



CITY OF DOVER

PLANNING TECHNICAL REVIEW COMMITTEE –AGENDA

Meeting Type: Regular Meeting
Meeting Location: 2nd Floor Conference Room – City Hall, Dover NH
Meeting Date: **Thursday, March 23, 2017**
Meeting Time: **10:30 AM**

1. 10:30 AM – 11:15 AM: Open Space Subdivision for Whitney Scott, Trustee, Assessor's Map G, Lot 9, zoned R-12, located at 334 Washington Street. (7 lots with 5 single family dwellings and 2 duplexes). (P17-18)



City of Dover, New Hampshire SUBDIVISION APPLICATION

[Revision Date: April 23, 2013]

Office Use Only

Project #:

Date Received:

Amount Paid:

Time Received:

RECEIVED
Planning Office
Dover, New Hampshire

APPLICANT AND OWNER INFORMATION

Name of Applicant: Whitney Scott, Trustee Telephone #

Address of Applicant: PO Box 298, Middlefield, MA 01243

Name of Property Owner (if different from applicant): 334 Washington Street Trust Telephone #

Address of Property Owner: Same as above

E-Mail Address:

PROPERTY INFORMATION

Address of Property: 334 Washington Street

Assessor's Map # G Lot(s) # 9

Zoning District(s) R-12 Overlay District(s) Wetlands

Size of Parcel: 6.21 Ac. 270,938 SF Property Deed: Book 4383 Page: 909

Existing Use of Property: Residential

SUBDIVISION INFORMATION

Subdivision Type: Major (4 + net new lots): X Minor (3 or fewer lots): Open Space: X

Existing Number of Lots: 1 Proposed Number of Lots: 7

City Water? X Yes No How far is city water from the property? At street

City Sewer? X Yes No How far is city sewer from the property? At street

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

Estimated Length of Proposed Roads: 497.33' feet Public or Private Road? Private

WAIVER REQUESTS

Subdivision Regulations section(s) to be waived: Side buffer and Right of Way width

Justification for waiver request(s) (attach additional sheets as needed): Lot width



BERRY SURVEYING & ENGINEERING

335 Second Crown Point Road

Barrington, NH 03825

Phone: (603) 332-2863

Fax: (603) 335-4623

www.BerrySurveying.Com

City of Dover Planning Department
Attention: Director Christopher Parker
288 Central Ave
Dover, NH 03820

March 2, 2017

RE: Trip End Analysis & Design Analysis
Whitney Scott
9 Unit Development
334 Washington Street

Dear Mr. Parker:

Pursuant to the Major Subdivision Regulations Berry Surveying & Engineering (BS&E) has prepared this Traffic Impact Assessment for the purpose of reviewing the following:

- Site Description & Proposal
- Washington Street Assessment
- Trip Generation & Distribution
- Sight Distances

Site Description & Proposal:

The property currently houses a single family structure which has direct driveway access to Washington Street. Much of the tillage around the home is open / yard area with a pool. The rear of the project site is wooded, and backs up to the Spaulding Turnpike with no access provided.

The proposal is to construction a private roadway system which will provide a 24' wide access to 9 residential housing units, with five of the units being single family and the remaining four proposed to be duplex units. The position of the proposed road was ~~chosen~~ for constructability, as well as sight distance. The retaining wall found at the front of the project site does not obscure site distance in either direction, whereas it was our preliminary assessment that it would if the road were placed to the westerly boundary line. This position is generally located half way between Morrison Lane and Taylor Road, which is preferred over favoring the westerly edge. Lastly, the proposed positions aligns with the abutting driveway across Washington Street.

Washington Street Assessment:

Washington Street runs between Tolend Road and Main Street in Dover's downtown and is classified as local road. It has a paved width of approximately 38 feet in the area of the proposed project, and has a concrete sidewalk on the northeast side. There is no curbing in the area of the proposed project.

Existing Trip Generation:

Using the 9th Edition ITE Trip Generation Manual, we determined the following trip generation for the existing site. Land Use Code 210 Single-Family Detached Housing was used in deriving the trip generation for the existing site.

Residential (1 House) Existing Trip Generation:**Single-Family Detached Housing Peak Hour of Adjacent Street Traffic AM Weekday**

Total Trips	25% Entering	75% Exiting
0.75T	0.19T	0.56T

Single-Family Detached Housing Peak Hour of Adjacent Street Traffic PM Weekday

Total Trips	63% Entering	37% Exiting
1.00T	0.63T	0.37T

Single-Family Detached Housing Peak Hour of Generator Saturday

Total Trips	54% Entering	46% Exiting
0.93T	0.50T	0.43T

It is assumed that there is a fairly even split between trips going north/west and south/east on Washington Street.

Existing Vehicular Speeds:

Washington Street has a posted speed limit of 30 MPH. It has been observed by Berry Surveying & Engineering that speeds in the area of the project site are not excessive, and for the purposes of this study it is assumed that the majority of operators obey speed limits.

Trip Generation:

The 9th Edition ITE Trip Generation Manual was used to determine the volume of trips, as well as the percentage of entrance-to-exit traffic experienced at the AM & PM Peak hour between 7 and 9 AM and 4 and 6 PM. Additionally, Saturday peak hours of the generator are provided. Land Use Codes 210 Single-Family Detached Housing, and 230 Residential Condominium/Townhouse were used in deriving the trip generation for the proposed development.

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Residential Trip Generation (5 Single-Family Detached Houses):

Single-Family Detached Housing Peak Hour of Adjacent Street Traffic AM Weekday

Total Trips	25% Entering	75% Exiting
3.75T	0.94T	2.81T

Single-Family Detached Housing Peak Hour of Adjacent Street Traffic PM Weekday

Total Trips	63% Entering	37% Exiting
5.00T	3.15T	1.85T

Single-Family Detached Housing Peak Hour of Generator Saturday

Total Trips	54% Entering	46% Exiting
4.65T	2.51T	2.14T

Residential Trip Generation (4 Duplex Units):

Residential Condominium/Townhouse Peak Hour of Adjacent Street Traffic AM Weekday

Total Trips	17% Entering	83% Exiting
1.76T	0.30T	1.46T

Residential Condominium/Townhouse Peak Hour of Adjacent Street Traffic PM Weekday

Total Trips	67% Entering	33% Exiting
2.08T	1.39T	0.69T

Residential Condominium/Townhouse Peak Hour of Generator Saturday

Total Trips	54% Entering	46% Exiting
1.88T	1.02T	0.86T

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Combined Trip Generation:

(Combined Volumes) Peak Hour of Adjacent Street Traffic Peak Hour of Generator AM Weekday

Total Trips	23% Entering	77% Exiting
5.51T	1.24T	4.27T

(Combined Volumes) Peak Hour of Adjacent Street Traffic Peak Hour of Generator PM Weekday

Total Trips	64% Entering	36% Exiting
7.08T	4.54T	2.54T

(Combined Volumes) Peak Hour of Adjacent Street Traffic Peak Hour Saturday

Total Trips	54% Entering	46% Exiting
6.53T	3.53T	3.00T

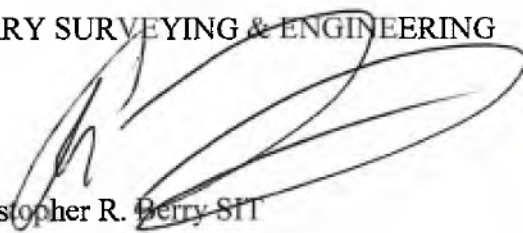
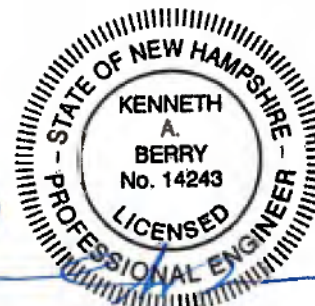
As expected, there is an increase in trip generation across all analysis periods. Based on our analysis, we expect to see a weekday AM peak increase of 4.76 trips, a weekday PM peak increase of 6.08 trips, and a weekend peak hour increase of 5.60 trips. This nominal increase will not impact surrounding intersection performance.

Sight Distance & Safety Analysis:

The existing site is free of obstructions, and the location of the proposed roadway provides clear sight distances in excess of 400' in both directions on Washington Street, as illustrated in the Sight Distance Plans included in the submitted plan set. The standard sight distance required by NHDOT is 400 feet in cases where the Geometric Design Manual would not require more. In this instance, sight distances in both directions meet the design warrant as well NHDOT's standard practice of 400'.

Respectfully Submitted,

BERRY SURVEYING & ENGINEERING


 Christopher R. Berry SFT
 Principal, President

 Kenneth A. Berry, PE, LLS, CEPSC, JP
 Principal, VP-Technical Operations
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JURISDICTIONAL WETLANDS WERE DELINEATED BY CINDY BALCIUS OF STONEY RIDGE ENVIRONMENTAL LLC IN JULY OF 2016 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. NEWPCC 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 2014-411-42.
- 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.

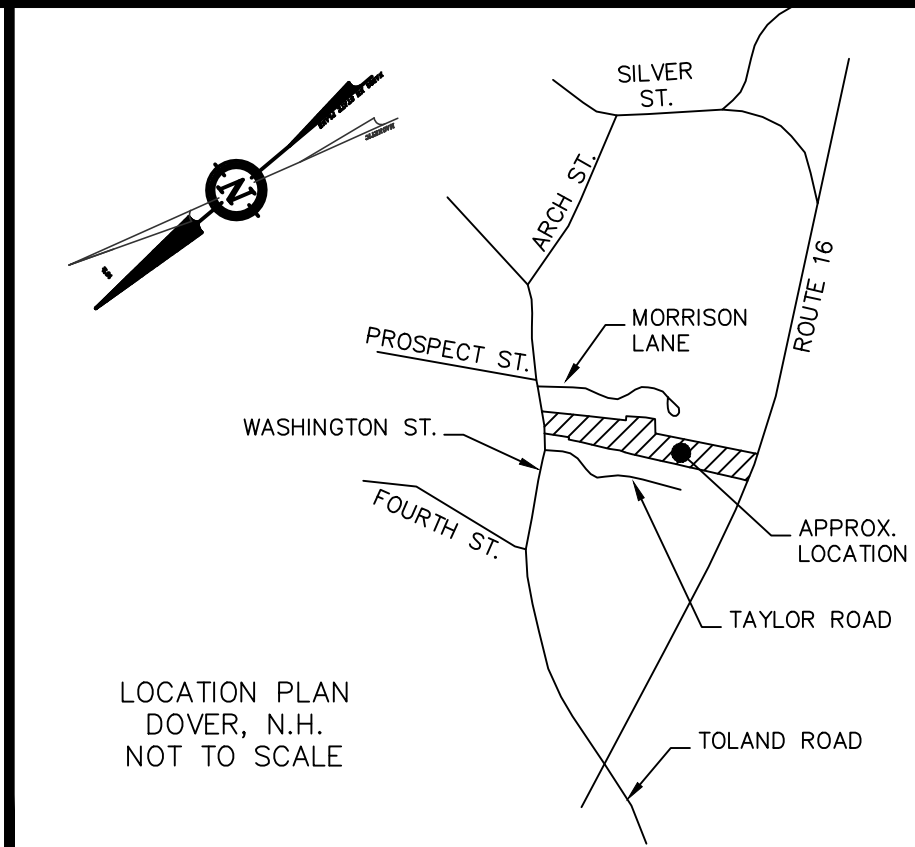
STONEY RIDGE ENVIROMENTAL, LLC.
CINDY BALCIUS, CWS #61

NOTES:

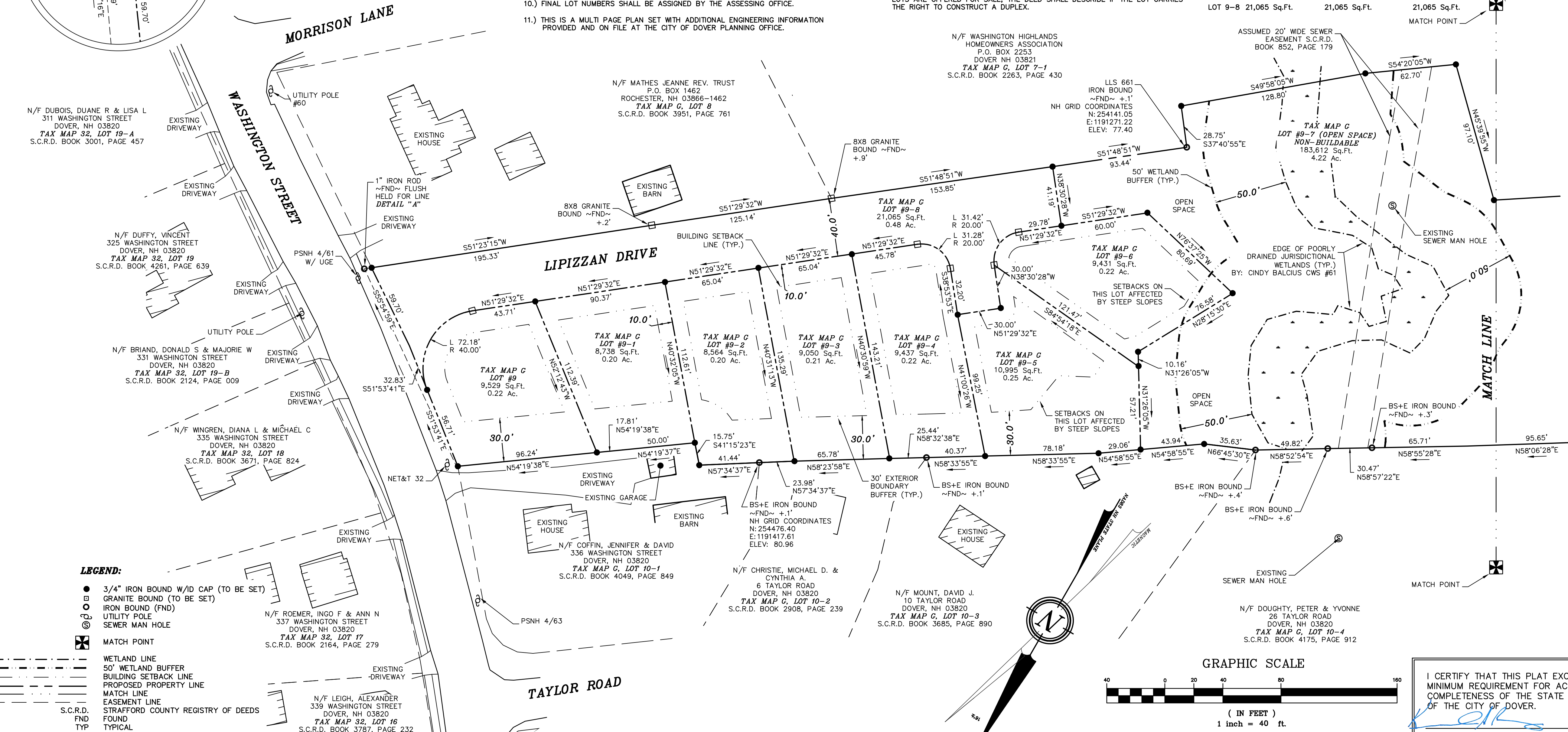
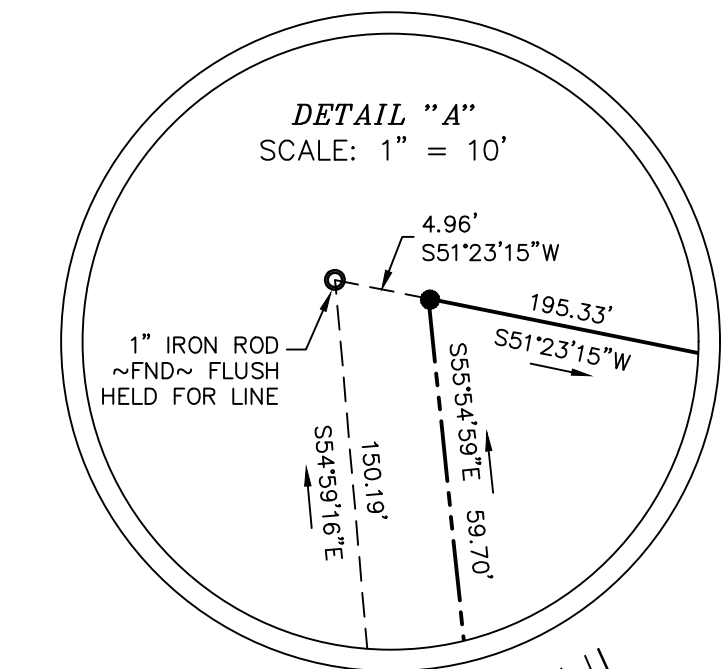
- 1.) OWNER: WHITNEY SCOTT, TRUSTEE
334 WASHINGTON STREET TRUST
PO BOX 298
MIDDLEFIELD, MA 01243
- 2.) TAX MAP G, LOT 9
- 3.) LOT AREA: 270,938 Sq. Ft., 6.21 Ac.
- 4.) S.C.R.D. BOOK 4383, PAGE 8912
- 5.) ZONING: MEDIUM DENSITY RESIDENTIAL (R-12)
FRONTAGE ~ 100.0'
MINIMUM LOT SIZE ~ 12,000 Sq. Ft.
FRONT SETBACK ~ 15-25' (BUILD TO)
REAR SETBACK ~ 30.0'
SIDE SETBACK ~ 15'
WETLANDS BUFFER ~ 50.0'
- 6.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, THIS PARCEL DOES FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY# -330145, MAP# - 33017C0310E, DATED: SEPTEMBER 30, 2015
- 7.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
- 8.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN JULY OF 2016, WITH AN ERROR OF CLOSURE OF 1 PART IN 17,812.
- 9.) THE INTENT OF THIS PLAN IS TO SHOW THE MEETS AND BOUNDS OF A 7 LOT / 9 UNIT SUBDIVISION USING THE OPEN SPACE SUBDIVISION REGULATIONS ON TAX MAP G, LOT 9.
- 10.) FINAL LOT NUMBERS SHALL BE ASSIGNED BY THE ASSESSING OFFICE.
- 11.) THIS IS A MULTI PAGE PLAN SET WITH ADDITIONAL ENGINEERING INFORMATION PROVIDED AND ON FILE AT THE CITY OF DOVER PLANNING OFFICE.

NOTES CONT.:

- 12.) THERE WAS NO OBSERVED LEDGE ON THE LOT.
- 10.) THERE IS AN EXISTING 20' WIDE SEWER EASEMENT ATTACHED TO THIS PROPERTY. SEE S.C.R.D. BOOK 852, PAGE 179.
- 11.) SUBJECT PARCEL IS NOT IN CURRENT USE.
- 12.) A 4 ROD WIDTH WAS USED IN DETERMINING THE FRONT BOUNDARY ALONG WASHINGTON STREET (1/4 ROD TOLAND ROAD). THOUGH THE SPECIFIC LAYOUT WASN'T FOUND, LAYOUTS OF "TOLE-END" MAKE REFERENCE TO 4 RODS.
- 13.) SUBJECT PARCEL IS SERVICED BY MUNICIPAL WATER AND SEWER, ALL ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.
- 14.) WRITTEN DIMENSIONS 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.
- 15.) CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7AM-6PM, SATURDAY 8AM-5PM, NO SUNDAY HOURS. HOURS OF CONSTRUCTION SHALL BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE SHALL BE LOCATED AND APPROVED BY THE CITY ENGINEER OR DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT.
- 16.) AS-BUILT PLANS OF THE SUBDIVISION SHALL BE SUBMITTED ON A REPRODUCIBLE MYLAR MEDIUM AND IN A DIGITAL DXF FORMAT ON DISK TO THE CITY OF DOVER ENGINEERS OFFICE UPON COMPLETION OF PROJECT IF A STREET IS PROPOSED FOR CITY ACCEPTANCE. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E.
- 27.) 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 "CITY OF DOVER STANDARD SPECIFICATIONS"
- 28.) LOT 9 IS TO FACE WASHINGTON STREET WITH ITS DRIVEWAY ACCESS COMING FROM LIPIZZAN DRIVE. THE ARCHITECTURE IS TO BE APPROVED BY THE DIRECTOR OF PLANNING PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- 29.) THIS IS A 7 LOT, 9 UNIT DEVELOPMENT. AT THE DISCRETION OF THE APPLICANT, DUPLEXES MAY BE BUILT ON ANY 2 OF THE 7 LOTS PROPOSED. IF LOTS ARE OFFERED FOR SALE, THE DEED SHALL DESCRIBE IF THE LOT CARRIES THE RIGHT TO CONSTRUCT A DUPLEX.



LOT #	TOTAL LOT AREA:	TOTAL UPLAND AREA:	AREA OUTSIDE WETLAND BUFFER & STEEP SLOPES
LOT 9	9,529 Sq.Ft.	9,529 Sq.Ft.	9,529 Sq.Ft.
LOT 9-1	8,738 Sq.Ft.	8,738 Sq.Ft.	8,738 Sq.Ft.
LOT 9-2	8,564 Sq.Ft.	8,564 Sq.Ft.	8,564 Sq.Ft.
LOT 9-3	9,050 Sq.Ft.	9,050 Sq.Ft.	9,050 Sq.Ft.
LOT 9-4	9,437 Sq.Ft.	9,437 Sq.Ft.	9,437 Sq.Ft.
LOT 9-5	10,995 Sq.Ft.	10,995 Sq.Ft.	9,088 Sq.Ft.
LOT 9-6	9,431 Sq.Ft.	9,431 Sq.Ft.	8,479 Sq.Ft.
LOT 9-7	183,612 Sq.Ft.	152,435 Sq.Ft.	81,522 Sq.Ft.
LOT 9-8	21,065 Sq.Ft.	21,065 Sq.Ft.	21,065 Sq.Ft.



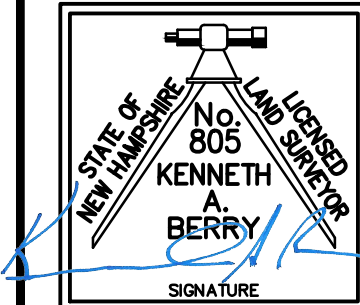
DOVER PLANNING # 17-18

REVISION	DATE	DESCRIPTION

OPEN SPACE SUBDIVISION DETAIL

FOR
WHITNEY SCOTT, TRUSTEE
334 WASHINGTON STREET TRUST
334 WASHINGTON STREET, DOVER, N.H.
TAX MAP G, LOT 9

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 40 FT.
DATE : FEBRUARY 22, 2017
FILE NO. : DB 2016-072



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.

KENNETH A. BERRY LLS 805 DATE