN FOR DATUM. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUS BASED ON NAD83 STATE PLANE COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS.

18.) MINIMUM SLOPE FOR SERVICE CONNECTIONS IS TO BE NO LESS THAN 0.02'/,.

19.) ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV–WQ 704.05 (c)–(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121.

20.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

PROFILE VIEW FALABELLA LANE



DOVER FILE #P18–045

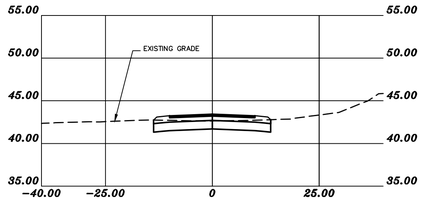
DESCRIPTION	DATE	REVISION

UTILITY PLAN
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

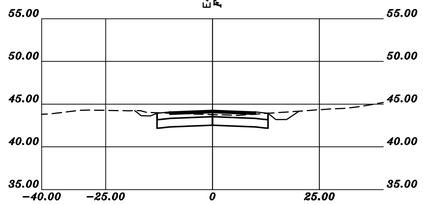
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

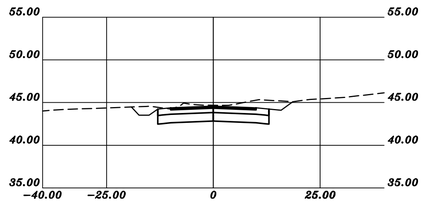
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER



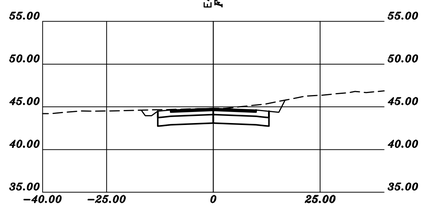
1+25
E42.64
F43.46



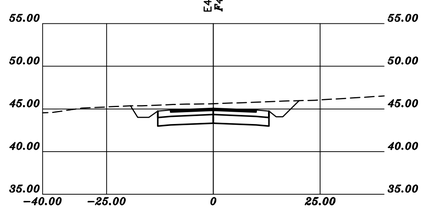
1+00
E43.78
F44.27



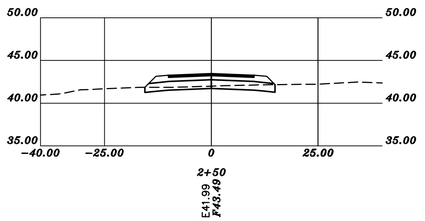
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E44.69
F44.69



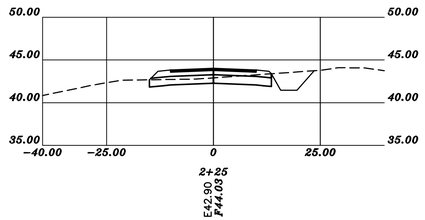
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E44.81
F44.64



0+25
E45.51
F46.09

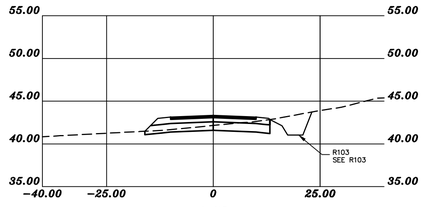


2+50
E41.99
F43.49

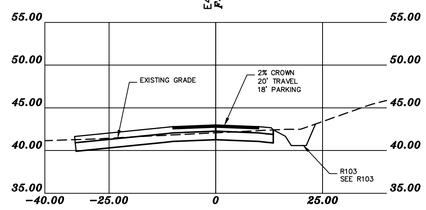


2+25
E42.90
F44.08

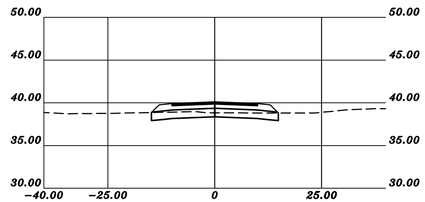
2+00
E43.01
F44.01



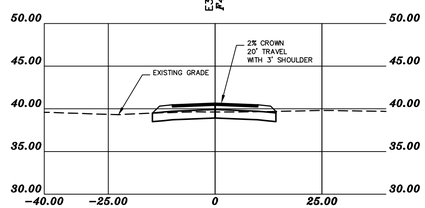
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F43.34



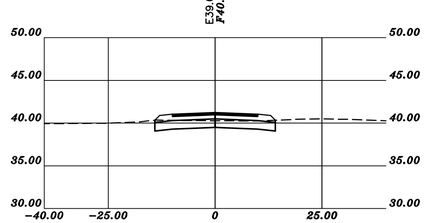
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E42.08
F43.01



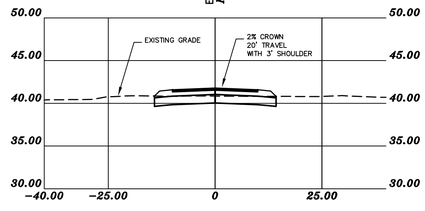
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E38.82
F40.11



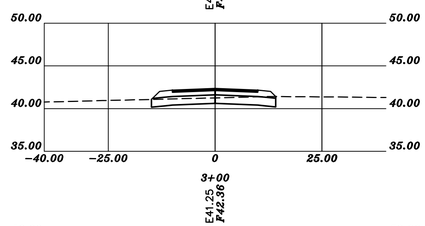
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E39.63
F40.67



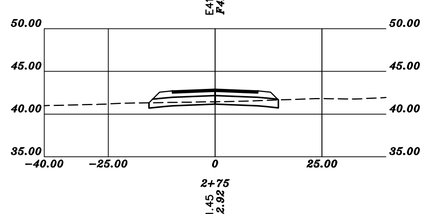
3+50
E40.27
F41.24



3+25
E40.85
F41.80

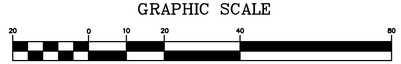


3+00
E41.25
F42.36



2+75
E41.45
F42.92

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.
Vertical Scale 10

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

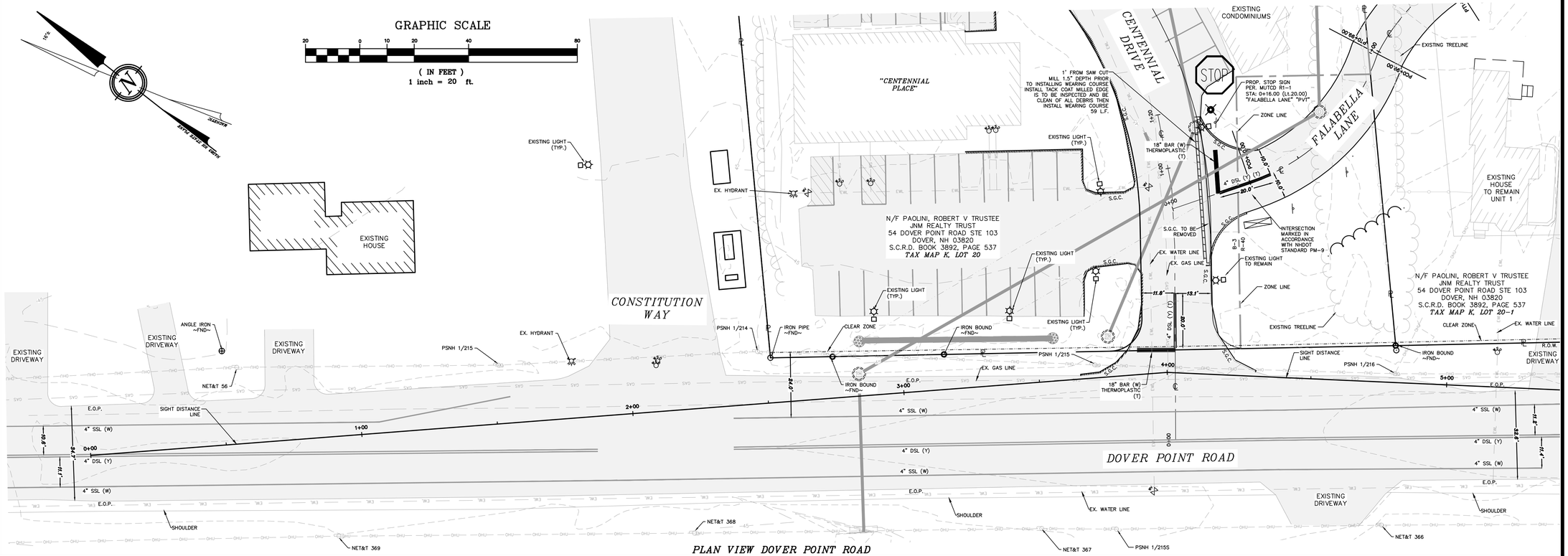
CROSS SECTIONS FALABELLA LANE 0+00 – END

LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER



PLAN VIEW DOVER POINT ROAD

PROFILE VIEW SIGHT LINE

NOTES:

1.) OWNER: RV PAOLINI CONSTRUCTION INC.
54 DOVER POINT ROAD
DOVER, NH 03820

2.) CITY OF DOVER TAX MAP M, LOT 6

3.) LOT AREA: 84,234 S.F, 1.93 Ac

4.) S.C.R.D. BOOK 4526, PAGE 1

5.) THIS IS A PRIVATE ROADWAY.

6.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE.

7.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2010. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

CLEAR ZONE CALCULATION:

DESIGN SPEED: 40 MPH / 85TH ASSUMED 45 MPH

DESIGN ADT (2018): OVER 6,000

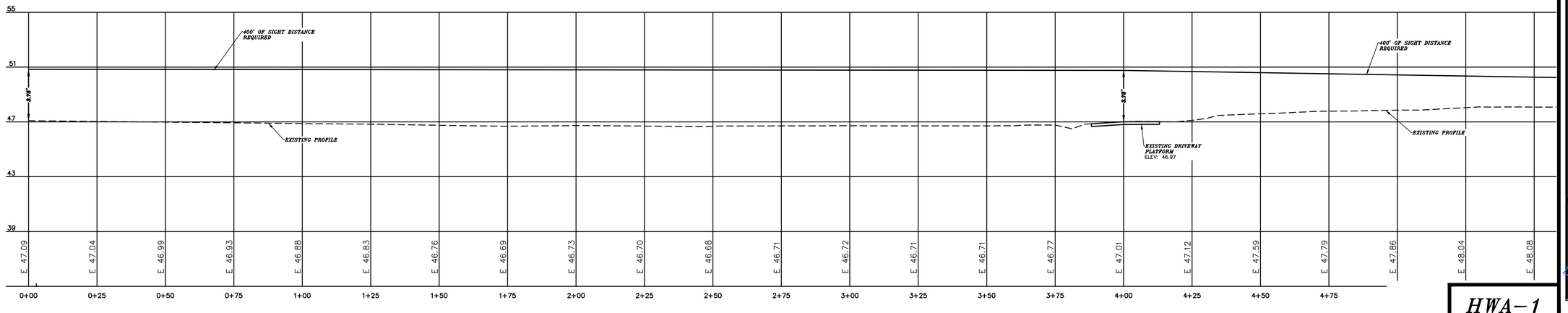
FROM AASHTO ROADSIDE DESIGN GUIDE (2004) TABLE 3.1 PAGE 3-6

CLEAR ZONE REQUIRED TO BE 20-26 FEET, THE MORE CONSERVATIVE VALUE OF 24 FEET HAS BEEN SELECTED

LEGEND:

⊕	STEEL STAKE (FND)
	LIGHT POST
	UTILITY POLE/GUY WIRE
OHU	OVERHEAD UTILITIES
EWL	EXISTING WATER LINE
GAS	EXISTING GAS LINE
	BUILDING SETBACK
	SHOULDER
	CLEAR ZONE
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
TYP.	TYPICAL
FND	FOUND
U.G.E.	UNDERGROUND ELECTRIC
PL	PROPERTY LINE
E.O.P.	EDGE OF PAVEMENT
SSL (W)	SINGLE SOLD LINE (WHITE)
SSB (Y)	SINGLE SOLID WITH BROKEN LINE (YELLOW)
R&R	REMOVE AND RESET
T.B.R.	TO BE REMOVED

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'



HWA-1

DOVER FILE #P18-045

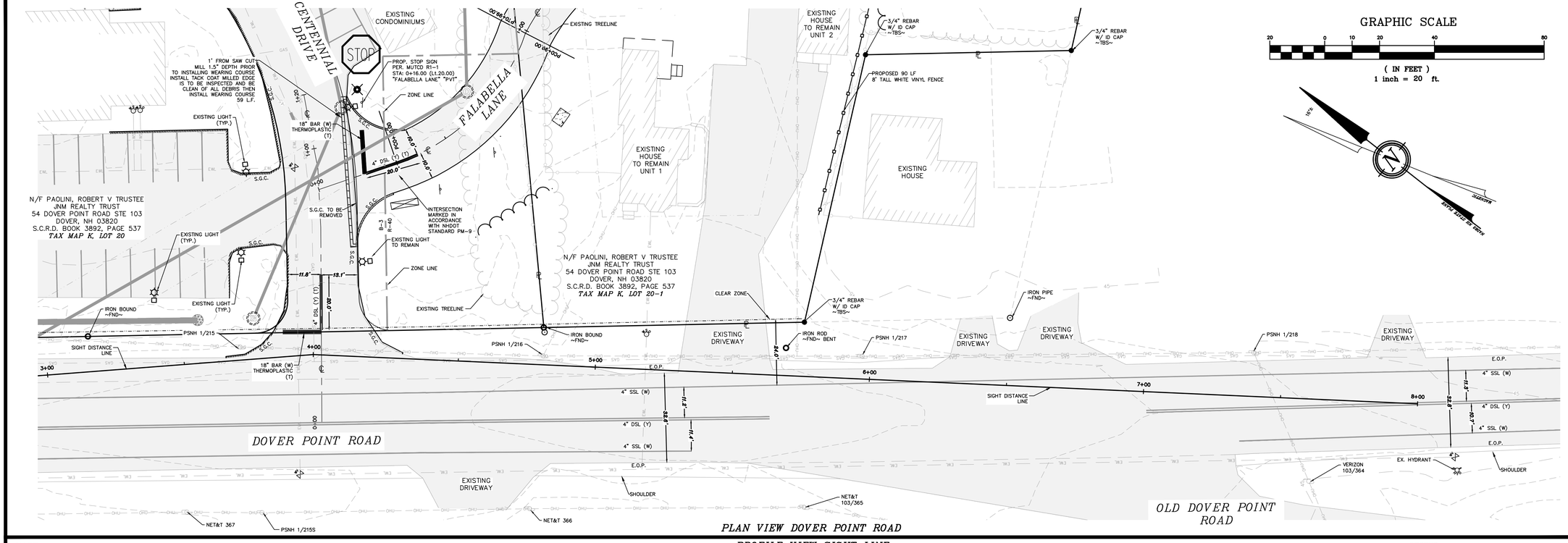
REVISION	DATE	DESCRIPTION

HIGHWAY ACCESS PLAN SOUTH BOUND
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE - KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER



PLAN VIEW DOVER POINT ROAD

PROFILE VIEW SIGHT LINE

NOTES:

1.) OWNER: RV PAOLINI CONSTRUCTION INC.
54 DOVER POINT ROAD
DOVER, NH 03820

2.) CITY OF DOVER TAX MAP M, LOT 6

3.) LOT AREA: 84,234 S.F, 1.93 Ac

4.) S.C.R.D. BOOK 4526, PAGE 1

5.) THIS IS A PRIVATE ROADWAY.

6.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE.

7.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2010, CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

CLEAR ZONE CALCULATION:

DESIGN SPEED: 40 MPH / 85TH ASSUMED 45 MPH

DESIGN ADT (2018): OVER 6,000

FROM AASHTO ROADSIDE DESIGN GUIDE (2004) TABLE 3.1 PAGE 3-6

CLEAR ZONE REQUIRED TO BE 20-26 FEET, THE MORE CONSERVATIVE VALUE OF 24 FEET HAS BEEN SELECTED

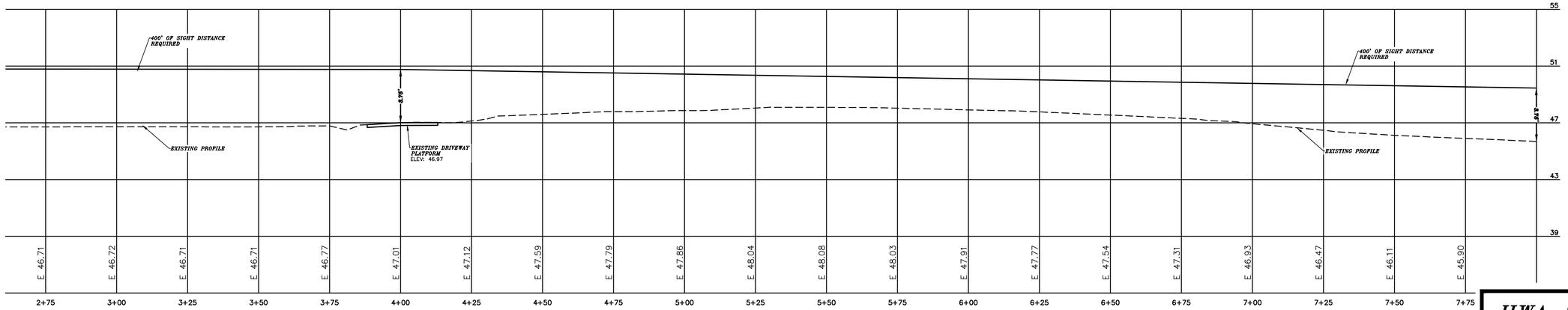
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'

LEGEND:

- ⊕ STEEL STAKE (FND)
- LIGHT POST
- UTILITY POLE/GUY WIRE
- OHU — OHU — OVERHEAD UTILITIES
- EWL — EXISTING WATER LINE
- GAS — GAS — EXISTING GAS LINE
- BUILDING SETBACK
- SHOULDER
- CLEAR ZONE
- S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS
- TYP. TYPICAL
- FND FOUND
- U.G.E. UNDERGROUND ELECTRIC
- PL PROPERTY LINE
- E.O.P. EDGE OF PAVEMENT
- SSL (W) SINGLE SOLID LINE (WHITE)
- SSB (Y) SINGLE SOLID WITH BROKEN LINE (YELLOW)
- R&R REMOVE AND RESET
- T.B.R. TO BE REMOVED



HWA-2

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

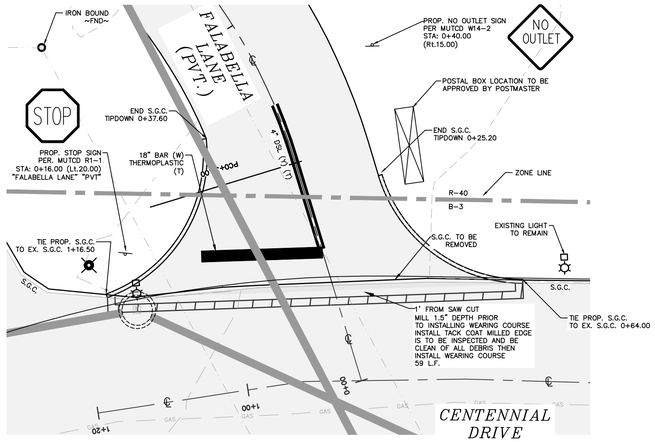
HIGHWAY ACCESS PLAN NORTH BOUND
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

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STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

HW-1



GRAPHIC SCALE

20 0 5 10 20 40

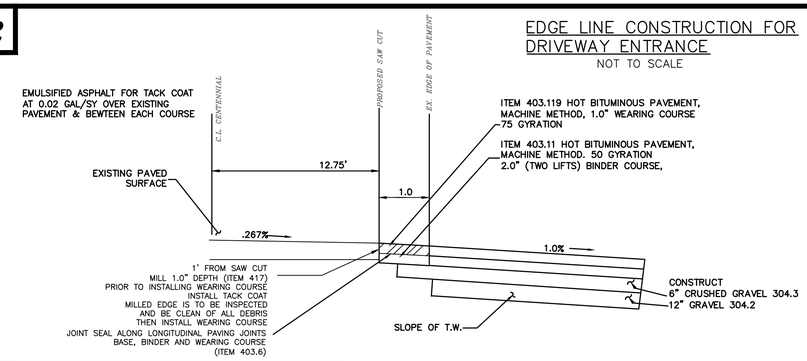
(IN FEET)
1 inch = 10 ft.

PROPOSED DRIVEWAY PAVEMENT MARKING DETAILS

HW-2

EDGE LINE CONSTRUCTION FOR DRIVEWAY ENTRANCE

NOT TO SCALE



HW-3

PM-9 GENERAL NOTES

1.) EDGELINE DETAILS ARE SHOWN FOR MAINLINE ROADWAYS WITHOUT TURN LANE. THE PRESENCE OF TURN LANES MAY REQUIRE DIFFERENT EDGELINE TREATMENTS,

2.) EDGELINES ON THE SIDE ROADS, WHEN CALLED FOR, SHALL FOLLOW THE ABOVE MAINLINE TYPICALS. EDGELINES SHALL NOT BE CONTINUOUS AROUND THE MAINLINE/SIDE ROAD RADIUS. EDGELINES SHALL END AT STOP BARS.

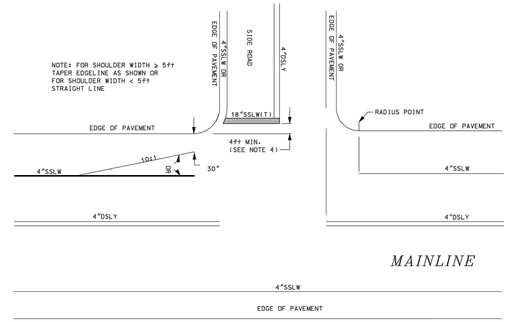
3.) CENTERLINE AND EDGELINE SHALL BE CONTINUOUS PAST RESIDENTIAL DRIVEWAYS. CENTERLINE AND EDGELINE SHALL BREAK FOR COMMERCIAL DRIVES W/TRAFFIC CONTROLS, MINOR SIDE ROADS, OR PRIVATE INTERSECTIONS.

4.) LOCATION OF THE STOP LINE MAY VARY DUE TO INTERSECTION SIGHT DISTANCE AND VEHICLE TURNING RADIUS AND MAY NOT ALWAYS COINCIDE WITH THE LOCATION OF THE STOP SIGN.

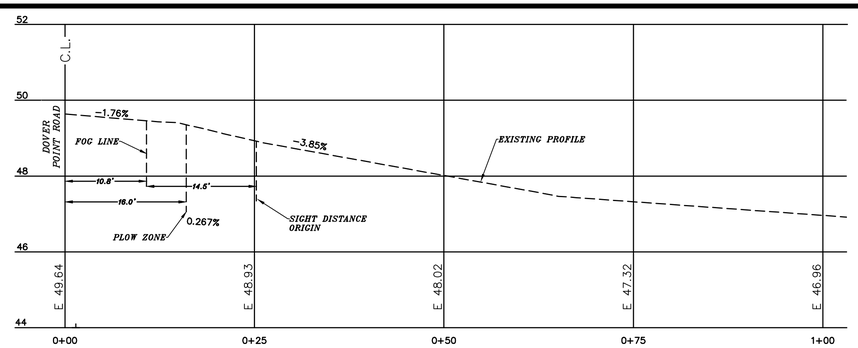
5.) IF THERE IS NO EDGELINE, END STOP BAR 12" FROM EDGE OF PAVEMENT.

6.) STOP BARS, WORDS, LANE LINES, SYMBOLS AND ARROWS SHALL BE THERMOPLASTIC (T).

CENTERLINE AND EDGELINE "CUTS" AT SIDE ROAD



HW-4



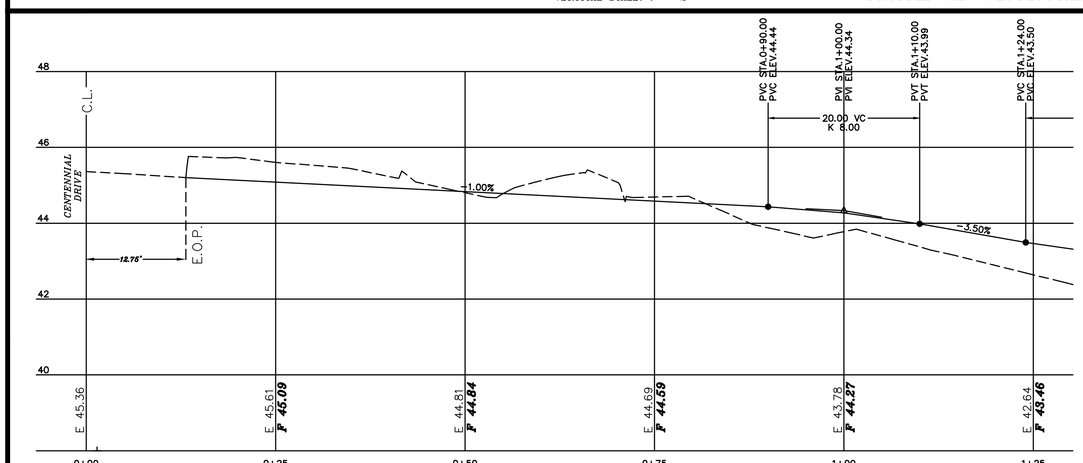
GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.
VERTICAL SCALE: 1" = 2'

PROFILE VIEW CENTENNIAL DRIVE

HW-5



GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.
VERTICAL SCALE: 1" = 2'

PROFILE VIEW FALABELLA LANE

HW-6

NOTES CONT.:

9.) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION

10.) WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

11.) THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.

12.) AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

13.) THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R & R).

14.) ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.

NOTES CONT.:

15.) ALL SYMBOLS, WORDS, TRANSVERSE MARKINGS (STOP BARS, CROSSWALK LINES, AND RAILROAD SYMBOLS), LANE LINES, AND ALL OTHER MARKINGS NOTED WITH (T) SHALL BE THERMOPLASTIC.

16.) ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM PLACED AND SEEDED. THE LOAM SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.

17.) CONTACT BUREAU OF TRAFFIC TO REVIEW ALL PASSING ZONES PRIOR TO STRIPING OR INSTALLING W14-3 SIGNS IF APPLICABLE.

18.) THE CONTRACTOR SHALL CONTACT THE NHDOT BUREAU OF TRAFFIC AT (603) 271-2291 ONE WEEK PRIOR TO PAVEMENT MARKINGS.

19.) ALL PAVEMENT MARKINGS TO BE PAINTED TO NHDOT STANDARD NO. PM-9.

20.) SEE NHDOT STANDARD PLAN PM-10A FOR WORD AND SYMBOL DETAILS.

21.) THE SPEED LIMIT ON DOVER POINT ROAD IS 40 MPH.

22.) WORK WITHIN NHDOT R.O.W. WILL REQUIRE PROFESSIONAL FLAGGING SERVICES AND POLICE SUPERVISION.

23.) DESIGN ENGINEER TO PROVIDE INSPECTION & OVERSIGHT OF ALL WORK WITHIN R.O.W.

HWA-3

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

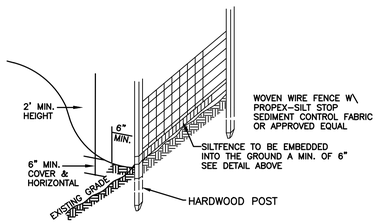
HIGHWAY ACCESS DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 0382O
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
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STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

E1



SILT FENCE CONSTRUCTION SPECIFICATIONS

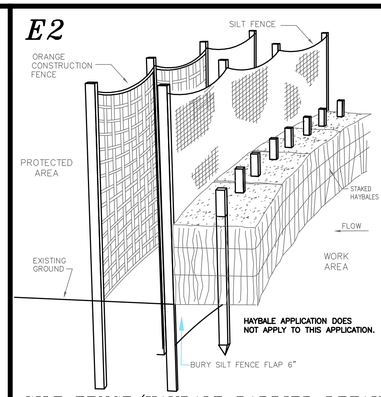
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8" THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF. SEE MAINTENANCE NOTE BELOW, REMOVAL OF SEDIMENT REQUIRED AT A DEPTH OF 6-INCHES.
4. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
5. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER.
6. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED.
7. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, SILT FENCE, PAGE 90.

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 REMOVED WHEN THEY REACH SIX-INCHES IN DEPTH.
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.

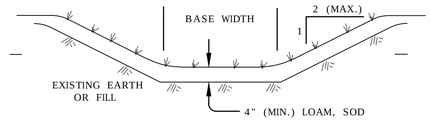
SILT FENCE DETAIL
NOT TO SCALE

E2



SILT FENCE/HAYBALE BARRIER DETAIL
THIS METHOD TO BE USED ALONG THE REAR OF THE PROPERTY
NOT TO SCALE

E3



GRASS TREATMENT SWALE
NOT TO SCALE

INSPECT ANNUALLY FOR EROSION, SEDIMENT ACCUMULATIONS, VEGETATION LOSS, & INVASIVE SPECIES. REPAIR AS NECESSARY.

MOW GRASS ANNUALLY TO A DEPTH OF 4".

INSTALL STABILIZATION MATTING DURING CONSTRUCATION

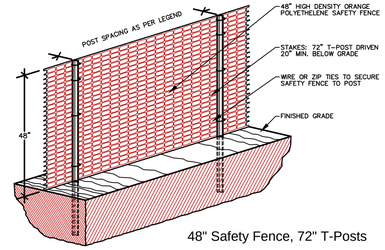
TO BE CONSTRUCTED IAW NH SWM #2 CHAPTER 4, #5 TREATMENT SWALES, PAGE 123.

E4

CONSTRUCTION SAFETY FENCE
NOT TO SCALE

LEGEND

SAF12	48" ORANGE FENCE, 12 FEET O.C.
SAF11	48" ORANGE FENCE, 11 FEET O.C..
SAF10	48" ORANGE FENCE, 10 FEET O.C.
SAF9	48" ORANGE FENCE, 9 FEET O.C.
SAF8	48" ORANGE FENCE, 8 FEET O.C..
SAF7	48" ORANGE FENCE, 7 FEET O.C.
SAF6	48" ORANGE FENCE, 6 FEET O.C.



48" Safety Fence, 72" T-Posts

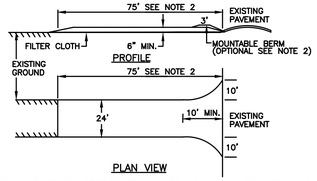
1. ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
2. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WITH HIGH VISIBILITY FENCE AS PER PLAN.
3. WHEN PRACTICABLE, INSTALL HIGH VISIBILITY 3 FEET OUTSIDE OF THE DRIP LINE OF THE TREE.
4. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
5. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

E5

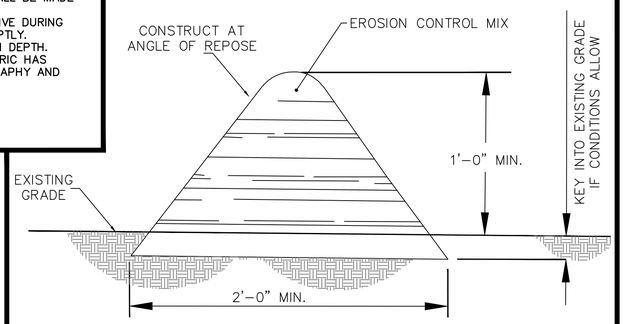
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CONSTRUCTION EXIT, PAGE 124.

E6

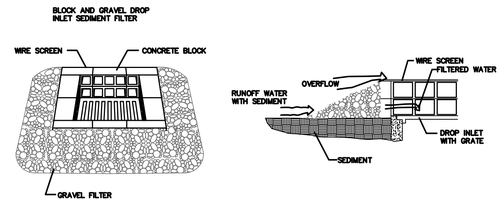
EROSION CONTROL MIX BERM
NOT TO SCALE



EROSION CONTROL MIX BERMS SHALL BE USED ONLY AS FOLLOWS:

1. BERMS SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE BERM.
2. THE BERMS SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSLY AS POSSIBLE.
3. THE BERMS SHALL BE INSTALLED ON SLOPES LESS THAN 5%.
4. SUBJECT TO (E), BELOW, THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS.
5. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS ORGANIC MATERIAL.
6. THE MIX SHALL NOT CONTAIN SILTS, CLAY, OR FINE SANDS.
7. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85% PASSING THE 0.75-INCH SCREEN.
8. THE MIX PH SHALL BE BETWEEN 5.0 AND 8.0.
9. THE BERM SHALL BE AT LEAST 12 INCHES HIGH AND AT LEAST 2 FEET WIDE.
10. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, EROSION CONTROL MIX BERMS, PAGE 106.

E7



MAINTENANCE

ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
NOT TO SCALE

TO BE USED IN ALL AREAS WHERE THERE WILL BE NO TRAFFIC.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

E8

TEMPORARY EROSION CONTROL MEASURES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. (SEE SEED SPECIFICATIONS THIS SHEET)
4. ALL DISTURBED AREAS WILL BE RESTABILIZED WITHIN 45 DAYS. AT ANY ONE TIME, NO MORE THAN 5 ACRES, (217,800 Sq. Ft.) WILL BE DISTURBED.
5. SILT FENCES AND PERIMETER BARRIERS SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY RAIN DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
6. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
7. PER THE EPA CGP REQUIREMENTS THERE WILL BE REPORTS OF THE EROSION CONTROL INSPECTIONS IAW SWPPP PREPARED BY BS&E. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.5" OR GREATER RAIN EVENT.
8. DITCHES, SWALES, AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
9. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT, IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
10. DRIVEWAYS AND CUT AND FILL SPLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.
11. STABILIZATION MEANS:
    - 11.1. A MINIMUM OF 85% OF VEGETATIVE COVER HAS BEEN ESTABLISHED.
    - 11.2. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED, OR
    - 11.3. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
12. THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
13. THE NHDES STORMWATER MANUAL, IN THREE VOLUMES, DATED DECEMBER 2008, IS A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (NH SWM)

EROSION & SEDIMENT CONTROL DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

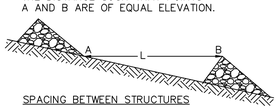
AS NOTED
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14241
LICENSED PROFESSIONAL ENGINEER

E9

STONE CHECK DAM
NOT TO SCALE

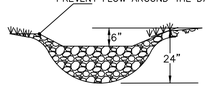
THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

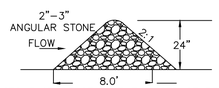


SPACING BETWEEN STRUCTURES

1.) CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
2.) THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THEN ONE ACRE.
3.) THE MAXIMUM HEIGHT OF THE DAM SHOULD BE TWO FEET.
4.) THE CENTER OF THE DAM SHOULD BE AT LEAST SIX INCHES LOWER THAN THE OUTER EDGES.
5.) THE MAXIMUM SPACING IS AS SHOWN ON THE PROJECT SITE PLANS.
6.) CHECK DAMS WILL NOT BE USED IN A FLOWING STREAM.
7.) TEMPORARY CHECK DAMS WILL BE REMOVED ONCE THE SWALE OR DITCH IS DETERMINED STABLE.
8.) TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CHECK DAMS, PAGE 114.

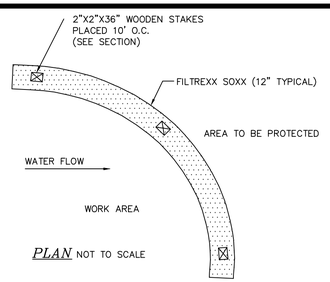
NOTE: KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIUM OF 18" TO PREVENT FLOW AROUND THE DAM.





STONE GRADE STABILIZATION STRUCTURE

E10

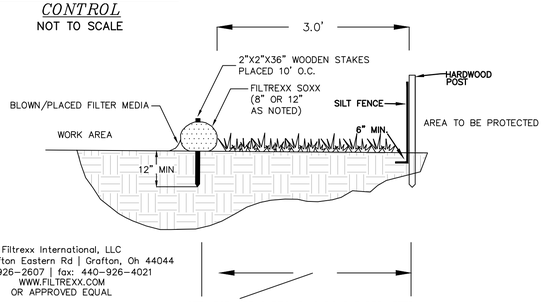


PLAN NOT TO SCALE

NOTES

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILTER MEDIA FILL TO MEET APPLICATION REQUIRMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
4. SILTSOXX MAY BE USED IN PLACE OF SILT FENCE OR AS OTHER SEDIMENT BARRIERS.
5. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIRMENTS OF THE SPECIFIC APPLICATION.
6. FILTREXX SOXX IS A REGISTERED TRADEMARK OF FILTREXXIN TERNATIONAL, LLC.
7. SILT FENCE IS NOT A SUBSTITUTION FOR SILT SOXX AND ANY EQUAL SUBSTITUTION TO BE APPROVED.
8. TO BE CONSTRUCTED IAW FILTREXX, SECTION 1:EROSION & SEDIMENT CONTROL (PAGE 323) - CONSTRUCTION ACTIVITIES, SWPPP CUT SHEET: FILTREXX SEDIMENT CONTROL

FILTREXX SEDIMENT CONTROL
NOT TO SCALE

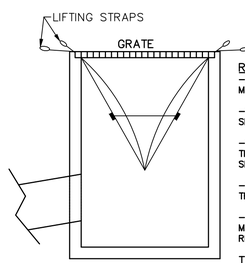


Filtrexx International, LLC
35481 Grafton Eastern Rd | Grafton, Oh 44044
440-926-2607 | fax: 440-926-4021
WWW.FILTREXX.COM
OR APPROVED EQUAL

NOTE: FOR AREAS REQUIRING DOUBLE PERIMETER CONTROL WITHIN 50' OF JURISDICTIONAL WETLANDS AND NOT FOR ALL SILT SOXX APPLICATIONS. THIS DUPLICATION MAY BE SPECIFIED AS 12" SILT SOXX OR ORANGE CONSTRUCTION FENCE AS NOTED.

SECTION NOT TO SCALE

E11



RECOMMENDED MAINTENANCE SCHEDULE
-EACH SILTSACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT, AND MUST BE MAINTAINED.

-IF THERE HAVE BEEN NO MAJOR EVENTS, SILTSACK SHOULD BE INSPECTED EVERY 2-3 WEEKS.

-THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.

-TO BE USED IN ALL AREAS WHERE THERE WILL BE TRAFFIC.

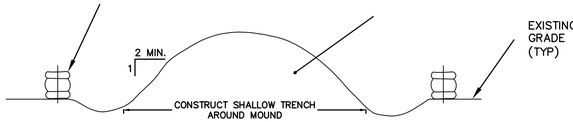
- ARE SUBJECT TO DAMAGE BY SNOW PLOWS, AND MUST BE INSPECTED AFTER ANY SNOW EVENT AND REPLACED AS REQUIRED.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

SILTSACK DETAIL
NOT TO SCALE

E-101

E12



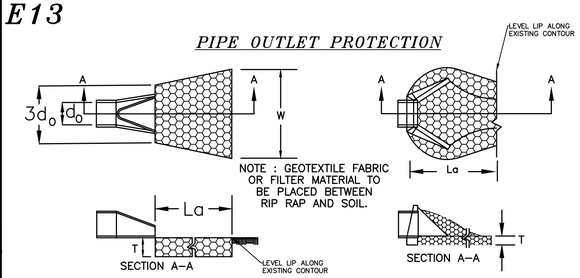
TO BE CONSTRUCTED IAW NH SWM #3 4–1 EROSION CONTROL PRACTICES, SOIL STOCKPILE PRACTICES, PAGE 46.

TOPSOIL STOCKPILE MOUND

NOT TO SCALE

E13

PIPE OUTLET PROTECTION



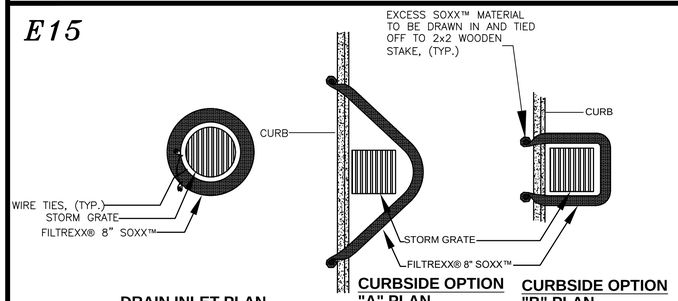
PIPE OUTLET PROTECTION CONSTRUCTION SPECIFICATIONS

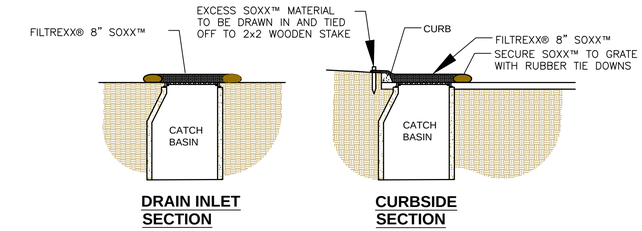
1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS. SPECIFIED GRADATION.
2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO NHDOT SECTION 583.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING 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.
4. 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.
5. TO BE CONSTRUCTED IAW NH SWM #2 4–6 CONVEYANCE PRACTICES, 6. OUTLET PROTECTION, PAGE 172.

E14

TABLE 7–24––RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.5	FEET 6	INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE		SIZE OF STONE (INCHES) FROM	TO
100%		9	12
85%		8	11
50%		6	9
15%		2	3

E15





NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX INLET PROTECTION

NOT TO SCALE

E16

NOTE: THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

NOTE: Temporary seed mix for stabilization of turf shall be winter rye or oats at a rate of 2.5 lbs. per 1000 s.f. and shall be placed prior to OCT. 15, if permanent seeding not yet complete.

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/
GRAVEL PIT, SEE NH–PM–24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.					

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7–36.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

SEEDING RATES

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	50	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	24	0.55
CREEPING RED FESCUE	24	0.55
BIRDS FOOT TREFOIL	REMOVED	REMOVED
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 2/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.80

CONSERVATION MIX	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
RED FESCUE (35%)	75	1.75
TALL FESCUE (25%)	55	1.25
ANNUAL RYEGRASS (12%)	33	0.75
PERENNIAL RYEGRASS (10%)	26	0.60
KENTUCKY BLUEGRASS (10%)	22	0.50
WHITE CLOVER (3%)	7	0.15

SEEDING SPECIFICATIONS

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED.
   WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEED BED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING
   AND INCORPORATED INTO THE SOIL KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE,
   THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
   AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100LBS. PER 1,000 SQ.FT.
   NITROGEN(N), 50LBS. PER ACRE OR 1.1LBS. PER 1,000 SQ.FT.
   PHOSPHATE(P2O5), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   POTASH(K2O), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   (NOTE: THIS IS THE EQUIVALENT OF 500LBS. PER ACRE OF 10–20–20 FERTILIZER OR 1,000LBS. PER ACRE OF 5–10–10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO TABLE(G–E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H–E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT TREFOIL, AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90LBS PER 1000 S.F.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.
6. TO BE CONSTRUCTED IAW NH SWM #3 4–1 EROSION CONTROL PRACTICES, PERMANENT VEGETATION, PAGE 60.

E17

CONSTRUCTION SEQUENCE:

1.) CUT AND REMOVE TREES IN CONSTRUCTION AREA ONLY AS REQUIRED, RELOCATE ANY PROJECT T.B.M.

2.) CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS SPECIFIED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.

3.) EROSION, SEDIMENT AND DETENTION CONTROL FACILITY SHALL BE INSTALLED & STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.TEMPORARY DIVERSIONS MAY BE REQUIRED. POST CONSTRUCTION STORM WATER MANAGEMENT PRACTICES MUST BE INITIATED AND STABILIZED EARLY IN THE PROCESS.

4.) CLEAR, CUT AND DISPOSE OF DEBRIS IN APPROVED FACILITY

5.) CONSTRUCT TEMPORARY CULVERTS AS REQUIRED, OR DIRECTED

6.) CONSTRUCT ROADWAYS FOR ACCESS TO DESIRED CONSTRUCTION AREAS. ALL ROADS SHALL BE STABILIZED IMMEDIATELY

7.) START BUILDING CONSTRUCTION

8.) INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. INSTALL RAIN GARDENS. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.

9.) BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED. NO AREA IS ALLOWED TO BE DISTURBED FOR A LENGTH OF TIME THAT EXCEEDS 60 DAYS BEFORE BEING STABILIZED. DAILY, OR AS REQUIRED. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES.

10.) CONSTRUCT TEMPORARY BERMS, DRAINS DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.

11.) INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORM WATER INSPECTOR (CESSW), OR A CERTIFIED PROFESSIONAL IN STORM WATER QUALITY (CPSWQ). INSPECTION REPORTS SHALL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT.

12.) COMPLETE PERMANENT SEEDING AND LANDSCAPING.

13.) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE.

14.) SMOOTH AND REVEGETATE ALL DISTURBED AREAS.

15.) FINISH PAVING ALL ROADWAYS.

NOTE: CITY OF DOVER'S "CONSTRUCTION GUIDELINES, PERMITS, RULES AND REGULATIONS" ARE A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (D–CGPRR)

E18

DEFINITION OF STABLE:

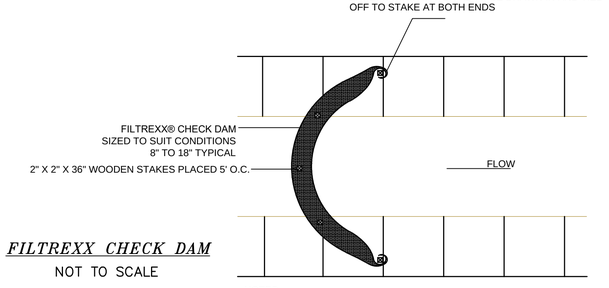
PER ENV–WQ 1500 ALTERATION OF TERRAIN

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
2. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED..
3. A MINIMUM OF 3 INCHES OF NON–EROSIVE MATERIAL SUCH AS STONE OR RIP–RAP HAS BEEN INSTALLED.
4. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ADDITION STABILIZATION NOTES:

5. HAY MULCH OR OTHER APPROVED METHODS SHALL BE USED TO CONTROL EROSION OF NEWLY GRADED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS AFTER THEIR CONSTRUCTION.
6. DISTURBED SOIL AREAS SHALL BE EITHER TEMPORARILY OR PERMANENTLY STABILIZED. IN AREAS WHERE FINAL GRADING HAS NOT OCCURRED, TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN (7) CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN ONE HUNDRED (100) FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE (3) CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.

E19

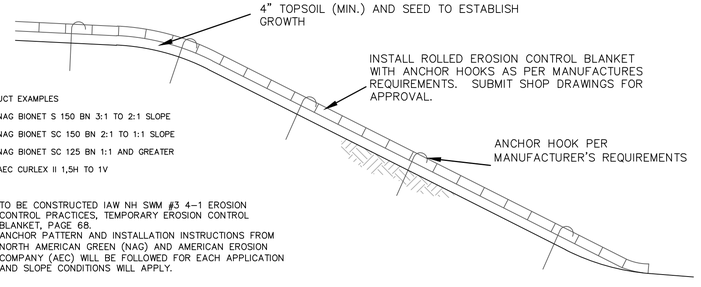


FILTREXX CHECK DAM

NOT TO SCALE

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
5. CONTRACTOR IS REQUIRED TO BE A FILTREXX CERTIFIED™ INSTALLER.

E20



PRODUCT EXAMPLES

1.) NAG BIONET S 150 BN 3:1 TO 2:1 SLOPE
2.) NAG BIONET SC 150 BN 2:1 TO 1:1 SLOPE
3.) NAG BIONET SC 125 BN 1:1 AND GREATER
4.) AEC CURLEX II 1,5H TO 1V

1. TO BE CONSTRUCTED IAW NH SWM #3 4–1 EROSION CONTROL PRACTICES, TEMPORARY EROSION CONTROL BLANKET, PAGE 68.
2. ANCHOR PATTERN AND INSTALLATION INSTRUCTIONS FROM NORTH AMERICAN GREEN (NAG) AND AMERICAN EROSION COMPANY (AEC) WILL BE FOLLOWED FOR EACH APPLICATION AND SLOPE CONDITIONS WILL APPLY.

ROLLED EROSION CONTROL BLANKET (RECB) SLOPE STABILIZATION DETAIL

NOT TO SCALE

E21

WINTER STABILIZATION NOTES

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3–4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3–4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.

2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.

3. PRIOR TO NOV. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15–25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.

4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3–4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.

E–102

DOVER FILE #P18–045

REVISION	DATE	DESCRIPTION

EROSION & SEDIMENT CONTROL DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

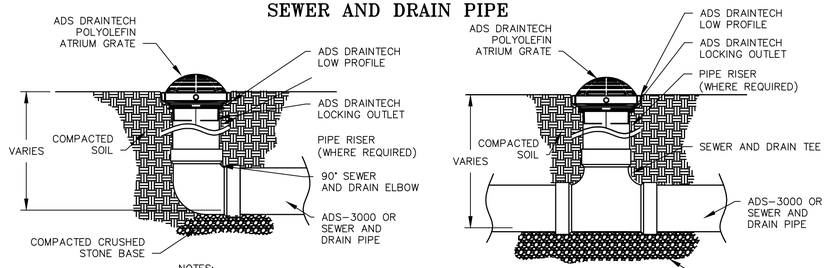
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

DATE : SEPTEMBER 20, 2018
AS NOTED
FILE NO. : DB 2018 – 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

D1

ADS DRAINTECH ATRIUM GRATE AND ADAPTER WITH SEWER AND DRAIN PIPE



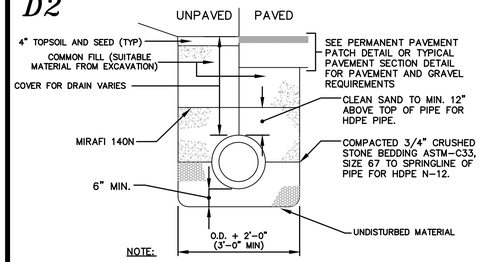
NOTES:
1. MAX. COVER OVER TOP OF PIPE IS 4FT. CONTACT ADS IF OTHERWISE GREATER.
2. GRATE OR LID MUST BE INSTALLED PRIOR TO POURING CONCRETE OR BACKFILLING

ADS STANDARD DETAILS DISCLAIMER: "ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS STANDARD DETAIL TO DEMONSTRATE ADS' RECOMMENDED INSTALLATION OF ITS PRODUCTS FOR THE DEPICTED APPLICATION. IN ADDITION TO ADS' RECOMMENDATIONS, THERE MAY BE OTHER NATIONAL, STATE OR LOCAL SPECIFICATIONS THAT ARE PERTINENT TO THIS APPLICATION. ADS' STANDARD DETAIL IS NOT INTENDED TO SUPERSEDE ANY NATIONAL, STATE OR LOCAL SPECIFICATIONS, AND ADS RECOMMENDS THAT THOSE REQUIREMENTS BE REVIEWED AND CONSULTED PRIOR TO THE INSTALLATION OF ADS' PRODUCTS. ADS HAS NOT AUTHORIZED, AND IT BEARS NO RESPONSIBILITY FOR, ANY REVISIONS, ALTERATIONS OR DEVIATIONS FROM THIS STANDARD DETAIL."

YARD DRAIN DETAILS

NOT TO SCALE

D2



NOTE:
PLASTIC DRAIN PIPE (HDPE) SHALL BE ADS N-12 (CORRUGATED EXTERIOR/SMOOTH INTERIOR) OR EQUAL MEETING AASHTO M-252 AND H-20 LOADING.

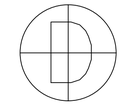
TYPICAL DRAIN TRENCH

NOT TO SCALE

D3

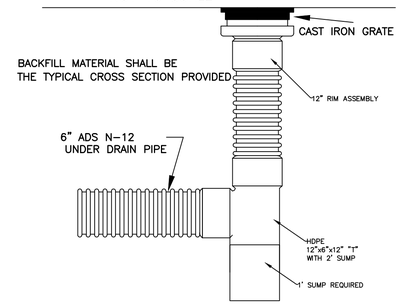
CASTINGS ARE RATED FOR H20 WHEEL LOAD TRAFFIC

PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT



12" CAST IRON GRATE

NOT TO SCALE

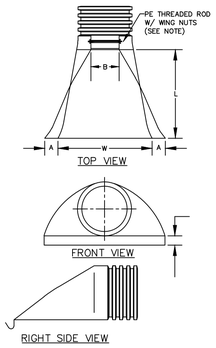


ADS N-12 INLINE DRAIN

D4

PART No.	PIPE SIZE	A	B(MAX)	H	L	W
1510-NP	15" 375 mm	6.5" 165 mm	10" 254 mm	6.5" 165 mm	25" 635 mm	29" 735 mm
1810-NP	18" 450 mm	7.5" 190 mm	15" 380 mm	6.5" 165 mm	32" 812 mm	35" 890 mm
2410-NP	24" 600 mm	7.5" 190 mm	18" 450 mm	6.5" 165 mm	36" 900 mm	45" 1140 mm
3010-NP	30" 750 mm	10.5" 266 mm	N/A	7.0" 178 mm	53" 1345 mm	68" 1725 mm
3610-NP	36" 900 mm	10.5" 266 mm	N/A	7.0" 178 mm	53" 1345 mm	68" 1725 mm

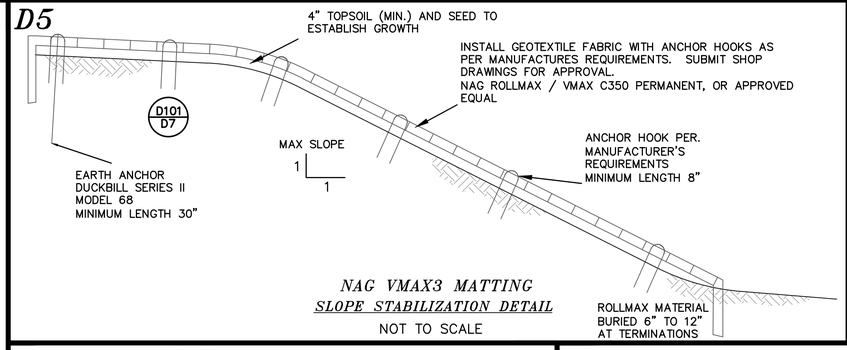
NOTE: PE THREADED ROD W/ WING NUTS PROVIDED FOR END SECTIONS 15"-24". 30" & 36" END SECTIONS TO BE WELDED PER MANUFACTURER'S RECOMMENDATIONS.



ADS N-12 FLARED END SECTIONS

NOT TO SCALE (ALL DIMENSIONS ARE NOMINAL)

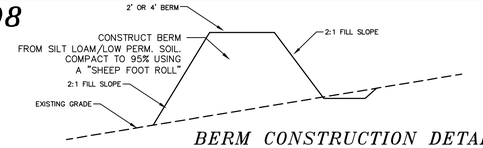
D5



NAG VMAX3 MATTING
SLOPE STABILIZATION DETAIL

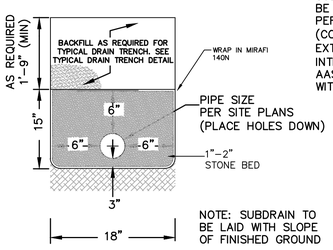
NOT TO SCALE

D8



BERM CONSTRUCTION DETAIL

D6



SUBDRAIN PIPE TO BE ADS N-12 PERFORATED (CORRUGATED EXTERIOR/ SMOOTH INTERIOR) MEETING AASHTO M-252 WITH FILTER SOCK

NOTE: SUBDRAIN TO BE LAID WITH SLOPE OF FINISHED GROUND

TYPICAL CROSS SECTION

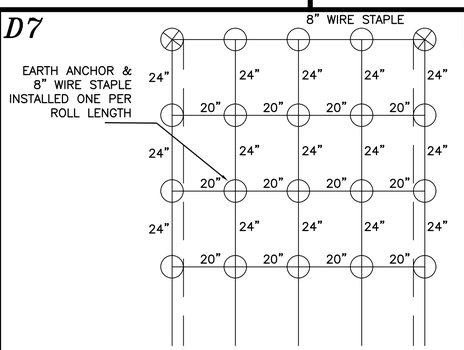
NOTES:
CROWN OF 6" SUBDRAIN PIPES TO MATCH CROWN OF DRAIN PIPES IN CATCH BASINS

SUBDRAIN TO BE INSTALLED AS INDICATED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.

SHORING AND STABILIZING OF TRENCH SIDEWALLS DURING EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY TRENCH EXCAVATION BEYOND THE LIMITS OF PAY EXCAVATION INDICATED.

UNDERDRAIN TRENCH DETAIL

D7



1.) THE BEGINNING AND END OF EACH ROW OF NAG C350 WILL BE BURIED SIX TO 12 INCHES DEEP.
2.) AT THE TOP OF EACH ROW WHERE THE ROWS OVERLAP, AN EARTH ANCHOR WILL BE INSTALLED TO A MINIMUM DEPTH OF 30 INCHES.
3.) STAPLES WILL BE INSTALLED AT A RATE OF 3.4 STAPLES PER SQUARE YARD AS DEMONSTRATED.
4.) STAPLES WILL BE INSTALLED TO A MINIMUM DEPTH OF 8 INCHES.
5.) ROWS OF NAG ROLLMAX WILL BE INSTALLED PARALLEL WITH AN AVERAGE OF THREE AND ONE-HALF INCHES OF OVERLAP. STAPLES WILL BE INSTALLED ALONG THE OVERLAP SEAM, AS SHOWN.

NAG VMAX3 MATTING
STAPLE PATTERN GUIDE

NOT TO SCALE

REFERENCE IS MADE TO A LONG TERM MAINTENANCE MANUAL PREPARED BY BERRY SURVEYING & ENGINEERING, WHICH IS ON FILE AT THE CITY OF DOVER PLANNING DEPARTMENT, AND CAN BE FOUND AT THE OFFICE OF BERRY SURVEYING & ENGINEERING. (603) 332-2863

D-101

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

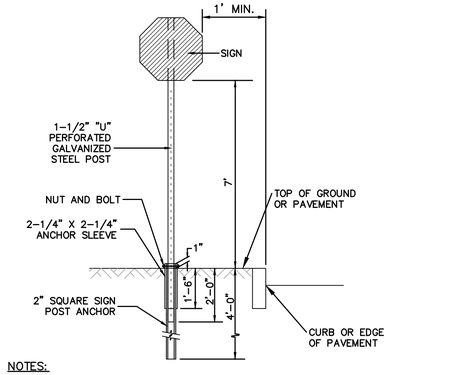
DRAINAGE DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER

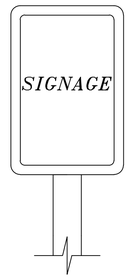
C1



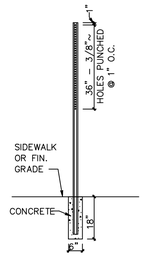
NOTES:

1. ALL SIGNAGE SHALL BE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND NHDOT STANDARDS.
2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS/CATALOG CUTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ERECTING SIGNS.
3. THE LOCATION OF THE SIGNS SHALL BE AS INDICATED ON THE DRAWINGS AND/OR AS DIRECTED BY THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS.

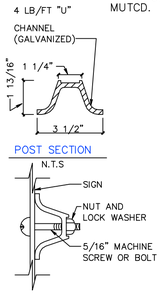
TYPICAL SIGN POST
(NOT TO SCALE)



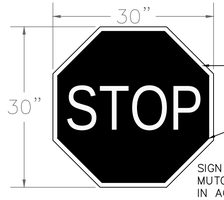
PARTIAL ELEVATION
N.T.S.



POST
N.T.S.



MOUNTING
N.T.S.



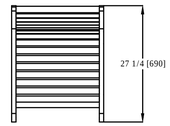
SIGN BACKGROUND TO BE WHITE.
LETTERING TO BE WHITE.
OCTAGON TO BE RED.

SIGN R1-1 AS SHOWN IN THE MUTCD. INSTALLATION WILL BE IN ACCORDANCE WITH THE MUTCD.

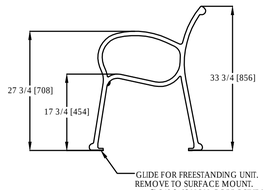
C2

Scarborough™ Bench, 24" Backed, with Horizontal Strap Seat

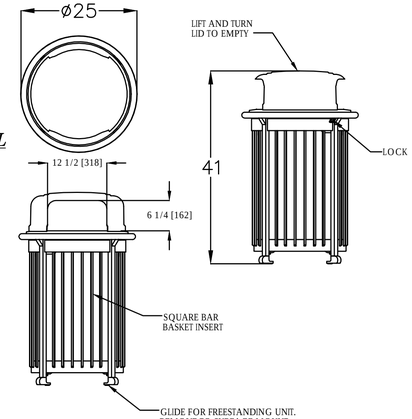
Scarborough™ Bench, 24" Backed, with Horizontal Strap Seat
Product Drawing
www.landscapeforms.com
Date: 5/19/2010
Ph: 800.521.2546



BENCH DETAIL
(NOT TO SCALE)



BIN DETAIL
(NOT TO SCALE)

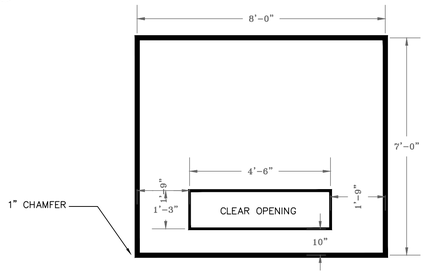


landscapeforms Drawing: SC173-02
Dimensions are in inches [mm]

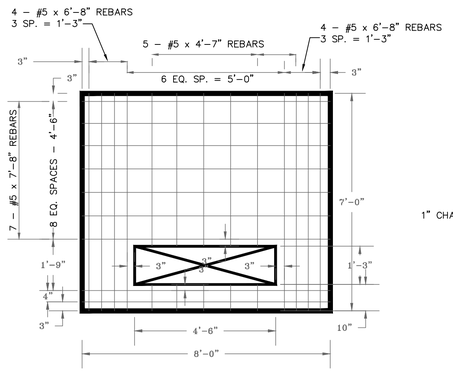
landscapeforms Drawing: SC173-02
Dimensions are in inches [mm]

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C3



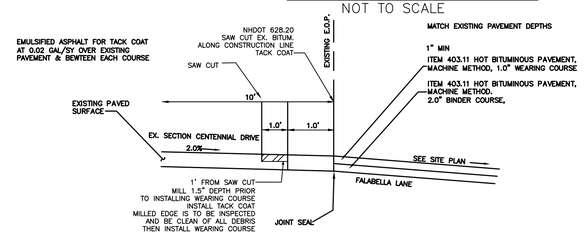
PLAN VIEW



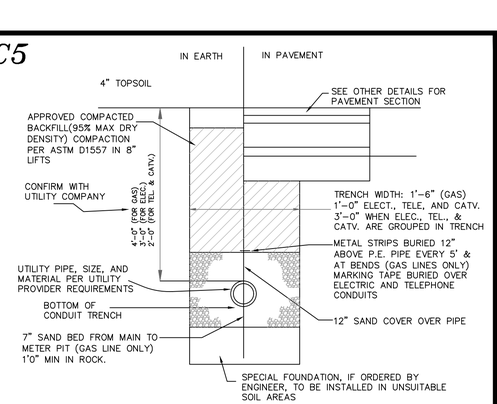
PLAN OF REINFORCING

C4

TYPICAL EDGE LINE CONSTRUCTION
NOT TO SCALE

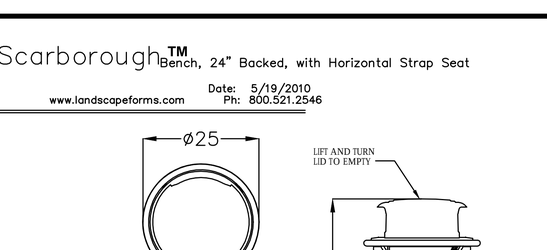


C5



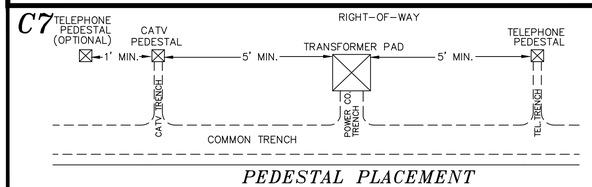
ELECTRICAL, TELEPHONE, AND GAS TRENCH
NOT TO SCALE

C6



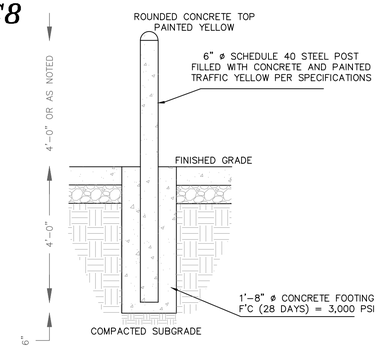
SLOPE GRANITE CURB DETAIL
NOT TO SCALE

C7



PEDESTAL PLACEMENT

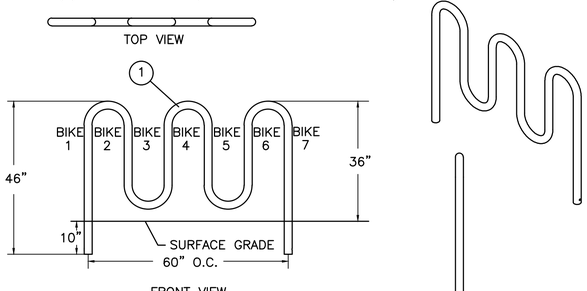
C8



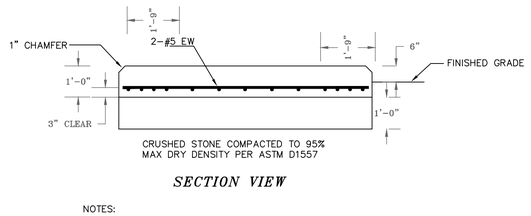
BOLLARD DETAIL
NOT TO SCALE

C9

MATERIALS LIST
(1) TUBING – ø 2 3/8" x .154" Wall Steel Tubing



BIKE RACK
(NOT TO SCALE)



SECTION VIEW

NOTES:
1.) CONFIRM SIZE WITH ELECTRIC COMPANY BEFORE CONSTRUCTION.
2.) USE LOCAL ELECTRIC COMPANY DETAILS AS REQUIRED.

TRANSFORMER PAD DETAIL
NOT TO SCALE

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

CONSTRUCTION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

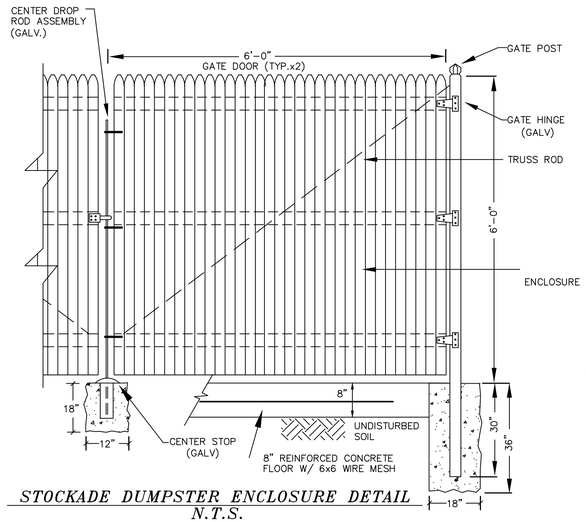
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

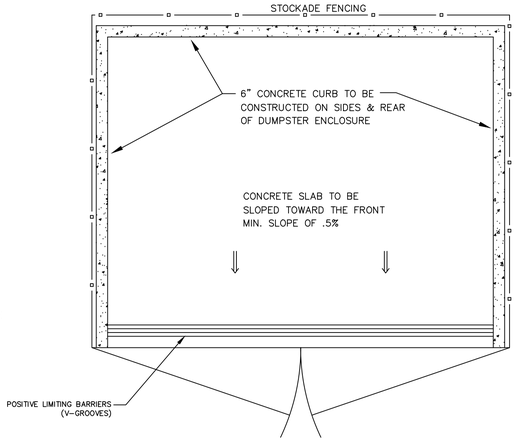
KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

C-101

C10

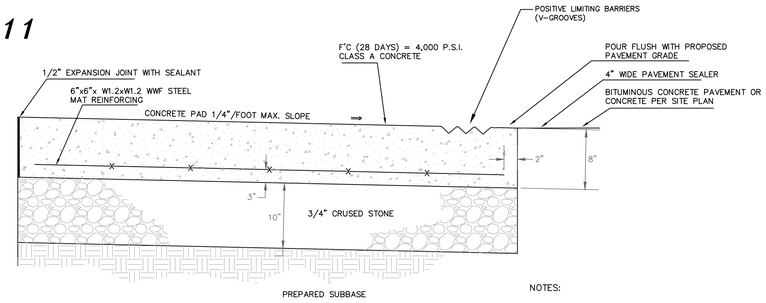


STOCKADE DUMPSTER ENCLOSURE DETAIL
N.T.S.



DUMPSTER SLAB DETAILS
N.T.S. NOT TO SCALE

C11



SECTION VIEW

NOTES:

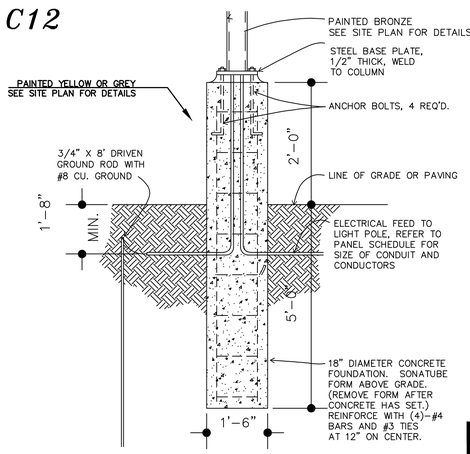
1.) DUMPSTER PAD WILL BE SCREENED BY STOCKADE FENCE.

2.) CONFIGURATION WILL ENCLOSE 2-8 YARD DUMPSTERS.

DUMPSTER PAD & CONCRETE PAVEMENT

NOT TO SCALE

C12



POLE FOUNDATION

PARKING LOT LIGHT BASE DETAIL

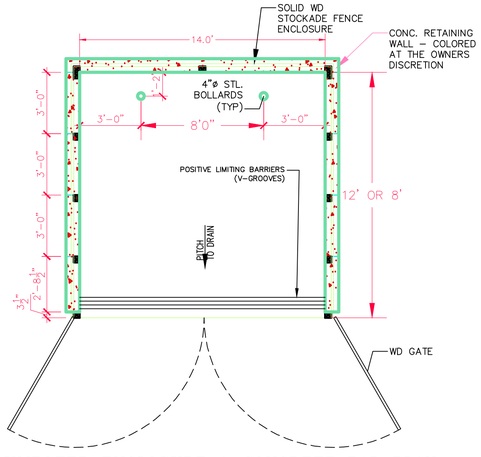
SCALE: NONE



TYPICAL RESIDENTIAL LAMP "A"

NOT TO SCALE

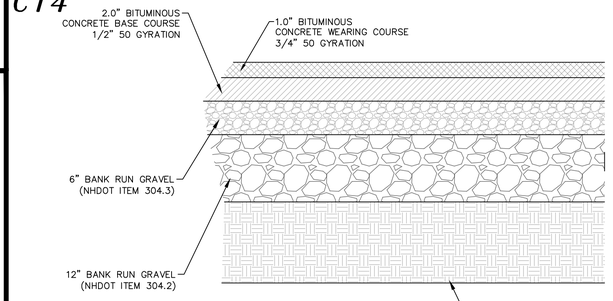
C13



DUMPSTER ENCLOSURE & CONCRETE PAD PLAN

NOT TO SCALE

C14



NOTES:

1.) BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SUBSECTION 401.3.6.

2.) PAVEMENT BASE COURSE AGGEGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

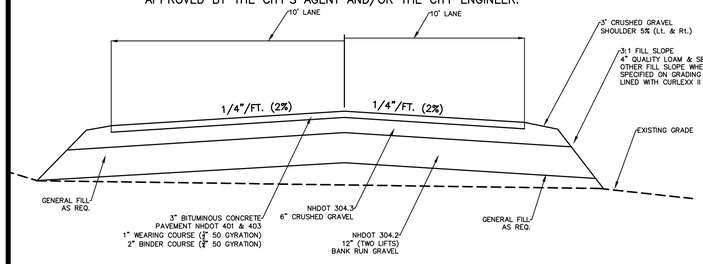
3.) PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOFROLLED AND COMPABED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. FOR NEW CONSTRUCTION AREAS ONLY. IN EXISTING PAVEMENT AREAS THE CONTRACTOR IS TO ENSURE THE BASE MATERIAL IS SUITABLE TO THE OWNER FOR RE-PAVING

BITUMINOUS CONCRETE PAVEMENT SECTION

NOT TO SCALE

C15

COMPACTED SUBGRADE – CONTRACTOR SHALL SCARIFY SUBGRADE TO A DEPTH OF 30 INCHES BELOW F-GRADE. ALL STONES GREATER THAN 6" IN DIAMETER SHALL BE REMOVED FROM THE SCARIFIED LAYER. ANY IMPORTED FILL SHALL BE FREE OF ORGANICS AND FROST AND SHALL HAVE NO ROCKS LARGER THAN 6" IN DIAMETER. FILL MATERIAL SHALL BE APPROVED BY THE CITY'S AGENT AND/OR THE CITY ENGINEER.

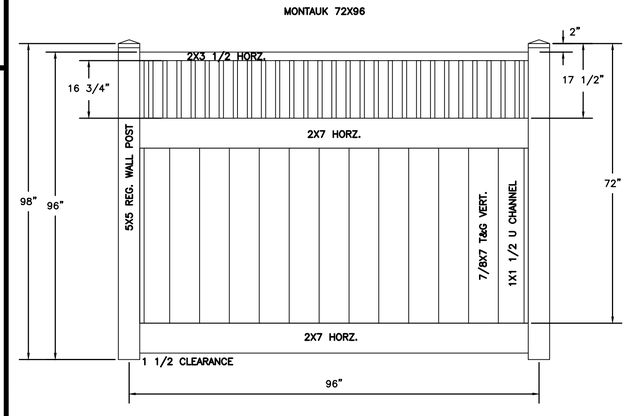


TYPICAL ROADWAY SECTION
FALABELLA LANE

CROSS SECTION NOTES

1. ALL ROADWAY FILL TO BRING ROAD TO SUBGRADE SHALL BE INSTALLED IN LIFTS NO GREATER THAN 12".
2. ALL FILL SHALL BE COMPACTED TO 95% MINIMUM. COMPACTION TESTS TO BE CONDUCTED AT THE START OF THE PROJECT AND NO FURTHER THAN 100 FEET APART.
3. GUARD RAIL REQUIRED AS NOTED ON PLAN & PROFILE SHEETS.
4. CONTRACTOR TO COORDINATE WITH DESIGN ENGINEER ON THE INSTALLATION OF UNDER DRAIN AS IT MAY BE REQUIRED IN CERTAIN AREAS.
5. TEST PITTING WAS DONE WITHIN THE ROADWAY ALIGNMENT BY STONEY RIDGE ENVIRONMENTAL, AND NO UNSUITABLE MATERIALS WERE ENCOUNTERED IN THOSE TEST PITS. CLEARING AND GRUBBING WILL TAKE PLACE WITHIN THE ROAD AND ROAD RIGHT OF WAY (25' FROM CENTER). IF UNSUITABLE MATERIALS ARE FOUND WITHIN AREAS WITHIN 25' OF CENTERLINE THE CONTRACTOR WILL EXCAVATE AND REMOVE UNSUITABLE MATERIALS 4' BELOW EXISTING GRADE PER THE TOWN OF RAYMOND ROAD CONSTRUCTION STANDARDS SECTION 2.1

C16



C-102

DOVER FILE #P18-045

REVISION	DATE	DESCRIPTION

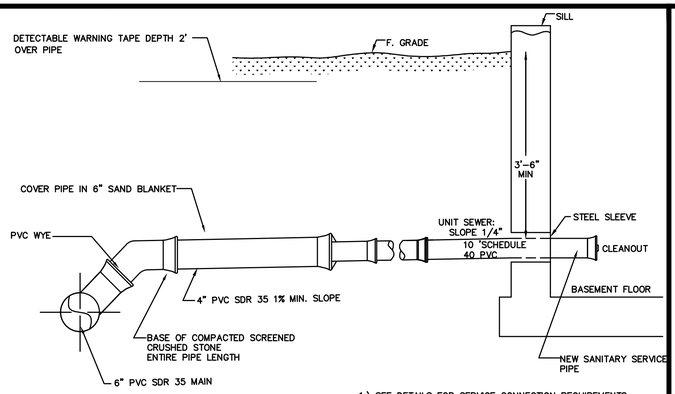
CONSTRUCTION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

U1



DETAIL OF UNIT SEWER SERVICE

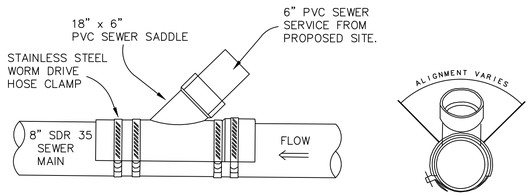
NOT TO SCALE

1.) SEE DETAILS FOR SERVICE CONNECTION REQUIREMENTS

2.) SERVICE CONNECTION SHALL BE INSTALLED BELOW WATER MAIN WHERE POSSIBLE.

3.) CLEANOUTS SHALL BE INSTALLED INSIDE EACH BUILDING EXIT POINT

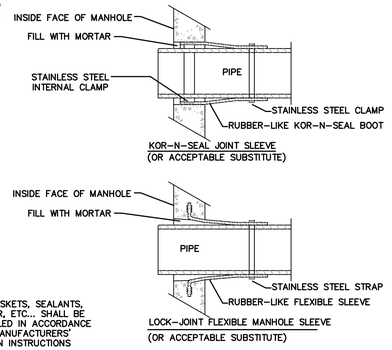
U2



SEWER SADDLE DETAIL

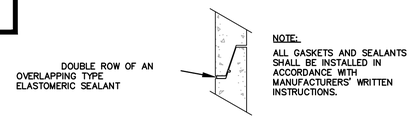
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U3



DETAIL "A" – PIPE TO MANHOLE JOINTS

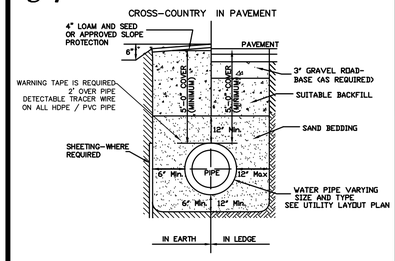
NOT TO SCALE



DETAIL "B" HORIZONTAL JOINTS

NOT TO SCALE

U4



TYPICAL TRENCH DETAIL FOR WATER SYSTEM

NOT TO SCALE

U5

NOTES ON MANHOLE AND SEWER CONSTRUCTION:

1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND HS-20-44 LOADING, INCLUDING THE COVER. ALL SMH CONSTRUCTION AND MATERIALS WILL BE IAW ENV.-WQ 704.13 ADOPTED OCTOBER 15, 2014

2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE. (IAW ENV.-WQ 704.12 (d))

3) SEWER MANHOLE DIAMETER SHALL BE AS INDICATED ON THE PLANS.

4) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.

5) GRAVITY SEWER PIPE TESTING WILL BE IN ACCORDANCE WITH ENV.-WQ 704.06 AND MAN HOLE TESTING IAW ENV.-WQ 704.17 DATED OCTOBER 15, 2014.

6) INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. INVERT BRICKS SHALL BE LAID ON EDGE AND THE BASE SECTION SHALL BE FULL. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. (IAW ENV.-WQ 704.13 (a) (9)), MORTAR SHALL CONFORM WITH REQUIREMENTS OF IAW ENV.-WQ 704.13 (c).

7) FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH (MINIMUM HEIGHT) LETTERS WITH THE WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH MANHOLE COVER. (IAW ENV.-WQ 704.13 (a) (4-6)) SEWER MAN HOLE COVERS ARE TO PAMREX.

8) SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

9) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE DOVER DPW, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON A DOUBLE ROW OF AN OVERLAPPING TYPE ELASTOMERIC OR MASTIC-LIKE GASKET. APPROVED ELASTOMERIC SEALANTS ARE: RAM-NEK, KENT SEAL NO. 2, EZ, OR EQUAL.

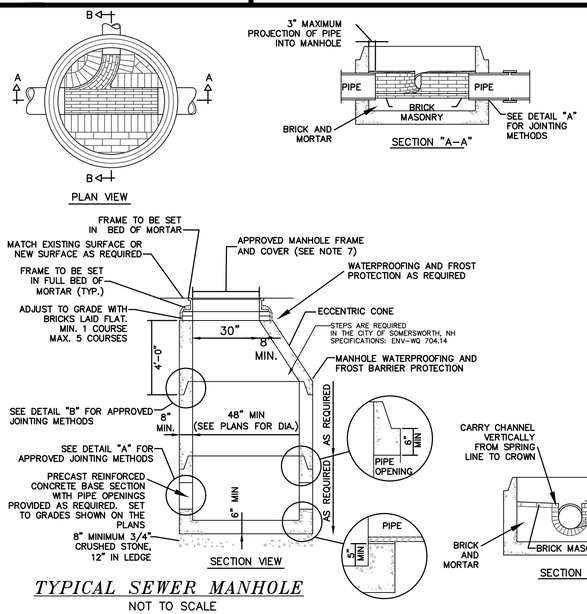
10) IN CROSS COUNTRY AREAS OUTSIDE OF THE PAVED ROADWAY SURFACE, THE MANHOLE FRAME ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINISHED GRADE. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE. SEE TYPICAL TRENCH DETAIL ON SHEET D-102.

11.) ALL FRAMES AND GRATES ARE TO BE U.S.A. MADE. MANHOLE STEPS ARE REQUIRED IN THIS MUNICIPALITY AND MUST CONFORM TO THE REQUIREMENTS OF ENV-WQ 704.14.

12.) THE CONTRACTOR TO WORK WITH CITY OF DOVER REVIEW ENGINEER AND SEWER DEPARTMENT ON THE MEANS AND METHODS USED TO INSTALL ALL SEWER STRUCTURES. SPECIFIC ATTENTION IS TO BE PAID TO THE INSTALLATION OF SMH 1A, WHEREAS THE EXISTING PIPE SLOPE IS UNKNOWN. DURING LOW FLOW CONDITIONS, CUT AND TEMPORARILY CAP THE EXISTING 8" VC LINE, OR INSTALL TEMPORARY BY-PASS LINE (OF EQUAL SIZE). AFTER INSTALLATION OF NEW BASIN, FERNCO THE NEW SDR 35 PIPES TO THE EXISTING VC LINES. THIS INSTALLATION IS TO BE COORDINATED WITH THE CITY OF DOVER SEWER DEPARTMENT.

13.) ANY WORK INVOLVING THE CUTTING INTO THE EXISTING A.C. PIPE SHALL MEET THE REQUIREMENTS OF ENV-A 1800.

14.) THE "CITY OF DOVER, NEW HAMPSHIRE, DEPARTMENT OF COMMUNITY SERVICES, CONSTRUCTION GUIDELINES, PERMITS, RULES, AND REGULATIONS" (DATED MARCH 13, 2018) ARE A PART OF THE CONSTRUCTION DETAILS AND TO BE FOLLOWED. SEE APPENDIX B, PAGE 14 FOR INTERNAL DROP DETAILS.

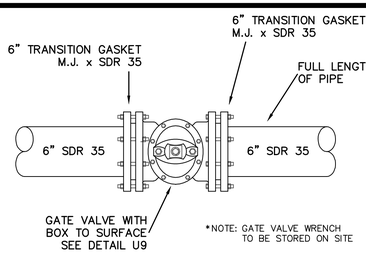


SECTION "A-A"

TYPICAL SEWER MANHOLE

NOT TO SCALE

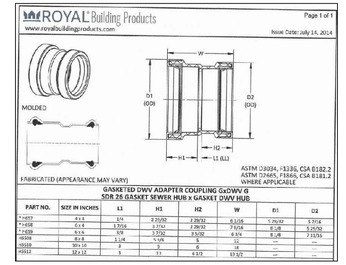
U6



SHUTOFF VALVE DETAIL

NOT TO SCALE

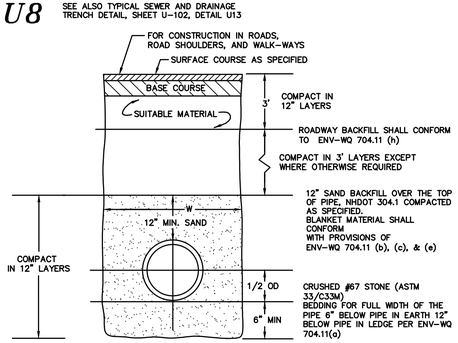
U7



COUPLING DETAIL

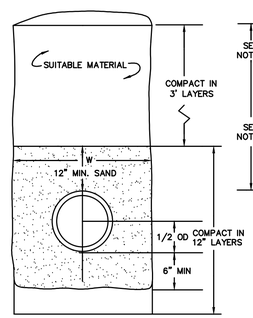
U8

SEE ALSO TYPICAL SEWER AND DRAINAGE TRENCH DETAIL, SHEET U-102, DETAIL U13



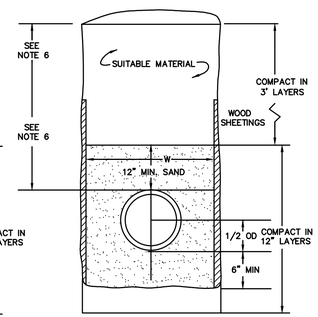
LEDGE CONSTRUCTION

NOT TO SCALE



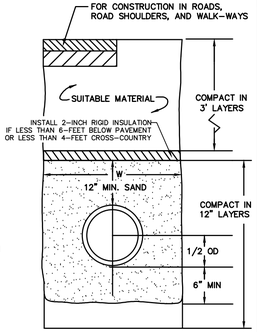
EARTH CONSTRUCTION

NOT TO SCALE



EARTH CONSTRUCTION WITH SHEETING

NOT TO SCALE



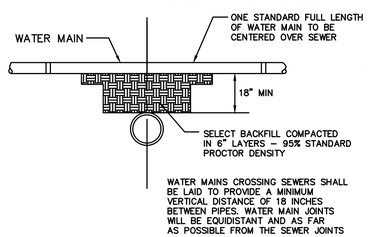
TRENCH INSULATION

NOT TO SCALE

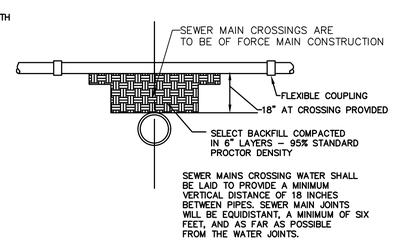
U9

SEPERATION NOTES:

1. WATER MAIN SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WATER WORKS" SO-CALLED TEN STATE STANDARDS AND NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL DESIGN STANDARDS, ENV-WQ 700 ADOPTED OCTOBER 14, 2014.
2. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. VERTICAL SEPARATION REQUIREMENTS APPLY TO WATER AND SEWER MAINS AND SERVICE LINES. WHERE SEWER CROSSES WATER MAIN AND WATER SERVICE CROSSES SEWER MAIN, 18 INCH VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER OVER SEWER.



WATER MAIN ABOVE SEWER



WATER MAIN BELOW SEWER

TYPICAL WATER/SEWER SEPERATION DETAILS

NOT TO SCALE

U-101

DOVER FILE #P18-045

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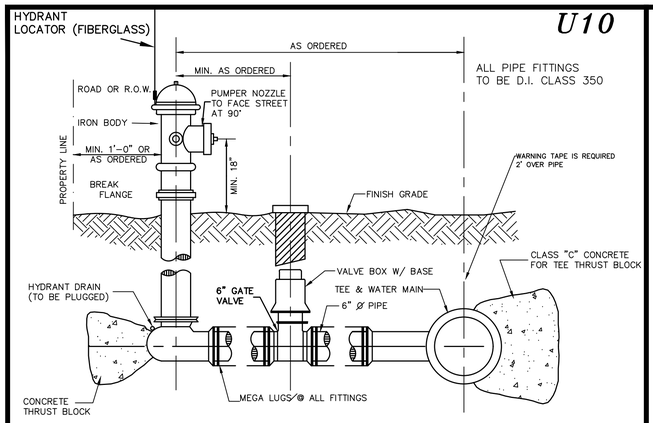
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SCALE : AS SHOWN
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FILE NO. : DB 2018 - 051

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

U10



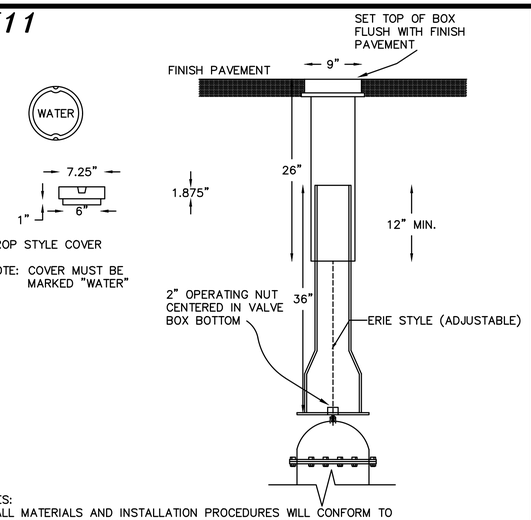
1.) THE FIRE HYDRANT IS TO BE PAINTED CITY OF DOVER STANDARD COLORS AND BE EQUIPPED WITH A HYDRANT LOCATOR.

2.) THE FIRE HYDRANT SHALL BE THE "KENNEDY" TYPE OR APPROVED EQUAL.

3.) K81A HYDRANTS AND GATE VALVES OPEN RIGHT

HYDRANT INSTALLATION DETAIL

U11



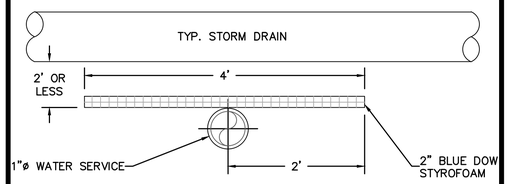
NOTES:
1.) ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL WATER WORKS TECHNICAL SPECIFICATIONS.

2.) ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6' FROM TOP OF PIPE TO FINISH GRADE.

VALVE BOX DETAIL

NOT TO SCALE

U12



INSULATE WATER PIPE WHERE CROSSING UNDER CULVERT

NOT TO SCALE

U13

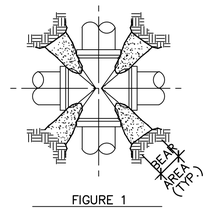


FIGURE 1
CROSS
(ONLY REQ'D IF ANY LEG IS LESS THAN 60 FT. LONG)

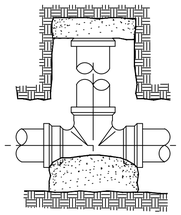
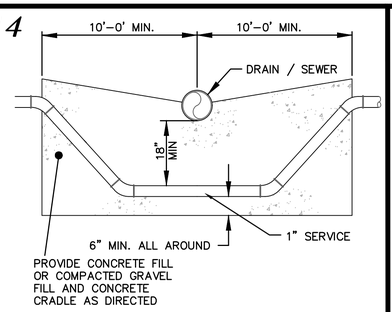


FIGURE 2
TEE, PLUG OR CAP

U14



WATER MAIN INSTALLATION – BELOW DRAIN / SEWER

NOT TO SCALE

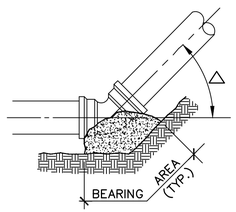


FIGURE 3
HORIZONTAL OR UPWARD VERTICAL BEND

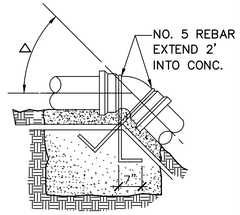


FIGURE 4
DOWNWARD VERTICAL BEND

TYPICAL THRUST BLOCKS

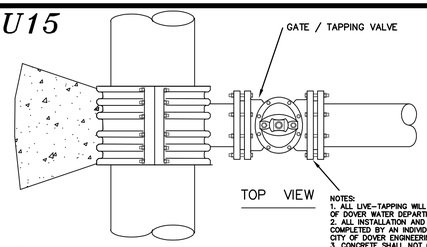
NOT TO SCALE

PIPE I.D.	BEARING AREA, SQUARE FEET						VOLUME OF CONC. CU.YD		
	FIGURE 1	FIGURE 2	FIGURE 3, △				FIGURE 4, △		
			90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"	2	2	2	1	1	1	1.0	.5	.5
6"	2	3	3	2	1	1	1.5	1.0	.5
8"	2	5	6	3	2	1	2.0	1.0	.5
10"	3	7	10	5	3	1	4.0	2.0	1.0
12"	3	10	14	8	4	2			
14"	4	14	20	10	5	3			
16"	4	20	24	12	7	4			
18"	5	24	30	16	10	5			
20"	5	28	40	20	12	6			

GENERAL NOTES:

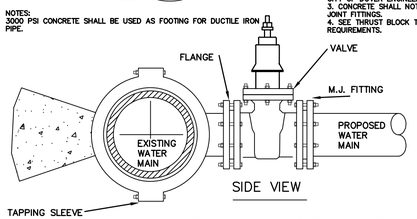
1. ALL FITTINGS & EXPOSED REBAR TO BE RAPPED W/ TWO LAYERS OF 6 MIL. POLYETHYLENE WHERE COVERED WITH CONCRETE.
2. ALL CONCRETE SHALL BE CLASS C 3000 P.S.I. MINIMUM 28 DAYS COMPRESSIVE STRENGTH.
3. PLACE CONCRETE AGAINST UNDISTURBED EARTH.
4. TABLE DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.
5. VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.
6. KEEP CONCRETE AWAY FROM FLANGE BOLTS AND FITTINGS.
7. MECHANICAL JOINTS AT ALL FITTINGS IE: BENDS,
8. TEES, CROSSES, AND VALVES SHALL BE THRUST RESTRAINT. (MEGA-LUG OR APPROVED EQUAL.

U15



NOTES:
1. ALL LIVE-TAPPING WILL BE COMPLETED IN ACCORDANCE WITH CITY OF DOVER WATER DEPARTMENT REGULATIONS.
2. ALL INSTALLATION AND TAPPING OF EXISTING WATER MAINS WILL BE COMPLETED BY AN INDIVIDUAL OR FIRM THAT IS APPROVED BY THE CITY OF DOVER ENGINEERING.
3. CONCRETE SHALL NOT CONTACT BOLTS OR END OF MECHANICAL JOINT FITTINGS.
4. SEE THRUST BLOCK TABLES FOR AREA OF CONCRETE REQUIREMENTS.

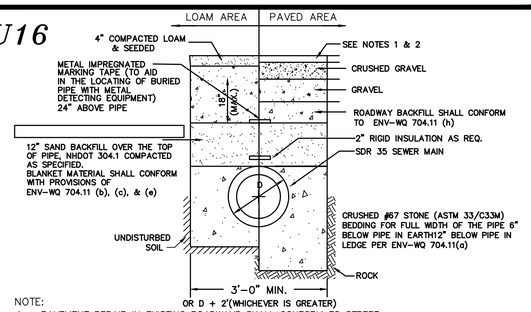
NOTES:
3000 PSI CONCRETE SHALL BE USED AS FOOTING FOR DUCTILE IRON PIPE.



DETAIL FOR STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY

NOT TO SCALE

U16

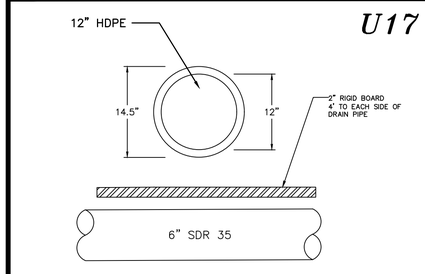


NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.
3. ANTI-SEEP COLLARS OR CLAY CHECK DAMS ON STEEP RUNS IN WET CONDITIONS.
4. ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) AND CONFORM WITH ASTM D3034, PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121.
5. SEE DETAIL U8, SHEET U-101 FOR INSULATION DETAILS. INSULATION SHALL BE PROVIDED WHERE INDICATED ON PLANS.

TYPICAL SEWER PIPE TRENCH

NOT TO SCALE

U17

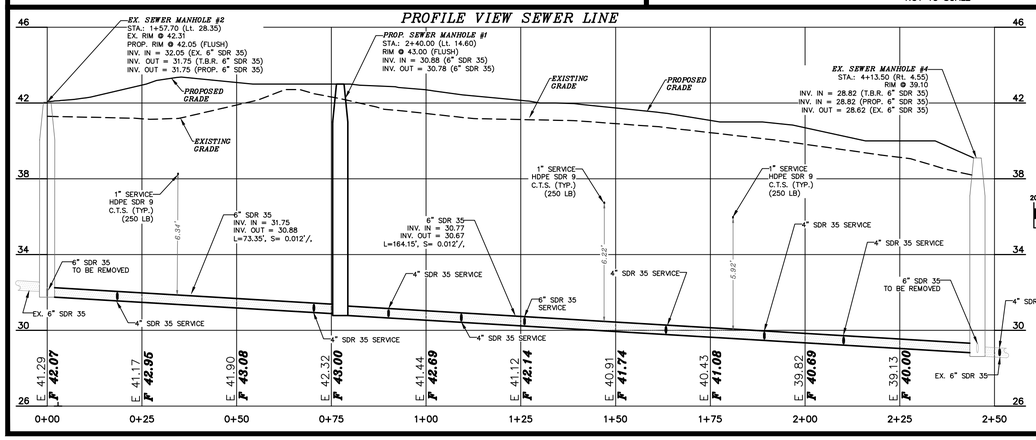


CROSS SECTION A-A

SEWER AND DRAIN CROSSING

U18

PROFILE VIEW SEWER LINE



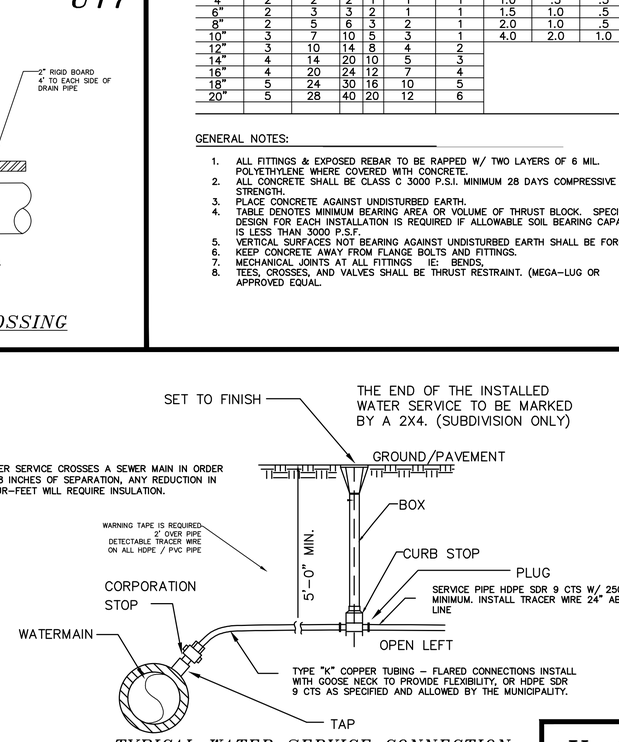
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

VERTICAL SCALE: 1" = 4'

U19



WHERE A WATER SERVICE CROSSES A SEWER MAIN IN ORDER TO PROVIDE 18 INCHES OF SEPARATION, ANY REDUCTION IN DEPTH TO FOUR-FEET WILL REQUIRE INSULATION.

TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE

U-102

DOVER FILE #P18-045

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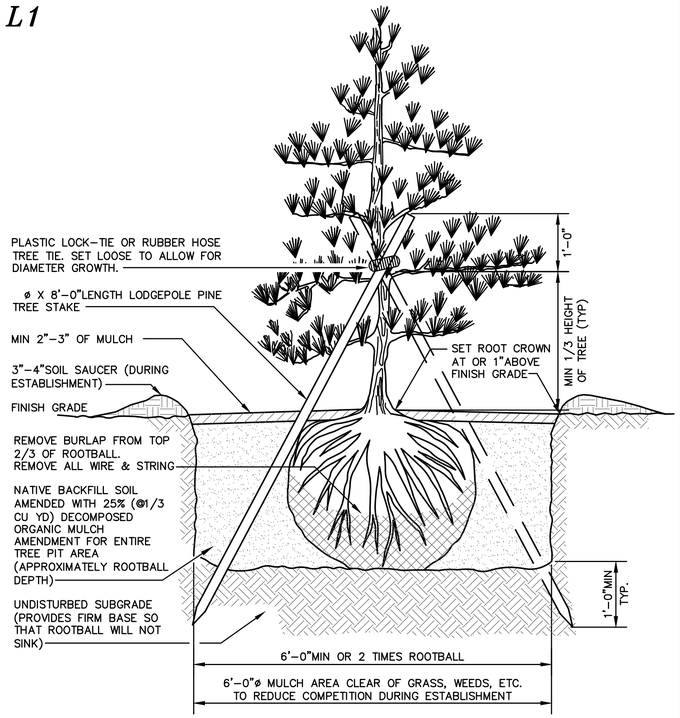
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DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

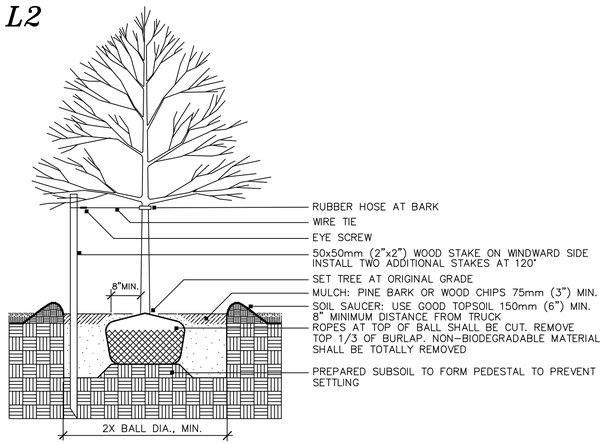
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

L1



CONIFERIOUS TREE PLANTING

L2



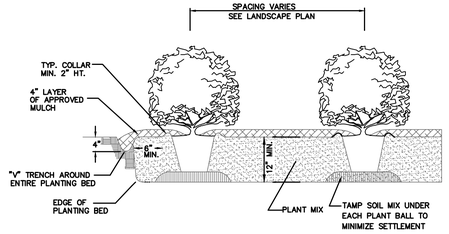
DECIDUOUS TREE PLANTING

NOTE: STAKING TO BE USED IN PARKING ISLANDS AND OTHER CONFINED AREAS AS NECESSARY TO AVOID CONFLICTS WITH PEDESTRIANS

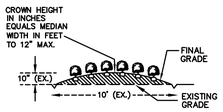
L3

NOTES:

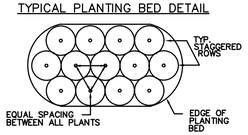
1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
2. INSTALL CONTAINERIZED PLANTS AT FINSHED GRADE
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



TYPICAL PLANTING BED DETAIL



TYPICAL BED CROWNING

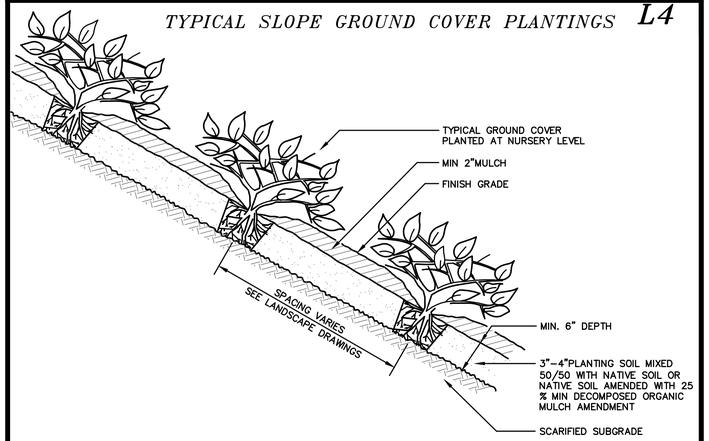


TYPICAL PLANTING BED PLAN

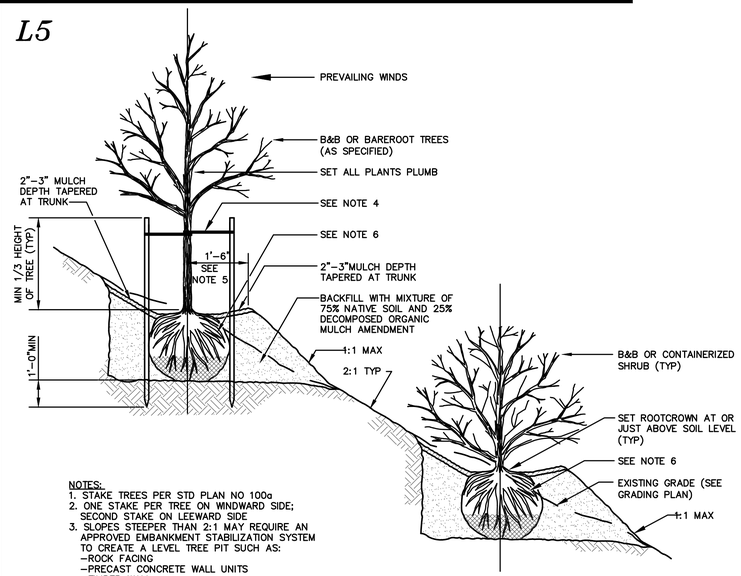
SHRUB & HEDGE PLANTING

L4

TYPICAL SLOPE GROUND COVER PLANTINGS



L5



NOTES:
1. STAKE TREES PER STD PLAN NO 100a
2. ONE STAKE PER TREE ON WINDWARD SIDE; SECOND STAKE ON LEEWARD SIDE
3. SLOPES STEEPER THAN 2:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT SUCH AS:
   –ROCK FACING
   –PRECAST CONCRETE WALL UNITS
   –TIMBER WALL
   –MANUFACTURED SLOPE RETENTION UNITS
4. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
5. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
6. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP.

TREE PLANTING ON SLOPES

L6

NOTES:

1.) CALL DIG SAFE PRIOR TO BEGINNING WORK. (1–888–344–7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.

2.) CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING. SEE NOTE XXX ON OVERALL SITE PLAN.

3.) PROVIDED SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.

4.) ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

5.) ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.

6.) ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.

7.) ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.

8.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.

9.) NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.

10.) ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.

11.) WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL–ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.

12.) MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWING AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.

13.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURE AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.

14.) THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL THREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWING SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.

15.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.

16.) ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWING CONDITION AS AN EFFECTIVE VISUAL SCREEN.

17.) SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.

18.) ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.

19.) TREES ARE TO BE 2–2.5" CALIPER 6" OFF THE ROOT BALL.

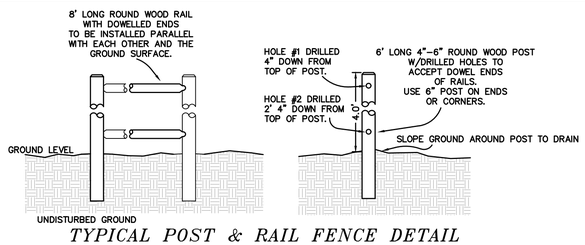
20.) ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITIONS (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)

21.) 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY–PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.

22.) PLANT–PIT BACK–FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON–SITE TOPSOIL AS PART OF BACK FILL WHEN AVAILABLE.

23.) ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.

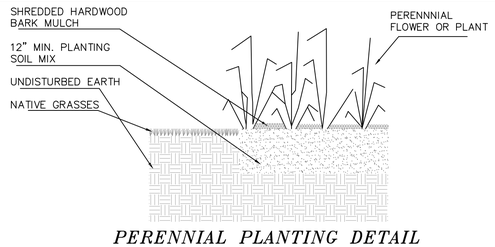
L7



TYPICAL POST & RAIL FENCE DETAIL

N.T.S.

L8



PERENNIAL PLANTING DETAIL

DOVER FILE #P18–045

REVISION	DATE	DESCRIPTION

LANDSCAPING CONSTRUCTION DETAILS
LAND OF
RV PAOLINI CONSTRUCTION, LLC
DOVER POINT ROAD
DOVER, N.H. 03820
TAX MAP M, LOT 6

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

AS NOTED
DATE : SEPTEMBER 20, 2018
FILE NO. : DB 2018 – 051

KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

L–101

P18-45 **56-58 Dover Point Road**

Property ID	Location	Owner 1	Owner 2	Owner Address 1	City	State	Zip
K0020-000000	54 DOVER POINT RD	PAOLINI ROBERT V TRUSTEE	JNM REALTY TRUST	54 DOVER POINT RD STE 103	DOVER	NH	03820
K0020-001000	7 19 CENTENNIAL DR	PAOLINI ROBERT V TRUSTEE	JNM REALTY TRUST	54 DOVER POINT RD STE 103	DOVER	NH	03820
K0021-000000	CONSTITUTION WY	DOVERBROOK LLC		40 NEWBRIDGE RD	SUDBURY	MA	01776
K0039-000000	DOVER POINT RD	ROMAN CATHOLIC BISHOP		153 ASH ST	MANCHESTER	NH	03104
M0006-A00000	60 DOVER POINT RD	GRUND ROBERT W		60 DOVER POINT RD	DOVER	NH	03820
M0007-000000	62 DOVER POINT RD	COMISKY MARJORIE E & GARY T CO-TRUSTEES	COMISKY MARJORIE E REVOCABLE LIVING TRUS	62 DOVER POINT ROAD	DOVER	NH	03820
M0024-A00000	75 DOVER POINT RD	MILLER DEBRA L	MILLER JAMES L	509 PINEWOOD SHORES	EAST WAKEFIELD	NH	03830
M0084-A00000	72 DOVER POINT RD	HABIB RICHARD R JR &	RIISKA ELLEN M	72 DOVER POINT RD	DOVER	NH	03820
M0084-C00000	64 DOVER POINT RD	LEONARD LINDA P	LEONARD TICE N	64 DOVER POINT ROAD	DOVER	NH	03820
M0131-000000	51 TOFTREE LN	HESSEFORT ERVIN &	HESSEFORT KATHLEEN	1 HERITAGE DR	ROLLINSFORD	NH	03869-5103
M0132-000000	53 TOFTREE LN	FORGET JEFFREY D	FORGET ELLEN L	53 TOFTREE LN	DOVER	NH	03820
M0133-000000	55 TOFTREE LN	HOFFMAN WANDA LOU &	WITHAM LORI L	55 TOFTREE LANE	DOVER	NH	03820
M0134-000000	57 TOFTREE LN	HAMILTON PAMELA	HAMILTON DAVID	57 TOFTREE LANE	DOVER	NH	03820
		R.V. PAOLINI CONSTRUCTION LLC		54 DOVER POINT ROAD	DOVER	NH	03820
		BERRY SURVEYING & ENGINEERING		335 SECOND CROWN POINT ROAD	BARRINGTON	NH	03825

RECEIVED
Planning Office
OCT - 2 2018
Dover, New Hampshire

JCV

10/1/2018

REPONSE TO 8-23-18 MINUTES

NO.	ITEM	REFERENCE	ACTION
1	How well accomodates 24 beds	Calculation	Attached
2	Consider public water & sewer	Financial burden	Staying with Well & Septic
3	Madbury PB approval of leach field location		In progress
4	Impact Fees		Reconciled
5	Plans	Site	Attached
		Floor plan(24 bed)	Attached
		Rendering	No Change
		Streetscapes	No Change
		Updated Traffic Analysis	Attached- No Impact
		State approve septic	In progress. Draft attached
6	Plan set notes/revisions	Revised site plans	Attached
		Pavement setback	Previously approved-NFA
		Stamped plans-LLS, PE, LA	Included
7	Engineering comments	Well test for Arsenic	Results attached. Action will be a softener with resin that will remove Arsenic to acceptable levels
		Sewer discussion	Not required
8	Police	Plan note	Attached
9	Fire /Inspection	Turning template	Attached with Trip Generation
		Entrance surface clarifications	Attached on site plan
		Label exits & entrances	Attached on site plan
		Septic design	Draft attached
		Correct swing of rear gates	Attached on site plan
		Identify finished surface from the gates	Attached on site plan
		Accessibility note	Attached on site plan
		Septic pumps connected to the generator	Engineer note attached.

RECEIVED
Planning Office
OCT - 2 2018
Dover, New Hampshire

CIVILWORKS NEW ENGLAND

181 WATSON ROAD
P.O. BOX 1166
DOVER, NH 03821-1166
PHONE: (603) 750.4266 FAX: (603) 749.7348

TECHNICAL MEMORANDUM

To: File
From: Dana C. Lynch, P.E.
DATE: August 29, 2018
Re: Trip Generation Revision
Johnson Creek Village Elderly Care
301 Durham Road, Dover
Tax Map H, Lot 1
Our Reference No. 14102

The purpose of this memorandum is to provide a revision to the estimated trip generation for the subject project.

As originally conceived and permitted, the project included construction of a 12-bed elderly assisted care home with central dining, as well as an attached existing structure remodeled to contain two (2) accessory staff apartments associated with the assisted care home. This project secured all required permits at the State and City level, including a NHDOT Driveway Permit #06-125-384, dated 9/21/2015.

At the time of the aforementioned Driveway Permit issuance, the estimated trip generation was calculated, based on the ITE Trip Generation handbook as follows:

	Assisted Living (Land Use Code 254)	**Apartment (Land Use Code 220)**	**Total**
Total Weekday	32	14	46
A.M. Peak Hour of Adj. Street	2	1	3
P.M. Peak Hour of Adj. Street	3	2	5

This trip and generation consists primarily of employees, visitors, and delivery vehicles in light of the demographics of the resident population. Data sheets for Land Use Code 254 (Assisted Living) and Land Use Code 220 (Apartment) are attached herewith.

The proposed project, currently in the regulatory review process, calls for expansion of the elderly assisted care home from 12-units to 24-units. The apartment use will remain unchanged. Based on the same data sources cited in the ITE handbook, the following estimated trip generation is calculated:

	Assisted Living (Land Use Code 254)	**Apartment (Land Use Code 220)**	**Total**
Total Weekday	64	14	78
A.M. Peak Hour of Adj. Street	4	1	5
P.M. Peak Hour of Adj. Street	6	2	8

Sight distance is more than adequate in each direction and no changes in driveway geometry as agreed to in Driveway Permit #06-125-384 are proposed. A copy of this permit, along with associated truck turning movement clarification sketches and an updated "Detailed Site Layout Plan", are attached to this memorandum.

LAND USE: 254
Assisted Living

Source: ITE Trip Generation, 7th Ed.

Land Use: 254
Assisted Living

Description

Assisted living complexes are residential settings that provide either routine general protective oversight or assistance with activities necessary for independent living to mentally or physically limited persons. They commonly have separate living quarters for residents and services include dining, housekeeping, social and physical activities, medication administration and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. In some areas of the country, assisted living residences may be called personal care, residential care, or domiciliary care. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care—which is limited in nature—is not required. Continuing care retirement community (Land Use 255) and nursing home (Land Use 620) are related uses.

Additional Data

The rooms in these facilities may be private or shared accommodations, consisting of either a single room or a small apartment-style unit with a kitchenette and living space.

One study reported that according to national and local data, less than 5 percent of the residents owned cars, which were rarely driven. Employees, visitors and delivery trucks make most of the trips to these facilities.

Truck traffic was captured for some studies in this land use and is presented in the table below. Although truck traffic was very low overall, the most trips occurred during the mid-day period on a weekday.

The peak hour of the generator typically did not coincide with the peak hour of the adjacent street traffic, primarily because of the shifts of the employees. For the data collected in this land use, shifts typically began at 7:00 a.m., 3:00 p.m. and 11:00 p.m. The a.m. peak hour of the generator typically occurred from 6:00 a.m.– 7:00 a.m., while the p.m. peak hour of the generator typically occurred from 3:00 p.m.– 4:00 p.m.

Time Period	% Trucks
Weekday Morning (6:30 a.m.–9:30 a.m.)	1
Weekday Mid-Day (11:00 a.m.–1:30 p.m.)	9
Weekday Evening (2:45 p.m.–6:45 p.m.)	2
Saturday Mid-Day (11:00 a.m.–2:00 p.m.)	4
Saturday Evening (3:00 p.m.–6:00 p.m.)	0
Sunday Mid-Day (11:00 a.m.–2:00 p.m.)	1
Sunday Evening (3:00 p.m.–6:00 p.m.)	0

The sites were surveyed in the late 1980s, the late 1990s and 2000s in Connecticut, New Jersey, New York and Pennsylvania.

Source Numbers

91, 244, 573, 581

Assisted Living
(254)

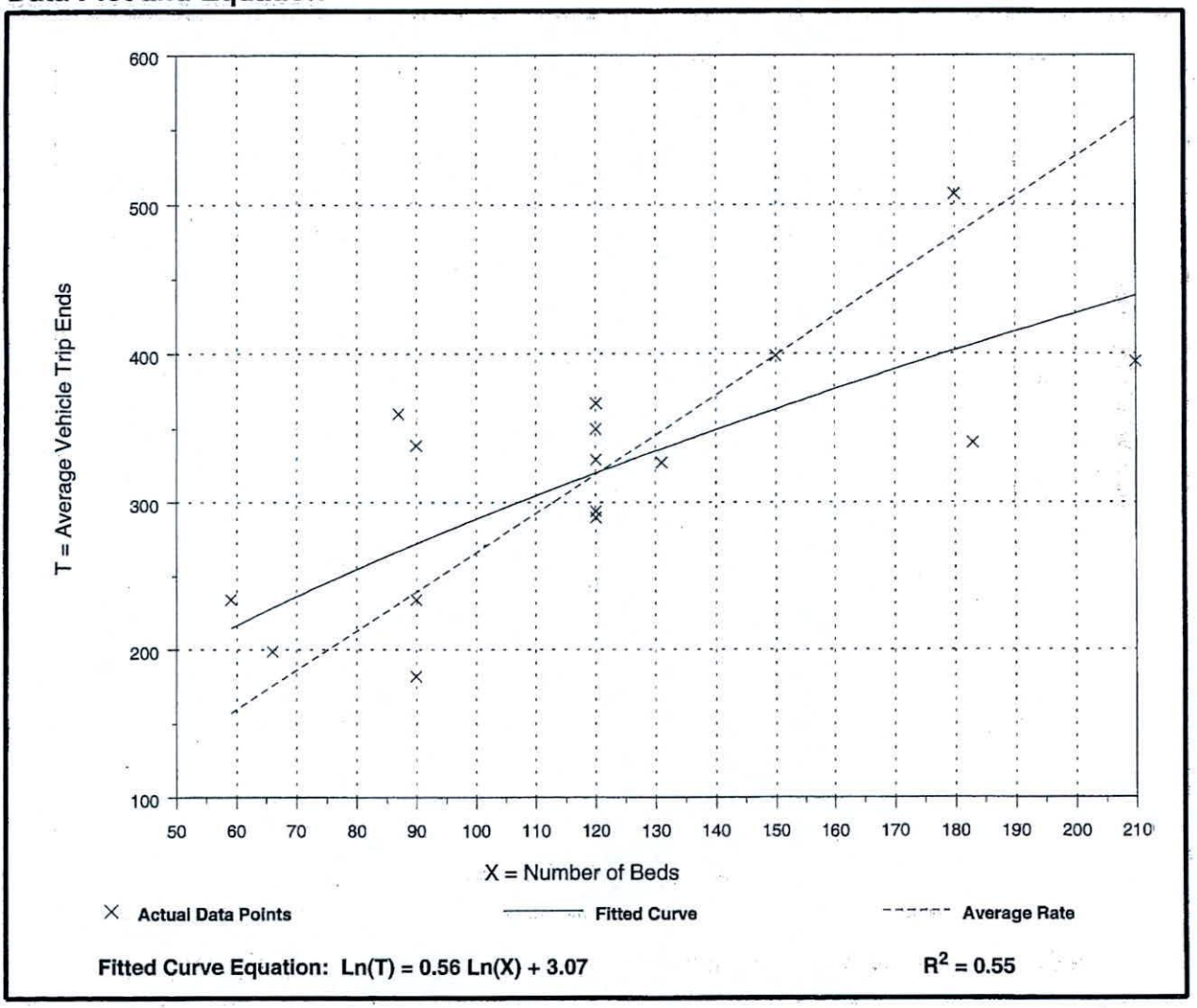
Average Vehicle Trip Ends vs: Beds
On a: Weekday

Number of Studies: 16
Average Number of Beds: 121
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
2.66	1.86 - 4.14	1.74

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.56 Ln(X) + 3.07

R^2 = 0.55

Assisted Living
(254)

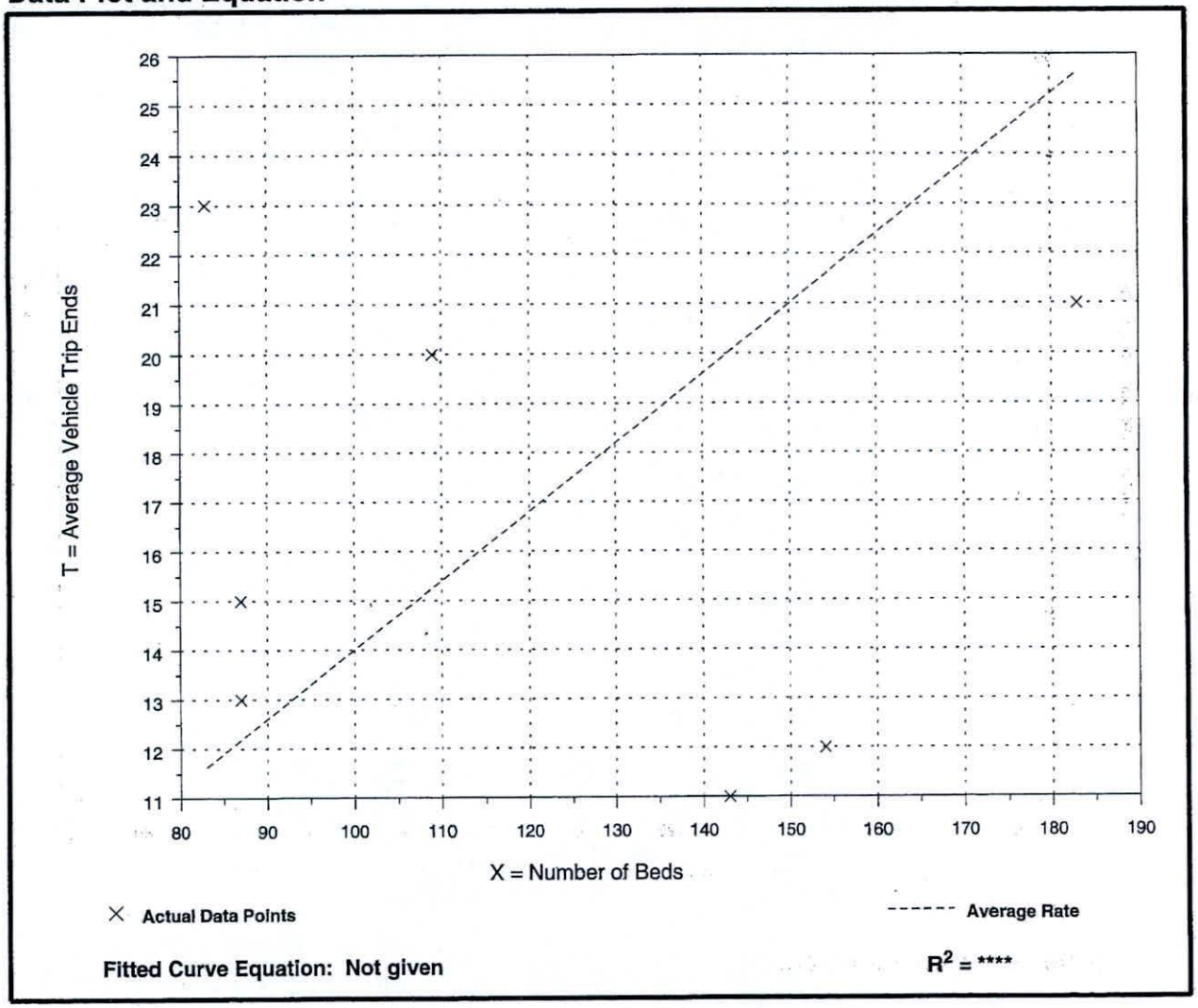
Average Vehicle Trip Ends vs: **Beds**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 65% entering, 35% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.14	0.08 - 0.28	0.37

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

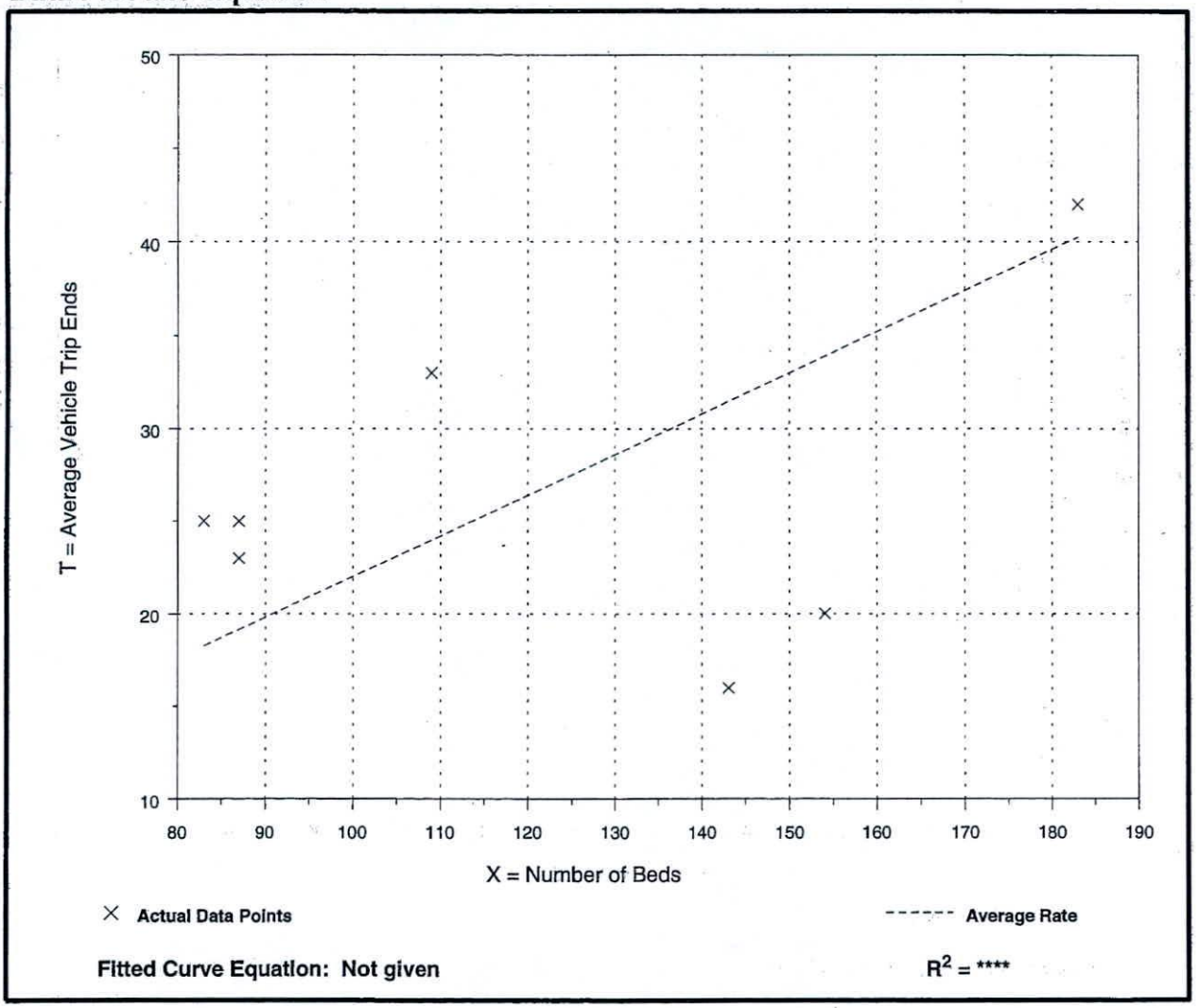
Average Vehicle Trip Ends vs: **Beds**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 44% entering, 56% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.22	0.11 - 0.30	0.47

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

LAND USE: 220
Apartment

Source: ITE Trip Generation, 7th Ed.

Land Use: 220
Apartment

Description

Apartments are rental dwelling units that are located within the same building with at least three other dwelling units, for example quadraplexes and all types of apartment buildings. The studies included in this land use did not identify whether the apartments were low-rise, mid-rise, or high-rise. Low-rise apartment (Land Use 221), high-rise apartment (Land Use 222) and mid-rise apartment (Land Use 223) are related uses.

Additional Data

This land use included data from a wide variety of units with different sizes, price ranges, locations and ages. Consequently, there was a wide variation in trips generated within this category. As expected, dwelling units that were larger in size, more expensive, or farther away from the central business district (CBD) had a higher rate of trip generation per unit than those smaller in size, less expensive, or closer to the CBD. Other factors, such as geographic location and type of adjacent and nearby development, may also have had an effect on the site trip generation.

The peak hour of the generator typically coincided with the peak hour of the adjacent street traffic.

The sites were surveyed from the late 1960s to the 2000s throughout the United States and Canada.

Source Numbers

2, 4, 5, 6, 9, 10, 11, 12, 13, 14, 16, 19, 20, 34, 35, 40, 72, 91, 100, 108, 188, 192, 204, 211, 253, 283, 357, 436, 525, 530, 579, 583

Apartment
(220)

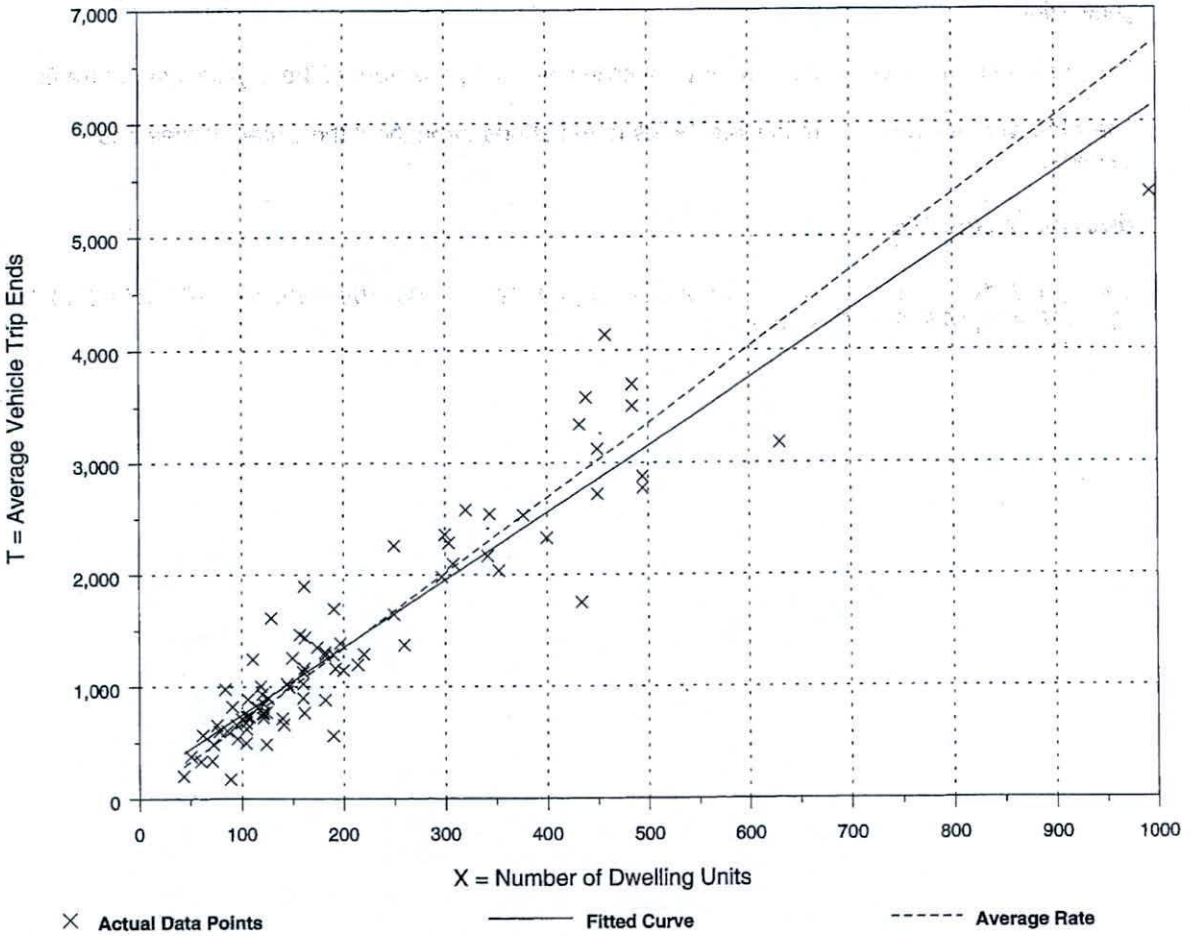
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 86
Avg. Number of Dwelling Units: 212
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.72	2.00 - 12.50	3.02

Data Plot and Equation



Fitted Curve Equation: T = 6.01(X) + 150.35

R^2 = 0.88

Apartment
(220)

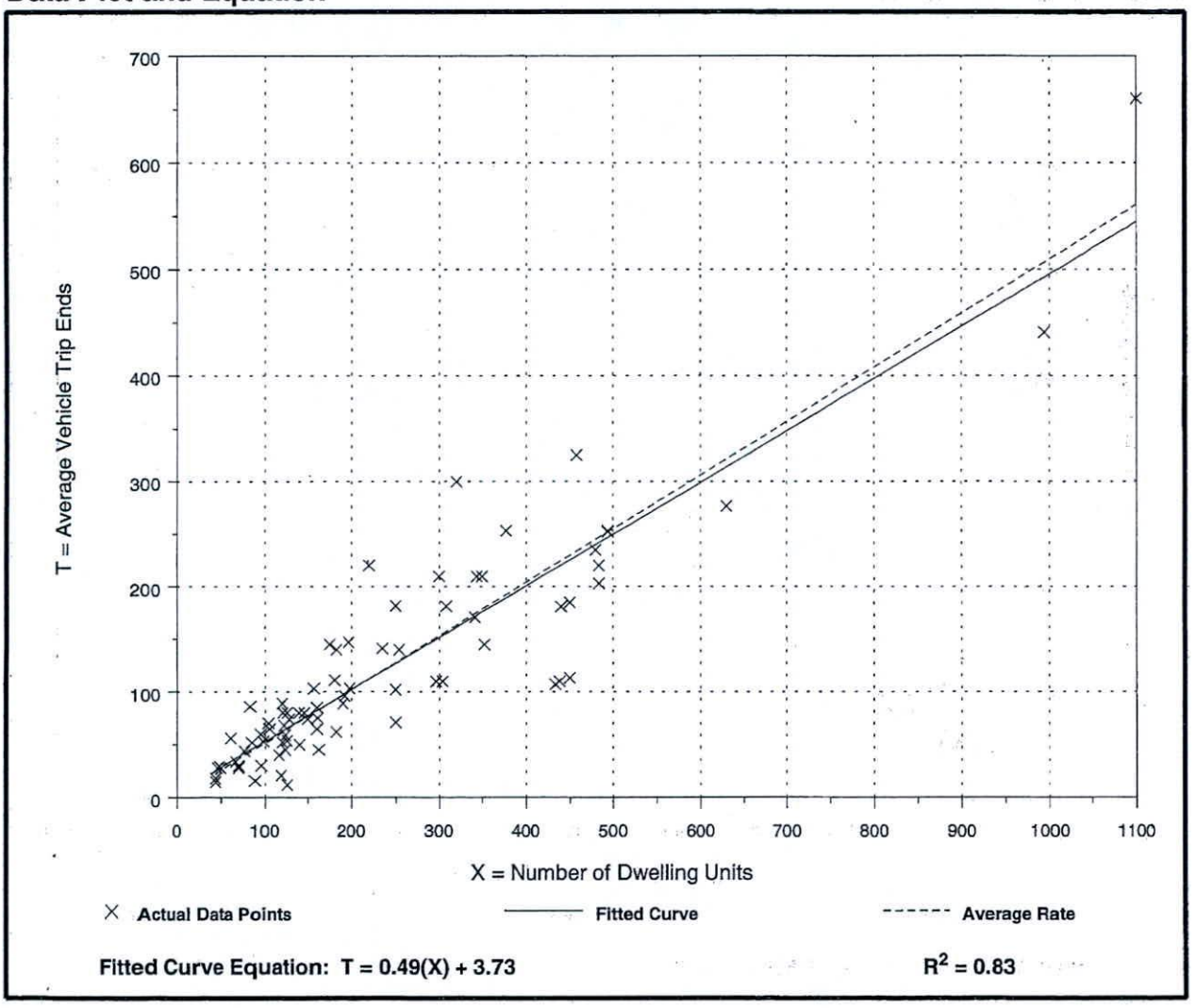
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 78
Avg. Number of Dwelling Units: 235
Directional Distribution: 20% entering, 80% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.10 - 1.02	0.73

Data Plot and Equation



Fitted Curve Equation: T = 0.49(X) + 3.73

R^2 = 0.83

Apartment
(220)

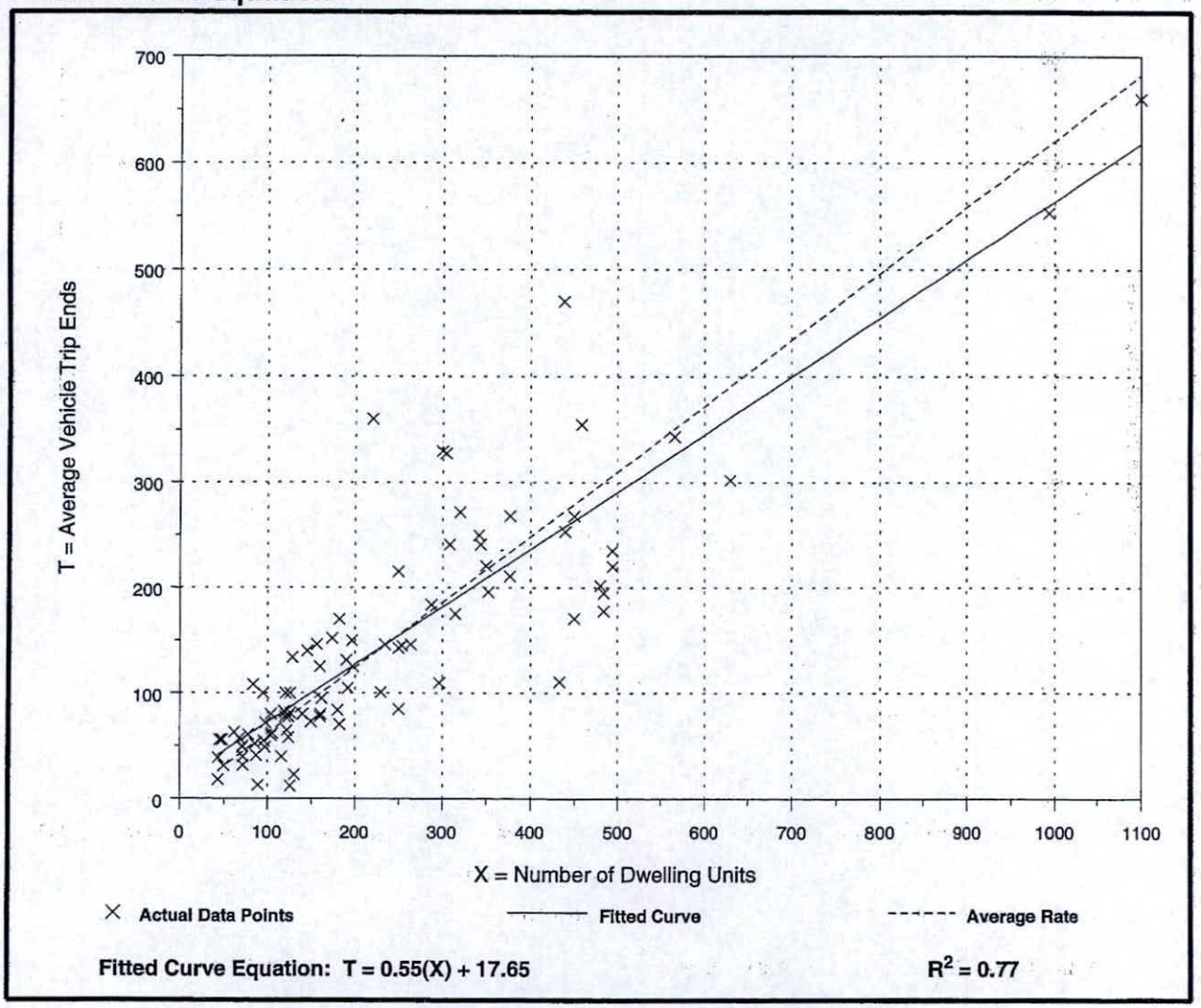
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 90
Avg. Number of Dwelling Units: 233
Directional Distribution: 65% entering, 35% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.62	0.10 - 1.64	0.82

Data Plot and Equation



Fitted Curve Equation: T = 0.55(X) + 17.65

R^2 = 0.77

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

District 6 Office, PO Box 740, Durham, NH 03824

WILLIAM CASS, P.E.
ASSISTANT COMMISSIONER

DRIVEWAY PERMIT

To: Aramis Black
P.O. Box 1727
Dover, NH 03821

City/Town: Dover
Route/Road: NH 108 (S0000108)
Patrol Section: 606
Tax Map: H
Lot: 1
Development: commercial

Permit #: 06-125-384
District: 06
Permit Date 9/21/2015

06-125-384

Permission is hereby granted to construct (alter) a driveway, entrance, exit or approach adjoining NH 108 (S0000108), pursuant to the location and specifications as described below. Failure to adhere to the standards and engineering drawings previously approved shall render this instrument null and void. Failure to start or complete construction of said facility within one calendar year of the date of this permit shall require application for permit extension or renewal in accordance with the Driveway Access Rules. Facilities constructed in violation of the permit specifications or the rules, shall be corrected immediately upon notification by a Department representative. Any cost by the State to correct deficiencies shall be fully borne by the landowner. The landowner shall defend, indemnify and hold harmless the Department and its duly appointed agents and employees against any action for personal injury and/or property damage sustained by reason of the exercise of this permit.

Drive 1

Location: Approximately 0.5 miles south of junction of Mast Road and Route 108 on the west side of NH 108 (S0000108).

GPS: 43.16199 N -70.894607 W.

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

The right-of-way line is located 33 feet from and parallel to the centerline of the highway. The driveway shall not exceed 24 feet in width. The entrance of the drive may be flared; typically the flare radius is one half the driveway width.

Maintainence of the driveway culvert is the responsibilty of the permittee, or it's grantees, successors.

Other Conditions:

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

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

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

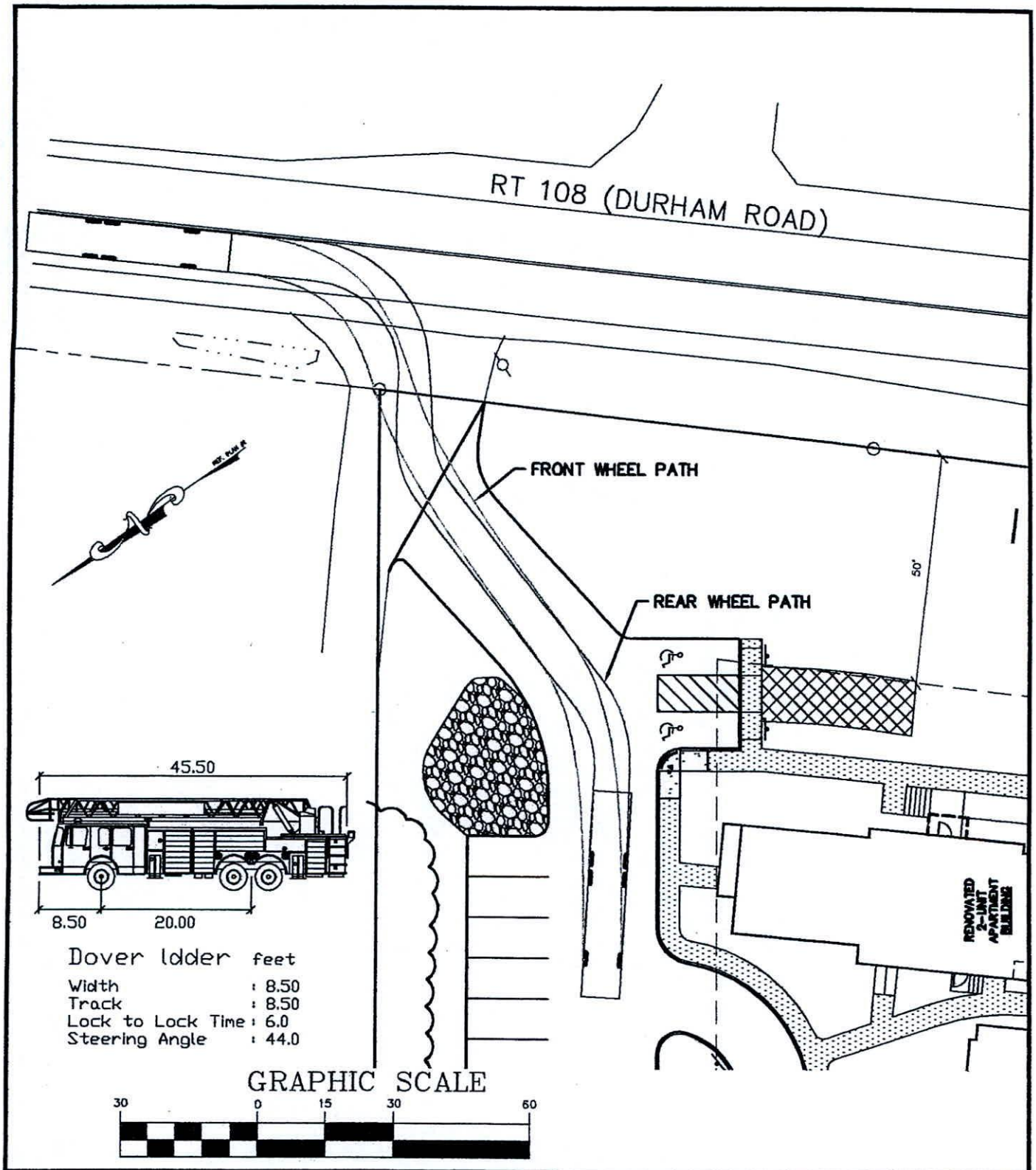
The Department has relied on the title and subdivision information provided by the landowner. The Department has not performed additional title research and makes no warranty or representation concerning landowner's legal right to access. In the event of a dispute about the landowner's legal right to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

Driveway to be constructed under plan marked " Detailed site layout plan accompanying NHDOT drive permit amendment " by Civilworks Dover NH dated 9-15-15

K. Russell

Approved _____
District Engineer
For Director of Administration

Copies: District, Town, Patrolman



TRUCK TURNING CLARIFICATION SKETCH
SCALE: 1"=30'

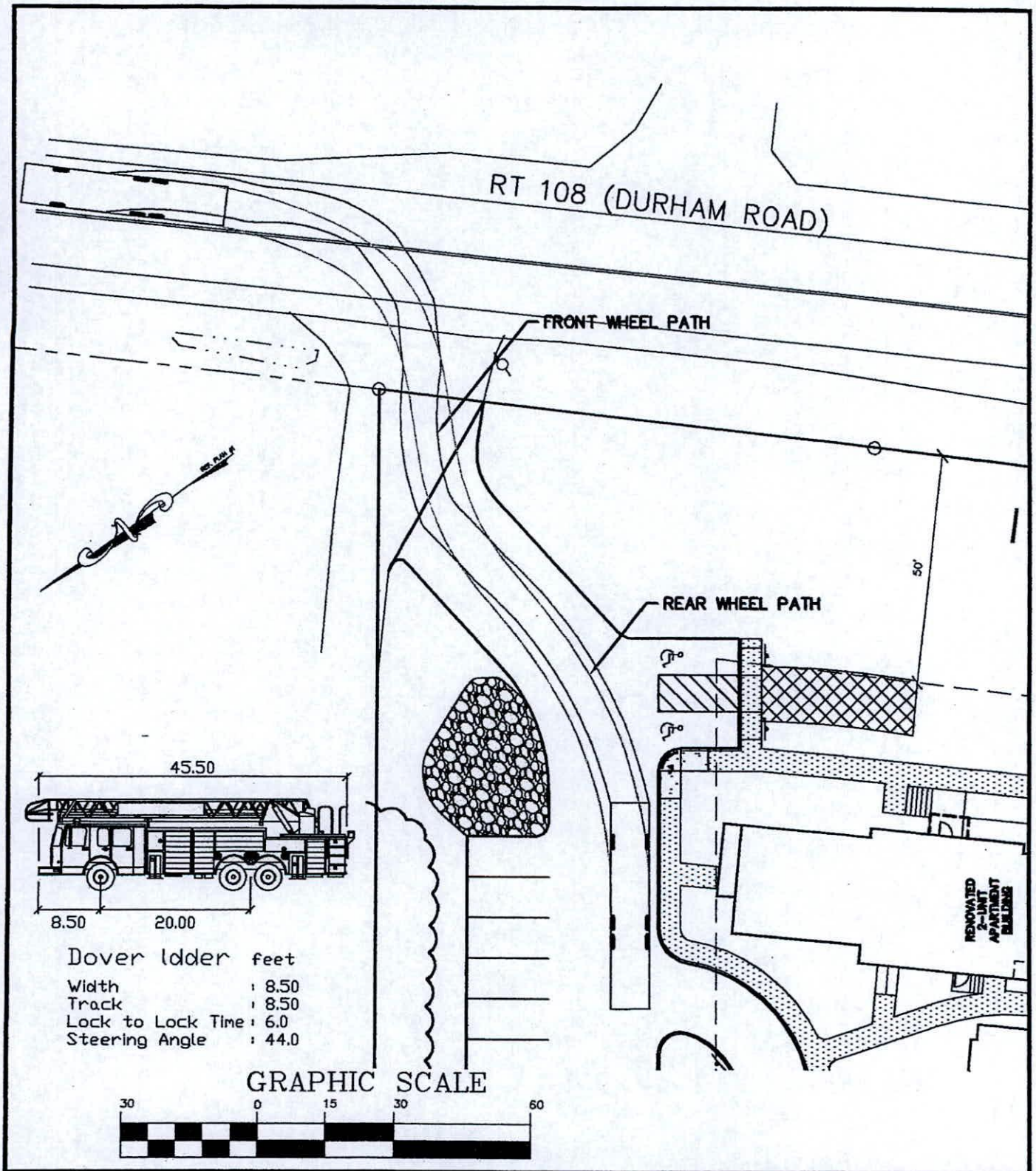
JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

civilworks
engineers·surveyors
P.O. Box 1166
Dover, NH 603-749-0443

DATE: 9-16-2015

PROJECT No.: 14102
FILE: 1430-SITE.DWG

SK-091615-14102-01



TRUCK TURNING CLARIFICATION SKETCH
SCALE: 1"=30'

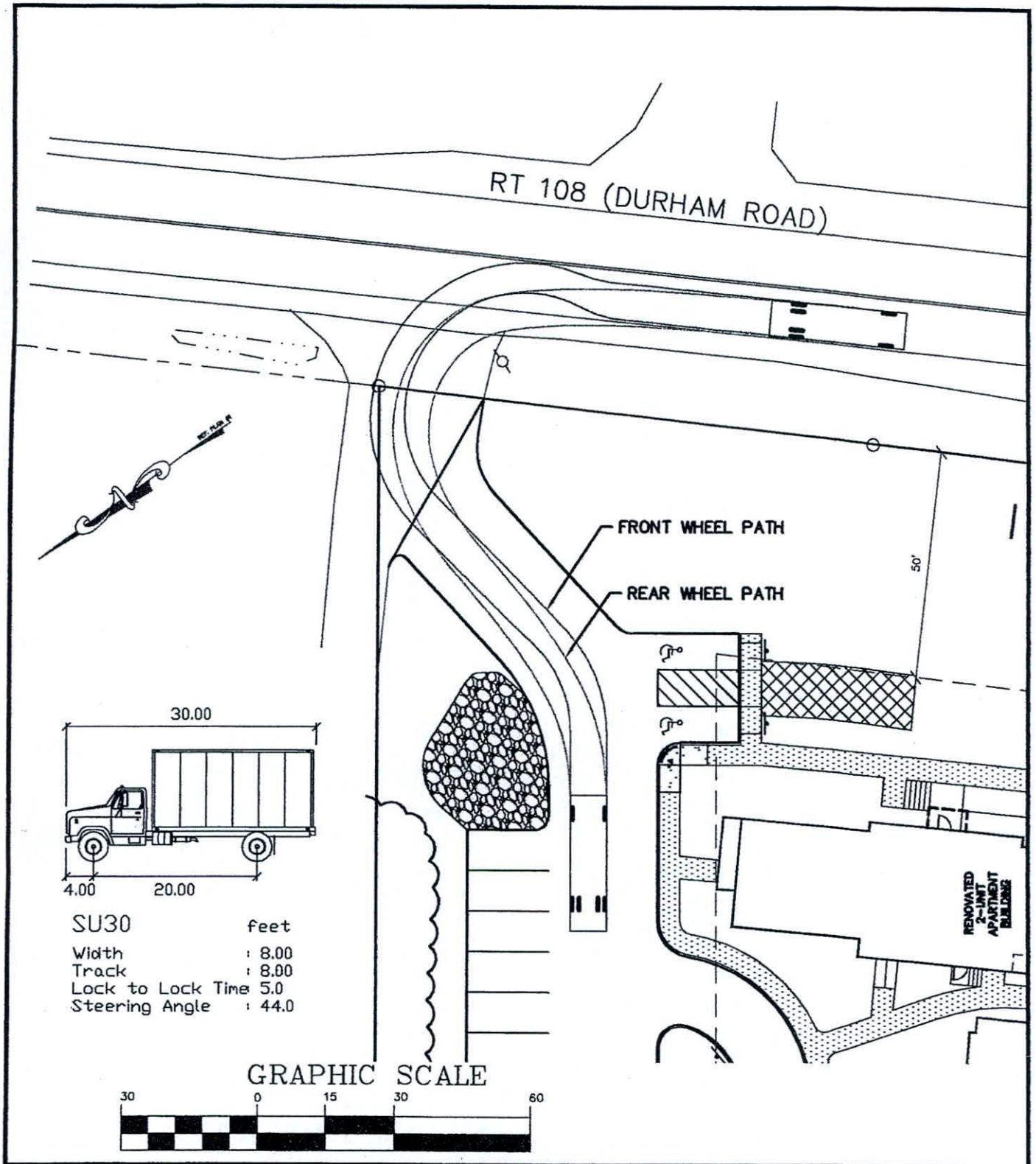
JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

civilworks
engineers·surveyors
P.O. Box 1166
Dover, NH 603-749-0443

DATE: 9-16-2015

PROJECT No.:14102
FILE: 1430-SITE.DWG

SK-091615-14102-02



TRUCK TURNING CLARIFICATION SKETCH
SCALE: 1"=30'

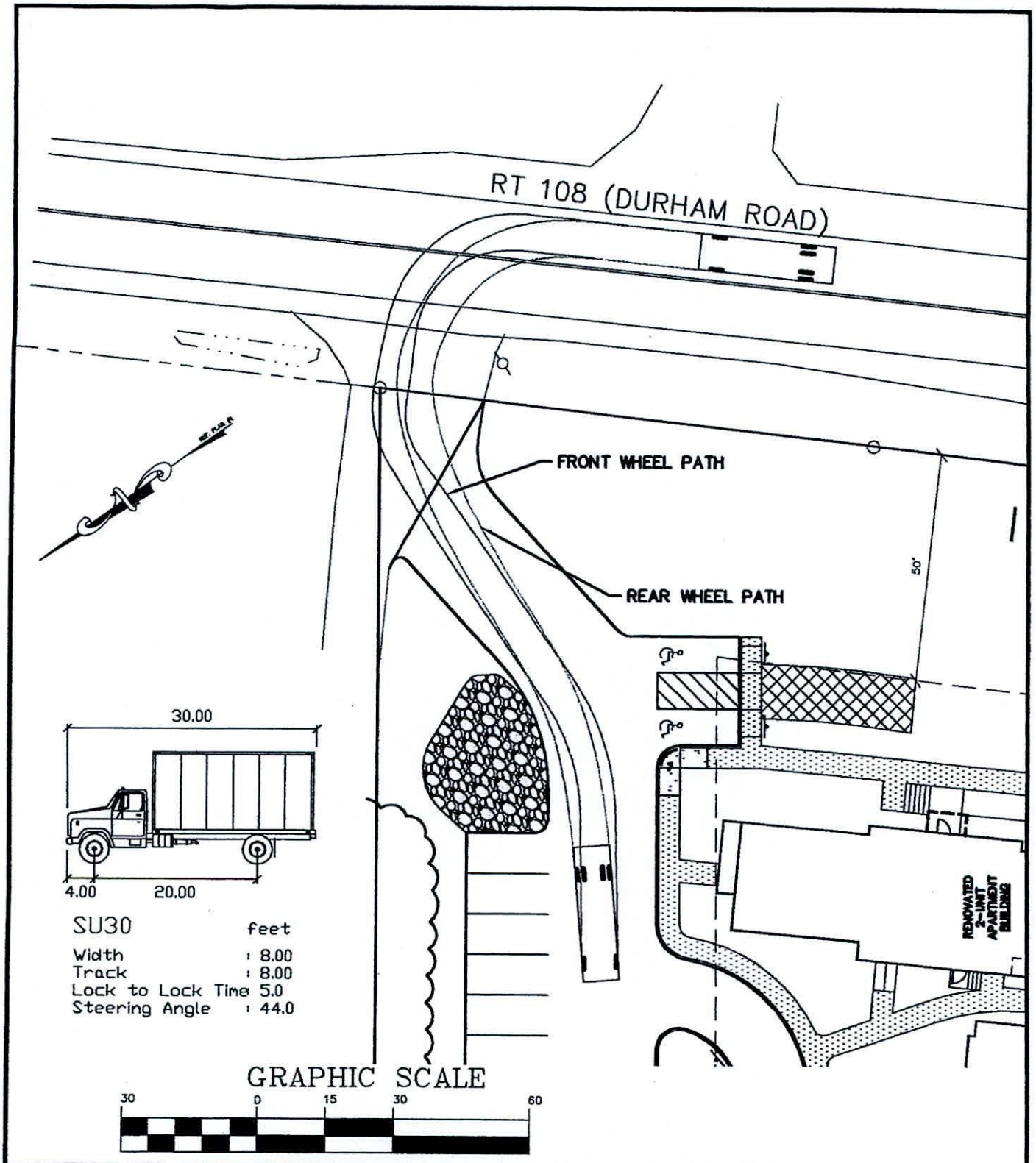
JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

civilworks
engineers · surveyors
P.O. Box 1166
Dover, NH 603-749-0443

DATE: 9-16-2015

PROJECT No.:14102
FILE: 1430-SITE.DWG

SK-091615-14102-03



TRUCK TURNING CLARIFICATION SKETCH
SCALE: 1"=30'

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

civilworks
engineers·surveyors
P.O. Box 1166
Dover, NH 603-749-0443

DATE: 9-16-2015

PROJECT No.: 14102
FILE: 1430-SITE.DWG

SK-091615-14102-04

John Destefano

From: CLEAR WATER ARTESIAN <clearwaterinc@comcast.net>
Sent: Tuesday, September 18, 2018 11:24 AM
To: John Destefano
Subject: RE: Johnson Creek

They do make a softener with resin for treating Arsenic. We will refer it to a filter manufacturer and get back to you.

Jim Nettles
Clear Water Artesian Well Co. Inc.
Rollinsford NH 03869
603-742-7531
Fax: 603-742-7557
Email: clearwaterinc@Comcast.net

On September 14, 2018 at 3:32 PM John Destefano <john.d@destefano-associates.com> wrote:

Will a softener lower this enough?

John DeStefano

DeStefano & Associates, Inc

2456 Lafayette Road

Portsmouth, NH 03801

p: 603-430-0339

f: 603-430-0346

c: 603-765-1638

www.destefano-associates.com

From: John Destefano
Sent: Friday, September 14, 2018 10:14 AM
To: CLEAR WATER ARTESIAN <clearwaterinc@comcast.net>
Subject: Re: Johnson Creek

NELSON ANALYTICAL LAB

RP161219010

120 York Street, Kennebunk, ME 04043
www.nelsonanalytical.com
(207)467-3478 phone

REPORT OF ANALYSIS

Laboratory ID: 216120415

NH ELAP Accreditation #NH2018
Maine State Certification # ME0015
Vermont State Cerfication # VT2018
Maine Radon Certification # ME17500

Client Name: Clearwater Well Drilling

Attn: Jim Nettles

Date Reported : 12/19/2016

Client Sample ID: Johnson Creek Village
Laboratory ID: 216120415.01
Sample Location: Map it Lot 1, Route 108, Dover, NH
Sample Matrix : Drilled Well Water

Date Collected: 12/14/2016 12:30 PM
Collected By : J. N.
Date Received : 12/15/2016 03:00 PM
Temperature Rec'd °C: 2.0

Parameters	Results	Acceptable Level	Units	Date Analyzed	Test Method	Test Type	Test Remarks
Total Coliform Bacteria	Absent	Absent	/100mL	12/15/2016 16:35	SM 9223B	Primary	Within EPA Standard
E. coli Bacteria	Absent	Absent	/100mL	12/15/2016 16:35	SM 9223B	Primary	Within EPA Standard
Nitrate-N	1.8	10	mg/L	12/15/2016 16:15	SM 4500 NO3	Primary	Within EPA Standard
Nitrite-N	<0.01	1.0	mg/L	12/15/2016 16:20	SM 4500 NO2	Primary	Within EPA Standard
Chloride	12	250	mg/L	12/15/2016 16:15	SM 4500Cl-B	Secondary	Within EPA Standard
pH	8.39	6.5-8.5	SU	12/15/2016 15:55	SM 4500H B	Secondary	Within EPA Standard
Fluoride	<0.20	4.0	mg/L	12/15/2016 16:20	SM 4500F-C	Primary	Within EPA Standard
Conductance	250	N/A	umhos/cm	12/15/2016 15:55	SM 2510B	N/A	No EPA Standard
Alkalinity	44	N/A	mg CaCO3	12/15/2016 15:45	SM 2320B	N/A	No EPA Standard
Lead	<0.002	0.015	mg/L	12/15/2016 16:57	EPA 200.8	Primary	Within EPA Standard
Arsenic	**0.021**	0.010	mg/L	12/15/2016 16:57	EPA 200.8	Primary	**Outside EPA Standard**
Iron	0.172	0.300	mg/L	12/15/2016 16:57	EPA 200.8	Secondary	Within EPA Standard
Manganese	<0.005	0.050	mg/L	12/15/2016 16:57	EPA 200.8	Secondary	Within EPA Standard
Sodium	12	N/A	mg/L	12/15/2016 16:57	EPA 200.8	N/A	No EPA Standard
Copper	0.017	1.30	mg/L	12/15/2016 16:57	EPA 200.8	Primary	Within EPA Standard
Total Hardness	45	N/A	mg/L	12/15/2016 16:57	SM 2340B	N/A	No EPA Standard
Bromodichloromethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Bromoform	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Chloroform	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Dibromochloromethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Total Trihalomethanes	ND	80.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Acetone	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Benzene	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Bromobenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Bromochloromethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Bromomethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
n-Butylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
sec-Butylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Tert-Butylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Carbon disulfide	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Carbon tetrachloride	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Chloroethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Chloromethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
2-Chlorotoluene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
4-Chlorotoluene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Dibromomethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,2-Dibromo-3-chloropr	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,2-Dichlorobenzene	ND	600	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,2-Dibromoethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,3-Dichlorobenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard

Notes: mg/l=ppm; ug/l=ppb; "<" denotes "less than". This report of analysis may not be modified in any way, or reproduced except in full, without written approval from Nelson Analytical, LLC. Results reported above relate only to samples as submitted, unless specifically noted otherwise. Nelson Analytical, LLC is currently accredited by the New Hampshire Environmental Lab Accreditation Program, the Vermont Laboratory Accreditation Program, and the Maine Laboratory Certification Program. For a list of current accredited tests, please visit the websites listed below. Sampling performed by the lab is according to the lab document "Water Sampling Instructions". EPA standards list pH & Chlorine as field parameters and they should be tested immediately at sample collection. Samples tested for pH are analyzed beyond the hold time for the analysis. Samples will be analyzed as quickly as laboratory operations allow. Metals samples may be analyzed the same day they are received. #-Sample(s) received at laboratory do not meet method specified temperature criteria. Subcontracting Information: SUB1-NH1005(EPA-NH01005), SUB2- NH2955(EPA-FL00237); SUB3-NH1004(EPA-NH00035)SUB4-NH2373, SUB5-NH2530
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/http://healthvermont.gov/enviro/ph_lab/PublicHealthLaboratory.aspxhttp://www.maine.gov/dhhs/mecdc/environmental-health/cwp/professionals/labCert.shtml

Date: 12/19/2016

NELSON ANALYTICAL LAB

120 York Street, Kennebunk, ME 04043
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RP161219010

NH ELAP Accreditation #NH2018
Maine State Certification # ME0015
Vermont State Cerfication # VT2018
Maine Radon Certification # ME17500

REPORT OF ANALYSIS

Laboratory ID: 216120415

Client Name: Clearwater Well Drilling

Attn: Jim Nettles

Date Reported : 12/19/2016

Client Sample ID: Johnson Creek Village
Laboratory ID: 216120415.01
Sample Location: Map it Lot 1, Route 108, Dover, NH
Sample Matrix : Drilled Well Water

Date Collected: 12/14/2016 12:30 PM
Collected By : J. N.
Date Received : 12/15/2016 03:00 PM
Temperature Rec'd °C: 2.0

Parameters	Results	Acceptable Level	Units	Date Analyzed	Test Method	Test Type	Test Remarks
1,4-Dichlorobenzene	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Dichlorodifluoromethan	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,1-Dichloroethane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,2-Dichloroethane	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,1-Dichloroethylene	ND	7.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
cis-1,2-Dichloroethylene	ND	70.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
trans-1,2-Dichloroethyle	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,2-Dichloropropane	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,3-Dichloropropane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,1-Dichloropropene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
cis-1,3-Dichloropropene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
trans-1,3-Dichloroprope	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Diethyl Ether	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Diisopropyl ether	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Ethyl tert-Butyl Ether	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Hexachlorobutadiene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Isopropylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
4-Isopropyltoluene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Chlorobenzene	ND	100	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Ethylbenzene	ND	700	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
MEK	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Methylene chloride	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
MIBK	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
MTBE	ND	13.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Naphthalene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
n-Propylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
2-Hexanone	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Styrene	ND	100	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,1,1,2-Tetrachloroetha	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,1,2,2-Tetrachloroetha	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
tert-Amyl Methyl Ether	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
tert-Butyl Alcohol	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Tetrachloroethylene	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Tetrahydrofuran	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Toluene	ND	1000	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,2,3-trichlorobenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,2,4-Trichlorobenzene	ND	70.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,1,1-Trichloroethane	ND	200	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,1,2-Trichloroethane	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
Trichloroethylene	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard

Notes: mg/l=ppm; ug/l=ppb; "<" denotes "less than". This report of analysis may not be modified in any way, or reproduced except in full, without written approval from Nelson Analytical, LLC. Results reported above relate only to samples as submitted, unless specifically noted otherwise. Nelson Analytical, LLC is currently accredited by the New Hampshire Environmental Lab Accreditation Program, the Vermont Laboratory Accreditation Program, and the Maine Laboratory Certification Program. For a list of current accredited tests, please visit the websites listed below. Sampling performed by the lab is according to the lab document "Water Sampling Instructions". EPA standards list pH & Chlorine as field parameters and they should be tested immediately at sample collection. Samples tested for pH are analyzed beyond the hold time for the analysis. Samples will be analyzed as quickly as laboratory operations allow. Metals samples may be analyzed the same day they are received. # Sample(s) received at laboratory do not meet method specified temperature criteria. Subcontracting Information: SUB1=NH1005(EPA-NH01005); SUB2= NH2955(EPA-FL00237); SUB3=NH1004(EPA-NH00035)SUB4=NH2073, SUB5=NH2530
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/http://healthvermont.gov/enviro/ph_lab/PublicHealthLaboratory.aspxhttp://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml

Date: 12/19/2016

NELSON ANALYTICAL LAB

RP161219010

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REPORT OF ANALYSIS

Laboratory ID: 216120415

NH ELAP Accreditation #NH2018
Maine State Certification # ME0015
Vermont State Cerfication # VT2018
Maine Radon Certification # ME17500

Client Name: Clearwater Well Drilling

Attn: Jim Nettles

Date Reported : 12/19/2016

Client Sample ID: Johnson Creek Village
Laboratory ID: 216120415.01
Sample Location: Map it Lot 1, Route 108, Dover, NH
Sample Matrix : Drilled Well Water

Date Collected: 12/14/2016 12:30 PM
Collected By : J. N.
Date Received : 12/15/2016 03:00 PM
Temperature Rec'd °C: 2.0

Parameters	Results	Acceptable Level	Units	Date Analyzed	Test Method	Test Type	Test Remarks
Trichlorofluoromethane	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
1,2,3-Trichloropropane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,2,4-Trimethylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
1,3,5-Trimethylbenzene	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2	N/A	No EPA Standard
Vinyl Chloride	ND	5.0	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
xylenes (total)	ND	10,000	ug/L	12/17/2016 09:59	EPA 524.2	Primary	Within EPA Standard
2,2-Dichloropropane	ND	NA	ug/L	12/17/2016 09:59	EPA 524.2		

PRIMARY: Regulated by the EPA as a health related parameter SECONDARY: Aesthetic parameter - not regarded as a health concern
For Detailed Test Descriptions please visit: http://www.nelsonanalytical.com/drinking-water-test-glossary

Respectfully Submitted

Lorri Maling, Laboratory Director

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http://des.nh.gov/organization/divisions/water/dwgb/nhelap/http://healthvermont.gov/enviro/ph_lab/PublicHealthLaboratory.aspxhttp://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml

Date: 12/19/2016

Subject: JCV - RFI-58/Submittal 33-008 Septic Pump Power
From: Art Guadano <art@agarchitects.com>
Date: 11/29/2016 9:30 AM
To: John DeStefano <johnd@destefano-associates.com>
CC: Steve Duback <steve.d@destefano-associates.com>, Will Bennett <Will@BennettEngineering.net>, James Gibbons <james@agarchitects.com>, Aramis Black <amblack99@gmail.com>, Lisa Nelthropp <jcreekvillage@gmail.com>, Steve Haight <greystroke57@gmail.com>

Hi John,
We want to confirm that the generator and emergency Panel EP have the capacity to pick up the two 20A 1-pole circuits for the two septic pumps. Please power the septic pumps from Panel EP in lieu of Panel HP. Please let us know if you have any questions.
Thanks,
Art

--

Art Guadano, AIA LEED AP BD+C
AG Architects, PC

634 Central Avenue
Dover, New Hampshire 03820
Phone: (603) 743-3700
Fax: (603) 743-3777
www.agarchitects.com

33-008
14-666

RECEIVED
Planning Office
OCT - 2 2018
Dover, New Hampshire

John Destefano

From: Steve Haight <shaight@civilworksne.com>
Sent: Tuesday, October 02, 2018 8:25 AM
To: John Destefano
Cc: PATRICIA DELL ISOLA; Aramis Black
Subject: RE: JCV floor plan
Attachments: lighting.pdf; sheet c2.1.pdf

No updated landscape plan

Well usage: Proposed draw = 3,750 gpd

Per NHDES rule Env-Wq 1008.06 Protective Well Radii – Distance

Daily sewage Flow: 1441-4320 = 125 ' well radius

Stephen J. Haight, P.E.
President
Civilworks New England/Haight Engineering, PLLC
181 Watson Road
P.O. Box 1166
Dover, New Hampshire 03821
O: 603.750.4266
C: 603.817.6651
F: 603.749.7348
shaight@civilworksne.com
www.civilworksne.com

From: John Destefano [mailto:john.d@destefano-associates.com]
Sent: Tuesday, October 2, 2018 7:50 AM
To: Steve Haight <shaight@civilworksne.com>
Subject: RE: JCV floor plan

I think I am missing the last three bullets.

Also the calc showing that the well has capacity.

John DeStefano
DeStefano & Associates, Inc
2456 Lafayette Road
Portsmouth, NH 03801
p: 603-430-0339
f: 603-430-0346
c: 603-765-1638
www.destefano-associates.com

From: Steve Haight <shaight@civilworksne.com>
Sent: Saturday, September 29, 2018 8:01 AM
To: John Destefano <john.d@destefano-associates.com>

John Destefano

From: Steve Haight <shaight@civilworksne.com>
Sent: Tuesday, October 02, 2018 8:34 AM
To: John Destefano
Subject: RE: JCV floor plan

Env-Wq 1008.06 Protective Well Radii - Distance.
(a) A protective area designated as the "protective well radius" shall be maintained around every private commercial or non-commercial drinking water well.
(b) Subject to Env-Wq 1008.08, the protective area shall be a uniform circle having a radius determined based on the total proposed daily sewage flow, as set forth in Table 1008-4, below:

Table 1008-4: Protected Well Radii for Shallow or Dug Wells or Drilled Bedrock Wells

Daily Sewage Flow (GPD)	Radius (ft.)
0-750	75
751-1440	100
1441-4320	125
4321-14,400	150
14,401-28,800	175
28,801-57,600	200
57,601-86,400	250
86,401-115,200	300
115,201-144,000	350
greater than 144,001	400

(c) A protective well radius that is fully recognized or accorded full recognition by these rules means that the radius shall not be reduced or encroached upon by any septic system component on an abutting
lot.

Stephen J. Haight, P.E.
President
Civilworks New England/Haight Engineering, PLLC
181 Watson Road
P.O. Box 1166
Dover, New Hampshire 03821
O: 603.750.4266
C: 603.817.6651
F: 603.749.7348
shaight@civilworksne.com
www.civilworksne.com

SITE PLAN
JOHNSON CREEK VILLAGE
24 BED CARE HOME

TAX MAP H, LOT 1

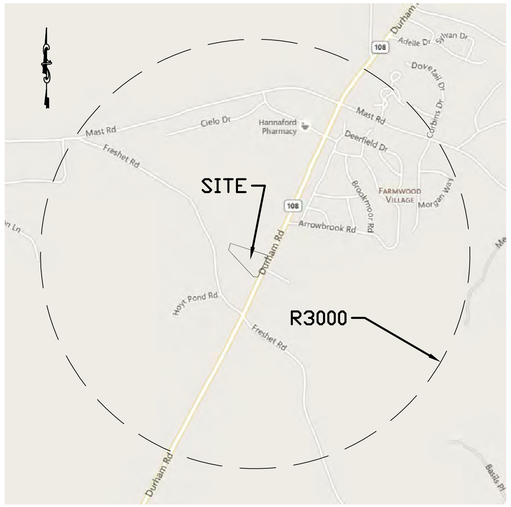
301 DURHAM ROAD
DOVER, NH

FEBRUARY 12, 2016

REVISED JULY 15, 2016

REVISED AUGUST 7, 2018

REVISED SEPTEMBER 28, 2018



LOCUS MAP

SCALE: 1"=1000'

OWNER — REAL MCKOY PROPERTIES, LLC
P.O. BOX 1727
DOVER, NH 03820

SITE CIVIL ENGINEER — CIVILWORKS NEW ENGLAND
181 WATSON ROAD
DOVER, NH 03820

LAND SURVEYOR — MCENEANEY SURVEY ASSOCIATES, INC.
P.O. BOX 681
24 CHESTNUT STREET
DOVER, NH 03820

SOIL SCIENTIST — JOSEPH W. NOEL
P.O. BOX 174
SOUTH BERWICK, MAINE 03908

LANDSCAPE ARCHITECT — WOODBURN & COMPANY
LANDSCAPING ARCHITECTURE, LLC
130 KENT PLACE
NEWMARKET, NH 03857

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE STATE PERMITS THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:
   NHDES SUBSURFACE DISPOSAL SYSTEM: APPROVAL #eCA2015081712
   NHDOT AMENDED DRIVEWAY PERMIT: #06-125-384, DATED 9-21-15
2. PURSUANT TO CITY OF COVER ORDINANCE AND APPROVALS ASSOCIATED WITH THIS WORK, CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY – FRIDAY 7AM – 6PM, SATURDAY 8AM – 5PM, WITH NO SUNDAY HOURS. HOURS OF CONSTRUCTION SHALL BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR GENERAL CONTRACTOR. SAID SIGNAGE SHALL BE LOCATED AND APPROVED BY THE CITY ENGINEER OR DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT.
3. UPON COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN AND THE REPORTING REQUIREMENTS CONTAINED THEREIN.
4. THE INTENT OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH CONSTRUCTION OF A 10,109 S.F. ELDERLY ASSISTED CARE HOME FOR 24 RESIDENTS WITH TWO (2) ACCESSORY APARTMENTS, FOR STAFF ONLY CONTAINED WITHIN THE EXISTING STRUCTURE.
5. APPROVAL OF THIS PLAN WITH PLANNING DESIGNATION P15-38A SUPERSEDED THE SITE PLAN WITH PLANNING DESIGNATION P35-38.

VARIANCES GRANTED:

> Z18-12 JULY 3, 2018
VARIANCE FROM SECTION 170-12.A TO PERMIT THE CONSTRUCTION OF AN ELDERLY ASSISTED CARE HOME FOR 24 RESIDENTS WITH 2 ACCESSORY STAFF APARTMENTS

> Z13-18A, JULY 15, 2015:
VARIANCE FROM SECTION 170-12.A TO PERMIT THE CONSTRUCTION OF AN ELDERLY ASSISTED CARE HOME FOR 12 RESIDENTS WITH 2 ACCESSORY STAFF APARTMENTS (AMENDMENT OF Z13-18)

> Z13-18, OCTOBER 17, 2013:
VARIANCE FROM SECTION 170-12.A TO PERMIT THE CONSTRUCTION OF AN ELDERLY ASSISTED CARE HOME FOR 8-10 RESIDENTS WITH 2 ACCESSORY STAFF APARTMENTS.

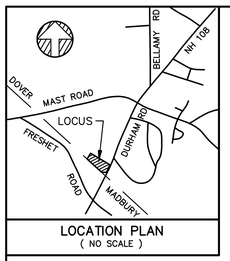
> Z06-13, JUNE 15, 2006:
VARIANCE FROM SECTION 17-12, TABLE I, PARTS A AND C-1 TO ESTABLISH A BEAUTY SALON AND SINGLE-FAMILY DWELLING.

SHEET INDEX	SHEET

EXISTING CONDITIONS /SOILS PLAN	EX-1
NOTE SHEET	2
OVERALL SITE PLAN	3
DEMOLITION PLAN	4
DETAILED SITE LAYOUT PLAN	5
GRADING, DRAINAGE & EROSION CONTROL PLAN	6
UTILITY PLAN	7
EROSION CONTROL NOTES	8
EROSION CONTROL DETAILS	9
DETAILS	10 - 14
LIGHTING PLAN (C2-1)(BY AG ARCHITECTS)	15
LIGHTING DETAILS (1 OF 1)(SWANEY LIGHTING ASSOCIATES, INC)	16
LANDSCAPE PLAN (L-1)(BY WOODBURN & COMPANY)	17
SITE UTILITY AND SUBSURFACE DISPOSAL SYSTEM PLAN	18
SUBSURFACE DISPOSAL SYSTEM PLAN DETAILS & NOTES	19
SUBSURFACE DISPOSAL PUMP CHAMBER & MISCELLANEOUS DETAILS	20

P15-38A

1430-CONSTRUCTION.DWG



LOCATION PLAN
(NO SCALE)

REFERENCE PLANS:

1.) "MINOR SUBDIVISION , GEORGE DEMOSTHENES, DOVER, NH"; SCALE: 1"=60'; DATED: NOVEMBER, 1994; APPROVED BY CITY OF DOVER PLANNING BOARD JAN. 13, 1995; SCRD PLAN FILE #41A–51; PREPARED BY: RANDY R. ORVIS

2.) "SEPTIC SYSTEM DESIGN, MAP H, LOT 1, DOVER, NH"; PREPARED FOR WILLIAM H. SHAHEEN, 73 PERKINS ROAD, MADBURY, NH; PREPARED BY GROOVER SEPTIC DESIGN; DATED SEPTEMBER, 2002

3.) "AS–BUILT PLAN, TAX MAP H, LOT 1, DOVER, NH"; PREPARED FOR COASTLINE MODULAR HOMES, INC.; PREPARED BY LITTLE RIVER SURVEY COMPANY; DATED: MAY, 2003; SCALE: 1"=30'

4.) SITE IMPROVEMENT AND SUBSURFACE DISPOSAL SYSTEM PLAN, LOT NO., LOT 1, TAX MAP H, STREET ADDRESS:, 301 DURHAM ROAD, CITY / TOWN:, DOVER, NEW HAMPSHIRE, OWNER OF RECORD/APPLICANT:, JANNETH A. BLACK, 272 PANIO STREET, HONOLULU, HAWAII; SCALE: 1"= 20; DATED: 10–01–06, REVISED THROUGH 1/2/07; BY: CIVILWORKS, INC.

NOTES:

1.) OWNER OF RECORD:
REAL MCKOY PROPERTIES LLC
P.O. BOX 1727
DOVER, NEW HAMPSHIRE 03821
S.C.R.D. VOLUME 3563, PAGE 238

2.) H / 1 – DENOTES TAX MAP AND PARCEL NUMBER.

3.) THE INTENT OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS FOR THE SUBJECT PARCEL AT THE TIME OF THIS SURVEY.

4.) TOTAL PARCEL AREA IS 128,641 S.F., 2.95 AC.

4.) ZONING DISTRICT: B–4.
ZONING REQUIREMENTS AND PROVISIONS:

MINIMUM LOT SIZE	= 5 ACRES
MINIMUM FRONTAGE	= 400 FEET
MAXIMUM LOT COVERAGE	= 33 PERCENT
MAXIMUM BUILDING HEIGHT	= 55 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT	= 50 FEET
SIDE (ABUT A STREET)	= 75 FEET
SIDE (ABUT A LOT)	= 75 FEET
REAR	= 75 FEET

5.) THE SUBJECT PARCEL IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0320; SUFFIX D; MAP NUMBER 33017C0320D; EFFECTIVE DATE MAY 17, 2005.

6.) SITE–SPECIFIC SOIL MAP BY JOSEPH NOEL, NH CERTIFIED SOIL SCIENTIST #017.

7.) HORIZONTAL DATUM SHOWN IN BASED UPON REFERENCE PLAN #1. VERTICAL DATUM IS BASED UPON REFERENCE PLAN #2.

8.) THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT AT THE TIME THE TOPOGRAPHIC SURVEY WAS PERFORMED. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE, IS NOT INTENDED OR IMPLIED.

H / 1A
RIZA PAHLEVI
ATIK GANTINI
20 FRESHET ROAD
DOVER, NH 03820
4182 / 165

H / 1B
DAVID S. GEANOULIS
299 DURHAM ROAD
DOVER, NH 03820
3347 / 385

REF. PLAN #1

ROW OF SPRUCE TREES

DRIVE EASEMENT FOR LOT H/1B 10' X 90'

DRIVE EASEMENT FOR LOT H/1 10' X 30'

I.P.(fnd)

S54°30'25"E 553.57'

N32°45'45"E 100.00'

299C/decdb

BITUMINOUS CONCRETE PARKING AREA

38B

943B

TREE LINE (typ)

100' PROTECTIVE WELL RADIUS

313B

H / 1
128,641 S.F.
2.95 Ac.

FF. EL. 84.5

FF. EL. 85.5

EXISTING BUILDING INV. FND. WALLS

BITUMINOUS CONCRETE PARKING AREA

699A

SIGN

BUILDING SETBACK LINE (typ)

S41°52'40"W 338.11'

DURHAM ROAD – NH ROUTE 108

9 / 122
ORDER OF ELKS
282 DURHAM ROAD
DOVER, NH 03820
953 / 395

I / 22D
GORDAN D. CLARK
294 DURHAM ROAD
DOVER, NH 03820
2160 / 253

I.P.(fnd)

N25°28'31"W 512.67

9 / 69
ALLAN BROWN
SUSAN BURDETT BROWN
22 FRESHET ROAD
MADBURY, NH 03820

APPROXIMATE TOWN LINE

DOVER

MADBURY

SUBSURFACE DISPOSAL SYSTEM (SEE REF. PLAN #4)

9 / 123
KEVIN VINCENT DONAHUE
50 MILL POND ROAD
DURHAM, NH 03824
3954 / 678

9 / 23
THOMAS D. DAIGLE
CHERYL E. DAIGLE
24 FRESHET ROAD
MADBURY, NH 03820
1558 / 185

943B

I.P.(fnd)

64.21'

N65°53'08"W

I.P.(fnd)

9 / 24
RINTA FAMILY TRUST OF 1995
34 FRESHET ROAD
MADBURY, NH 03820

I / 129
LEO CROISETIER
308 DURHAM ROAD
DOVER , NH 03820
1658 / 356

SITE-SPECIFIC SOIL MAP NOTES

1) This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for use by McEneaney Survey Associates, Inc. and Civilworks, Inc. for a proposed elderly housing project and Alteration of Terrain requirements. It was produced by a certified soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a narrative report that accompanies this map.
2) This detailed Site-Specific Soil Map conforms to the standards of SSSNNE Publication No. 3, as amended, "Site-Specific Soil Mapping Standards for NH and VT".
3) This map has been prepared to comply with soil mapping requirements of RSA 485 A: 17 and NH DES Env-Wq 1500, Alteration of Terrain.
4) The base map used was produced by McEneaney Survey Associates, Inc. It contains the existing conditions, 2-foot contours and wetland delineation by West Environmental, Inc.

SOIL LEGEND

NUMERICAL SYMBOL	SOIL MAP UNIT NAME
38	Eldridge
299	Udorthents, smoothed
313	Deerfield
699	Urban land
943	Eldridge Variant (somewhat poorly drained)

ALPHA SLOPE SYMBOL	RANGE
A	0-3%
B	3-8%
C	8-15%

DISTURBED SOIL MAPPING UNIT SUPPLEMENT

The five components of the Disturbed Soil Mapping Unit Supplement on this map are as follows:

Symbol 1: Drainage Class
d-Moderately Well Drained
Symbol 2: Parent Material (of naturally formed soil only, if present)
e-Loamy/sandy over Silt/Clay deposits
Symbol 3: Restrictive/Impervious Layers
c-Mineral restrictive layer(s) are present in the soil profile less than 40 inches below the soil surface such as hard pan, platy structure or clayey texture with consistence of at least firm (i.e., more than 20 newtons).
Symbol 4: Estimated Ksat
d-Not determined
Symbol 5: Hydrologic Soil Group
b-Group B

Joseph W. Noel
NH Certified Soil Scientist #017

LEGEND

I.P.(fnd) – IRON PIPE FOUND
S.F. – SQUARE FEET
Ac. – ACRE
± – MORE OR LESS
(TYP.) – TYPICAL
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
313B – SOIL BOUNDARY AND SYMBOL
E – UNDERGROUND ELECTRIC SERVICE
E – GAS LINE

14–1717	EXIST. COND.	14–04	68–73
PROJECT NO	TYPE	FIELDBOOK & PAGES	

NO.	DATE	DESCRIPTION	BY	CHK
1	8/11/15	REV. PER PLANNING BOARD COMMENTS	KJF	DCL

REVISIONS

SHEET EX–1

EXISTING CONDITIONS PLAN
PREPARED FOR
REAL MCKOY PROPERTIES LLC
TAX MAP H, LOT No. 1
301 DURHAM ROAD
CITY of DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

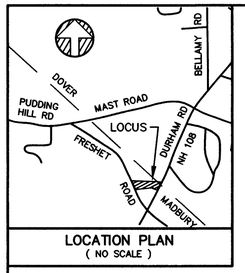
DRAWN BY: KJF	FILE: CPK\1717\14–1717.DWG
SCALE: 1" = 30'	DATE: APRIL 2015

30 15 0 15 30 60 90 120

STATE OF NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR SIGNATURE

McEneaney Survey Associates, inc.
P.O. Box 681 – 24 CHESTNUT STREET
DOVER, NH 03820 (603) 742–0911

SURVEYING – PLANNING – CONSULTING



LOCATION PLAN
(NO SCALE)

No.	Bearing	Distance
L1	N41°29'41"E	21.80'
	[N38°20'48"E]	
L2	N04°00'34"W	5.41'
	[N07°09'27"W]	

REFERENCE PLANS:

1.) MINOR SUBDIVISION, GEORGE DEMOSTHENES, DOVER, NH; SCALE: 1"=60'; DATED: NOVEMBER, 1994; APPROVED BY CITY OF DOVER PLANNING BOARD JAN. 13, 1995; PREPARED BY: RANDY R. ORVIS. RECORDED S.C.R.D. PLAN 41A–51.

2.) SUBDIVISION PLAN OF LAND IN MADBURY, N.H. TAX MAP 9 LOT 24 AS DRAWN FOR LILLIAN H. RINTA. SCALE: 1" = 40'; DATED: APRIL 26, 2018, REVISED THROUGH 06/05/2018; BY: JFP SURVEY & DESIGN LLC. RECORDED S.C.R.D. PLAN 116–34.

MERIDIAN OF REF. PLAN #1

NOTES:

1.) OWNER OF RECORD:
DELLISOLA DEVELOPMENT, LLC
130 CENTRAL AVENUE, SUITE 202
DOVER, NEW HAMPSHIRE 03820
S.C.R.D. VOLUME 4603, PAGE 971

2.) 9 – 24A – DENOTES TAX MAP AND PARCEL NUMBER.

3.) PARCEL AREA = 87,183 S.F. / 2.00 Ac.

4.) THE INTENT OF THIS PLAN IS TO DEPICT THE PARCEL BOUNDARIES, EXISTING SITE CONDITIONS AS OF SEPTEMBER 2018, AND A 1.2 ACRE SOIL LOADING EASEMENT AREA.

5.) ZONING DISTRICT IS:

MADBURY:	RESIDENTIAL/AGRICULTURAL.
DIMENSIONAL REQUIREMENTS:	
MINIMUM LOT SIZE	= 80,000 S.F.
MINIMUM ROAD FRONTAGE	= 200 FEET
FRONT SETBACK	= 50 FEET
SIDE SETBACK	= 15 FEET
REAR SETBACK	= 15 FEET
MINIMUM LOT DEPTH	= 150 FEET
IMPERVIOUS COVERAGE	= 25 PERCENT MAXIMUM

6.) THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBERS 330145 (DOVER) & 330219 (MADBURY); PANEL 0320; SUFFIX E; MAP NUMBER 33017C0320E; EFFECTIVE DATE SEPT. 30, 2015.

7.) BASIS OF BEARING IS REFERENCE PLAN No. 1.

CONTINUED:

9 – 21
PETER D. HARWOOD
ELIZABETH A. HARWOOD
27 FRESHET ROAD
MADBURY, NH 03823

9 – 26
ETHAN JENNINGS
AMY JENNINGS
29 FRESHET ROAD
MADBURY, NH 03823

9 – 23
THOMAS D. DAIGLE
CHERYL E. DAIGLE
24 FRESHET ROAD
MADBURY, NH 03823
1558 / 185

H / 1
REAL MCKOY PROPERTIES, LLC
P.O. Box 1727
DOVER, NH 03821
3563 / 238

I / 129 DOVER
10 – 8 MADBURY
LEO CROISETIERE
308 DURHAM ROAD
DOVER, NH 03820
1658 / 356

10 – 7
COLDSTREAM PROPERTIES, LLC
316 ROUTE 108
MADBURY, NH 03823

9 – 24
RINTA FAMILY TRUST OF 1995
REBECCA A. PAZDON, TRUSTEE
34 FRESHET ROAD
MADBURY, NH 03823
3409 / 911

9 – 25
OUR MUSTARD SEED, LLC
317 ROUTE 108
MADBURY, NH 03823
2364 / 282

10 – 6
NIKKI TRUST
NICOLLETTA VATISTAS, TRUSTEE
320 ROUTE 108
MADBURY, NH 03823

FRESHET ROAD
IRON PIPE FOUND 1.5"ø, DOWN 2"
(218.43')
[S69°27'32"E]
530.63'
S66°18'39"E
194.59'
N04°08'27"E
[N00°59'34"E]
L2
9 – 24A
PARCEL AREA
87,183 S.F.
2.00 Ac.
TEST PIT (SUBDIV)
TEST PIT (SUBDIV)
163.34'
N15°53'49"E
TEST PIT 3
312.20'
TEST PIT 2
TEST PIT 4
SOIL LOADING EASEMENT AREA
52,272 S.F.
1.20 Ac.
(174.94')
N74°58'06"W
384.94'
[N78°06'59"W]
210.00'
TEST PIT 1
L1
IRON PIPE FOUND 1"ø, UP 4"
100.00'
N48°30'19"W
[N51°39'12"W]
190.00'
S41°29'41"W
[S38°20'48"W]
NH ROUTE 108
DURHAM ROAD
DOVER
MADBURY
TOWN LINE
IRON PIPE FOUND 1"ø, UP 24"
[S68°52'31"E]
64.20'
S65°43'38"E
IRON PIPE FOUND 1"ø, UP 7"

LEGEND

MON (TBS) ◉ – BOUNDARY MONUMENT (TO BE SET)
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
S.F. – SQUARE FEET
Ac. – ACRE
(TYP.) – TYPICAL
ø – DIAMETER
-o- UP – UTILITY POLE
TPIT – SOIL TEST PIT
[N78°06'59"W] – RECORDED BEARING

NOTES CONTINUED:

8.) TOPOGRAPHIC SURVEY PERFORMED BY THIS OFFICE DURING AUGUST AND SEPTEMBER 2018. VERTICAL DATUM IS ASSUMED, CONTOUR INTERVAL IS 2 FOOT.

9.) SOIL TEST PITS 1 – 3 WERE CONDUCTED ON AUGUST 29, 2018 AND TEST PIT 4 WAS CONDUCTED ON SEPTEMBER 19, 2018 BY JOSEPH W. NOEL, NH C.S.S. #017, NH DESIGNER #1104; AND WITNESSED BY MICHAEL CUOMO, C.S.S. FOR ROCKINGHAM COUNTY.
SOIL TEST PITS LABELED (TEST PIT, SUBDIV) ARE AS CONDUCTED FOR THE 2018 SUBDIVISION OF THE SUBJECT PARCEL, REFERENCE PLAN No. 2, AS FIELD LOCATED BY THIS OFFICE DURING SEPTEMBER 2018.

NO.	DATE	DESCRIPTION	BY	CHK
		REVISIONS		

18–1717	EASEMENT	18–05	37–45
PROJECT NO	TYPE	FIELDBOOK & PAGES	

"I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION, BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS."

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

10/1/18
DATE: / KEVIN M. McENEANEY LLS # 661

EXISTING CONDITIONS PLAN AND SOIL LOADING EASEMENT PLAN

PREPARED FOR
DELLISOLA DEVELOPMENT, LLC
MADBURY TAX MAP 9, LOT No. 24A
NH ROUTE 108 & FRESHET ROAD
MADBURY AND DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

DOVER PLANNING FILE No. P 18–___

DRAWN BY: RJM	FILE: W10 CP\1717\18–1717 EASE
SCALE: 1" = 30'	DATE: OCTOBER 1, 2018

30 15 0 15 30 60 90 120

STATE OF NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR

McEneaney Survey Associates, inc.
P.O. Box 681 – 24 CHESTNUT STREET
DOVER, NH 03820 (603) 742–0911

SURVEYING – PLANNING – CONSULTING

DEMOLITION NOTES:

1. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
2. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY DEMOLITION/ CONSTRUCTION ACTIVITIES. (811).
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, UTILITIES AND PAVEMENT ON THE SITE TO THE LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: SEPTIC COMPONENTS, CONCRETE, PAVEMENT, POLES, BUILDINGS, FENCES AND TREES.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NOT ALREADY OBTAINED BY THE OWNER AND ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
8. THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
9. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES, AND CODES.

SITE NOTES:

1. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM PLAN REFERENCE 1 PERFORMED BY MCENEANEY SURVEY ASSOCIATES INC. (SEE EXISTING CONDITIONS SURVEY PLAN THIS PLAN SET)
2. CONTRACTOR SHALL PREPARE AS-BUILT PLANS OF THE SITE IMPROVEMENTS INCLUDING UTILITIES (ABOVE AND BELOW GRADE)SUBMITTED ON A REPRODUCIBLE MYLAR MEDIUM AND IN A DIGITAL DXF FORMAT ON DISK TO THE ENGINEER UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. UNDER CONTRACT WITH THE CONTRACTOR.
3. EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 149-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.
4. THE STRUCTURE SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED UNDER CHAPTER 109-30 OF THE CODE OF THE CITY OF DOVER AND THE 2009 STATE BUILDING CODES
5. SPRINKLER CONNECTIONS MUST BE FLUSHED IN ACCORDANCE WITH NFPA 24 AND A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM MUST BE COMPLETED.
6. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13.
7. A SECURITY SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 58, ARTICLE I, SECTION 58-2 OF THE CODE OF THE CITY OF DOVER.
8. ALL ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.
9. THE SUBJECT PARCEL IS SERVED BY ON-SITE WELL AND SEPTIC SYSTEM.
10. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
11. BACKFLOW PREVENTORS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.
12. A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
13. A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.
14. BUILDING ADDRESSES SHALL BE ASSIGNED BY THE BUILDING INSPECTOR AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
15. STRIPE PARKING AREAS AS SHOWN INCLUDING HANDICAP SYMBOLS AND PAINTED ISLANDS. ALL MARKINGS SHALL BE CONSTRUCTED USING WHITE TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M-248-TYPE N.
16. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS, AND THE AMERICAN WITH DISABILITIES ACT, LATEST EDITIONS.
17. PAINTED ISLANDS SHALL BE 4 INCHES WIDE DIAGONAL LINES 3 FEET ON CENTER.
18. ON-SITE SNOW STORAGE SHALL OCCUR ALONG THE EDGES OF PAVEMENT AREAS AS SHOWN ON THE PLAN.
19. LAYOUT OF BUILDING CORNERS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AND SHALL BE BASED UPON THE ARCHITECT'S FINAL FOUNDATION PLAN.
20. SEE DETAILS FOR SIGN LEGENDS.
21. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE FACILITIES AND THEIR COMPONENTS DURING DEMOLITION AND CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE OWNERS REPRESENTATIVE. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS. SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AT THE COMPLETION OF THE PROJECT.
22. METHODS OF DEMOLITION, CONSTRUCTION AND ERECTION ARE THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED. IT IS THE CONTRACTORS' RESPONSIBILITY TO PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO DUST CONTROL AND SILT BARRIERS.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES OR UTILITIES OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION PHASE CAUSED BY HIMSELF, HIS EMPLOYEES, HIS SUBCONTRACTORS OR EMPLOYEES OF SAME. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY FACILITIES FOR THE PROTECTION OF THE WORK, WORKERS AND PUBLIC SAFETY.
24. ALL LAYOUT SHALL BE PERFORMED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR UNDER CONTRACT WITH THE CONTRACTOR.
25. THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS NH RSA 155-A:5. THE PROPOSED STRUCTURE WILL ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS.

GRADING NOTES:

1. ALL ROAD (INCLUDING PARKING LOT AND DRAINAGE) WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR CONSTRUCTION OF THE CITY OF DOVER, N.H. AND "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION", LATEST EDITION.
2. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEERING CONSULTANT APPROVED BY THE OWNER, TO CONDUCT COMPACTION TESTING AND FILL GRADATION MONITORING PER THE ABOVE REFERENCED "STANDARD SPECIFICATIONS".
3. SEE EROSION CONTROL NOTES & DETAIL SHEET FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
4. ALL DRAINAGE PIPES SHALL BE HDPE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
5. ALL DISTURBED AREAS NOT OTHERWISE CALLED FOR SURFACE TREATMENT SHALL RECEIVE 6" OF HIGH QUALITY LOAM AND SHALL BE SEEDED WITH GRASS.
6. ALL SITEWORK CONSTRUCTION SHALL BE ADVANCED USING "BEST MANAGEMENT PRACTICES" SANCTIONED BY THE USDA SCS AND NHDES.
7. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED, UTILIZED AND MAINTAINED UNTIL BASE MATERIALS ARE CONSTRUCTED.
8. CONTRACTOR SHALL PROVIDE A FINISH GRADED SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND UNDER RAISED STRUCTURES.
9. DENSITY REQUIREMENTS:

LOCATION	MINIMUM DENSITY
BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREA	95%

*ALL PERCENTAGES SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH AASHTO STANDARD 180, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH AASHTO STANDARD T-191, T-204, OR T-238 AND T-239.

10. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEET.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND CONSTRUCT STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
12. INSPECT SILT BARRIERS AFTER EACH RAIN STORM OF 1/4 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
13. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT. THE SWPPP MUST INCLUDE THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE SITE. PARTIES RESPONSIBLE FOR DEVELOPING THE SWPPP SHOULD REFER TO THE EPA NPDES CONSTRUCTION GENERAL PERMITS NOTICE OF INTENT FOR A COMPLETE OUTLINE OR REQUIRED ELEMENTS. THESE PLANS AND THE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN PREPARED FOR THIS PROJECT MAY BE UTILIZED IN FULFILLING THE REQUIREMENTS.

UTILITY NOTES:

1. THE PROJECT SITE IS SERVED BY ON SITE WELL WATER AND SEPTIC.
2. THE BEST AVAILABLE INFORMATION WAS USED TO DETERMINE THE LOCATION AND SIZE OF EXISTING UTILITIES. THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. THE EXACT SIZE AND LOCATION OF UTILITIES SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING WORK. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
3. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATIONS WITH THE RESPECTIVE UTILITY OWNERS PRIOR TO WORK BEING PERFORMED. CALL DIGSAFE AT 1-888-388-7233 OR "811".
4. ALL CONSTRUCT UTILITY SERVICES SHALL BE UNDERGROUND WITHIN THE SITE.
5. UNDERGROUND ELECTRIC, TELEPHONE, AND CABLE TV CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH/PER PSNH, VERIZON, COMCAST, AND UNITIL STANDARDS.
6. CONSTRUCT INSTALLATION OF UNDERGROUND CONDUITS FOR TELEPHONE, ELECTRIC AND GAS SERVICE SHALL BE COORDINATED WITH THE RESPECTIVE CONTACTS ARE AS FOLLOWS:
   - ELECTRIC: PSNH 1.800.362.7764
   - NATURAL GAS: UNTIL
   - CABLE: COMCAST 603.334.3615
7. SEE ARCHITECTS ELECTRICAL DRAWINGS AND DETAILS FOR OUTDOOR LIGHTING CONDUIT LOCATIONS.
8. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR CONSTRUCT GRADING AND EROSION CONTROL MEASURES.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.

PLANNING FILE NO.: P15-38A

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	9-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

NOTE SHEET

JOHNSON CREEK VILLAGE CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

GRAPHIC SCALE

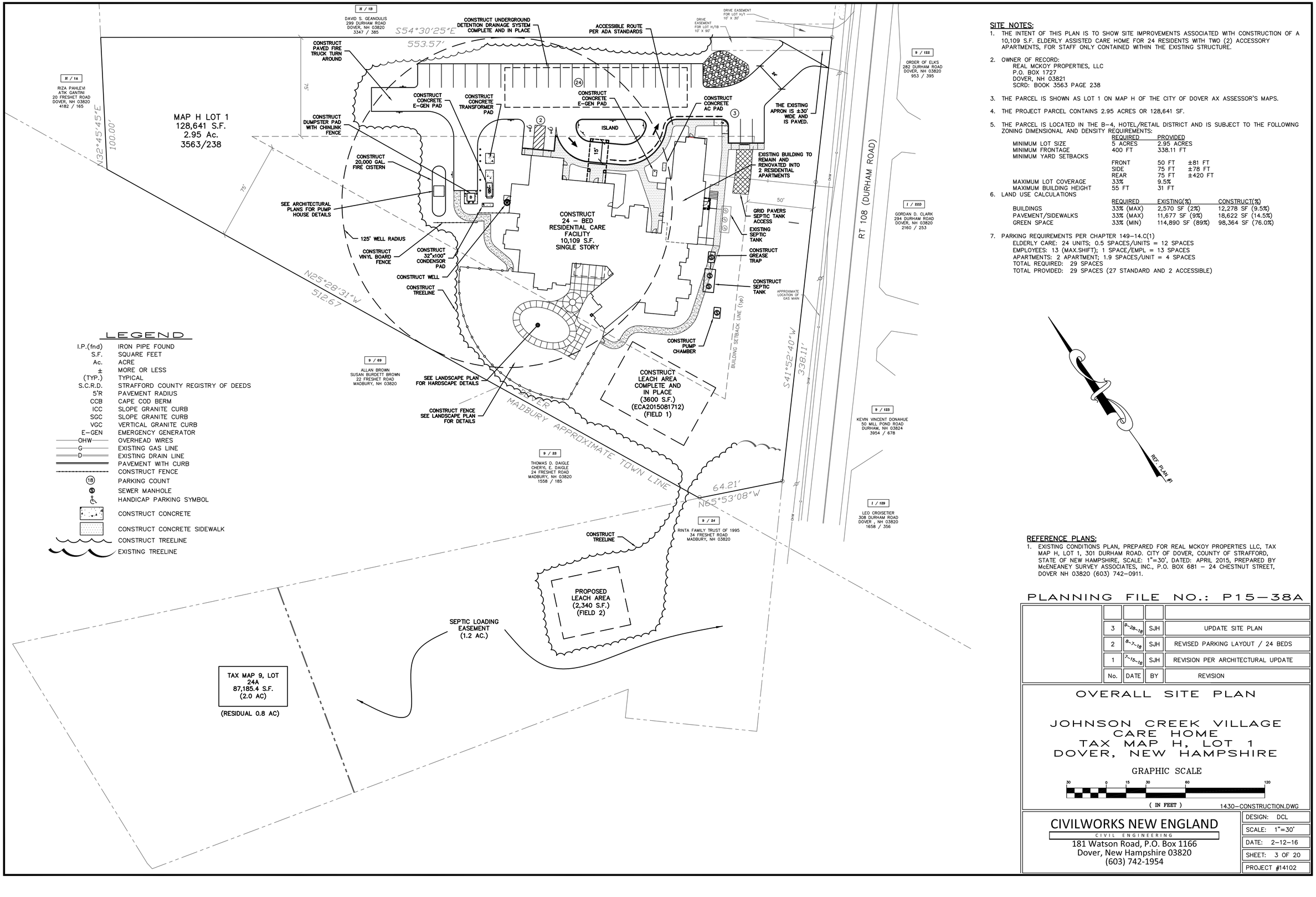
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(IN FEET)

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: AS SHOWN
DATE: 2-12-2016
SHEET: 2 OF 20
PROJECT #14102



LEGEND

I.P.(fnd)	IRON PIPE FOUND
S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
5'R	PAVEMENT RADIUS
CCB	CAPE COD BERM
ICC	SLOPE GRANITE CURB
SGC	SLOPE GRANITE CURB
VGC	VERTICAL GRANITE CURB
E-GEN	EMERGENCY GENERATOR
OHW	OVERHEAD WIRES
G	EXISTING GAS LINE
D	EXISTING DRAIN LINE
	PAVEMENT WITH CURB
	CONSTRUCT FENCE
(18)	PARKING COUNT
S	SEWER MANHOLE
	HANDICAP PARKING SYMBOL
	CONSTRUCT CONCRETE
	CONSTRUCT CONCRETE SIDEWALK
	CONSTRUCT TREELINE
	EXISTING TREELINE

SITE NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH CONSTRUCTION OF A 10,109 S.F. ELDERLY ASSISTED CARE HOME FOR 24 RESIDENTS WITH TWO (2) ACCESSORY APARTMENTS, FOR STAFF ONLY CONTAINED WITHIN THE EXISTING STRUCTURE.
2. OWNER OF RECORD:
   REAL MCKOY PROPERTIES, LLC
   P.O. BOX 1727
   DOVER, NH 03821
   SCRD: BOOK 3563 PAGE 238
3. THE PARCEL IS SHOWN AS LOT 1 ON MAP H OF THE CITY OF DOVER AX ASSESSOR'S MAPS.
4. THE PROJECT PARCEL CONTAINS 2.95 ACRES OR 128,641 SF.
5. THE PARCEL IS LOCATED IN THE B-4, HOTEL/RETAIL DISTRICT AND IS SUBJECT TO THE FOLLOWING ZONING DIMENSIONAL AND DENSITY REQUIREMENTS:

	REQUIRED	PROVIDED	
MINIMUM LOT SIZE	5 ACRES	2.95 ACRES	
MINIMUM FRONTAGE	400 FT	338.11 FT	
MINIMUM YARD SETBACKS			
FRONT	50 FT	±81 FT	
SIDE	75 FT	±78 FT	
REAR	75 FT	±420 FT	
MAXIMUM LOT COVERAGE	33%	9.5%	
MAXIMUM BUILDING HEIGHT	55 FT	31 FT	

6. LAND USE CALCULATIONS

	REQUIRED	EXISTING(%)	CONSTRUCT(%)
BUILDINGS	33% (MAX)	2,570 SF (2%)	12,278 SF (9.5%)
PAVEMENT/SIDEWALKS	33% (MAX)	11,677 SF (9%)	18,622 SF (14.5%)
GREEN SPACE	33% (MIN)	114,890 SF (89%)	98,364 SF (76.0%)

7. PARKING REQUIREMENTS PER CHAPTER 149-14.C(1)
   ELDERLY CARE: 24 UNITS; 0.5 SPACES/UNITS = 12 SPACES
   EMPLOYEES: 13 (MAX.SHIFT); 1 SPACE/EMPL = 13 SPACES
   APARTMENTS: 2 APARTMENT; 1.9 SPACES/UNIT = 4 SPACES
   TOTAL REQUIRED: 29 SPACES
   TOTAL PROVIDED: 29 SPACES (27 STANDARD AND 2 ACCESSIBLE)

REFERENCE PLANS:

1. EXISTING CONDITIONS PLAN, PREPARED FOR REAL MCKOY PROPERTIES LLC, TAX MAP H, LOT 1, 301 DURHAM ROAD. CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE, SCALE: 1"=30', DATED: APRIL 2015, PREPARED BY McENEANEY SURVEY ASSOCIATES, INC., P.O. BOX 681 - 24 CHESTNUT STREET, DOVER NH 03820 (603) 742-0911.

PLANNING FILE NO.: P15-38A

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	9-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

OVERALL SITE PLAN

JOHNSON CREEK VILLAGE CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

GRAPHIC SCALE

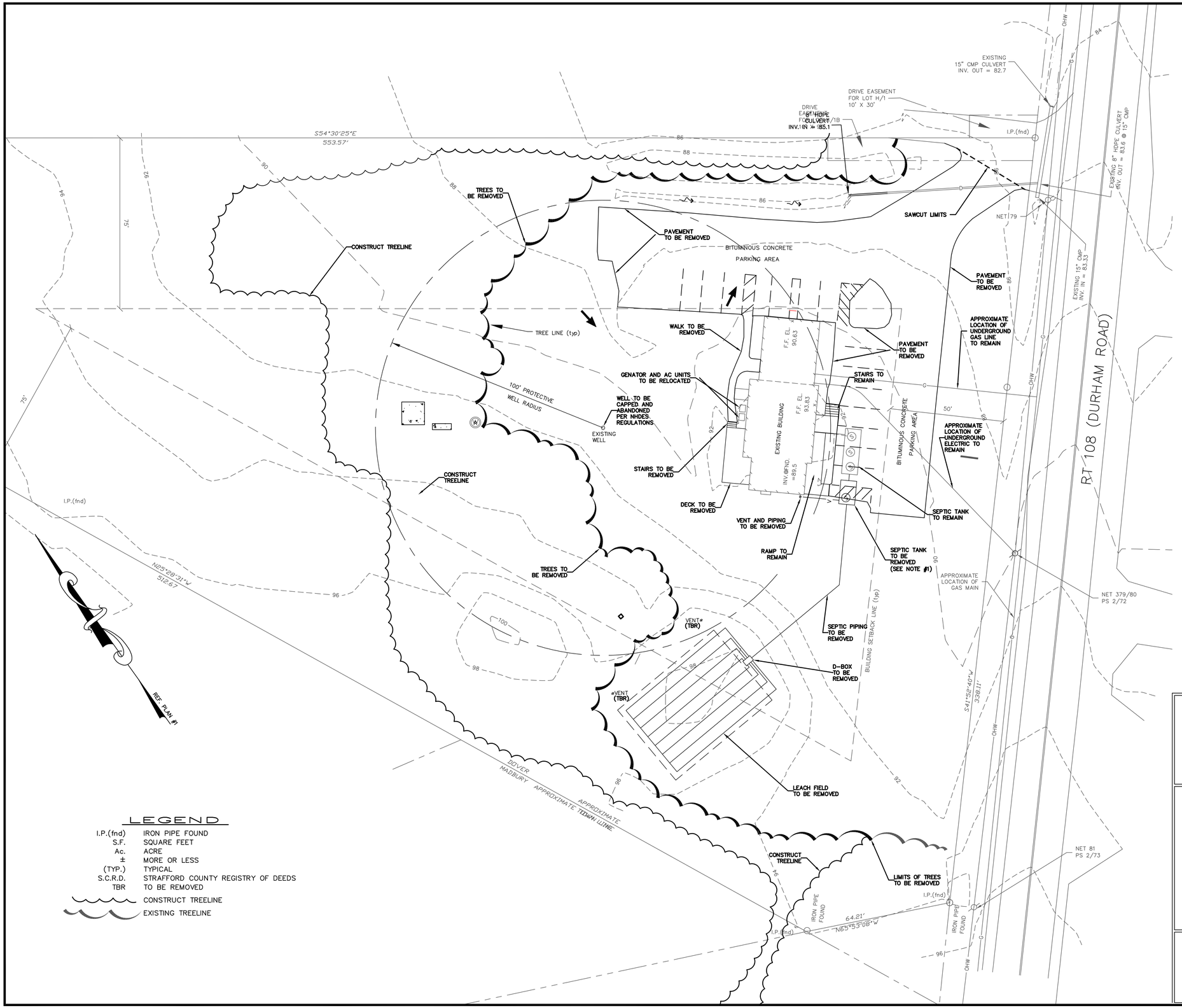
30 0 15 30 60 120

(IN FEET)

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: 1"=30'
DATE: 2-12-16
SHEET: 3 OF 20
PROJECT #14102



LEGEND

I.P.(fnd)	IRON PIPE FOUND
S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
TBR	TO BE REMOVED
	CONSTRUCT TREELINE
	EXISTING TREELINE

NOTES:

1. STOCKPILE RIMS AND COVERS FOR REUSE.
2. SEE SHEET 2 "NOTE SHEET" FOR ADDITIONAL DEMOLITION NOTES.

PLANNING FILE NO.: P15-38

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

DEMOLITION PLAN

JOHNSON CREEK VILLAGE CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN:	DCL
SCALE:	1"=20'
DATE:	2-12-16
SHEET:	4 OF 20
PROJECT #14102	

NOTES:
1. SEE SHEET 2 "NOTE SHEET" FOR ADDITIONAL SITE NOTES.

MAP H, LOT 1
128,641 S.F.
2.95 Ac.

CONSTRUCT POROUS PAVEMENT (SEE DETAIL)
CONSTRUCT "NO PARKING FIRE LANE" SIGN
CONSTRUCT CANOPY CLEARANCE SIGN
CONSTRUCT "ONE WAY" SIGN
CONSTRUCT PAINTED ISLAND
CONSTRUCT 6" BOLLARD (TYP OF 5)
CONSTRUCT CONCRETE TRANSFORMER PAD
END ICC BEGIN VGC
END VGC BEGIN ICC
CONSTRUCT CONCRETE RAMP AND END VGC WITH TIP DOWN
CONSTRUCT CONCRETE PAD WITH ADA TACTILE MAT
CONSTRUCT TREELINE
CONSTRUCT FIRE CISTERN PUMP HOUSE ON A 8'x8' CONCRETE PAD (SEE ARCHITECT DWGS FOR PUMP HOUSE DETAILS)
CONSTRUCT R7-8 "HANDICAP PARKING" SIGN IN BOLLARD
CONSTRUCT R7-8 "HANDICAP PARKING "SIGN AND R7-8b "VAN ACCESSIBLE" SIGN IN BOLLARD
CONSTRUCT ADA APPROVED TACTILE MAT
CONSTRUCT VESTIBULE
CONSTRUCT CONCRETE PAD FOR AC CONDENSORS PER ARCH. DWGS
CONSTRUCT CONCRETE PAD FOR APARTMENT GENERATOR PER ARCH. DWGS
CONSTRUCT TURFSTONE GRID PAVERS (SEE DETAIL)
CONSTRUCT 5' WIDE SIDEWALK
CONSTRUCT 4'x5' CONCRETE PAD
INSTALL WELL SET WELL HEAD WITHIN A 2' DIA. PRECAST CONCRETE RISER SECTION WITH COVER SET COVER 6" ABOVE FINISH GRADE
CONSTRUCT LANAI
CONSTRUCT CONCRETE SIDEWALK
CONSTRUCT 24 BED RESIDENTIAL CARE FACILITY
RENOVATED 2-UNIT APARTMENT BUILDING
EXISTING STAIR
CONSTRUCT ENTRANCE CANOPY
EXISTING HANDICAP RAMP
CONSTRUCT 5' WIDE SIDEWALK
CONSTRUCT DUMPSTER
CONSTRUCT 10'x10' CONCRETE DUMPSTER PAD
CONSTRUCT 6" BOLLARD (TYP OF 4)
CONSTRUCT 32"x100" CONDENSOR PAD
5' ACCESSIBLE ROUTE WITH FIRM SURFACE MATERIAL
CONSTRUCT 6'x12' CONCRETE EMERGENCY GENERATOR PAD
CONSTRUCT 6' HIGH VINYL BOARD FENCE
CONSTRUCT TERRACE (SEE LANDSCAPE PLANS)
CONSTRUCT WALK (SEE LANDSCAPE PLANS)
CONSTRUCT FENCE (SEE LANDSCAPE PLANS)
SEE LANDSCAPE PLANS FOR DRIP-EDGE LAYOUT (SEE DRIP-EDGE DETAIL THIS PLAN SET)
DRIVE EASEMENT FOR LOT H/1B 10' X 90'
DRIVE EASEMENT FOR LOT H/1 10' X 30'
RT 108 (DURHAM ROAD)
BUILDING SETBACK LINE (typ)
APPROXIMATE TOWN LINE
DOVER
MADBURY
REF. PLAN #1

THE WELL MUST BE INSTALLED AT THE LOCATION SHOWN. COORDINATE FOUNDATION CONSTRUCTION TO ACCOMMODATE WELL LOCATION

REFERENCE PLANS:
1. EXISTING CONDITIONS PLAN, PREPARED FOR REAL MCKOY PROPERTIES LLC, TAX MAP H, LOT 1, 301 DURHAM ROAD. CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE, SCALE: 1"=30', DATED: APRIL 2015, PREPARED BY McENEANEY SURVEY ASSOCIATES, INC., P.O. BOX 681 – 24 CHESTNUT STREET, DOVER NH 03820 (603) 742-0911.
2. "SITE PLAN JOHNSON CREEK VILLAGE CARE HOME", TAX MAP H, LOT 1, 301 DURHAM ROAD, DOVER, NH; DATED: JULY 9, 2016; REVISED: SEPTEMBER 30, 2015; PREPARED BY CIVILWORKS INC. DOVER, NH.

LEGEND

I.P.(fnd)	IRON PIPE FOUND
S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
5'R	PAVEMENT RADIUS
CCB	BITUMINOUS CAPE COD BERM
SGC	SLOPE GRANITE CURB
VGC	VERTICAL GRANITE CURB
	CONSTRUCT SIGN
	CONSTRUCT FENCE (SEE DESCRIPTION)
OHW	EXISTING OVERHEAD WIRES
	PAVEMENT
	HANDICAP PARKING SYMBOL
	CONSTRUCT POROUS PAVEMENT
	CONSTRUCT CONCRETE
	CONSTRUCT SIDEWALK
	CONSTRUCT TREELINE
	EXISTING TREELINE

PLANNING FILE NO.: P15-38

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

DETAILED SITE LAYOUT PLAN

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: 1"=20'
DATE: 2-12-16
SHEET: 5 OF 20
PROJECT #14102

NOTES:

1. SEE ARCHITECTURAL DRAWING FOR STAIR, RAMP AND PORCH DETAILS.
2. SEE LANDSCAPE PLAN FOR LANDSCAPE & HARDSCAPE DETAILS.
3. SEE SHEET 2 "NOTE SHEET" FOR ADDITIONAL GRADING & DRAINAGE NOTES.

MAP H, LOT 1
128,641 S.F.
2.95 Ac.

LEGEND

I.P.(fnd)	IRON PIPE FOUND
S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
x 92.00	EXISTING SPOT GRADE
94	EXISTING GRADE
92	CONSTRUCT FINISH GRADE
x 92.00	CONSTRUCT SPOT GRADE
PUD	CONSTRUCT UNDERDRAIN LINE
PD	CONSTRUCT DRAIN LINE
	PAVEMENT WITH CURB
	SILT BARRIER
	CONSTRUCT CATCHBASIN
	INLET PROTECTION
	HANDICAP PARKING SYMBOL
	CONSTRUCT POROUS PAVEMENT
	CONSTRUCT CONCRETE
	CONSTRUCT SIDEWALK
	CONSTRUCT TREELINE
	EXISTING TREELINE

PLANNING FILE NO.: P15-38

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

GRADING, DRAINAGE & EROSION CONTRL PLAN

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

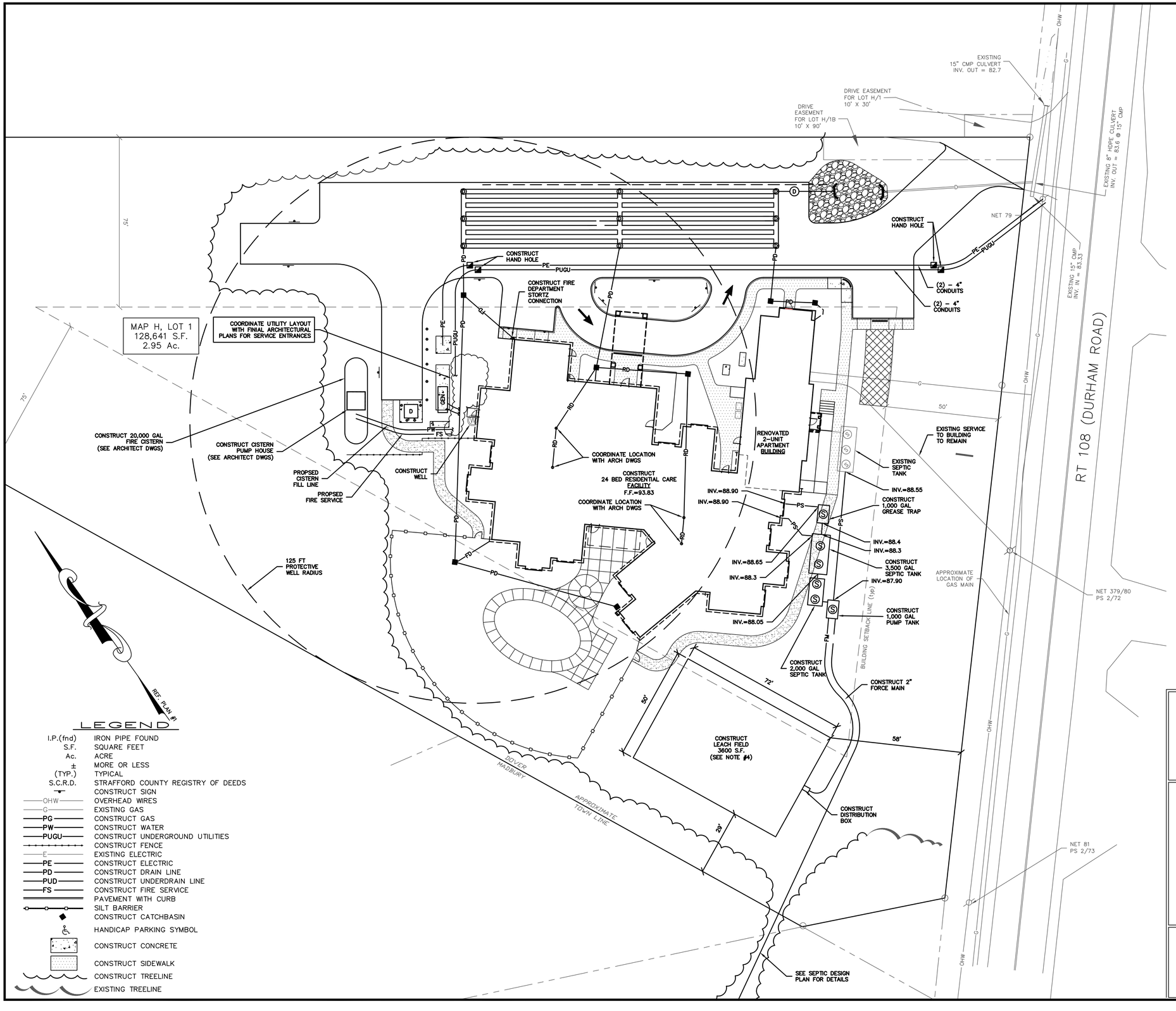
GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: 1"=20'
DATE: 2-12-16
SHEET: 6 OF 20
PROJECT #14102



LEGEND

I.P.(fnd)	IRON PIPE FOUND
S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD COUNTY REGISTRY OF DEEDS
	CONSTRUCT SIGN
OHW	OVERHEAD WIRES
G	EXISTING GAS
PG	CONSTRUCT GAS
PW	CONSTRUCT WATER
PUGU	CONSTRUCT UNDERGROUND UTILITIES
	CONSTRUCT FENCE
E	EXISTING ELECTRIC
PE	CONSTRUCT ELECTRIC
PD	CONSTRUCT DRAIN LINE
PUD	CONSTRUCT UNDERDRAIN LINE
FS	CONSTRUCT FIRE SERVICE
	PAVEMENT WITH CURB
	SILT BARRIER
	CONSTRUCT CATCHBASIN
	HANDICAP PARKING SYMBOL
	CONSTRUCT CONCRETE
	CONSTRUCT SIDEWALK
	CONSTRUCT TREELINE
	EXISTING TREELINE

NOTES:

1. SEE SHEET 2 "NOTE SHEET" FOR ADDITIONAL UTILITY NOTES.
2. UNDERGROUND FIRE SUPPRESSION SUPPLY LINE TO BUILDING SHALL BE FLUSHED PRIOR TO CONNECTION ACTIVATION OF SYSTEM.
3. SEE SITE ELECTRICAL PLAN SHEET E1.0 AND PLUMBING FLOOR PLAN SHEET P.1.01.
4. CONSTRUCT SEPTIC SYSTEM COMPLETE AND IN PLACE. SEE APPROVED SEPTIC PLAN (ECA2015081712).

PLANNING FILE NO.: P15-38

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

UTILITY PLAN

JOHNSON CREEK VILLAGE CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET) 1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN:	DCL
SCALE:	1"=20'
DATE:	2-12-16
SHEET:	7 OF 20
PROJECT #14102	

DESCRIPTION

THE INTENT OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH CONSTRUCTION OF A 10,109 S.F. ELDERLY ASSISTED CARE HOME FOR 24 RESIDENTS WITH TWO (2) ACCESSORY APARTMENTS, FOR STAFF ONLY CONTAINED WITHIN THE EXISTING STRUCTURE.

PROJECT NAME AND LOCATION

REAL MCKOY PROPERTIES, LLC, LATITUDE N43°09'43"
P.O. BOX 1727 LONGITUDE W70°53'43"
Dover, NH 03821

DISTURBED AREA

±76,110 square feet

SEQUENCE OF MAJOR ACTIVITIES

1. Contractor shall prepare the SWPPP and obtain the NOI a minimum of 2 weeks prior to comencement of site work.
2. Place temporary erosion and sediment control BMP's
3. All erosion control and perimeter controls shall be installed prior to commencing earth moving operations.
4. Selective demolition of existing structures and utilities
5. Clear and grub vegetated areas and regrade site to subgrade
6. Install drainage control structures and swales
7. Install underground utilities and foundations for structures
8. Place gravels and fine grade
9. Swales and ponds (as applicable) shall be constructed early on in the construction sequence and before rough grading of the site and all ditched and swales shall be stabilized prior to directing runoff to them.
10. Stabilize, roadways & parking lots within 72 hours of achieving finished grade.
11. all cut and fill slopes shall be loamed and seeded (as applicable) within 72 hours of achieving finish grade.
12. All erosion control measures shall be inspected at least weekly and after every 1/4" of rainfall.
13. In all cases the smallest practical area shall be disturbed during construction and in NO case shall exceed 5 acres at any one time before disturbed areas are stabilized. All disturbed areas shall be stabilized within 14 days of initial disturbance.
14. When all site work is complete and all disturbed areas are stabilized remove all temporary erosion control measures and file the EPA – N.O.T.

DEFINITIONS

An area shall be considered stable of one of the following has occurred.
1. Base course gravels have been installed in areas to be paved
2. A minimum of 85% vegetated growth has been established
3. A minimum of 3" of non-erosive material such as stone or rip-rap has been installed; or
4. Erosion control blankets have been properly installed

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

A. GENERAL

These are the general inspection and maintenance practices that will be used to implement the plan.
- o All ditches and swales shall be stabilized prior to directing runoff to them.
- o The smallest practical portion of the site will be denuded at one time.
- o All control measures will be inspected at least once each week and following any storm event of 1/2 inch or greater.
- o All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- o Built up sediment will be removed from silt fence or check dams when it has reached one third the height of the fence or dam.
- o All diversion dikes will be inspected and any breaches promptly repaired.
- o Temporary seeding and planting will be inspected for bare spots, washouts, and unhealthy growth.
- o A maintenance inspection report will be made after each inspection.
- o A representative of the owner, will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- o All areas shall be stabilized within 72 hours of achieving finish grade

B. FILTERS

1. Silt Fence

a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Physical Property	Test	Requirements
Filtering Efficiency	VTM–51	75% minimum
Tensile Strength at 20% Maximum Elongation*	VTM–52	Extra Strength 50 lb/lin in (min)
Standard Strength 30 lb/lin in (min)		
Flow Rate	VTM–51	0.3 gal/sf/min (min)

* Requirements reduced by 50 percent after six (6) months of installation.

Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six (6) months of expected usable construction life at a temperature range of 0 degrees F to 120 Degrees F.

b. The height of a silt fence shall not exceed thirty–six (36) inches.
c. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at support post, with a minimum six (6) inch overlap, and securely sealed.
d. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.
e. Posts for silt fences shall be 2–inch diameter wood with a minimum length of 5 feet.
f. Wire fence reinforcement for silt fences using standard strength filter cloth shall be a minimum of 42 inches in height, a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches.
g. A trench shall be excavated approximately four (4) inches wide and four (4) inches deep along the line of posts and upslope from the barrier.
h. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire shall extend no more than 36 inches above the original ground surfaces.
i. The "standard strength" filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
j. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item (i) applying.
k. The trench shall be backfilled and the soil compacted over the filter fabric.
l. Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas has been permanently stabilized.

2. Sequence of Installation

Sediment barriers shall be installed prior to any soil disturbance of the contributing drainage area above them.

3. Maintenance

a. Check dams and silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.
b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
c. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one third (1/3) the height of the barrier.
d. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

C. MULCHING

1. Timing

In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards which shall be used to assure this.
a. Apply mulch prior to any storm event. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
b. Required Mulching within a specified time period. The time period can range from 14 to 21 days of inactivity on a area, the length of time varying with site conditions. Professional judgement shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

2. Application Rate

Mulch shall be applied at a rate of between 1.5 to 2 tons per acre, or 90 to 100 pounds per 1000 square feet.

3. Guidelines for Winter Mulch Application. When mulch is applied to provide protection over winter (past the growing season) it shall be at a rate of 6,000 pounds of hay or straw per acre. A tackifier may be added to the mulch.

4. Maintenance All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

5. Excelsior Matting Excelsior Matting shall be used in place of mulch on all slopes steeper than 3:1.

D. TEMPORARY GRASS COVER

1. Seedbed Preparation

Apply fertilizer at the rate of 600 pounds per acre of 10–10–10. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of three (3) tons per acre.

2. Seeding
   a. Utilize annual rye grass at a rate of 40 lbs/acre.
   b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.
   c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance

Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

E. PERMANENT SEEDING

1. Bedding – stones larger than 1 ½ ", trash, roots, and other debris interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 4" to prepare a seedbed and mix fertilizer into the soil.

2. Fertilizer – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

Agricultural Limestone @ 100 lbs. per 1,000 s.f.
10–20–20 fertilizer @ 12 lbs. per 1,000 s.f.

3. Seed Mixture (recommended)

Rate:

Type	LBS. per Acre	LBS. per 1,000 s.f.
Tall Fescue	20	0.45
Creeping Red Fescue	20	0.45
Birdsfoot Trefoil	8	0.20
Total	48	1.10

4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook.

Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt) etc.

5. Provide a minimum of 4 inches (5 inches loose) of topsoil to all areas to be seeded.

F. STORM DRAIN INLET PROTECTION

1. Straw/Hay Bale Inlet Structure

a. Bales shall be either wire bound or string tied with the bindings oriented around the sides rather than over and under the bales.
b. Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.
c. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of bale to a minimum depth of four (4) inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.
d. Each bale shall be securely anchored and held in place by at least two (2) stakes or rebars driven through the bale.
e. Loose straw/hay shall be wedged between bales to prevent water from entering between bales.
f. All structures should be inspected after every rainstorm and repairs made as necessary.
g. Sediment should be removed from the devices after the sediment has reached a maximum of one–third the depth of the trap.
h. Haybales should be removed and the area repaired as soon as the contributing drainage area to the inlet has been completely stabilized.

TIMING OF CONTROLS/MEASURES

As indicated in the sequence of Major Activities the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Areas where construction activity temporarily ceases for more than twenty one (21) days will be stabilized with a temporary seed and mulch within fourteen (14) days of the last disturbance. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established. All areas shall be stabilized within 72 hours of achieving finish grade.

WASTE DISPOSAL

A. WASTE MATERIALS

All waste materials will be collected and stored in securely lidded receptacles. All trash and construction debris from the site will be deposited in a dumpster. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedure for waste disposal by the superintendent.

B. HAZARDOUS WASTE

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices by the superintendent.

C. SANITARY WASTE

All sanitary waste will be collected from the portable units a minimum of once per week by a licensed sanitary waste management contractor.

SPILL PREVENTION

A. MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances during construction to stormwater runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:
- o An effort will be made to store only sufficient amounts of products to do the job.
- o All materials stored on site will be stored in a neat, orderly manner in their proper (original if possible) containers and, if possible, under a roof or other enclosure.
- o Manufacturer's recommendations for proper use and disposal will be followed.
- o The site superintendent will inspect daily to ensure proper use and disposal of materials.
- o Substances will not be mixed with one another unless recommended by the manufacturer.
- o Whenever possible all of a product will be used up before disposing of the container.

Hazardous Products:

The following practices will be used to reduce the risks associated with hazardous materials:
- o Products will be kept in their original containers unless they are not resealable.
- o Original labels and material safety data will be retained for important product information.
- o Surplus product that must be disposed of will be discarded according to the manufacturer's recommended methods of disposal.

B. PRODUCT SPECIFICATION PRACTICES

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt based substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts directed by the specifications. Once applied fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed or enclosed trailers. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid

Paints:

spills.
All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be disposed of properly according to manufacturer's instructions or state and local regulations.

Concrete Trucks:

Concrete trucks will discharge and wash out surplus concrete or drum wash water in a contained area on site.

C. SPILL CONTROL PRACTICES

In addition to good housekeeping and material management practices discussed in the previous section the following practices will be followed for spill prevention and cleanup:
- o Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- o Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic or metal trash containers specifically for this purpose.
- o All spills will be cleaned up immediately after discovery.
- o The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- o Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of the size.
- o The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to cleanup the spill if it recurs. A description of the spill, its cause, and the cleanup measures will be included.
- o The site superintendent responsible for day–to–day site operations will be the spill prevention and cleanup coordinator.

MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES

The project proponent is responsible for the maintenance of all stormwater facilities during construction and the property owner is responsible after construction is complete.

CATCH BASINS & STORMWATER TREATMENT STRUCTURES

1. Catch basins & Stormwater treatment structures should be inspected on a monthly basis and/or after a major rainfall event to assure that debris or sediments do not reduce the effectiveness of the system.

WINTER CONSTRUCTION NOTES

1. All CONSTRUCT 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 3:1, 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.
2. All slopes 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.
3. After October 15th, incomplete road surfaces shall be protected with a minimum of 3–inches of crushed gravel per NHDOT item 403.3, or if construction is to continue through the winter season be cleared of any accumulated snow after each storm event.

The project proponent is required to manage construction to meet the requirements of AGR 3800 relative to controlling invasive species and controlling fugitive dust in accordance with ENV–A 1002.

AGR 3800 Prohibited Invasive Plant Species Rules

The rule, Agr 3800, states : "No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1, New Hampshire prohibited invasive species list". A complete copy of the rules can be accessed on the internet at http://agriculture.nh.gov/topics/plants_insects.htm.

Env–A 1002 FUGITIVE DUST: Precautions to Prevent, Abate, and Control Fugitive Dust

(a) Any person engaged in any activity within the state that emits fugitive dust, other than those listed in Env–A 1002.02(b), shall take precautions throughout the duration of the activity in order to prevent, abate, and control the emission of fugitive dust.

(b) Precautions required by (a), above, shall include but not be limited to the following:

(1) The use of water or hydrophilic material on operations or surfaces, or both;

(2) The application of asphalt, water or hydrophilic material, or tarps or other such covers to material stockpiles;

(3) The use of hoods, fans, fabric filters, or other devices to enclose and vent areas where materials prone to producing fugitive dust are handled;

(4) The use of containment methods for sandblasting or similar operations; and

(5) The use of vacuums or other suction devices to collect airborne particulate matter.

BLASTING

1) All activities associated with blasting need to be optimized to prevent the release of chemicals associated with blasting activities to the environment.
2) Identify drinking water wells located within 2000 feet of the CONSTRUCT 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 blast water quality monitoring and be approved by NHDES prior to initiating blasting. The groundwater sampling program must be implemented once approved by NHDES.
3) The following Best Management Procedures for blasting shall be complied with:
   (1) Loading practices. The following blasthole loading practices to minimize environmental effects shall be followed:
      (a) 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.
      (b) 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.
      (c) 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.
      (d) 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.
      (e) 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.
      (f) Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking and column rise need to be attended to.
   (2) Explosive Selection. The following BMPs shall be followed to reduce the potential for groundwater contamination when explosives are used:
      (a) Explosive products shall be selected that are appropriate for site conditions and safe blast execution.
      (b) 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.
   (3) Prevention of Misfires. Appropriate practices shall be developed and implemented to prevent misfires.
   (4) 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:
      (a) Remove the muck pile from the blast area as soon as reasonably possible.
      (b) Manage the interaction of blasted rock piles and stormwater to prevent contamination of water supply wells or surface water.
   (5) 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:
      (a) The fuel storage requirements shall include:
         1. Storage of regulated substances on an impervious surface;
         2. Secure storage areas against unauthorized entry;
         3. Label regulated containers clearly and visibly;
         4. Inspect storage areas weekly;
         5. Cover regulated containers in outside storage areas;
         6. 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; and
         7. 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.
      (b) The fuel handling requirements shall include:
         1. Except when in use, keep containers containing regulated substances closed and sealed;
         2. Place drip pans under spigots, valves, and pumps;
         3. Have spill control and containment equipment readily available in all work areas;
         4. Use funnels and drip pans when transferring regulated substances; and
         5. Perform transfers of regulated substances over an impervious surface.
      (c) 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.
      (d) 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. (see <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb–22–6.pdf>

PLANNING FILE NO.: P15–38A

No.	DATE	BY	REVISION
3	6–28–16	SJH	UPDATE SITE PLAN
2	6–7–16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	2–15–16	SJH	REVISION PER ARCHITECTURAL UPDATE

EROSION CONTROL NOTES

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430–CONSTRUCTION.DWG

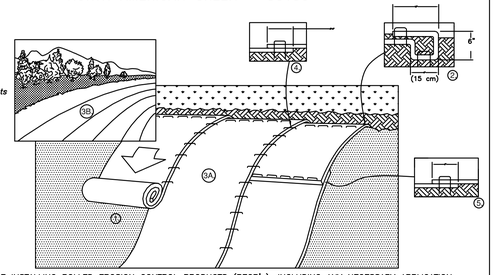
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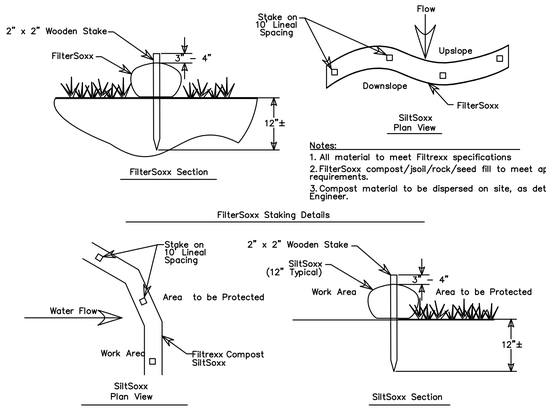
NORTH AMERICAN GREEN

EROSION CONTROL *Products Guaranteed* SOLUTIONS

1 SLOPE INSTALLATION
NORTH AMERICAN GREEN – SC150

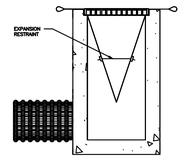


1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE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



1. *SEE EROSION CONTROL NOTES FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.*

3 Filter Barrier Detail
NOT TO SCALE



INSTALLATION DETAIL

SILTSACK®
SPECIFICATIONS

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS AS SUPPLIED BY AH HARRIS OF PORTSMOUTH OR APPROVED EQUAL

REGULAR FLOW SILTSACK●

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	600 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI-FLOW SILTSACK●

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

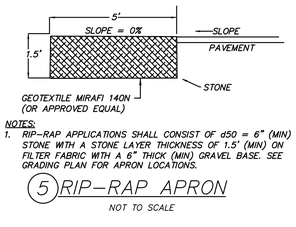
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

OIL-ABSORBANT SILTSACK●

(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK® CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK®, WITH A WOVEN PILLOW INSERT.

4 DETAIL OF INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE



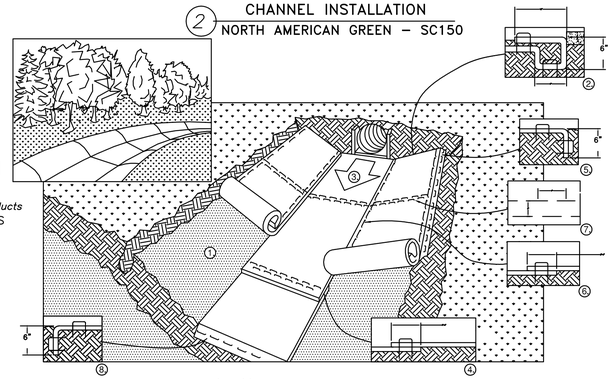
NOTES:
1. *RIP–RAP APPLICATIONS SHALL CONSIST OF d50 = 6" (MIN) STONE WITH A STONE LAYER THICKNESS OF 1.5' (MIN) ON FILTER FABRIC WITH A 6" THICK (MIN) GRAVEL BASE. SEE GRADING PLAN FOR APRON LOCATIONS.*

5 RIP–RAP APRON
NOT TO SCALE

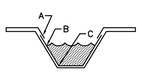
NORTH AMERICAN GREEN

EROSION CONTROL *Products Guaranteed* SOLUTIONS

2 CHANNEL INSTALLATION
NORTH AMERICAN GREEN – SC150



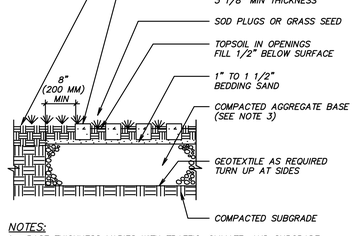
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



NOTES:
1. *BASE THICKNESS VARIES WITH TRAFFIC, CLIMATE, AND SUBGRADE.*
2. *MINIMUM BASE THICKNESS: 6" RESIDENTIAL DRIVEWAYS*
   8" FIRELANES & PARKING LOTS.
3. *SUPPLIER SHALL PROVIDE SITE SPECIFIC DESIGN FOR DESIGN ENGINEER REVIEW & ACCEPTANCE PRIOR TO INSTALLATION. H–20 LOADING REQUIRED.*

6 CONCRETE GRID PAVERS
NOT TO SCALE

PLANNING FILE NO.: P15–38A

No.	DATE	BY	REVISION
3	8-28-18	SJH	UPDATE SITE PLAN
2	8-7-18	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

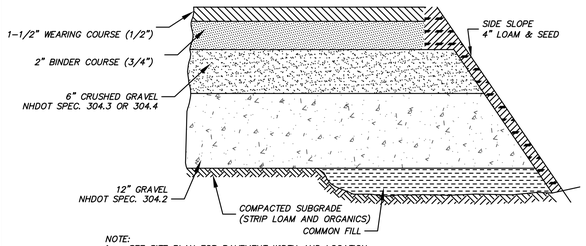
EROSION CONTROL DETAILS

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430–CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

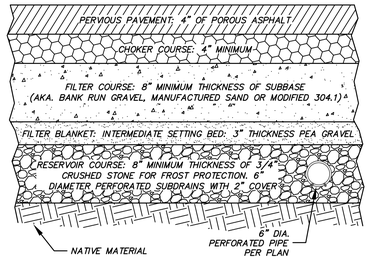
DESIGN: DCL
SCALE: AS SHOWN
DATE: 2–12–16
SHEET: 9 OF 20
PROJECT #14102



NOTE:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.

7 TYPICAL PAVEMENT SECTION

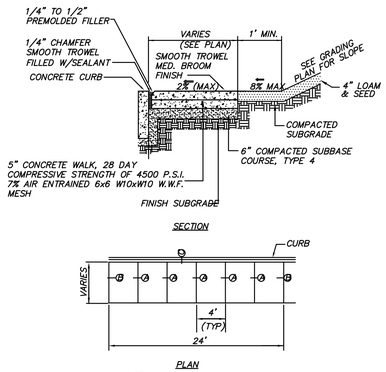
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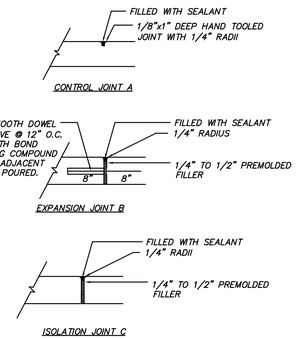


NOTE:
1. SEE SITE PLAN FOR LOCATION OF POROUS PAVEMENT, PAVEMENT WIDTH AND LOCATION.
2. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON THE POROUS PAVEMENT OR BASE MATERIALS.
3. PLACEMENT OF POROUS PAVEMENT AND BASE MATERIALS SHALL BE MONITORED BY THE DESIGN ENGINEER. ADVISE THE CITY ENGINEER AS TO INSTALLATION SCHEDULE.
4. CRUSHED STONE, BANK RUN GRAVEL & CRUSHED GRAVEL MATERIALS SHALL CONFORM WITH NHDOT STD. SPECIFICATIONS, SECTION 304.
5. POROUS PAVEMENT SHALL CONFORM WITH GENERAL POROUS BITUMINOUS PAVING SPECIFICATIONS PREPARED BY THE UNH STORMWATER CENTER 2/14).
6. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.

8 POROUS PAVEMENT SECTION

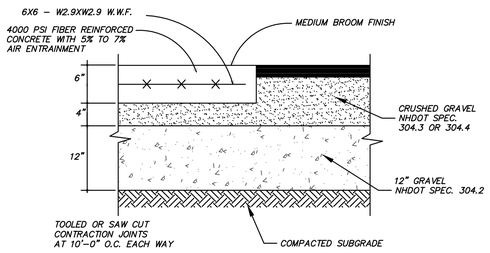
NOT TO SCALE





9 CONCRETE SIDEWALK WITH GRANITE CURB

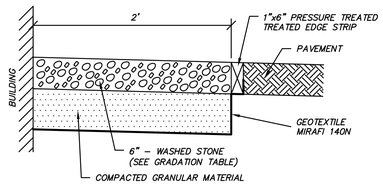
NOT TO SCALE



NOTE: PITCH CONCRETE PAD GRADING TO CENTER

10 DUMPSTER DETAIL

NOT TO SCALE



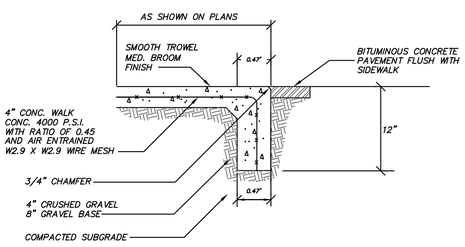
WASHED STONE

SIEVE SIZE	% FINER BY WEIGHT
1"	100
3/4"	90 - 100
3/8"	20 - 55
# 4	0

NOTES:
SEE SITE PLAN FOR LIMITS OF DRIP STRIP.

11 DRIP STRIP

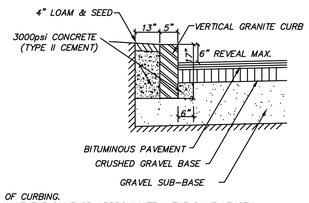
NOT TO SCALE



12 CONCRETE WALKWAY WITH MONOLITHIC CONCRETE CURB

NOT TO SCALE

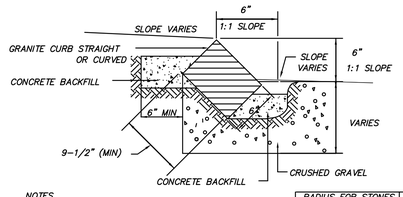
RADIUS	MAX. LENGTH
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'



NOTES
1. SEE SITE PLAN FOR LIMITS OF CURBING.
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF CURB STONES = 3'
4. MAXIMUM LENGTH OF CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE CHART)
6. ALL RADII 20 FEET AND SMALLER TO BE CONSTRUCTED USING CURVED SECTIONS.

13 VERTICAL GRANITE CURB

NOT TO SCALE



NOTES
1. ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
2. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
3. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART

RADIUS FOR STONES WITH SQUARE JOINTS	MAXIMUM LENGTH
16'-28'	1'-6"
29'-41'	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
OVER 110'	8'

14 SLOPED GRANITE CURBING

NOT TO SCALE

PLANNING FILE NO.: P15-38A

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	2-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

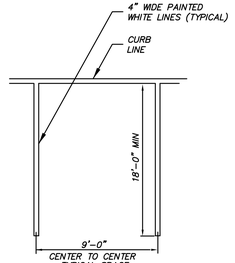
DETAIL SHEET

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

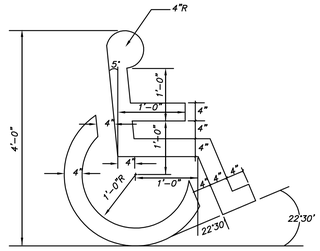
1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: AS SHOWN
DATE: 2-12-16
SHEET: 10 OF 19
PROJECT #14102

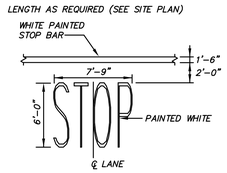


STANDARD
15 PARKING STALL
NOT TO SCALE



NOTE: SYMBOL TO BE PAINTED IN ALL HANDICAPPED SPACES

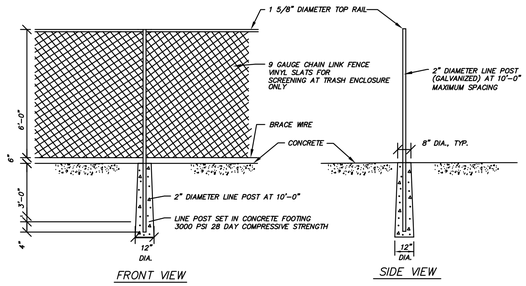
PAINTED
16 HANDICAP SYMBOL
NOT TO SCALE



NOTE: PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS SHOWN ON THE PLANS. APPLY TWO COATS.

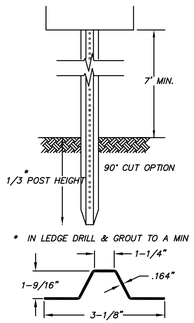
STOP BAR & LEGEND

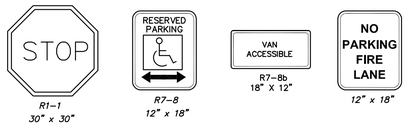
17 PAVEMENT MARKINGS
NOT TO SCALE



NOTES:
1. DUMPSTER CHAINLINK FENCE SHALL HAVE GREEN VINYL PRIVACY SLATS.

18 CHAINLINK FENCE DETAIL
NOT TO SCALE



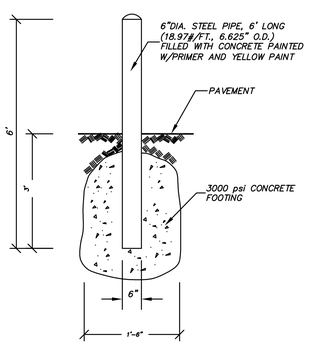


NOTE:
1. ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. "CUSTOMER WITH INFANT PARKING" SIGN TO BE ON PORTABLE POST AND BASE COMBINATION.

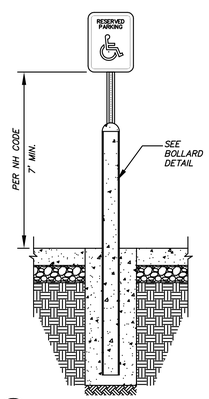
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN

BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

19 SIGN LEGEND & SIGN POST
NOT TO SCALE



20 BOLLARD DETAIL
NOT TO SCALE



21 SIGN IN BOLLARD
NOT TO SCALE

PLANNING FILE NO.: P15-38A

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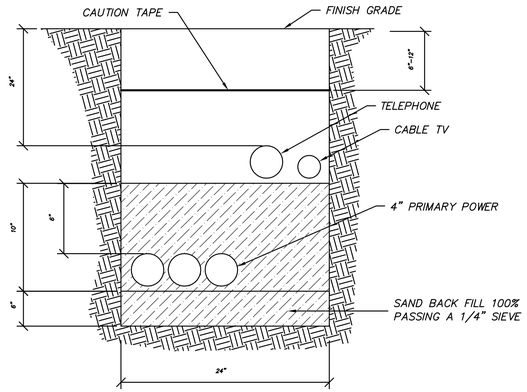
DETAIL SHEET

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
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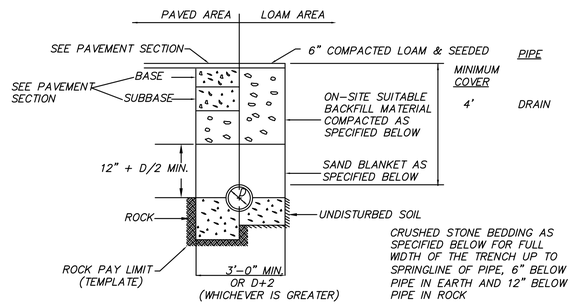
DESIGN: DCL
SCALE: AS SHOWN
DATE: 2-12-16
SHEET: 11 OF 20
PROJECT #14102



1. TELEPHONE CONDUIT SHALL BE 3" SCHEDULE 40 PVC, WITH STEEL SWEEPS AT RISER POLE, 90° BENDS AND AT BUILDING.
2. LEAVE PULL ROPE IN ALL CONDUITS FOR CABLE INSTALLATION.
3. FOR COMPLETE SPECIFICATIONS SEE "PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE CONSTRUCTION SPECIFICATIONS FOR UNDERGROUND CONDUIT SYSTEMS".
4. CONTRACTOR SHOULD VERIFY THE NUMBER & SIZE OF CONDUIT WITH THE APPROPRIATE UTILITIES.

22 UTILITY TRENCH

NOT TO SCALE



BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET & BEDDING

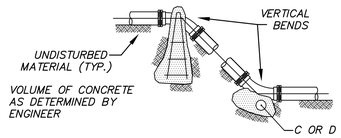
SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 – 100
200	0 – 15
(FOR WATER MAIN BEDDING)	

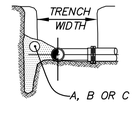
3/4" CRUSHED STONE BEDDING

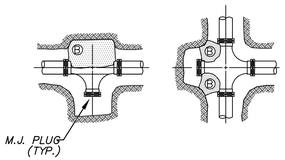
SIEVE SIZE	% FINER BY WEIGHT
1"	100
3/4"	90 – 100
1/2"	20 – 50
3/8"	0 – 20
# 4	0 – 5

23 DRAINAGE TRENCH

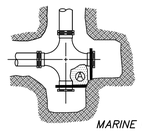
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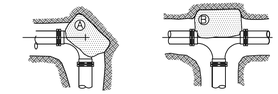




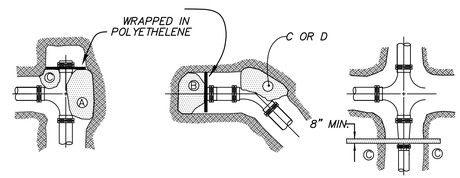


TEST PRESSURE = 200psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL					
	REACTION TYPE	PIPE SIZE				
		4"	6"	8"	10"	12"
	A 90°	0.89	2.19	3.82	11.14	17.24
	B 180°	0.65	1.55	2.78	8.38	12.00
	C 45°	0.48	1.19	2.12	6.02	9.32
	D 22-1/2°	0.25	0.60	1.06	3.08	4.74
	E 11-1/4°	0.13	0.30	0.54	1.54	2.38



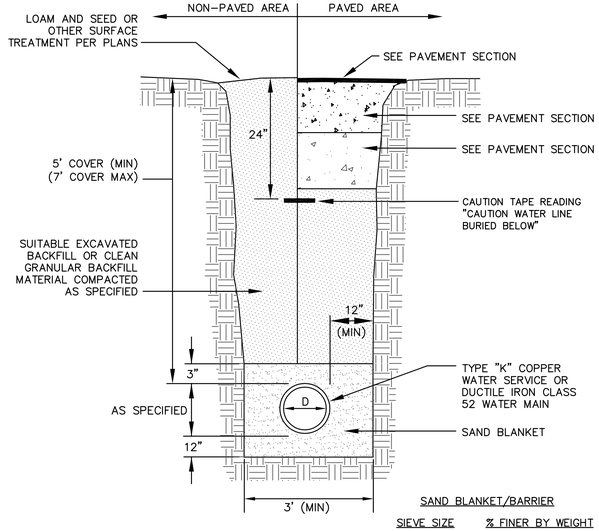


NOTES:
1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.



24 TRUST BLOCK DETAIL

NOT TO SCALE



SAND BLANKET/BARRIER

SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 – 100
200	0 – 15

NOTES
1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

25 WATER MAIN TRENCH

NOT TO SCALE

PLANNING FILE NO.: P15-38A

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

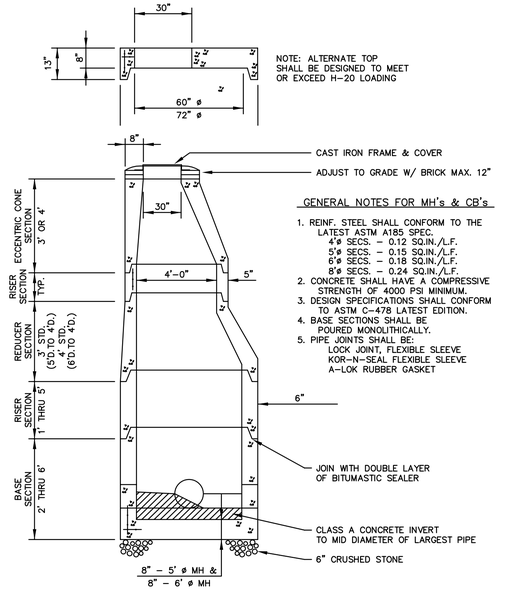
DETAIL SHEET

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430-CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: AS SHOWN
DATE: 2-12-16
SHEET: 12 OF 20
PROJECT #14102

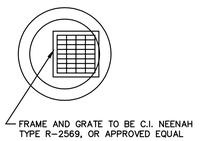


GENERAL NOTES FOR MH's & CB's

1. REINF. STEEL SHALL CONFORM TO THE LATEST ASTM A185 SPEC.
   4'ø SECS. – 0.12 SQ.IN./L.F.
   5'ø SECS. – 0.15 SQ.IN./L.F.
   6'ø SECS. – 0.18 SQ.IN./L.F.
   8'ø SECS. – 0.24 SQ.IN./L.F.
2. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI MINIMUM.
3. DESIGN SPECIFICATIONS SHALL CONFORM TO ASTM C-478 LATEST EDITION.
4. BASE SECTIONS SHALL BE POURED MONOLITHICALLY.
5. PIPE JOINTS SHALL BE:
   LOCK JOINT, FLEXIBLE SLEEVE
   KOR-N-SEAL FLEXIBLE SLEEVE
   A-LOK RUBBER GASKET

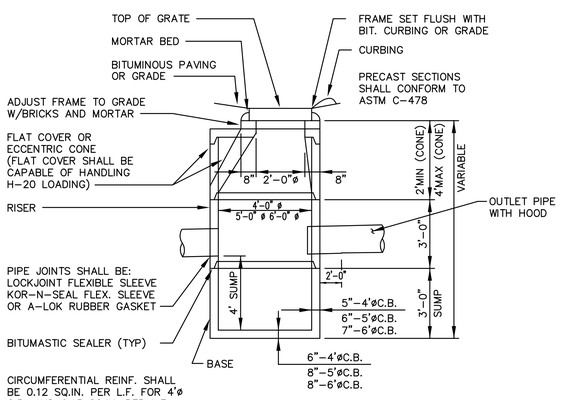
26 STANDARD 4 FT. DIA. MANHOLE

NOT TO SCALE



27 GRATE DETAIL

NOT TO SCALE

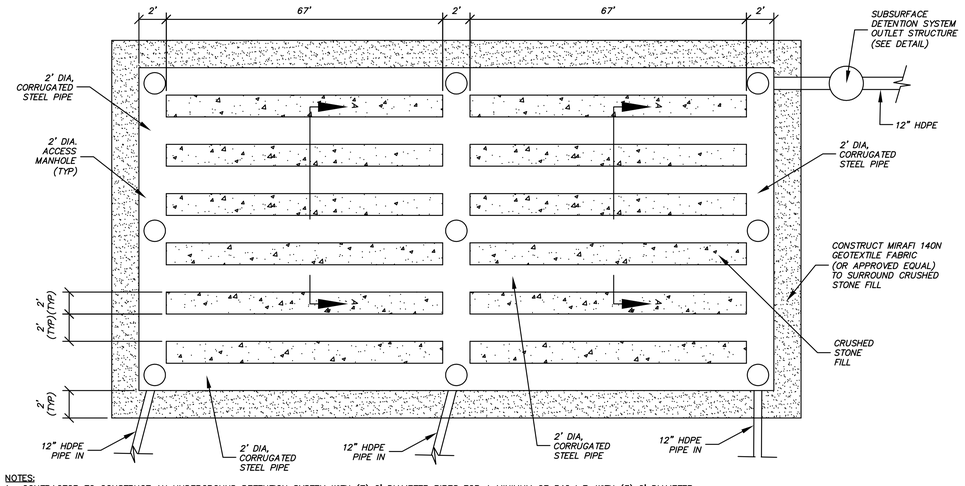


28 PRE-CAST REINFORCED CATCH BASIN

NOT TO SCALE

SPECIFICATIONS

1. All construction shall conform with the State of New Hampshire Department of Transportation (NHDOT), "Standard Specifications for Road and Bridge Construction"; hereinafter referred to as the "Standard Specifications".
2. Catch basins and manholes shall be pre-cast reinforced concrete designed by an engineer registered in New Hampshire, and able to withstand loadings of 8 tons (H20 Loading).
3. Manholes shall have cast iron frames and covers with 30" inside diameter openings. A 3-inch (minimum) letter "D" for drain shall be plainly cast into the center of each cover.
4. Catch basins and manholes shall be adjusted to grade with courses of brick. Maximum adjustment to grade shall be 12 inches. Frames shall be set on a full bed of mortar, true to grade and concentric with the masonry. All voids between the top of the structure and the bottom flange of the frame shall be completely filled to make a watertight fit. A ring of mortar at least one inch thick and pitched to shed water away from the frame, shall be placed over and around the outside of the bottom flange. The mortar shall extend to the outer edge of the masonry all around its circumference and shall be finished smooth. No visible leakage will be permitted.
5. Invert channels of sewer manholes shall be formed smoothly to the largest pipe radius. Changes in grade shall be formed smoothly and evenly. The floor of the structure outside the channels shall be sloped towards the channels at approximately 1/2 inch per foot. The floor at the channel shall match the crown of the largest pipe.
6. Trench construction will conform with Section 603.3.1 of the Standard Specifications (1974).
7. Wood sheeting or a suitable trench box shall be used to support the trench as necessary. If wood sheeting is used, it shall be driven at a distance of 1 foot from the outside diameter of the pipe to a depth 6 inches below the invert of the pipe. Wood sheeting shall be cut off and left in place to an elevation not less than 1 foot above the top of the pipe, but not greater than 3 feet below the finished grade.
8. Bedding shall conform with Section 603.3.2 of the Standard Specifications (1974).
9. Backfill material will conform with Section 603.3.5 of the Standard Specifications (1974) and, in addition, shall exclude debris, pieces of pavement, organic matter, top soil, all wet or soft muck, peat or clay, all excavated ledge material, frozen material, all rocks over 6 inches in largest dimension, or any material which, as determined by the Engineer, will not provide sufficient support or maintain the completed construction in a stable condition. Backfill shall not be placed on frozen or previously frozen material.
10. All backfill and bedding compaction shall meet the requirements of AASHTO 99 Method C. Density shall be 95 percent. Compaction shall be 6 inch lifts for bedding and backfill to a plane 1 foot above the pipe and in 12 inch lifts thereafter by an approved mechanical compactor.
11. Should frozen material be encountered, it shall not be placed in the backfill nor shall backfill be placed upon frozen material. Previously frozen material shall be removed as required before new backfill is placed.
12. The Contractor shall be responsible for any damage to frames and grates during and from the time of removal from the existing structure to and during the time of resetting, and shall replace in kind any damaged frames or grates at no additional compensation.
13. All trenches will be covered and debris, including any rejected materials, shall be removed daily. Strict safety precautions shall be maintained at all times.
14. Location of utilities shown on the plans are approximate.
    a) the Contractor shall, 48 hours prior to construction, notify the utility companies and have all utilities in the vicinity of the construction marked in the field.
    b) after the utilities have been located and prior to construction, the Contractor with the Engineer, shall layout the CONSTRUCT drainage system in the field and rectify any utility conflicts which may be found.
    c) Any conflicts with utilities found during construction by the Contractor shall be immediately brought to the attention of the Engineer and the Utility Company and properly rectified.
    d) The Contractor is responsible for the cost of repair for any utilities damaged during construction. The Contractor shall contact the Utility Company to repair any damages, however, the Contractor may make appropriate repairs with the Utility Company's permission.
15. Complete shop drawings for pipe, manholes, catch basins, frames, grates and covers shall be submitted in triplicate for approval by the Engineer prior to the start of construction. Each shop drawing shall be checked and initialized by the Contractor to indicate approval before it is submitted to the Engineer.
16. Shop drawings for flat concrete covers shall be stamped prior to submission for approval by a New Hampshire Registered Professional Engineer.
17. Brick masonry for setting frames and brick and mortar plugs shall conform to the Standard Specification Section 604.2.4.



NOTES:
1. CONTRACTOR TO CONSTRUCT AN UNDERGROUND DETENTION SYSTEM WITH (7) 2' DIAMETER PIPES FOR A MINIMUM OF 342 L.F. WITH (3) 2' DIAMETER HEADERS.
2. THE SUBSURFACE DETENTION SYSTEM TO BE GALVANIZED STEEL PIPE DESIGNED FOR HS-20 LOADING.
3. ALL ACCESS MANHOLES AND COVERS SHALL MEET HS-20 LOADING REQUIREMENTS.
4. CONTRACTOR SHALL PROVIDE A SUBSURFACE DETENTION SYSTEM DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN NEW HAMPSHIRE UNDER CONTRACT TO THE CONTRACTOR.
5. FOR STRUCTURAL SYSTEM DESIGN NOTE THE DEPTH OF BURY AS SHOWN ON THE GRADING PLAN.
6. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL COMPONENTS OF THE SUBSURFACE DETENTION SYSTEM COMPLETE AND IN PLACE.

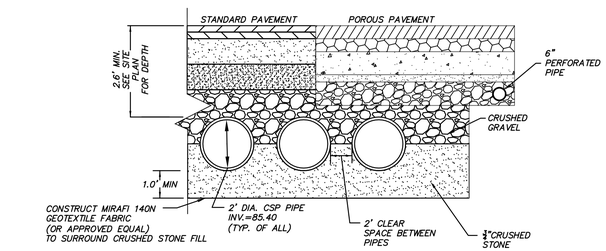
SHOP DRAWING REQUIREMENTS:
1. CONTRACTOR SHALL SUBMIT AN ENGINEERED SHOP DRAWING OF THE SUBSURFACE DETENTION SYSTEM PREPARED BY AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN NEW HAMPSHIRE. THE ENGINEERED SHOP DRAWING SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND ACCEPTANCE. THE ENGINEERED SHOP DRAWING MUST BE REVIEWED AND ACCEPTED BY THE OWNER PRIOR TO ANY WORK BEGINNING ON THE DETENTION SYSTEM.
2. SHOP DRAWING INCLUDES PIPE MATERIALS AND SPECIFICATIONS, BACKFILL MATERIAL, SPECIFICATIONS AND MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES AND MATERIALS.

PERMIT REQUIREMENTS:
1. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE BUILDING INSPECTOR AND OBTAIN ANY PERMITS REQUIRED FOR THE CONSTRUCTION OF THE UNDERGROUND DETENTION SYSTEM. THIS INCLUDES PROVIDING THE BUILDING INSPECTOR WITH ANY AND ALL CALCULATIONS AND PLANS NECESSARY FOR ISSUANCE OF A BUILDING PERMIT AS REQUIRED.

CONSTRUCTION REVIEW AND CERTIFICATION:
1. THE CONTRACTORS' DESIGN ENGINEER SHALL WITNESS AND INSPECT THE DETENTION SYSTEM DURING CONSTRUCTION AND SHALL CERTIFY TO THE OWNER THAT THE DETENTION SYSTEM WAS CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERED SHOP DRAWING AND THE APPROVED PLANS AND SPECIFICATIONS SUBMITTED AND APPROVED AS PART OF THE BUILDING PERMIT.

29 SUBSURFACE DETENTION SYSTEM
PLAN VIEW

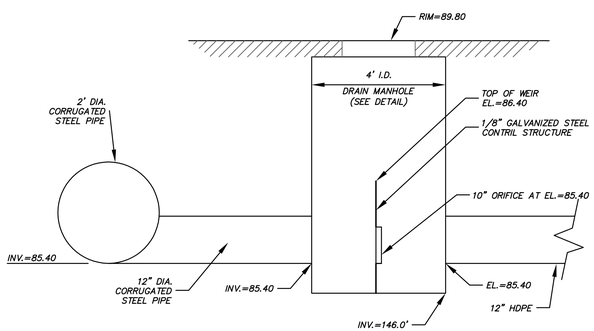
NOT TO SCALE



NOTE:
1. CONSTRUCT (7)-2.0' DIAMETER PIPES WITH (3) 2.0' DIAMETER HEADERS.

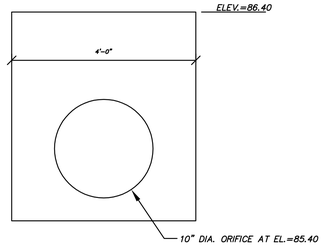
30 SUBSURFACE DETENTION AREA
SECTION A-A

NOT TO SCALE



31 SUBSURFACE DETENTION OUTLET STRUCTURE (OS-1)

NOT TO SCALE



32 1/8" GALVANIZED STEEL CONTROL STRUCTURE
NOT TO SCALE
DETAIL

PLANNING FILE NO.: P15-38A

No.	DATE	BY	REVISION
3	9-28-16	SJH	UPDATE SITE PLAN
2	8-7-16	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

DETAIL SHEET

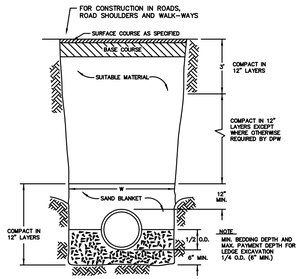
JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430-CONSTRUCTION.DWG

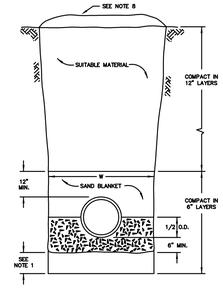
CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN:	DCL
SCALE:	AS SHOWN
DATE:	2-12-16
SHEET:	13 OF 20
PROJECT #14102	

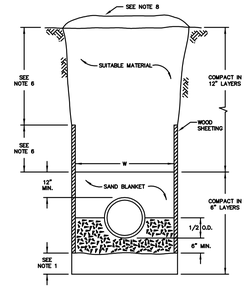
(33) STANDARD TRENCH SECTION



LEDGE CONSTRUCTION



EARTH CONSTRUCTION



EARTH CONSTRUCTION WITH SHEETING

NOTES:

1.) ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL. SEE ALSO NOTE 7.

2.) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

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

– CRUSHED STONE 1/2 INCH – 1 1/2 INCH MAY BE USED INSTEAD OF SCREENED GRAVEL WHERE ALLOWED BY THE ENGINEER.

3.) SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER SO GRADED THAT 90–100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE.

4.) SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALK-WAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.

IN CROSS–COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY, WILL BE PRESERVED.

5.) BASE COURSE, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS, (D.O.T.).

6.) WOOD SHEETING, IF REQUIRED. WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID–DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

7.) W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.

8.) FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

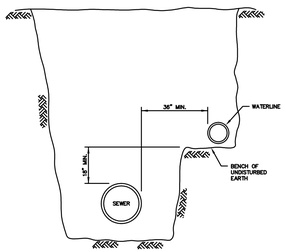
9.) CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000#) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATIONS AS FOLLOWS:

CEMENT: 6.0 BAGS PER CUBIC YARD
WATER : 5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE: 1 INCH

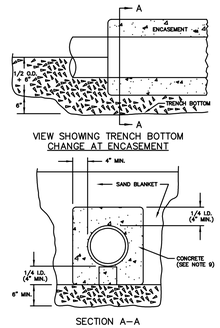
10.) NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION (NH DES) DESIGN STANDARDS REQUIRE 10 FT. SEPARATION. HOWEVER, SHOULD CONSTRUCTION OPERATIONS REVEAL OR EXPOSE A WATERLINE (MAIN OR SERVICE) RUNNING APPROXIMATELY PARALLEL AND LESS THAN 10 FT. HORIZONTAL FROM THE CONSTRUCT SEWER INSTALLATION AND WHERE IT IS NOT PRACTICABLE TO RELOCATE THE SEWER, THE FOLLOWING METHODS OF PROTECTION MUST BE EMPLOYED.

A. IF THE WATERLINE CAN BE KEPT AT LEAST 18 INCHES ABOVE AND 3 FEET TO ONE SIDE OF THE SEWER, AS SHOWN AND SUPPORTED ON A BENCH OF ORIGINAL SOIL, NO OTHER PROTECTION IS REQUIRED.

11.) IF FULL CASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MIN.) BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.



WATER AND SEWER IN SAME TRENCH



VIEW SHOWING TRENCH BOTTOM CHANGE AT ENCASEMENT

SECTION A–A

CONCRETE FULL ENCASEMENT
(SEE NOTE 11)

PLANNING FILE NO.: P15–38A

No.	DATE	BY	REVISION
3	9-28-18	SJH	UPDATE SITE PLAN
2	4-27-18	SJH	REVISED PARKING LAYOUT / 24 BEDS
1	7-15-16	SJH	REVISION PER ARCHITECTURAL UPDATE

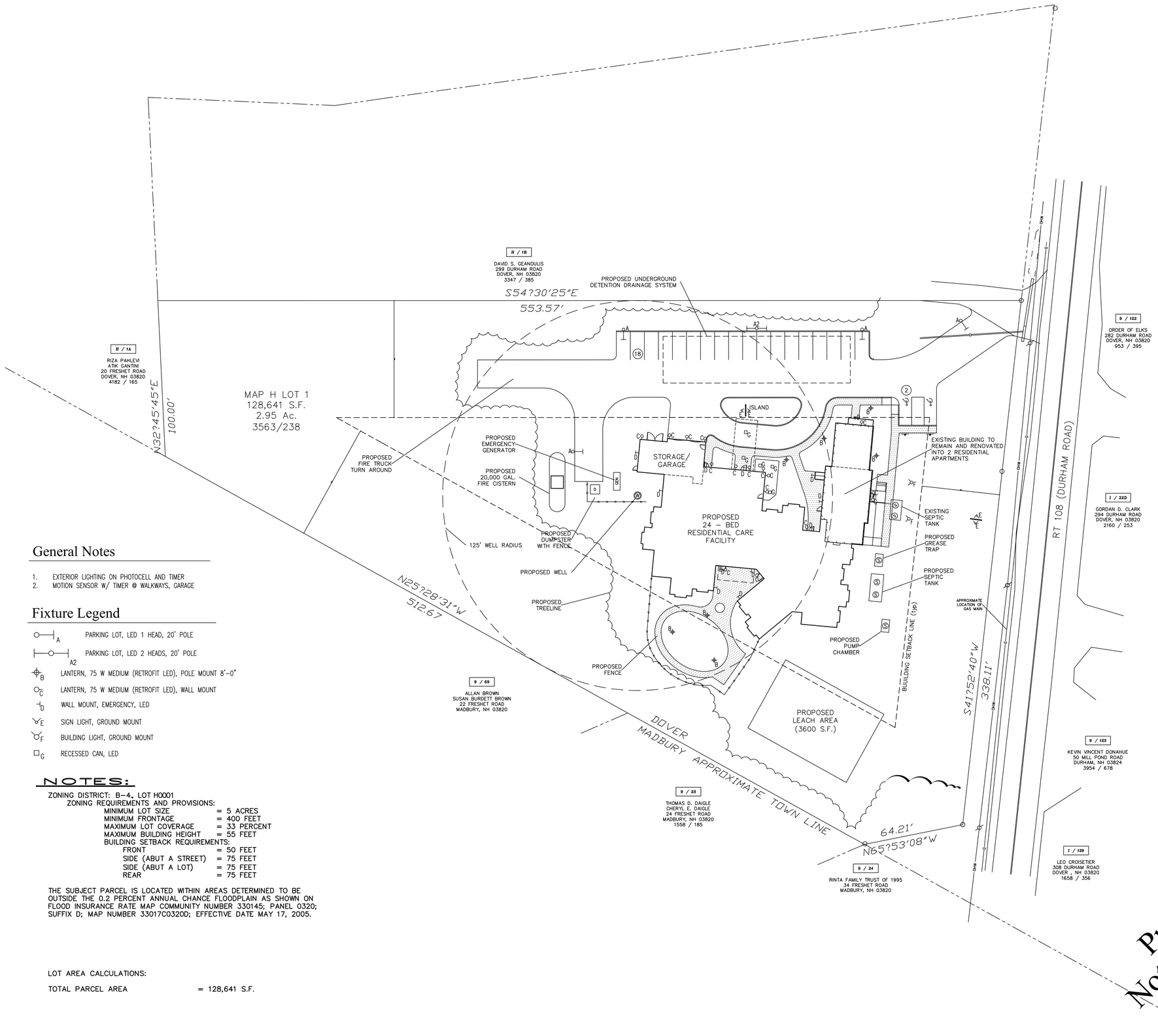
DETAIL SHEET

JOHNSON CREEK VILLAGE
CARE HOME
TAX MAP H, LOT 1
DOVER, NEW HAMPSHIRE

1430–CONSTRUCTION.DWG

CIVILWORKS NEW ENGLAND
CIVIL ENGINEERING
181 Watson Road, P.O. Box 1166
Dover, New Hampshire 03820
(603) 742-1954

DESIGN: DCL
SCALE: AS SHOWN
DATE: 2–12–16
SHEET: 14 OF 20
PROJECT #14102



General Notes

1. EXTERIOR LIGHTING ON PHOTOCELL AND TIMER
2. MOTION SENSOR W/ TIMER @ WALKWAYS, GARAGE

Fixture Legend

- A — PARKING LOT, LED 1 HEAD, 20' POLE
- A2 — PARKING LOT, LED 2 HEADS, 20' POLE
- B — LANTERN, 75 W MEDIUM (RETROFIT LED), POLE MOUNT 8'-0"
- C — LANTERN, 75 W MEDIUM (RETROFIT LED), WALL MOUNT
- D — WALL MOUNT, EMERGENCY, LED
- E — SIGN LIGHT, GROUND MOUNT
- F — BUILDING LIGHT, GROUND MOUNT
- G — RECESSED CAN, LED

NOTES:

ZONING DISTRICT: B-4, LOT H0001
ZONING REQUIREMENTS AND PROVISIONS:

MINIMUM LOT SIZE	= 5 ACRES
MINIMUM FRONTAGE	= 400 FEET
MAXIMUM LOT COVERAGE	= 33 PERCENT
MAXIMUM BUILDING HEIGHT	= 55 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT	= 50 FEET
SIDE (ABUT A STREET)	= 75 FEET
SIDE (ABUT A LOT)	= 75 FEET
REAR	= 75 FEET

THE SUBJECT PARCEL IS LOCATED WITHIN AREAS DETERMINED TO BE OUTSIDE THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0320; SUFFIX D; MAP NUMBER 33017C0320D; EFFECTIVE DATE MAY 17, 2005.

LOT AREA CALCULATIONS:

TOTAL PARCEL AREA = 128,641 S.F.

Progress Print
Not For Construction

AG Architects, PC
634 Central Avenue, Dover, NH 03820
E-Mail ags@agarchitects.com
www.agarchitects.com
Phone: 603-743-3700
Fax: 603-743-3777

Cocheco Village

Dover, New Hampshire

© AG Architects, PC

Consultant:

Revisions:

Date:	28 July 2015
Scale:	1" = 30'-0"
Drawn By: BG	Checked By: AG
Sheet: of	File: 146660-C201-03

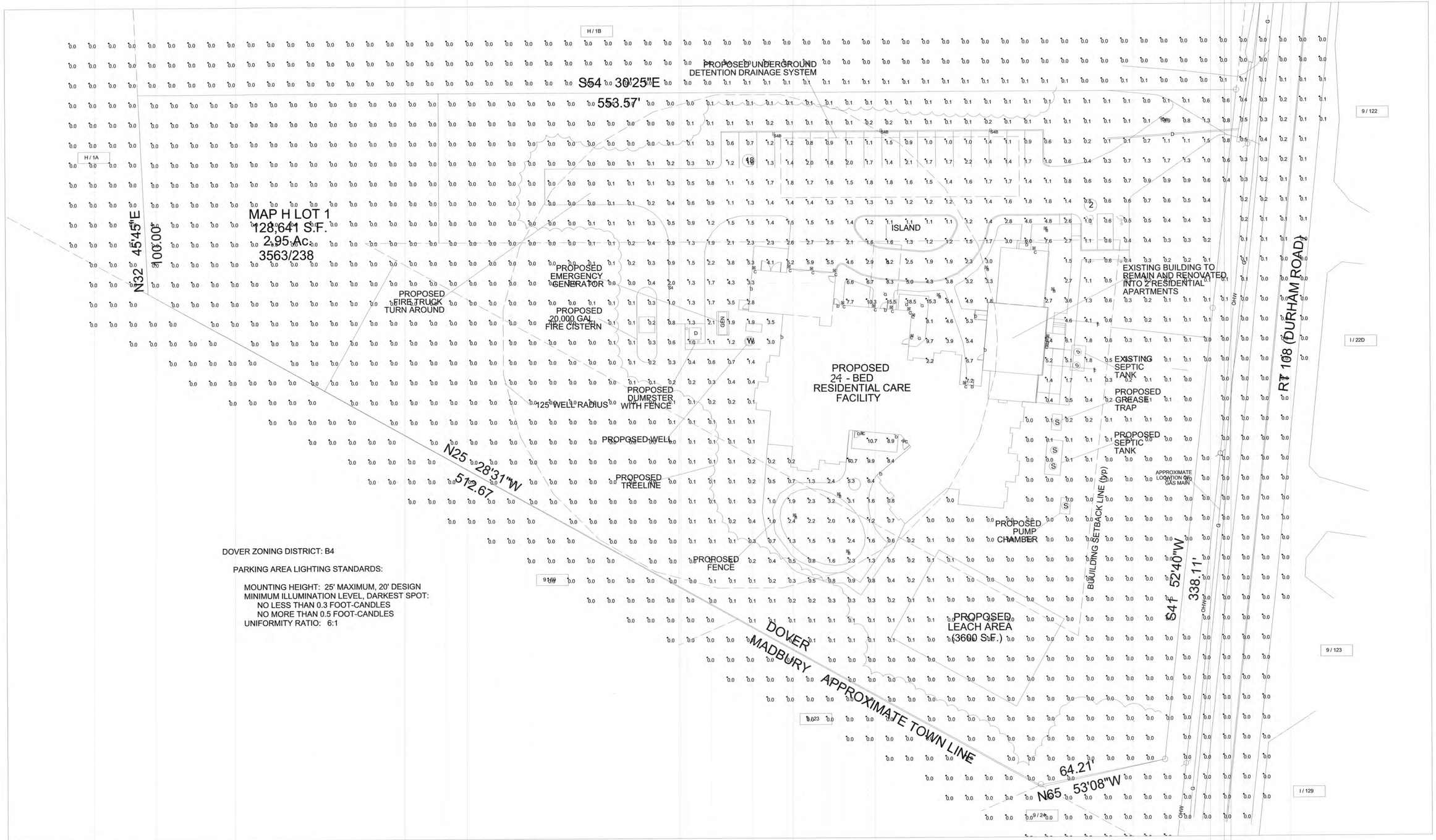
Sheet Title: Site Lighting Plan

Sheet Number: C2.1

Calculation Summary					
Label	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
DROP OFF LOOP	3.18	8.2	1.2	2.65	N.A.
OFF PROPERTY	N.A.	0.5	0.0	N.A.	N.A.
PARKING AREA	1.36	4.4	0.3	4.53	N.A.
WHOLE SITE	N.A.	18.5	0.0	N.A.	N.A.

Luminaire Schedule (note fixture catalogue numbers are not complete)						
Type	**Symbol**	**Qty**	**Lum. Lumens**	**LLF**	**Lum. Watts**	**Description**
S4		1	5714	0.920	65	22NB-65-T4-4K
D		13	1772	0.900	22.2	LNC-9LU-4K-4
G		5	1147	0.900	14.42	LF6SQLEDG4 WITH 6SQLED5G430K
B		7	4629	0.900	193	D241 PA
S4B		4	4092	0.920	70	VP-S_22NB-70_BLC_4K
F		2	2061	0.900	26.5	FSL7
C		16	4629	0.900	193	WALL D241 PA

NOTES:
1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
2) CALCULATIONS MAY SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES TAKEN AS SHOWN IN CALCULATION SUMMARY UNLESS OTHERWISE INDICATED.
4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
7) CHECK GRAPHIC SCALE. DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY OCCUR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



DOVER ZONING DISTRICT: B4

PARKING AREA LIGHTING STANDARDS:

MOUNTING HEIGHT: 25' MAXIMUM, 20' DESIGN
MINIMUM ILLUMINATION LEVEL, DARKEST SPOT:
NO LESS THAN 0.3 FOOT-CANDLES
NO MORE THAN 0.5 FOOT-CANDLES
UNIFORMITY RATIO: 6:1

PLAN VIEW

TITLE
COCHECO VILLAGE
DOVER, NH
SITE LIGHTING LAYOUT

Cocheco site 7-30-15.AGI

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

GENERATED FOR:
AG ARCHITECTS

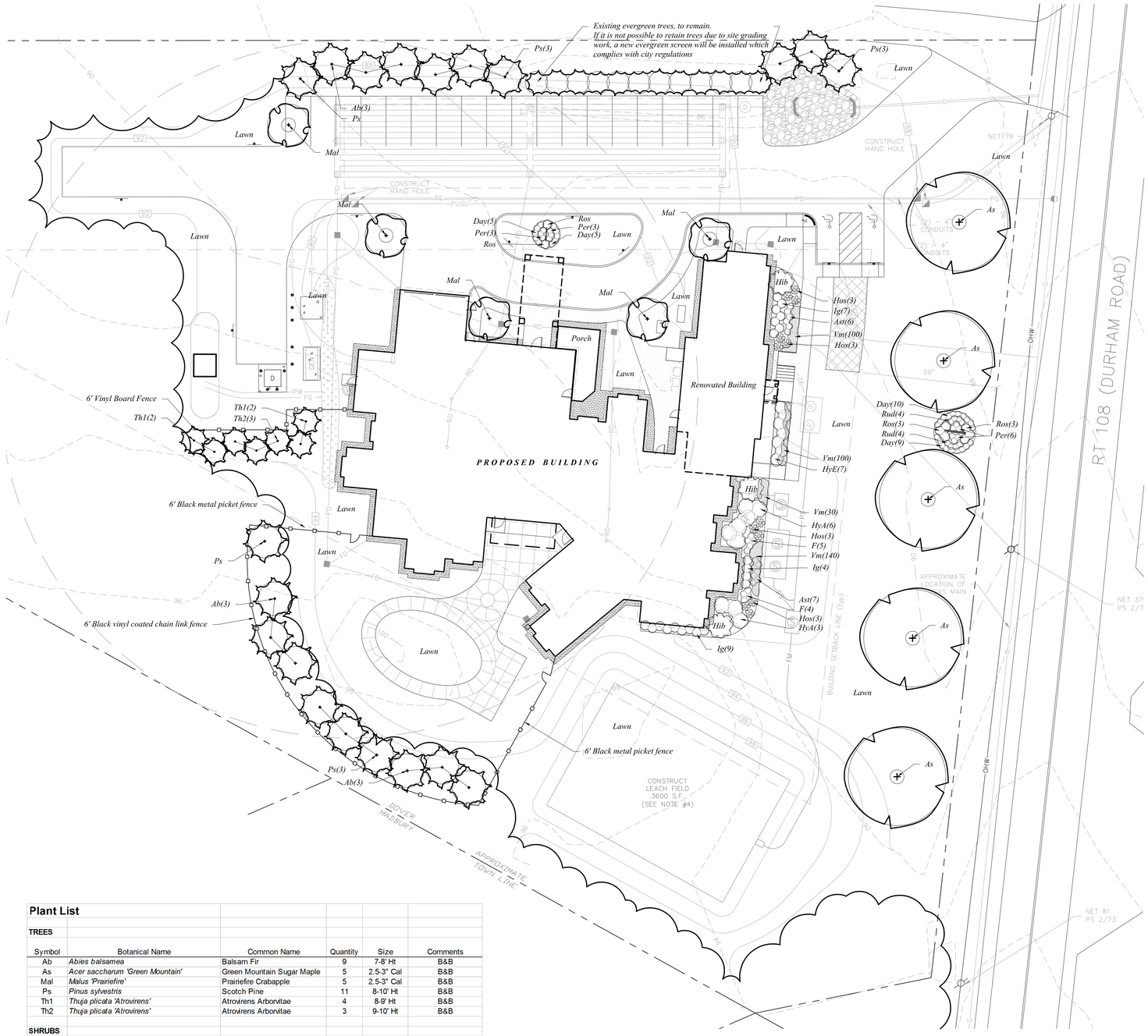
SCALE NOT TO SCALE

Page 1 of 1

Date:7/30/2015

SLA
SWANEY LIGHTING ASSOCIATES, INC.

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. ITS ACCEPTANCE CONSTITUTES AN AGREEMENT THAT THE DRAWING WILL BE TREATED AS CONFIDENTIAL. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS IT IS TO BE EXECUTED BY SWANEY LIGHTING ASSOCIATES. IT IS NOT TO BE COPIED OR REPRODUCED AND IS TO BE RETURNED UPON REQUEST AND IS NOT TO BE COMMUNICATED, DISCLOSED OR COPIED; EXCEPT AS EXPRESSLY AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.
ACCEPTANCE OF THIS LAYOUT IS INTENDED TO INCLUDE ONLY THE BEST UTILIZATION OF LIGHTING FIXTURES INCLUDED IN THIS DRAWING. IT IS PROVIDED USING FIXTURE PHOTOMETRICS AS SUPPLIED BY THE MANUFACTURER. ANY VARIATION IN LIGHTING FIXTURE PERFORMANCE FROM PERFORMANCE SHOWN IN IES FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.



Plant List

TREES

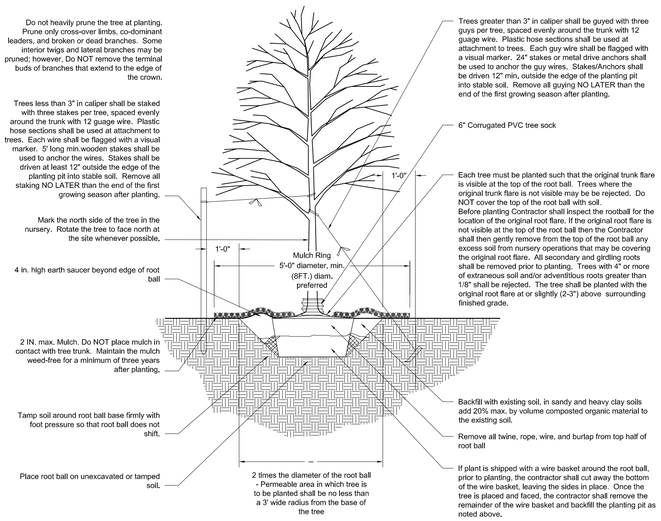
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ab	*Abies balsamea*	Balsam Fir	9	7-8' Ht	B&B
As	*Acer saccharum 'Green Mountain'*	Green Mountain Sugar Maple	5	2.5-3" Cal	B&B
Mal	*Malus 'Prairiefire'*	Prairiefire Crabapple	5	2.5-3" Cal	B&B
Ps	*Pinus sylvestris*	Scotch Pine	11	8-10' Ht	B&B
Th1	*Thuja plicata 'Atrovirens'*	Atrovirens Arborvitae	4	8-9' Ht	B&B
Th2	*Thuja plicata 'Atrovirens'*	Atrovirens Arborvitae	3	9-10' Ht	B&B

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Hib	*Hibiscus syriacus 'Ardens'*	Ardens Rose-of -Sharon	3	6-7' Ht	
HyA	*Hydrangea arborescens 'Annabelle'*	Annabelle Hydrangea	9	5 gal	
HyE	*Hydrangea macrophylla 'Endless Summer'*	Endless Summer Hydrangea	7	5 gal	
Ig	*Ilex glabra 'Shamrock'*	Shamrock Inkberry	20	5 gal	Full to ground
Ros	*Rosa 'Knockout'*	Knockout Rose	8	3 gal	

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ast	*Astilbe 'Fanal'*	Rubyred Astilbe	13	1 gal	
Day	*Hemerocallis 'Big Time Happy'*	Big Time Happy Daylily	29	1 gal	
F	*Matteuccia struthiopteris*	Ostrich Fern	9	1 gal	
Hos	*Hosta 'Frances Williams'*	Frances Williams Hosta	12	1 gal	
Per	*Perovskia atriplicifolia 'Little Spire'*	Russian Sage	12	1 gal	
Rud	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	8	1 gal	
Vm	*Vinca minor 'Bowles'*	Bowles Periwinkle	8	50/flat	



Tree Planting Detail

Landscape Notes

1. Design is based on drawings by Civilworks, Inc dated 7/15/2016 and may require adjustment due to actual field conditions.
2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
3. Erosion Control shall be in place prior to construction.
4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.
5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
7. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
8. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
9. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
10. The Contractor shall procure any required permits prior to construction.
11. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
12. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
13. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
14. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
15. All plants shall be legibly tagged with proper botanical name.
16. The Contractor shall guarantee all plants for not less than one year from time of acceptance.
17. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
18. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
19. All landscaping shall be provided with either of the following
    a. An underground sprinkling system
    b. An outside hose attachment within 150 feet
20. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
21. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
22. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
23. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.
24. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
25. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy.
26. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
27. Landscape Architect is not responsible for the means and methods of the contractor.

0 5 10 20 40

WOODBURN &COMPANY
Landscape Architecture, LLC
103 Kent Place
Newmarket, NH 03857
Tel 603.659.5949
Fax: 603.659.5939

Johnson Creek Village

Landscape Plan

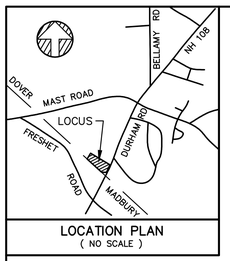
Dover, New Hampshire

Drawn By:	*VM*
Checked By:	*RW*
Scale:	*1" = 20' - 0"*
Date:	*July 30, 2015*
Revisions:	*August 10, 2015 Per TRC Comments*
	July 15, 2016 Per Architecture Update Issued for Construction

L-1

Sheet 17

© 2015 Woodburn & Company Landscape Architecture, LLC



LOCATION PLAN
(NO SCALE)

REFERENCE PLANS:

1.) "MINOR SUBDIVISION , GEORGE DEMOSTHENES, DOVER, NH"; SCALE: 1"=60'; DATED: NOVEMBER, 1994; APPROVED BY CITY OF DOVER PLANNING BOARD JAN. 13, 1995; SCRD PLAN FILE #41A–51; PREPARED BY: RANDY R. ORVIS

2.) "SEPTIC SYSTEM DESIGN, MAP H, LOT 1, DOVER, NH"; PREPARED FOR WILLIAM H. SHAHEEN, 73 PERKINS ROAD, MADBURY, NH; PREPARED BY GROOVER SEPTIC DESIGN; DATED SEPTEMBER, 2002

3.) "AS–BUILT PLAN, TAX MAP H, LOT 1, DOVER, NH"; PREPARED FOR COASTLINE MODULAR HOMES, INC.; PREPARED BY LITTLE RIVER SURVEY COMPANY; DATED: MAY, 2003; SCALE: 1"=30'

4.) SITE IMPROVEMENT AND SUBSURFACE DISPOSAL SYSTEM PLAN, LOT NO., LOT 1, TAX MAP H, STREET ADDRESS:, 301 DURHAM ROAD, CITY / TOWN:, DOVER, NEW HAMPSHIRE, OWNER OF RECORD/APPLICANT:, JANNETH A. BLACK, 272 PANIO STREET, HONOLULU, HAWAII; SCALE: 1"= 20; DATED: 10–01–06, REVISED THROUGH 1/2/07; BY: CIVILWORKS, INC.

NOTES:

1.) OWNER OF RECORD:
REAL MCKOY PROPERTIES LLC
P.O. BOX 1727
DOVER, NEW HAMPSHIRE 03821
S.C.R.D. VOLUME 3563, PAGE 238

2.) H / 1 – DENOTES TAX MAP AND PARCEL NUMBER.

3.) THE INTENT OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS FOR THE SUBJECT PARCEL AT THE TIME OF THIS SURVEY.

4.) TOTAL PARCEL AREA IS 128,641 S.F., 2.95 AC.

4.) ZONING DISTRICT: B–4.
ZONING REQUIREMENTS AND PROVISIONS:

MINIMUM LOT SIZE	= 5 ACRES
MINIMUM FRONTAGE	= 400 FEET
MAXIMUM LOT COVERAGE	= 33 PERCENT
MAXIMUM BUILDING HEIGHT	= 55 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT	= 50 FEET
SIDE (ABUT A STREET)	= 75 FEET
SIDE (ABUT A LOT)	= 75 FEET
REAR	= 75 FEET

5.) THE SUBJECT PARCEL IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0320; SUFFIX D; MAP NUMBER 33017C0320D; EFFECTIVE DATE MAY 17, 2005.

6.) SITE–SPECIFIC SOIL MAP BY JOSEPH NOEL, NH CERTIFIED SOIL SCIENTIST #017.

7.) HORIZONTAL DATUM SHOWN IN BASED UPON REFERENCE PLAN #1. VERTICAL DATUM IS BASED UPON REFERENCE PLAN #2.

8.) THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT AT THE TIME THE TOPOGRAPHIC SURVEY WAS PERFORMED. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE, IS NOT INTENDED OR IMPLIED.

H / 1A
RIZA PAHLEVI
ATIK GANTINI
20 FRESHET ROAD
DOVER, NH 03820
4182 / 165

H / 1B
DAVID S. GEANOULIS
299 DURHAM ROAD
DOVER, NH 03820
3347 / 385

REF. PLAN #1

ROW OF SPRUCE TREES

DRIVE EASEMENT FOR LOT H/1B 10' X 90'

DRIVE EASEMENT FOR LOT H/1 10' X 30'

I.P.(fnd)

S54°30'25"E 553.57'

N32°45'45"E 100.00'

299C/decdb

BITUMINOUS CONCRETE PARKING AREA

38B

943B

TREE LINE (typ)

100' PROTECTIVE WELL RADIUS

313B

H / 1
128,641 S.F.
2.95 Ac.

FF. EL. 84.5

FF. EL. 85.5

EXISTING BUILDING INV. FND. WALLS

BITUMINOUS CONCRETE PARKING AREA

699A

SIGN

BUILDING SETBACK LINE (typ)

S41°52'40"W 338.11'

DURHAM ROAD – NH ROUTE 108

9 / 122
ORDER OF ELKS
282 DURHAM ROAD
DOVER, NH 03820
953 / 395

I / 22D
GORDAN D. CLARK
294 DURHAM ROAD
DOVER, NH 03820
2160 / 253

I.P.(fnd)

N25°28'31"W 512.67

9 / 69
ALLAN BROWN
SUSAN BURDETT BROWN
22 FRESHET ROAD
MADBURY, NH 03820

APPROXIMATE TOWN LINE

DOVER

MADBURY

SUBSURFACE DISPOSAL SYSTEM (SEE REF. PLAN #4)

9 / 123
KEVIN VINCENT DONAHUE
50 MILL POND ROAD
DURHAM, NH 03824
3954 / 678

9 / 23
THOMAS D. DAIGLE
CHERYL E. DAIGLE
24 FRESHET ROAD
MADBURY, NH 03820
1558 / 185

943B

I.P.(fnd)

64.21'

N65°53'08"W

I.P.(fnd)

9 / 24
RINTA FAMILY TRUST OF 1995
34 FRESHET ROAD
MADBURY, NH 03820

I / 129
LEO CROISETIER
308 DURHAM ROAD
DOVER , NH 03820
1658 / 356

SITE-SPECIFIC SOIL MAP NOTES

1) This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for use by McEneaney Survey Associates, Inc. and Civilworks, Inc. for a proposed elderly housing project and Alteration of Terrain requirements. It was produced by a certified soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a narrative report that accompanies this map.
2) This detailed Site-Specific Soil Map conforms to the standards of SSSNNE Publication No. 3, as amended, "Site-Specific Soil Mapping Standards for NH and VT".
3) This map has been prepared to comply with soil mapping requirements of RSA 485 A: 17 and NH DES Env-Wq 1500, Alteration of Terrain.
4) The base map used was produced by McEneaney Survey Associates, Inc. It contains the existing conditions, 2-foot contours and wetland delineation by West Environmental, Inc.

SOIL LEGEND

NUMERICAL SYMBOL	SOIL MAP UNIT NAME
38	Eldridge
299	Udorthents, smoothed
313	Deerfield
699	Urban land
943	Eldridge Variant (somewhat poorly drained)

ALPHA SLOPE SYMBOL	RANGE
A	0-3%
B	3-8%
C	8-15%

DISTURBED SOIL MAPPING UNIT SUPPLEMENT

The five components of the Disturbed Soil Mapping Unit Supplement on this map are as follows:

Symbol 1: Drainage Class
d-Moderately Well Drained
Symbol 2: Parent Material (of naturally formed soil only, if present)
e-Loamy/sandy over Silt/Clay deposits
Symbol 3: Restrictive/Impervious Layers
c-Mineral restrictive layer(s) are present in the soil profile less than 40 inches below the soil surface such as hard pan, platy structure or clayey texture with consistence of at least firm (i.e., more than 20 newtons).
Symbol 4: Estimated Ksat
d-Not determined
Symbol 5: Hydrologic Soil Group
b-Group B

Joseph W. Noel
NH Certified Soil Scientist #017

LEGEND

I.P.(fnd) – IRON PIPE FOUND
S.F. – SQUARE FEET
Ac. – ACRE
± – MORE OR LESS
(TYP.) – TYPICAL
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
313B – SOIL BOUNDARY AND SYMBOL
E – UNDERGROUND ELECTRIC SERVICE
E – GAS LINE

14–1717	EXIST. COND.	14–04	68–73
PROJECT NO	TYPE	FIELDBOOK & PAGES	

NO.	DATE	DESCRIPTION	BY	CHK
1	8/11/15	REV. PER PLANNING BOARD COMMENTS	KJF	DCL

REVISIONS

SHEET EX–1

EXISTING CONDITIONS PLAN
PREPARED FOR
REAL MCKOY PROPERTIES LLC
TAX MAP H, LOT No. 1
301 DURHAM ROAD
CITY of DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

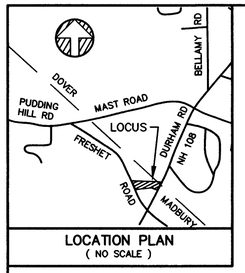
DRAWN BY: KJF	FILE: CPK\1717\14–1717.DWG
SCALE: 1" = 30'	DATE: APRIL 2015

30 15 0 15 30 60 90 120

STATE OF NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR SIGNATURE

McEneaney Survey Associates, inc.
P.O. Box 681 – 24 CHESTNUT STREET
DOVER, NH 03820 (603) 742–0911

SURVEYING – PLANNING – CONSULTING



LOCATION PLAN
(NO SCALE)

No.	Bearing	Distance
L1	N41°29'41"E	21.80'
	[N38°20'48"E]	
L2	N04°00'34"W	5.41'
	[N07°09'27"W]	

REFERENCE PLANS:

1.) MINOR SUBDIVISION, GEORGE DEMOSTHENES, DOVER, NH; SCALE: 1"=60'; DATED: NOVEMBER, 1994; APPROVED BY CITY OF DOVER PLANNING BOARD JAN. 13, 1995; PREPARED BY: RANDY R. ORVIS. RECORDED S.C.R.D. PLAN 41A–51.

2.) SUBDIVISION PLAN OF LAND IN MADBURY, N.H. TAX MAP 9 LOT 24 AS DRAWN FOR LILLIAN H. RINTA. SCALE: 1" = 40'; DATED: APRIL 26, 2018, REVISED THROUGH 06/05/2018; BY: JFP SURVEY & DESIGN LLC. RECORDED S.C.R.D. PLAN 116–34.

MERIDIAN OF REF. PLAN #1

NOTES:

1.) OWNER OF RECORD:
DELLISOLA DEVELOPMENT, LLC
130 CENTRAL AVENUE, SUITE 202
DOVER, NEW HAMPSHIRE 03820
S.C.R.D. VOLUME 4603, PAGE 971

2.) 9 – 24A – DENOTES TAX MAP AND PARCEL NUMBER.

3.) PARCEL AREA = 87,183 S.F. / 2.00 Ac.

4.) THE INTENT OF THIS PLAN IS TO DEPICT THE PARCEL BOUNDARIES, EXISTING SITE CONDITIONS AS OF SEPTEMBER 2018, AND A 1.2 ACRE SOIL LOADING EASEMENT AREA.

5.) ZONING DISTRICT IS:

MADBURY:	RESIDENTIAL/AGRICULTURAL.
DIMENSIONAL REQUIREMENTS:	
MINIMUM LOT SIZE	= 80,000 S.F.
MINIMUM ROAD FRONTAGE	= 200 FEET
FRONT SETBACK	= 50 FEET
SIDE SETBACK	= 15 FEET
REAR SETBACK	= 15 FEET
MINIMUM LOT DEPTH	= 150 FEET
IMPERVIOUS COVERAGE	= 25 PERCENT MAXIMUM

6.) THE SUBJECT PARCEL IS NOT LOCATED WITHIN THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBERS 330145 (DOVER) & 330219 (MADBURY); PANEL 0320; SUFFIX E; MAP NUMBER 33017C0320E; EFFECTIVE DATE SEPT. 30, 2015.

7.) BASIS OF BEARING IS REFERENCE PLAN No. 1.

CONTINUED:

9 – 21
PETER D. HARWOOD
ELIZABETH A. HARWOOD
27 FRESHET ROAD
MADBURY, NH 03823

9 – 26
ETHAN JENNINGS
AMY JENNINGS
29 FRESHET ROAD
MADBURY, NH 03823

9 – 23
THOMAS D. DAIGLE
CHERYL E. DAIGLE
24 FRESHET ROAD
MADBURY, NH 03823
1558 / 185

H / 1
REAL MCKOY PROPERTIES, LLC
P.O. Box 1727
DOVER, NH 03821
3563 / 238

I / 129 DOVER
10 – 8 MADBURY
LEO CROISETIERE
308 DURHAM ROAD
DOVER, NH 03820
1658 / 356

10 – 7
COLDSTREAM PROPERTIES, LLC
316 ROUTE 108
MADBURY, NH 03823

9 – 24
RINTA FAMILY TRUST OF 1995
REBECCA A. PAZDON, TRUSTEE
34 FRESHET ROAD
MADBURY, NH 03823
3409 / 911

9 – 25
OUR MUSTARD SEED, LLC
317 ROUTE 108
MADBURY, NH 03823
2364 / 282

10 – 6
NIKKI TRUST
NICOLLETTA VATISTAS, TRUSTEE
320 ROUTE 108
MADBURY, NH 03823

FRESHET ROAD
IRON PIPE FOUND 1.5"ø, DOWN 2"
(218.43')
[S69°27'32"E]
530.63'
S66°18'39"E
194.59'
N04°08'27"E
[N00°59'34"E]
L2
9 – 24A
PARCEL AREA
87,183 S.F.
2.00 Ac.
TEST PIT (SUBDIV)
TEST PIT (SUBDIV)
163.34'
N15°53'49"E
TEST PIT 3
312.20'
TEST PIT 2
TEST PIT 4
SOIL LOADING EASEMENT AREA
52,272 S.F.
1.20 Ac.
(174.94')
N74°58'06"W
384.94'
[N78°06'59"W]
210.00'
TEST PIT 1
L1
IRON PIPE FOUND 1"ø, UP 4"
100.00'
N48°30'19"W
[N51°39'12"W]
190.00'
S41°29'41"W
[S38°20'48"W]
NH ROUTE 108
DURHAM ROAD
DOVER
MADBURY
TOWN LINE
IRON PIPE FOUND 1"ø, UP 24"
[S68°52'31"E]
64.20'
S65°43'38"E
IRON PIPE FOUND 1"ø, UP 7"

LEGEND

MON (TBS) ◉ – BOUNDARY MONUMENT (TO BE SET)
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
S.F. – SQUARE FEET
Ac. – ACRE
(TYP.) – TYPICAL
ø – DIAMETER
-o- UP – UTILITY POLE
TPIT – SOIL TEST PIT
[N78°06'59"W] – RECORDED BEARING

NOTES CONTINUED:

8.) TOPOGRAPHIC SURVEY PERFORMED BY THIS OFFICE DURING AUGUST AND SEPTEMBER 2018. VERTICAL DATUM IS ASSUMED, CONTOUR INTERVAL IS 2 FOOT.

9.) SOIL TEST PITS 1 – 3 WERE CONDUCTED ON AUGUST 29, 2018 AND TEST PIT 4 WAS CONDUCTED ON SEPTEMBER 19, 2018 BY JOSEPH W. NOEL, NH C.S.S. #017, NH DESIGNER #1104; AND WITNESSED BY MICHAEL CUOMO, C.S.S. FOR ROCKINGHAM COUNTY.
SOIL TEST PITS LABELED (TEST PIT, SUBDIV) ARE AS CONDUCTED FOR THE 2018 SUBDIVISION OF THE SUBJECT PARCEL, REFERENCE PLAN No. 2, AS FIELD LOCATED BY THIS OFFICE DURING SEPTEMBER 2018.

NO.	DATE	DESCRIPTION	BY	CHK
		REVISIONS		

18–1717	EASEMENT	18–05	37–45
PROJECT NO	TYPE	FIELDBOOK & PAGES	

"I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION, BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS."

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

10/1/18
DATE: / KEVIN M. McENEANEY LLS # 661

EXISTING CONDITIONS PLAN AND SOIL LOADING EASEMENT PLAN

PREPARED FOR
DELLISOLA DEVELOPMENT, LLC
MADBURY TAX MAP 9, LOT No. 24A
NH ROUTE 108 & FRESHET ROAD
MADBURY AND DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

DOVER PLANNING FILE No. P 18–___

DRAWN BY: RJM	FILE: W10 CP\1717\18–1717 EASE
SCALE: 1" = 30'	DATE: OCTOBER 1, 2018

30 15 0 15 30 60 90 120

STATE OF NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR

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SURVEYING – PLANNING – CONSULTING