ESSEX PLANNING COMMISSION
December 8, 2016

STAFF REPORT

Prepared by Greg Duggan, Town Planner

PRELIMINARY PLAN

I. Applicant

Allen Brook Development, Inc.
c/o Al Senecal
31 Commerce Ave.
South Burlington, VT 05403

II. Proposal

The applicant has applied for Preliminary Subdivision review of an eight-lot subdivision of 51.67 acres in the Forestdale Industrial Park, located at 31 Allen Martin Drive, Tax Map 72, Tax Parcel 8. The property is in the Resource Preservation District – Industrial (RPD-I) zoning district.

The applicant's engineer, in a letter dated November 14, 2016, requested a one-month extension of the Sketch Plan approval for the proposed subdivision. The Sketch Plan was approved more than a year ago, in October 2015.

The subdivision would extend Thompson Drive by 1,220 feet and create a new public road, tentatively named Davison Drive, off Thompson Drive. The new lots would range in size from 1.98 acres to 14.27 acres.

Abutting properties north of the proposed subdivision are in an Industrial (I1) zoning district. Properties to the east are in Agricultural-Residential (AR), Conservation (C1), and Open Recreation (O1) zoning districts. Properties to the south and west of the proposed subdivision are in the RPD-I district.

III. Background

The RPD-I district was created in December 1977 and covers land on both sides of Allen Martin Drive. The RPD-I includes 751 acres, 60 percent of which is designated for Conservation/Recreation use and 40 percent of which is for commercial and industrial use.

Thompson Drive was constructed after the Planning Commission approved a three-lot subdivision in May 1981. Subsequent subdivisions and site plan approvals led to the development of industrial and manufacturing facilities on Thompson Drive.

The most recent extension of Thompson Drive occurred with the construction of a food storage

and distribution facility. The Planning Commission approved the subdivision of the Reinhart lot and the site plan in March 2013.

In October 2015 the Planning Commission approved a Sketch Plan for a six-lot subdivision, including an extension of Thompson Drive and a new cul-de-sac road at the northeast corner of the RPD-I district. The applicant is now seeking Preliminary Plan approval for that subdivision.

In March and April 2016, the Planning Commission approved sketch and final plans for a four-lot subdivision of 401 acres in the RPD-I district. The subdivision was the result of a settlement agreement between the Town and the landowner over a 2011 denial of a sand extraction operation on a portion of the RPD-I district. The final settlement resolution of the settlement is dependent on an Act 250 permit for sand extraction.

The Preliminary Plan being reviewed would further subdivide one of the lots created in the four-lot subdivision. Since Sketch Plan approval, the applicant has added acreage and two lots to the Preliminary Plan, based on the lot lines of the four-lot subdivision.

IV. Article II, Section 2.8 of the *Subdivision Regulations*: Preliminary Subdivision Approval

The applicant has applied for Preliminary Subdivision approval pursuant to the *Town of Essex Outside the Village of Essex Junction Official Subdivision Regulations* (Articles II, III, IV). Section 2.8 of the *Zoning Regulations* requires Preliminary approval for all major subdivisions. With eight lots and the extension of public roads, water and sewer lines, the proposed subdivision is a major subdivision. The purpose of Preliminary Subdivision Approval, according to Section 2.8(A) of the *Subdivision Regulations*,

> *Shall be to compare the plan for consistency with the requirements of these Regulations, to determine that the plan addresses the issues raised at Sketch Plan Review, to ensure that all survey information, septic system and well data, required public improvements, and other data are complete, to ensure that the proposed subdivision is in compliance with all appropriate Regulations and standards, and to complete the major portion of engineering review of improvements and land alterations.*

(A) Plans:

The Applicant has submitted the following plans:

- Plan Sheet #1, "Overall Site Plan, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, last revised 11/29/16.
- Plan Sheet #2, "Plan & Profile, Thompson Drive 0+00 – 6+50, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil

Associates, PLC, dated 9/23/16, revised 11/29/16.

- Plan Sheet #3, "Plan & Profile, Thompson Drive 6+50 – 12+21.61, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet #4, "Plan & Profile, Davison Drive 0+00 – 8+20.52, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet #5, "Temporary Parking Lot Plan, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16.
- Plan Sheet #6, "Roadway Details, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet #7, "Sewer Details, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16.
- Plan Sheet #8, "Water Details, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet ST1, "Roadway EPSC & Stormwater Management Plan, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet ST2, "EPSC & Stormwater Details, Lands of Allen Brook Development, Thompson Drive, Essex, VT," prepared by O'Leary-Burke Civil Associates, PLC, dated 9/23/16, revised 11/29/16.
- Plan Sheet PL, "Allen Brook Development, Subdivision Plat of a Portion of the Lands of 31 Allen Martin Drive, Essex, Vermont," dated 10/20/16,

(B) Article IV: Subdivision Standards of the *Subdivision Regulations*

The Planning Commission must evaluate any proposed subdivision based on the standards of Article IV of the *Subdivision Regulations*. Standards include conformance to the *Town Plan* and *Town of Essex Outside the Village of Essex Junction Official Zoning Regulations*. Other applicable standards relate to public safety, natural features, streets, sidewalks, open space, availability of water and sewer, and stormwater management.

1. Section 4.1, Standards Applicable to All Subdivisions

a) Conformance with the *Town Plan*. Section 4.1(P) of the *Subdivision Regulations* requires all subdivisions to conform to the *Town Plan*. The project complies with the following goals and objectives of the 2016 *Town Plan*:

General Policy 2: *Economic growth shall be diversified, with development occurring in and around the Town Center, the Susie Wilson Road Corridor, and the Saxon Hill/Resource Preservation District – Industrial (RPD-I) zoning district.*

b) Conformance to the *Zoning Regulations*. Table 2.14, Resource Preservation-Industrial District (RPD-I). Section 4.1(G) of the *Subdivision Regulations* requires all subdivisions to conform to the *Zoning Regulations*. The property is located in the RPD-I district. Table 2.14(A) of the *Zoning Regulations* describes the purpose of the RPD-I:

> *The RPD-I District is established for land that is comprised of forests, bodies of water, high elevations, scenic overlooks, or similar natural settings. The RPD-I District acreage in combination with the 90-acre parcel zoned O1 (presently owned by the Essex Junction School District) totals 751.7 acres. The objective of the RPD-I and the related O1 District parcel is to protect such natural attributes for public enjoyment, and to carry out development activities in harmony with the natural surroundings. Of the 751.7 acres in this district, 60 percent has been formally designated for recreation/conservation use (including all of the related O1 District acreage) and the remaining 40 percent for permitted uses as set forth in (B) below that satisfy all other district requirements. Residential uses are not allowed in this district.*

i) District Dimensional Requirements.

Dimensional Requirement	Required	Proposed
Minimum Lot Area	40,000 sf	86,249 sf
Minimum Lot Frontage	200 ft.	Approx. 200 ft.
Minimum Front Setback (from ROW)	50 ft.	50 ft.
Minimum Side Setback	25 ft.	25 ft.
Minimum Rear Setback	25 ft.	25 ft.
Minimum Buffer/Residential Districts	200 ft.	200 ft.
Maximum Lot Coverage	60%	
Maximum Height	45 ft.	

Any buildings on the site will not be able to exceed 45 feet in height, unless the Planning Commission grants a waiver. Lot coverage cannot exceed 60 percent. Height and lot coverage would be considered during site plan review.

Table 2.14(D)(7) indicates, “Buffer areas shall be maintained in the RPD-I district … to provide visual screening between industrial development and adjacent streets and residential areas, as well as to maintain trails and the natural environment to the greatest extent possible.” The 200-foot buffer along Saxon Hill Road contains meadows in Lots 4 and 5. The meadows extend beyond the buffers into the buildable portions of the lots, meaning minimal screening exists along portions of Saxon Hill Road. The applicant did not provide landscaping plans as part of the Preliminary Plan application. If the Planning Commission approves the subdivision, staff recommends including a condition that the Final

Plan show trees at the edge of the 200-foot buffer to provide screening from the residential districts – AR and C1 – east of Saxon Hill Road.

Table 2.14(D)(8) of the *Zoning Regulations* specifies, "Any development in this district shall not have an (undue) adverse effect on the scenic or natural beauty of the area, aesthetics or rare and irreplaceable natural areas." Natural resources on the site will be covered in more detail in Section IV(B)2 of this staff report.

2. Section 4.3, Preservation of Natural Features

a) Natural Features. The *Subdivision Regulations* specify,

> *Outstanding natural features of the site, including groves of trees, watercourses and falls, historic sites, exceptional views, and similar irreplaceable assets, shall be preserved. The Planning Commission may require building envelopes to be specified for some or all buildings where it is necessary to carefully define building locations and heights in order to protect the natural features listed in this section or identified on the Significant Features Reference Map.*

The land to be subdivided is mostly undulating terrain, with a gradual slope upwards away from Thompson Drive. Most of the site is forested, save for two meadows along the eastern property line. Portions of the meadows are in a 200-foot buffer.

The Significant Features Map in the 2016 *Town Plan*, shows Deer Yards and Contiguous Habitat on much of the property.

The Vermont Agency of Natural Resources' Natural Resource Atlas shows a habitat block that extends over the forested portions of the property. The habitat block is ranked 5 out of 10, with 10 being the highest ecological priority. The ANR Atlas does not show any deer wintering areas on the site.

i. Natural contours. Section 4.3(A)(1) of the *Subdivision Regulations* specifies that subdivisions shall retain the natural contours of land and conserve natural cover and soil as much as possible.

The Preliminary Plan shows building envelopes that meet required the minimum required setbacks.

ii. Erosion and Stormwater Control. Section 4.3(A)(2) of the *Subdivision Regulations* requires erosion and stormwater control plans when subdivision improvements on slopes or areas with fragile soil conditions. Section IV(B)9 of this Staff Report provides more details about stormwater management and erosion control.

iii. Topsoil Removal. Per Section 4.3(A)(3) of the *Subdivision Regulations*, "topsoil

removed in the process of grading the subdivision site shall be replaced to an average depth of four (4) inches (10 cm) with a minimum depth of two (2) inches (5 cm) and the site seeded in accordance with Soil Conservation Service recommendations and the Town's Public Works Specifications."

iv. Wetlands. The property does not contain any wetlands included in the Vermont State Wetland Inventory.

v. Lot sizes. The *Subdivision Regulations* encourage the smallest possible lot sizes that can site the primary use, accessory buildings, on-lot water, on-lot sewer and access driveways. Small lot sizes are intended to maximize the amount of open space.

The RPD-I district has a minimum lot size of 40,000 square feet, or 0.92 acres. The proposed lot sizes have changed since Sketch Plan review, resulting in the following plan:

- Lot 1: 2.76 acres
- Lot 2: 1.98 acres
- Lot 3: 4.42 acres
- Lot 4: 9.08 acres
- Lot 5: 5.22 acres
- Lot 6: 6.47 acres
- Lot 7: 14.27 acres
- Lot 8: 4.46 acres

vi. Forested areas. When a subdivision is proposed in a forested area, the *Subdivision Regulations* require the developer to submit recommendations from a professional forester regarding the location of subdivision improvements and the removal of trees.

As required by the Sketch Plan approval, the applicant submitted comments from a professional forester. In a letter dated November 1, 2016, forester Scott Moreau wrote,

> *This area has had extensive cutting for the re-growth of a new forest crop. The result of the cutting is that the majority of the areas have significant regeneration of well established trees ranging from 1 to 4 inches in diameter (at caliper, six inches above the ground)) and from 2 to 15 feet in height. These trees are well established and very healthy. These trees, after the clearing takes place for the infrastructure required to complete the development, will be the basis for the trees needed to protect the 50 foot buffers and to be retained along the edges of the roads AFTER the infrastructure has been built out.*

> *My plan is to let the infrastructure be built as needed and then to flag specific retain trees throughout the buffers and along the edges of the infrastructure and also the edges of the areas not in need of clearing during the timeline of the complete build out.*
>
> *I can assure you there will be more than ample trees to meet the intent of the buffers and to retain a treed environment where there will be no development.*

The full text of the letter is attached.

b) New Trees. The *Subdivision Regulations* require new street trees in areas where none exist, or where existing trees would suffer life-shortening damage during construction.

As noted above, a forester recommended that infrastructure be constructed before identifying which trees to retain on the site. If the remaining trees do not provide the required number of street trees, the applicant may be required to plant additional trees during site plan review for each lot.

c) Water Bodies and Adjacent Buffer Areas. The area of the proposed subdivision does not contain any water bodies or associated buffers.

3. Section 4.4, Blocks and Lots – Planning and Design Standards

The proposed subdivision does not contain any blocks.

The proposed lots meet the dimensional requirements of the *Zoning Regulations*. All lots would have access from the extension of Thompson Drive, the new Davison Drive, or both.

As required by Sketch Plan approval, the Preliminary Plan shows the proposed locations of curb cuts to the lots. The curb cuts were to be located as close as possible to utility stubs, in an effort to reduce intrusions on the 50-foot buffer. In the project narrative dated October 27, 2016, the applicant's engineer wrote,

> *SH 1 – Overall Site Plan shows the general locations of the curb cuts along the new public roads. Since the road is not curbed the location of the "curb cuts" will change depending on the proposed layout for each lot. It is our opinion that the final location of the curb cuts should be determined during the Site Plan approval process for each lot. The utility stubs are generally located near the proposed curb cuts or areas where the road construction encroaches significantly within the 50' buffer. The utility stub locations are not under any of the curb cuts and take into account the minimum separation distances.*

4. Section 4.5, Streets

Streets must be suitably located, of sufficient width, and adequately constructed to accommodate prospective traffic. Streets must afford satisfactory access to emergency vehicles as well as snow removal and road maintenance equipment. Dead-end streets must have circular turnarounds.

The applicant plans to extend Thompson Drive 1,220 feet and construct a new, dead-end road off Thompson Drive. The new road would be 820 feet long and would end in a cul-de-sac. The paved portion of the cul-de-sac is currently designed with a 90-foot diameter; the *Subdivision Regulations* require a diameter of 100 feet. The diameter would need to be increased for Final Plan review.

Both streets are designed with widths of 30 feet. The applicant is calling the new road Davison Drive, a name that will need to be approved by the Selectboard.

The applicant is not planning to install any street lights.

Thompson Drive is already approximately 2,450 feet long, which exceeds the 900-foot limit for dead-end roads. The extension would increase the total length to 3,670 feet. The Sketch Plan approval required the applicant to show options for a secondary, emergency access to Thompson Drive.

The Overall Site Plan shows an emergency access coming from Saxon Hill Road, wrapping around to the south of Lot 7, and connecting with Thompson Drive. The applicant's engineer described that option, as well as a second option, in the project narrative dated October 27, 2016:

> *The secondary emergency access to Thompson Drive is being proposed off Saxon Hill Rd …. The emergency access road is an existing dirt road and is approximately 10-12' +/- wide. The road will be widened to a minimum of 14'. About 520' of the road from the end of Saxon Hill Road is already used and maintained by the Town of Essex to access the water tank. The remaining 1,150 ft +/- of the existing road is currently used to access and maintain a 12" water main and overhead power lines. The 2011 Town Plan shows the proposed emergency access road as a combination of Class 3 and Class 4 Town Highways. A site visit with the fire department may be helpful to address the condition of the existing road.*
>
> *Another option for a secondary access road will be provided with the site plan application for Lot #5, which is not part of this preliminary application. The rear of Lot #5 is part of the 200' residential buffer from the right-of-way on Saxon Hill Road. The buffer in this area, however, is mainly an open field and will not provide the screening that neighbors are accustom to seeing in the RPD-I zoning*

> *district. The proposed screening will be to construct two 5-9 foot high parallel berms with evergreen plantings on top for extra screening. The secondary emergency access road will be proposed in between the two berms ….*

The second option for the access road is not allowed by the *Zoning Regulations*, which prohibit any access drives in the 200-foot buffer.

During Sketch Plan review, Public Works called for a paved turnaround area at the end of Thompson Drive. The applicant plans to construct a temporary parking area with 16 spaces at the end of Thompson Drive. In the project narrative, the applicant's engineer wrote,

> *The parking lot is being proposed as the required turnaround at the end of Thompson Drive. The entrance into the parking lot is similar to the turnaround constructed at the end of the currently constructed Thompson Drive.*

As required by a condition of Sketch Plan approval, the applicant submitted a traffic study with the Preliminary Plan. The applicant's engineer summarized the findings in the project narrative:

> *The traffic study was completed for the traffic generated as part of the sand extraction facility and the 8 lot commercial subdivision. The study area encompasses the intersection of Thompson Drive / Allen Martin Drive and the intersection of Allen Martin Drive / Route 15. Based on the ITE trip generation for a General Light Industrial use and 37.20 developable acres in the commercial park, the traffic study estimates a total of 271 PM peak hour trips will be generated. The report concludes the proposed industrial park will not have an undue adverse impact on traffic on roads and highways within the study area, provided the applicant works with the Town and contributes to the planned capacity improvements at the Route 15 / Allen Martin Drive intersection. The report suggests a "fair share" traffic impact fee for the industrial park should be $28,800 ($191 per PM peak trip) for 151 Peak PM trips added to the Allen Martin Drive / Route 15 intersection.*

Public Works had requested that the traffic study address the impact of heavy truck traffic on existing road conditions. While the study did not include information about heavy truck traffic, the applicant's engineer looked at 2013 traffic counts to estimate that heavy truck traffic on Allen Martin Drive accounts for up to 3 percent of overall traffic in the area. Using that estimate, the applicant's engineer expects the proposed subdivision to result in 58 daily trips of heavy trucks, with 9 PM peak hour trips. In the project narrative, the applicant's engineer wrote,

> *It is our opinion that the road maintenance fee should be done on a lot by lot basis based on the amount of truck traffic associated with each use.*

a) Fire Department. The Fire Chief, in an email dated November 02, 2016, wrote

> *I have no objections to these plans as submitted provided that they meet with the approval of Public Works. I would support … the creation of a No Parking ordinance along the Town roads as well as the turn around at the end to insure that we do not repeat the Saxon Hill Road issues we saw recently.*

b) Police Department. The Police Chief did not have any concerns with the project.

c) Public Works Department. Public Works commented on roads, access, and traffic in a memo dated November 18, 2016:

> 1. *… Public Works would like to review the "fair share" analysis when calculating the proposed highway impacts and associated fees for this subdivision. A copy of this study must be provided for review before Final review of this subdivision.*
>
> 2. *It should be noted that the Town has contracted with the CCRPC and RSG to provide a scoping study for the VT15/Allen Martin Drive Intersection. The scoping study is virtually complete and a public presentation of the findings will occur during December. As a part of the scoping study, RSG has looked at the traffic impacts and will be providing the Town with an updated traffic impact fee for this intersection tied to the development of lots and background growth within the area impacting the intersection. It is strongly recommended that the applicant of this subdivision obtain a draft copy of the study and utilize the data contained therein for estimating the appropriate impact and impact fees.*
>
> 3. *It is the intention of Public Works to apply a traffic impact fee as each lot is developed and not a general impact for the entire subdivision.*
>
> 4. *In addition to the traffic impacts on existing intersections due to the proposed traffic to be generated from this subdivision, Public Works has concerns with the impact of additional heavy truck traffic on existing roadways within the Town. Allen Martin Drive was resurfaced during the summer of 2015. Thompson Drive has been rated high in the 2008 Town Road Management Study for repair or added pavement overlay. The Town is currently working on a new pavement inventory and will update the current pavement priority list this year. Public Works is of the opinion that Thompson Drive will remain very high on the new priority list.*
>
> *Public Works agrees with the applicant's engineers approach to the*

heavy truck impacts. Each of the new lots created and the future proposed uses have the potential to generate additional structural impacts on Thompson Drive principally through the weight of the truck traffic. Additional traffic impact fees will be accessed, as done in previous approvals within this corridor, to mitigate the effects of increased truck traffic.

As each proposal comes in for each lot within this subdivision, a traffic analysis will be required to access the amount of heavy truck traffic that will be generated. As In previous approvals, Public Works will use the am and pm peak hour volume from the applicant's traffic study to calculate an additional traffic volume impact fee to be used to offset pavement rehabilitation costs of Thompson Drive based on a percent of total traffic volume currently using the roadway. This percentage will be calculated using national standards, not existing traffic flows. This must be a requirement for all eight lots of this proposed subdivision.

5. *The applicant has provided a parking area for public use as requested in the previous Sketch review of this subdivision. As this temporary public parking area will be maintained by the Town throughout the winter months, it is agreed that this can be utilized as a turn-around for Town vehicles as well.*

6. *Public Works agrees with the location of the secondary emergency access to Thompson Drive coming off of the end of Saxon Hill Road. Public Works does not agree with the width of road proposed or the depth of the subbase material as currently proposed. Public Works is of the opinion that this access road has potential to see heavy truck loads from Town emergency and maintenance vehicles. Unless calculations for the current road cross-section design can prove this cross-section can support the above mentioned vehicles, the emergency access road must be constructed similar to a Public Works Specification Class III Rural Town road.*

   The road cross-section must have a depth of 24-Inches of subbase with road fabric. The width of road could be decreased to 20-Feet wide. The current proposal of 14-Feet wide is too narrow considering access to this road will be maintained year round and snow storage along the edge of the access road will be required. Furthermore, access control to the emergency road will be required. Gates must be installed at both the Saxon Hill Road and Thompson Drive entrances. Care must be taken to discourage the use of this access road by motorized vehicles.

Full comments from Public Works are attached.

In response to the comments from Public Works, the applicant revised the plans to show a wider emergency access road and gates at both entrances to the road.

5. Section 4.6, Sidewalks – Planning and Construction Standards

The *Subdivision Regulations* require sidewalks, paved paths, or both on each side of roads within a subdivision, although streets with low anticipated traffic volumes can have sidewalks on a single side.

The applicant plans to extend the existing sidewalk on the southwest side of Thompson Drive. Davison Drive would also have a sidewalk on its south side, with a pedestrian crossing at the intersection with Thompson Drive.

6. Section 4.7, Land for Public Open Space and Recreational Use

The *Subdivision Regulations* allow the Town to accept land reserved for public recreation purposes in lieu of all or part of recreation impact fees. Trails and conservation greenways identified in the Town Plan must be accommodated within open space and recreation areas.

Town Plan maps identify the area as a "Parcel with Extensive Trails." The Town Plan shows several proposed trails in the vicinity of the proposed subdivision, including horseback and cross country ski trails and a third priority bike path.

As part of the settlement agreement over the previous sand extraction application, the applicant has agreed to provide a temporary parking easement and 20-foot-wide trail easement to the Town along the site's northwestern property boundary. The easements provide access to the 200-foot buffer.

As noted above in Section IV(B)4 of this staff report, the applicant is also proposing a temporary parking lot for the Town on Lot 8. If the Planning Commission approves the Preliminary Plan, staff recommends including a condition that the Final Plan show a way for the public to directly access the northern portion of Parcel D from the temporary parking area.

7. Section 4.8, Utility and Access Easements and Improvements

a) Easements for Utilities, Drainage and Access. When utilities or drainage facilities cannot be installed in street rights-of-way, applicants must provide the Town with perpetual, unobstructed easements. The easements shall be centered on rear or side lot lines and have satisfactory access to the street.

Lots 1 and 2 would share a 40-foot-wide access easement over their adjoining lot lines, as would Lots 4 and 5.

The subdivision would include water and sewer line easements to the Town where necessary. The property also includes an easement for Green Mountain Power and NET+T.

The Planning Commission can require perpetual, unobstructed easements to facilitate non-motorized, multi-use facility user access to public open space or adjacent properties as part of a proposed contiguous access plan. The RPD-I area contains numerous trails, and as noted above, the *Town Plan* identifies areas for the expansion of trail networks.

As noted above in Section IV(B)6 of this staff report, the applicant has proposed 10-foot-wide pedestrian easements over the sidewalks. Parking and access easements on the property's northwest border will allow the public to access the 200-foot buffer that runs along the northern and eastern sides of the property.

b) Utility Improvements. Public utility improvements shall be installed in accordance with Public Works Specifications, and shall be installed underground unless Public Works determines that doing so is infeasible.

8. Section 4.9, Water Supply and Waste Water Systems

The land of the proposed subdivision is inside the Town's sewer core area, and the applicant plans to extend public water and sewer lines to serve the new lots. An existing water line runs under Thompson Drive and along the route of the proposed extension of the road. The applicant plans to install a new water line beneath Davison Drive. Sewer lines would be extended next to the Thompson Drive extension and beneath Davison Drive.

a) Water Supply. Conditions of Sketch Plan approval required the applicant to submit proposed water usage numbers and fire flow demands, and to provide a design of a water supply system that would satisfy the Fire Chief and Public Works for fire protection purposes.

In the project narrative, the applicant's engineer estimated that the site would require 8,910 gallons per day of water, with estimated distributions between lots based on acreages. The engineer commented,

> *The fire flow demands will be dependent upon the size and use of each of the buildings. The fire flow demand could be as low as 500 GPM or it could be as high as 3,250 GPM (Reinhart Foodservice). As described in the comment, the fire flow capacity of the system in this area is exceptional.*

Elaborating further later in the narrative, the engineer wrote,

> *The development will be served by an existing 12" ductile iron water main*

> *connected to the water tank on Saxon Hill. The existing main has proved to produce exceptional fire flows and the water supply system includes hydrants at least every 500'. A flow test was done with the State Fire Marshal and DPW in August 2014 on the existing 12" in front of the Reinhart Food Service building. The line flowed at least 3,250 GPM through a combination of two hydrants and had a residual pressure of 44 psi.*

Public Works requested additional information in a November 18, 2016 memorandum:

> *The Town is aware that the Champlain Water District, (CWD) has a tank located on Saxon Hill. Current flow testing in the area does reflect that there is sufficient water pressure and flow throughout the Forestdale Industrial Park. At this point, it does not appear that water capability will be a problem for domestic use but after the Reinhart facility was constructed, both CWD and the Town were made aware of a potential water distribution fire flow capacity issue. Providing a range of potential fire flows for the subdivided lots is not acceptable.*
>
> *Furthermore, CWD and the Town have concerns regarding the sizing and capacity of fire pump design with regards to the systems capability to handle the flows generated. The water system impacts must be reviewed as a whole and not hydrant flow data in a specific location within the system. The Town will require further fire demand calculations and the impacts to the surrounding water system for review prior to Final submittal. If site required fire demands cannot be met through the municipal system, then onsite fire storage may be required.*

The applicant's engineer responded in writing on December 1, 2016:

> *We request that the fire flows for each lot be handled on a lot by lot basis during the site plan approval process. It is very difficult to estimate the fire flow demand of the proposed industrial park without knowing all of the specific uses. If fire flow demands cannot be met through the municipal system it is understood that onsite fire storage may be required. A permit from the Division of Fire Safety will be required for each building in the Industrial Park.*

b) Waste Water Systems. The land associated with 31 Allen Martin Drive – a total of 403 acres – has an unpurchased sewer allocation of 34,575 gallons per day, or 172.88 EUs.

To estimate the capacity needed for the proposed subdivision, the applicant used the existing allocation for developed parcels on Corporate Drive to calculate water and sewer capacity on a per acre basis. In the project narrative, the applicant's engineer

demonstrated an average water allocation per acre of 183 gpd, and a sewer allocation of 177 gpd, for a total of 8,910 gpd of water and 8,617 gpd of sewer.

Public Works, in a memorandum dated November 18, 2016, confirmed the applicant's method for distributing sewer capacity, but came up with an estimated use of 182.2 gpd per acre. The estimate resulted in the following distribution of sewer capacity:

Lot No.	Lot Size (acres)	Sewer Allocation (GPD)	Sewer Allocation (EU)
1	2.76	502.87	2.51
2	1.98	360.76	1.80
3	4.42	805.32	4.03
4	9.08	1654.38	8.27
5	5.22	951.08	4.76
6	6.47	1178.83	5.89
7	14.27	2599.99	13.00
8	4.46	812.61	4.06
Total	48.66	8865.85	44.33

In the same memo, Public Works went on to write,

> *After distributing the sewer allocation throughout the eight lots, the remaining lands of Allen Brook Development will have 128.55 EU's or 25,710 GPD of unpurchased sewer allocation. The sewer allocation for each of the above lots will remain with the subdivided lot. After the subdivision has been approved, the sewer allocation assigned to each lot will remain and may not be re-distributed amongst the remaining lots.*
>
> *Further, it should be noted that the allocation assigned to each lot is an allocation and not a guarantee of capacity. Capacity is only guaranteed after the sewer initiation fee is paid to the Town for the actual capacity to be purchased. Unpurchased capacity within a lot's allocation returns to the Town's pool for reallocation within the sewer core.*

The applicant's engineer responded in writing on December 1, 2016:

> *The analysis described above was used to demonstrate the proposed Industrial Park would not exceed the 180 EU's of unpurchased sewer allocation assigned to the 403 acres noted as Lands of Allen Brook*

> *Development. We request that during the site plan approval process the additional allocation from the remaining lands (128.55 EU's) be made available to any uses within the Industrial Park that demonstrate the need for more allocation than shown in the table.*

9. Section 4.10, Stormwater Management and Erosion Control

The *Subdivision Regulations* require all proposed subdivisions to include a stormwater management and erosion control plan that adheres to the Town's Stormwater Management Ordinance. The plan must address stormwater management and erosion control during and after construction.

The applicant plans to capture and infiltrate all stormwater from the roads in a roadside drywell network. Stormwater runoff from the temporary parking lot would be captured and infiltrated in a perimeter swale.

Silt fences and construction fences would be installed along the clearing limits.

Public Works commented on stormwater management in a memorandum dated November 18, 2016:

> *This site will require a State Stormwater Permit. The applicant shall provide Public Works with a copy of the application and calculations when submitted to the State for review.*
>
> *EPA issued the Lake Champlain TMDL Implementation Plan which calls for higher levels of phosphorus removal for all stormwater discharges to the Lake or its tributaries. Because of this Plan, the applicant will need to provide design details for the proposed stormwater system as well as the pounds of phosphorus to be removed by the proposed system.*

The applicant's engineer responded in writing on December 1, 2016:

> *The site is being designed to infiltrate all stormwater runoff up to the 10-year storm. According to the State of Vermont infiltrating all runoff up to and including the 1-year storm qualifies as a total phosphorous removal rate of 98%. The State of Vermont Simple Method Pollutant Loading Calculation Worksheet has been included with the application. The worksheet proves the project is 'net zero' and, according to the worksheet, will remove 0.25 lbs of phosphorous from the undeveloped existing conditions.*

10. Section 4.11, Monuments and Lot Markers

If the project obtains Final Plan approval, the applicant shall install concrete monuments and lot markers to the standards specified in Section 4.11 of the *Subdivision*

Regulations.

V. Article II, Section 2.7 of the *Subdivision Regulations*: Master Plan

Subdivision Regulations require a Master Plan "for any project which is intended to be developed in phases and for which approval of only one phase is currently requested, or for any project where development of only part of the parcel is proposed and the remaining land exceeds in area three times the minimum lot size in the district in which the subdivision is located."

Per Section 2.7(B) of the *Subdivision Regulations*, a Master Plan serves the following purpose:

> *The purpose of the preparation and review of a Master Plan by the Planning Commission is to acquaint the Commission with the entire tract of land without requiring the presentation of extensive surveying, engineering, or design data, to identify significant features warranting future protection, and to facilitate anticipated future development in an orderly manner. Applicants are encouraged to explore different schemes by presenting alternative plans that represent thoughtful site planning and are in conformance with the Town Plan and Bylaws.*

In an email dated October 2, 2015 and submitted for Sketch Plan review the applicant's engineer wrote,

> *The settlement plan agreed upon by the Selectboard and Allen Brook Development is the master plan for the property.*

The settlement plan has been accepted by the Selectboard, and the subsequent subdivision was approved by the Planning Commission.

VI. Planning Commission comments

While reviewing the project on October 8, 2015, the Planning Commission determined that the need for a Master Plan has been has been set aside as the applicant is in the negotiations with Selectboard which includes a master plan.

The Planning Commission also finds the following needs to be addressed with the next application:

- A scheduled site visit to discuss the 50' buffer and impact of screening on Saxon Hill Road;
- The Second access needs to be worked out to Public Work's satisfaction;
- If the Class IV road goes onto Saxon Hill Road, there is a concern about potential parking;

- Parking concerns off Thompson Drive; and
- Possible storm water design changes.

While reviewing the project on December 8, 2016, the Planning Commission commented …

VII. Proposed Conditions

1. All conditions from previous approvals shall remain in effect except as modified herein.

2. All construction shall be in conformance with the plans listed in Finding No. IV(A) above and as may be amended subject to other conditions and approvals.

3. Prior to Final Plan approval the applicant shall receive Selectboard approval for the name of the new road, currently referred to as Davison Drive.

4. Prior to submitting a Final Plan application, the applicant shall provide Public Works with fire demand calculations and the impacts to the surrounding water system. If fire demands required at the site cannot be met through the municipal system, then onsite fire storage may be required.

5. The Final Plan shall show trees at the edge of the 200-foot buffer to provide screening from the residential districts east of Saxon Hill Road.

6. The Final Plan shall show a cul-de-sac diameter of 100 feet.

7. The Final Plan shall show an emergency access road designed to be constructed similar to a Public Works Specification Class III Rural Town road, unless calculations for the current cross-section design prove the road can support Town emergency and maintenance vehicles. The road cross-section must have a depth of 24 inches of sub-base with road fabric; the width of the road could be decreased to 20 feet.

8. The Final Plan shall show a way for the public to directly access the northern portion of Parcel D from the temporary parking area.

9. All utilities shall be installed underground unless Public Works determines that doing so is infeasible.

10. The applicant shall provide Public Works with a copy of the stormwater application and calculations submitted to the State.

11. Design drawings submitted as part of the Final Plan application shall be revised per the comments from Public Works in the memorandum dated November 18, 2016.

12. No clearing shall occur on individual lots prior to the issuance of a zoning permit for those lots, except for activities permitted in a forest management plan approved by the Planning Commission.

13. Prior to the issuance of a zoning permit, the applicant shall submit any and all covenants, deeds, and legal documents resulting from this approval for review by the Town Attorney. The applicant shall pay any legal fees associated with the review.

14. Traffic impact fees shall be calculated and paid prior to the issuance of a zoning permit for the development of each lot.

15. Once the Town passes a No Parking ordinance along Thompson Drive, the applicant shall erect "No parking" signs along the length of Thompson Drive within the Town right of way.

16. Prior to the issuance of a zoning permit, the applicant shall install concrete monuments and lot markers to the standards specified in Section 4.11 of the *Subdivision Regulations*.

17. Prior to the issuance of a zoning permit, the applicant shall obtain any and all applicable State approvals and permits.

18. By acceptance of the conditions of this approval without appeal, the applicant confirms and agrees for himself and all assigns and successors in interest that the conditions of this approval shall run with the land and the land uses herein permitted, and would be binding upon and enforceable against the applicant and all assigns and successors in interest.

VIII. Attachments

- Project narrative, "31 Allen Martin Drive, Essex, Forestdale Industrial Park, Thompson Drive, Essex, VT, Preliminary Subdivision Application," from Bryan Currier, PE, O'Leary-Burke Civil Associates, PLC, dated 10/27/16.
- Traffic Impact Study, "Thompson Drive Sand Extraction & Industrial Park, Essex, Vermont," prepared by Abigail Dery, P.E., Trudell Consulting Engineers, dated 6/7/16.
- Letter, from Scott E. Moreau, Greenleaf Consulting, Inc., dated 11/1/16.
- Memorandum, "31 Allen Martin Drive, Essex, VT," from Sharon Kelley, Zoning Administrator, dated 11/17/16.
- Email, "RE: Senecal St names," from Shannon L. Lunderville, GISP, GIS Coordinator / E911 Coordinator, Town of Essex, dated 11/16/17.
- Letter, "31 Allen Martin Drive, Essex, Forestdale Industrial Park, Thompson Drive, Essex, VT, Preliminary Subdivision Application – Incomplete Notice Response," from Bryan Currier, PE, O'Leary-Burke Civil Associates, PLC, dated 11/18/16.
- Email, "RE: Questions for Allen Brook Subdivision," from Bryan Currier, O'Leary-Burke Civil Associates, PLC, dated 11/30/16.
- Email, "Re: 31 Allen Martin Drive," from Charlie Cole, Essex Fire Chief, dated 11/2/16.

- Email, "RE: 31 Allen Martin Drive," from Chief Bradley J. LaRose, Essex Police Department, dated 11/3/16.
- Memorandum, "Forestdale Industrial Park, 31 Allen Martin Drive (Preliminary Plan / Subdivision)," from Dennis E. Lutz, P.E., Public Works Director, Aaron Martin, P.E., Utility Director / Town Engineer, Annie Costandi, E.I., Stormwater Coordinator/Staff Engineer, and Daniel Gregoire, Staff Engineer, dated 11/18/16.
- Letter, "31 Allen Martin Drive, Essex, Forestdale Industrial Park, Thompson Drive, Essex, VT, Responses to Public Works Preliminary Comments," from Bryan Currier, PE, O'Leary-Burke Civil Associates, PLC, dated 12/1/16.

cc: Brian Bertsch
Bryan Currier
Paul O'Leary

G:\COMMDEV\PC\REPORTS\Allen Martin Drive 31 Prelim 120816.doc