



**TOWN OF BRUNSWICK**

**PLANNING BOARD**

85 UNION STREET  
BRUNSWICK, ME 04011

**PLANNING BOARD  
AGENDA  
BRUNSWICK TOWN HALL  
COUNCIL CHAMBERS  
85 UNION STREET**

**TUESDAY, APRIL 14, 2015, 7 P.M.**

1. **Case # 15-002 Chamberlain Woods Final Subdivision:** The Board will review and take action regarding a Final Plan Major Review application, submitted by Coastal Buildings and Investments, Inc., for the development of a 9-lot residential subdivision, a 225 foot private drive, and associated site improvements, on a 7.22± acre parcel with frontage on Barrows Street and the end of Boody Street. The proposed subdivision is located in the Town Residential 5 – Columbia Avenue – Spring Street (TR5) Zoning District. Assessor's Map U27, Lot 6.
2. **Case # 15-014 Tao Yuan Greenhouse:** The Board will review and take action on a Final Plan Major Review application, submitted by Cecile and John Stadler/Cara's Place LLC, as an amendment to a site plan approved 5/27/14. The proposed amendment includes the construction of a 2-story commercial structure with a top-floor greenhouse; and storage/office/work space dedicated to greenhouse and restaurant support tasks located on the ground and basement floors. Structure to be built on the existing foundation with associated parking and site improvements, located on a .16 acre lot, 0 Abbey Road/22 Pleasant Street, and within the Town Center 1 (TC1) Zoning District and Village Review Overlay Zone. Assessor's Map U13, Lot 095/1-3.
3. **Zoning Ordinance Rewrite Committee (ZORC) Update**
4. **Approval of Minutes**
5. **Other Business**
6. **Adjourn**

This agenda is mailed to owners of property within 200 feet of the above referenced development proposals as well as others upon request. It is the practice of the Planning Board to allow public comment on development review applications and all are invited to attend and participate.

Please call the Brunswick Department of Planning and Development (725-6660) with questions or comments. Individuals needing auxiliary aids for effective communications please call 725-6659 or TDD 725-5521. This meeting will be televised.

**DRAFT Findings of Fact  
Major Development Review  
Final Subdivision Plan  
April 14, 2015**

**Project Name:** Chamberlain Woods Subdivision  
**Case Number:** 15-002  
**Zoning:** Town Residential 5 (Columbia Ave – Spring St (TR5))  
**Tax Map:** Map U27 Lot 6  
**Applicant:** Coastal Building and Investments, Inc.  
141 Pleasant Street  
Brunswick, Maine 04011

**Authorized**

**Representative:** Curt Neufeld, P.E.  
Sitelines, PA  
8 Cumberland Street  
Brunswick, Maine 04011

*Staff reviewed the application and has made a determination of completeness*

**PROJECT SUMMARY**

Staff review is based on the following application materials submitted by Sitelines P.A., Inc.:

- Final subdivision application packet, February 27, 2015.
- Staff Review Committee meeting notes, dated March 11, 2015.
- Letter from Jim Seymour of Sebagotechnics, revised April 9, 2015.
- Email from Town Engineer John Foster, dated April 9, 2015.
- Drawing C1 entitled “Cover Sheet”, revised 3-30-15.
- Drawing C2 entitled “Existing Conditions Plan”, revised 3-30-15.
- Drawing C3 entitled “Subdivision Plan”, revised 3-30-15.
- Drawing C4 entitled “Grading, Drainage, & Erosion Control Plan”, revised 3-30-15.
- Drawing C5 entitled “Utility Plan”, revised 3-30-15.
- Drawing C6 entitled “Plan & Profile”, revised 3-30-15.
- Drawing C7 entitled “Site Development Details”, revised 3-30-15.
- Drawing C8 entitled “Erosion Control Details & Notes”, revised 3-30-15.

The proposed 10-lot subdivision features eight new lots, one previously developed lot, and a 4.35 acre wooded lot to be retained by the owner. The eight new lots will be serviced by a 350± linear foot private drive, which will be offered for public acceptance upon completion. The applicant has indicated that he will develop and sell four of the lots, while selling the other four as shovel-ready. The applicant has provided a project narrative, which is included in the attached packet.

The applicant has requested the following waivers, per Section 410:

1. Class A Soil Survey. *The project is located on soils suitable for the proposed use, and the lots will be served by public water and sewer, so no wells or subsurface disposal systems will be required.*
2. Profiles, cross-section dimensions, curve radii of existing streets. *No changes are planned for Barrows Street or Boody Street.*
3. Sidewalks. *The proposed 350 ft extension of Boody Street – which would end in a cul-de-sac - would be consistent with the rest of Boody Street; it is noted that Belmont and Barrows Streets also do not have sidewalks.*
4. Waiver for the requirement to show all trees over 10 inches in diameter. *The entire tract is forested; however no specimen trees have been previously identified. The entire ROW will be cleared, and clearing of individual lots will be done on a site-specific basis.*

## **Review Standards from Section 411 of Brunswick Zoning Ordinance**

### **411.1 Ordinance Provisions**

The proposed development complies with all applicable standards of the TR5 Zoning District. *The Board finds the provisions of section 411.1 are satisfied.*

### **411.2 Preservation of Natural Features**

There are no significant natural features identified on this parcel. It is a predominantly wooded site adjacent to a medium-high density residential neighborhood. Development of the subdivision will require the removal of all trees within the ROW. Tree removal on individual lots will be done on a site specific basis. A 4.35 acre wooded lot, which abuts the subject property to the south, is to be retained by the owner. *The Board finds the provisions of section 411.2 are satisfied.*

### **411.3 Surface Waters, Wetlands, and Marine Resources**

There are no wetlands, surface waters, wildlife habitats, steep slopes, or other natural resources of significance on the property. The development does not occur within or cause harm to any land which is not suitable for development. *The Board finds the provisions of section 411.3 are satisfied.*

### **411.4 Flood Hazard Area**

The site is located within Zone C, designated as “areas of minimal flooding” on the Flood Insurance Map for the Town of Brunswick. *The Board finds the provisions of section 411.4 are satisfied.*

### **411.5 Stormwater Management**

The site is relatively flat and is currently a forested area with two gravel trails traversing the property. The site generally drains to low area within the parcel boundaries, where ponded water infiltrates or is taken up by the vegetation. The proposed road will be constructed with a storm drain system that included ditches, which will direct runoff to Barrows Street. A storm drain was previously installed by the applicant on the west side of Barrows Street in anticipation of development of the parcel. The front of the individual lots will drain toward the street and it’s

stormwater system; the rear of the individual lots will drain to the perimeter of the site and infiltrate. There are no capacity issues with the municipal stormwater system in the area. The stormwater management plan has been reviewed both by the Town Engineer and the Town's consulting engineer, Sebagotechnics. Their reviews have concluded that the stormwater plan is generally acceptable and has been designed in accordance with the latest Maine DEP Best Management Practices Design Manual. However a few final refinements and details will need to be worked out. Therefore final approval of the stormwater plan has been added as a condition of approval. *The Board finds the provisions of section 411.5 are satisfied; with the condition that, prior to obtaining building permits, the stormwater management plan is approved by the Town Engineer.*

#### **411.6 Groundwater**

The project will be serviced by public water and sewer, is not located over any mapped groundwater aquifers in Brunswick. As the groundwater is shallow (approximately 4 feet below grade), buildings will need to be constructed with finished floor elevations multiple feet about existing grade to accommodate basements. The project is situated in a level lying area consisting of dense sand over deeper clay. The movement of groundwater is in a southeasterly direction across the site. The development will have no detrimental effects on the quality of groundwater. However the question of groundwater conditions is a concern given that the site can have a large fluctuation of groundwater elevations which already impact abutters on Barrow Street. The applicant has addressed this by employing a combination of open swales and a cross country perforated piping system to collect high groundwater and further protect existing Barrow Street homes from spiking groundwater conditions. However a few final refinements and details will need to be worked out. Therefore final approval of the groundwater management plan has been added as a condition of approval. The Board finds that the development will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater. *The Board finds the provisions of section 411.6 are satisfied, with the condition that, prior to issuance of a building permit, the groundwater plan be approved by the Town Engineer.*

#### **411.7 Erosion and Sedimentation**

The erosion and sedimentation control plan for the development is generally acceptable to the Town Engineer; however, a few final refinements and details will need to be worked out to ensure that Best Management Practices are employed, so as to not cause unreasonable soil erosion or reduction in the land's capacity to hold water so that a dangerous or unhealthy situation results. *The Board finds the provisions of section 411.7 are satisfied, with the condition that, prior to issuance of a building permit, the erosion and sedimentation plan be approved by the Town Engineer.*

#### **411.8 Sewage Disposal**

The proposed subdivision will be serviced by a new 8-inch sewer main that will be extended from the existing sewer mains in Boody Street. As part of the construction of the road, 6-inch sewer service stubs will be extended to the individual lots for future development. An updated letter from the Brunswick Sewer District confirming capacity to serve the project has been added as a condition of approval. *The Board finds the provisions of section 411.8 are satisfied, with the condition that, prior to issuance of building permit, an updated letter is provided from the Brunswick Sewer District confirming capacity to serve the project.*

#### **411.9 Water**

The proposed subdivision will be serviced by a new 8-inch water main that will be extended from the existing sewer mains in Boody Street. As part of the construction of the road, 1-inch water service stubs will be extended to the individual lots for future development. A fire hydrant will be installed at the end of the roadway. A letter from the Brunswick-Topsham Water District confirming capacity to serve the project has been added as a condition of approval. *The Board finds the provisions of section 411.9 are satisfied, with the condition that, prior to issuance of building permit, a letter is provided from the Brunswick-Topsham Water District confirming capacity to serve the project.*

#### **411.10 Aesthetic, Cultural, and Natural Values**

The development will consist of single-family homes and is consistent with the scale and type that currently exists in this neighborhood. The development will not have an undue adverse effect on the scenic or natural beauty of the area, historic sites, significant wildlife habitat identified by the Maine Department of Environmental Protection or by the Town of Brunswick, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline. *The Board finds that the provisions of section 411.10 are satisfied.*

#### **411.11 Community Impact**

The impact on public services, such as police, fire, and public works, is expected to be at the same level as typical residential development of this size. Ability to serve letters from the Brunswick Sewer District and the Brunswick-Topsham Water District have been added as conditions of approval. Additional conditions have been added that, prior to issuance of Building Permits, the applicant shall show proof of payment of the Recreation and Solid Water Impact Fees. *The Board finds that the provisions of section 411.11 are satisfied with the condition that, prior to issuance of Building Permits, proof of payment for the Solid Waste and Recreation Impact Fees is provided.*

#### **411.12 Traffic**

Based on the Institute of Traffic Engineers Manuel, the proposed subdivision will result in peak-hour vehicle trip ends of 6.16 on A.M. weekdays, 8.16 on P.M. weekdays, and 7.52 on Saturday peak hours. Given the above, the proposed development will not cause unreasonable public road congestion or unsafe conditions, and the traffic associated with the development shall maintain existing levels of service. *The Board finds that the provisions of section 411.12 are satisfied.*

#### **411.13 Pedestrian and Bicycle Access and Safety**

The development is located in the growth area, in a predominantly urban setting. The proposed private drive that will service the project will be 28' wide, including shoulders. The zoning ordinance does not require sidewalks for subdivisions under 25 lots, and no sidewalk is proposed. An 8 foot wide gravel trail is proposed to cut between lots 7 & 8, providing access to Crimmins Field. Provision of a public access easement has been added as a condition of approval. Due to the relatively low level of traffic expected on the new street, no additional pedestrian and bicycle amenities are needed. *The Board finds that the provisions of section 411.13 are satisfied, with the conditions that 1) a public access easement be added to the plan to allow public pedestrian access over the pedestrian path and internal street, and 2) a detail is provided for the proposed public path.*

#### **411.14 Development Patterns**

The project will consist of single-family detached homes and is consistent with the scale and type that currently exists in this neighborhood. The Board finds that the street interconnection with Barrows Street would not result in the disruption of community character. *The Board finds that the provisions of section 411.14 are satisfied.*

#### **411.15 Architectural Compatibility**

The anticipated houses will be similar in appearance and spacing to those in existing neighborhoods in the vicinity. The lot configuration was designed to allow the construction of a home with a 65-foot wide building window. Although there are no design guidelines or standards for this residential district, the applicant is anticipating developing two-story houses using clapboard siding and asphalt shingles. *The Board finds that the provisions of section 411.15 are satisfied.*

#### **411.16 Municipal Solid Waste Disposal**

The Town Engineer has calculated a total Solid Waste impact fee of \$2,284.48. *The Board finds that the provisions of section 411.16 are satisfied with the condition that, prior to issuance of Building Permits, proof of payment for the Solid Waste Impact Fee per unit is provided by the applicant.*

#### **411.17 Recreation Needs**

The subdivision development does not set aside any land for open space or recreation. A condition has been added that, prior to issuance of Building Permits, the applicant shall show proof of payment of the Recreation Impact Fee, as provided by the Director of Parks & Recreation and/or Recreation Commission. *The Board finds the provisions of section 411.17 are satisfied with the condition that, prior to issuance of Building Permits, the applicant shall show proof of payment of the Recreation Impact Fee, as provided by the Director of Parks & Recreation and/or Recreation Commission.*

#### **411.18 Access for Persons with Disabilities**

The development is for single-family homes on privately owned land and does not need to comply with the standards of the Americans with Disabilities Act. *The Board finds the provisions of section 411.18 are satisfied.*

#### **411.19 Financial Capacity and Maintenance**

The development will require a performance guarantee, which has been added as a condition of approval. Security for the completion of infrastructure related to sewer and water are administered by the Sewer and Water Districts and are not part of the Town's performance guarantee. The applicant has not yet provided proof of financial capacity. *The Board finds that the provisions of section 411.19 are satisfied, with the condition that, prior to issuance of Building Permits, the developer shall provide the Town with a letter from a bank verifying financial capacity, to the Satisfaction of the Director of Planning.*

**411.20 Noise and Dust**

During construction, the demolition and construction work will be done in consideration of reasonable times and decibel levels, and in accordance with the Section 109 of the Brunswick Zoning Ordinance. Best Management Practices will be used in order to prevent dust migration during demolition and construction. Upon project completion, the proposed development is not anticipated to contribute to unreasonable noise or dust. However, the applicant still needs to add notes regarding dust control measures during construction and extension of Boody Street along with trucking materials in and out of the site during construction. *The Board finds that the provisions of section 411.20 are satisfied, with the condition that, prior to issuance of a Building Permits, notes are added to the Plan regarding dust control measures during construction and extension of Boody Street along with trucking materials in and out of the site during construction.*

**411.21 Right, Title, and Interest**

The applicant has submitted deeds for the property. *The Board finds the provisions of section 411.21 are satisfied.*

**411.22 Payment of Application Fee**

The final plan application fees have been paid. *The Board finds the provisions of section 411.22 are satisfied.*

**DRAFT MOTIONS  
CHAMBERLAIN WOODS SUBDIVISION  
CASE NUMBER: 15-002**

**Motion 1:** That the Major Development Review Subdivision Plan application is deemed complete.

**Motion 2:** That the Board waives the following requirements:

1. Class A Soil Survey.
2. Profiles, cross-section dimensions, curve radii of existing streets.
3. Sidewalks.
4. Waiver for the requirement to show all trees over 10 inches in diameter.

**Motion 3:** That the Major Development Review Subdivision Plan is approved with the following conditions:

1. That the Board’s review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, its representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions

of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require review and approval in accordance with the Brunswick Zoning Ordinance.

2. That, prior to issuance of Building Permits, the stormwater management plan is approved by the Town Engineer.
3. That, prior to issuance of Building Permits, the groundwater management plan is approved by the Town Engineer
4. That, prior to issuance of Building Permits, the erosion and sedimentation plan is approved by the Town Engineer
5. That, prior to issuance of Building Permits, the applicant shall show proof of payment of the solid waste impact fee, as provided by the Director of Public Works.
6. That, prior to issuance of Building Permits, the applicant shall show proof of payment of the recreation impact fee, as provided by the Director of Parks & Recreation and/or Recreation Commission.
7. That, prior to issuance of Building Permits, the applicant shall show proof of payment of the street light impact fee, as provided by the Director of Public Works.
8. That, prior to issuance of Building Permits, stormwater drainage easements for impacted lots shall be provided, in form and substance satisfactory to the Town Engineer.
9. That, prior to issuance of Building Permits, a Town storm drain easement shall be provided, in form and substance satisfactory to the Town Engineer.
10. That, prior to issuance of Building Permits an acceptable pavement radii for the cul-de-sac is provided, to the satisfaction of the Director of Public Works.
11. That, prior to issuance of Building Permits, the developer shall provide the Town with a performance guarantee for all subdivision infrastructure, as required under Section 411.19, to be approved by the Town Engineer.
12. That, prior to issuance of Building Permits, the applicant shall establish with the Town a construction inspection escrow fee of at least 2% of the construction value, to the satisfaction of the Town Engineer.
13. That, prior to the commencement of any construction, a Street Opening Permit for the proposed subdivision road construction shall be obtained from the Public Works Department.

14. That, at least one week prior to the commencement of any construction, a pre-construction conference with Public Works staff, the engineering consultant and the roadway site work contractor is required.
15. That, prior to the commencement of any construction, a digitized electronic drawing file (CAD file and PDF) of the complete final approved plans, in an approved format, shall be furnished to Public Works Department.
16. That an "as-built" or set of record drawings shall be submitted in a form acceptable to the Public Works Department upon completion of the project.
17. That, prior to issuance of Building Permits, the developer shall provide the Town with a letter from a bank verifying financial capacity, to the Satisfaction of the Director of Planning.
18. That, prior to issuance of Building Permits, an updated letter shall be provided from the Brunswick Sewer District confirming capacity to serve the project.
19. That, prior to issuance of Building Permit, a letter shall be provided from the Brunswick-Topsham Water District confirming capacity to serve the project.
20. That, prior to issuance of Building Permits, the applicant shall provide a public access easement for the 8' wide pedestrian path to Crimmins Field, to the satisfaction of the Director of Planning & Development.
21. That, prior to issuance of a Building Permits, notes are added to the Plan regarding dust control measures during construction and extension of Boody Street along with trucking materials in and out of the site during construction.

*\* All Subdivisions for which Final Plan approval has been granted, and any conditions that have been imposed by the Planning Board for the subdivision or final plan shall be filed in the Cumberland County Registry of Deeds by the applicant. If the applicant fails to record the subdivision plan within 60 days after Development Plan approval by the Planning Board, the approval shall expire. No building permits associated with a subdivision shall be issued unless evidence of all recording requirements is provided by the applicant to the Codes Enforcement Officer.*

*\* Subdivision approvals by the Planning Board shall expire at the end of five years after the date of Final Plan approval unless all infrastructure work associated with the development is completed (Section 407.4.C of the Brunswick Zoning Ordinance).*



Engineering Review Memorandum

**To:** Town of Brunswick Planning Board (STI # 14382)

**From:** James Seymour, P.E., Planning Consultant, Sebago Technics, Inc.

**Date:** March 17, 2015 (**Revised April 9, 2015**)

**Subject:** Proposed Major Subdivision Plan Application-Engineering Consultant Review  
Of Chamberlain Woods Subdivision-Boody Street Extension

**Applicant:** Coastal Building and Investments, Inc  
141 Pleasant Street, Brunswick ME 04011  
Tax Map U27, Lot 6

*(All comments based on revised plans are in red italics following each initially reviewed item)*

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**I. Project Description and Background**

This project qualifies as a major Subdivision Plan application as it entails developing 10 lots around the periphery of a cul-de-sac dead-end planned from Boody Street, an addition 4.35 acre lot retained by the owner accessed off of Belmont Street dead-end and one previously sold with access off of Barrows all zoned in the TR5 District. The project includes creation of new single family lots which will connect to the proposed dead-end road network.

The project is located off Barrows Street and will utilize a proposed internal road access and convey utilities for water, sewerage, communications, and electricity. The lot is contoured to be fairly level and proposes to raise the individual lots to push surface runoff towards the road drainage system. The project also has a noted high groundwater level leading to concerns about further adding drainage to the existing storm drains, and also concerns with impacts to flooding, and eliminating ponding water. In addition there appears to be questions raised by the Planning Staff with regards to the impact of the road design and drainage impacts it may have on adjacent storm drain systems, and the complications created with a sidewalk or pedestrian path.

The applicant submitted the Final Plan for the project mid-March for the Brunswick Planning Board review. We have been requested to review the drainage and address concerns for the proposed design and how it plans to address high groundwater concerns.

**II. Technical Review**

We have reviewed the submitted design for the purposes of determining if the project is compliant with the Town of Brunswick Development Review Plan Standards and the requirements as applied in the proposed residential development. For the following:

Section 504: Storm Water Management  
Section 505 Groundwater  
Section 506 Erosion and Sedimentation Control

**Section 504 Storm Water Management:** The plan should comply with the submission standards as located in this section requiring that the Design be in conformance with the Stormwater Management for Maine: Best Management Practices as published by the Maine Department of Environmental Protection (Maine DEP) published in November 1995 edition. The issue is that the publication is no longer in print and that the practices for Stormwater Management have drifted from water quantity control to water quality control. However it is very common that in many design applications that when the applicant is trying to achieve water quality that the peak runoff flow rate is also obtained. The project is located within the Mere Brook Watershed which is considered an Urban Impaired Stream, meaning that creating of more than 20,000 Sf of new impervious areas will require that the applicant file a Stormwater Permit application with the Maine DEP. The current application proposes 14,440 Sf of new paved and impervious surfaces, and since the lots will be individually developed the applicant will not be required to account for the private lot development as part of its development total impervious area.

Below are our concerns and or comments as it relates to the design of the street and subdivision relating to stormwater management.

1. The plan and application shall show an overall street and utility plan showing the existing and proposed street and lot layouts for handling stormwater flows. In general the road design sends water toward the end of the existing Boody Street drainage system such that the high point is located at the mid-point of the proposed road near the throat of the cul-de-sac. The proposal will collect surface runoff from the road at the cul-de-sac via catch basins, and then utilize an underdrain perforations to direct towards the end of the current Boody Street and then directs the pipe cross country to the south across the retained lot to eventually tie into the existing storm drain line located in Barrows Street near the opposite side of the Belmont Street intersection. Concerns with the proposed system are the lack of cover over the storm drain in the *first new section being less than 1 foot of cover, and the minimum slope of 0.004 Ft/Ft which is below the normal desired slope of 0.005 ft/ft for a storm drain. With the lack of cover, the potential for compromised strength in the street, and freezing potential due to shallow depth are concerns, and the shallow slope will tend to promote issues with sedimentation and clogging as the runoff will tend to deposit sediment with the low flow velocity, especially where there is a fair reach of surface to be collected in the new catch basin.* The proposed cross country 18 inch drain is tying into an existing catch basin that only has a 12 inch pipe outlet. We are having difficulty following the model to witness that pipe reduction or impacts it has on the overall discharge. We may need to see an overlay map corresponding model symbols

to actual design elements at a plan scale. *The applicant has raised the street grade from the end of Boody St to the catch basin which directs pipe flow cross country in a manner to obtain more cover over the proposed storm drain. Though not ideal, with rigid insulation will be an acceptable design. We do recommend that the entire pipe profile insulation be installed in a boxed layout such that the entire pipe circumference is protected by frost penetration with minimum of 2" of rigid insulation. The inclusion of 2 + feet of sumps in the catch basin will also help alleviate sedimentation in the main lines.*

*The last pipe connection from the cross country storm drain line will be an 18 inch drain which will replace the 12" stub, such that there is no restriction due to reduced pipe sizing. Thereby the entire cross country storm drain will be 18 inches of underdrain from the CB in Boody Street, to the existing inlet just outside the Barrows ROW opposite from the Belmont Street intersection.*

*In addition there is a swale now located behind the rear of the southernmost lots assisting in removal of surface waters. This improvement along with the 18 inch underdrain behind the existing Barrows Street fronting lots should assist in reducing existing flood conditions from both surface and season high groundwater conditions.*

2. The subdivision street standards call for 24 feet wide travel road section with 5 foot sidewalks. The application does not show the inclusion of Sidewalks. Given the density of the residential dwellings and use of a Community space to the rear we feel it does make some benefit to install sidewalks. Currently there is a gravel access to that land, and it makes some sense to create an improved walkway for pedestrian and bike travel. The inclusion of the trail at 5 feet width will not push the total impervious new areas in excess of 20,000 Sf of impervious requiring additional DEP permits. We would expect that a 5 foot wide sidewalk would add only approximately 3000 SF of new surface. *The Town has agreed that now additional sidewalks are necessary.*
3. The project intends to leave the individual lot owners with an option for surface grading their lots but with an understanding that all lots should be tilted to sheet flow runoff to the street and to the rear. The concern we have experienced in other communities is that given the relatively small lot size that each lot owner can easily influence the abutting grade, and make a comprehensive approach very difficult to achieve. One lot raised four feet can cause havoc for the owner that does not have the ability or funds to bring that arrangement of fill and as such creates grading issues. We strongly feel that there need be a very strict tolerance on proposed finish grades of the homes, and clear definitions of the terms used. Does FFE mean door sill elevation or top of concrete at the foundation? We also need to know how and where common surface swales will be located. This can have concerns with driveway construction and impact winter conditions with iced sheet flows. *The latest plans submitted include individual grading plans showing the proposed Finish Floor Elevation (FFE) for each proposed home, along with grading to indicate the proposed drainage patterns. There are two notes added stating foundation footings shall not be set below seasonal high groundwater or elevation 496.00. A note also states that all houses will still be built with sump pumps with backflow prevention. This will reduce the risk of*

*basement flooding as well as impacting the existing storm drain with excessive groundwater pumping during peak rain events.*

4. To lots along the north side of the Boody Street extension how will the offsite water be collected or graded to tie into the proposed storm drain? Without careful grading surface waters could be ponded for many months of the year from fall to spring. *Lot grading plans indicate that the lot will be graded to sheet flow the lot drainage away from the foundation to the common swales along the sidelines and to the rear. It is assumed that water will migrate to the north off-site and percolate back into the sandy soils. Based on topography provided this appears acceptable and will not further impact existing homeowners.*
5. The extremely shallow catch basin and pipe elevation in the CB1 and CB 2 have us concerned with freezing potential in the street areas. Should the CB block with ice or the main line freeze then the pumped drainage will be blocked creating possible backups in basements if the homes have full foundations. One possible solution is to create a separate common force main buried to adequately insulate and tie into the storm drain further downstream where more cover is available or insulation can be added to prevent frost penetration. *The revised road grading and additional CB at the transitional low point between the new road extension and existing end of Boody Street provides more opportunities to remove surface drainage. With added insulation of the pipes on all sides, and minimum 2 foot sumps, the catch basins should be suited to handle winter conditions. The developer could consider 6 inch underdrain to further address concerns of subsurface groundwater impacts to the road base along the northern side of the proposed road.*
6. Drainage easements should be provided over the lots impacted with the cross country drainage pipes. Typical easement should be 30 feet wide to assure that trucks and equipment have easy access to maintain repair or replace, the collection structures and the pipes off the paved road sections. *Drainage easements have been shown for the cross country drainage. A question comes up of the need to include the swale pipe collecting the drainage from the inlet. As it is part of the pipe system additional easement language and dimensions shall be included for the Town's benefit? Prior to release of any bonding for the project we recommend that the Town receive recorded deeds for the drainage easements. All legal documents and easement descriptions shall be reviewed by the Town prior to any execution or recording.*
7. Another suggestion would be to possibly limit the foundation footing to not be placed below the permanent groundwater elevation, or limit the structure to be placed on slab foundations rather than full height basements. If this were to be considered then there is a good chance the lots would not require sump pumps and could be controlled by surface grading. *The plans address the concern by not allowing footings below elevation 496 or the highest season groundwater elevation. Sump pumps will still be installed as a backup for extreme rainfall events.*

8. The applicants engineer states that there is a minor increase in the peak rate of runoff in the 2 yr. storm and that the larger flooding events show a reduction in the peak rates. Our concern is that the Hydraulic Grade Line data shows that downstream there currently exists some peak back-ups, and the proposed project still shows some of these downstream conditions may occur in brief periods with storms exceeding the 10 year level. The engineer claims that there is some micro ponding which occurs due to the level grades and that the models cannot detect such impacts, and these could be enough to limit such capacity problems downstream. We do feel that it is necessary to understand the model but equally understand that the ponding is a condition that is not ideal and if corrected the conservative model may be more accurate and that the additional capacity should be conserved for the Town's use to rid the ponding in the future if it chooses. Then we are back to the issue of how to resolve the bigger picture.

We agree with the cross country approach to install perforated drain across the property from Boody St. to the intersection of Belmont and Barrow Street. The concern that we have is, during winter conditions, when shallow pipes, and frost/freeze prohibit groundwater and surface drainage transport. We think there is a need for an additional swale along the rear of the south side lots on the new street. Such a swale could be pitched to eventually tie into the cross country drain, and provide a location to sheet, collect, and infiltrate proposed street runoff and back yard drainage for this development and future considerations on the land remaining. It may also assist in timing of the Barrow Street drainage enough to further reduce the HGL in the downstream system.

*After discussions and meetings with the applicant and the Town Engineer it was determined that a swale inclusion behind the rear of the southernmost lots, with an underdrain and the replacement of the 12 inch pipe reduction at Barrows street will allow peak rates to be kept very close to existing conditions further downstream and will not impose detrimental impacts on the existing system. In addition the consensus was it was equally important to reduce the higher seasonal groundwater issues long the rear of Barrows St, and in fact may assist in the timing such that peak spikes in a flood timing can be reduced further downstream. Both we and the Town engineer believed that this was the preferred solution that best addressed the impacts from this development and slightly reduced existing drainage issues along Barrows Street.*

*We still request that the Engineer provide updated hydrologic information at the Barrows Street connection to review the final design elevations and calculations for the Town's use and for future considerations.*

### **Section 505 Groundwater Impacts**

The project is situated in a level lying area consisting of dense sand over deeper clay. The movement of groundwater is in a southeasterly direction across the site. The development will have no detrimental effects on the quality of groundwater. However the question of groundwater conditions is a concern given that the site can have a large fluctuation of groundwater elevations which already impact abutters on Barrow Street.

With such impacts heightened by surface water rapidly infiltrating through the soils, the impacts go from groundwater to a discharge of surface water or pumped groundwater into the storm drain. This conversion of groundwater to storm drain flows can have an impact accumulatively in an area with level grades. Pumping groundwater can alter the natural hydraulic drain time (if it were naturally draining through soils to an open channel) versus flows directly discharged into a storm drain. We feel the following topics need to be considered to assist in reducing basement flooding, and downstream conditions.

1. The final basement grades should not be placed lower than observed seasonal groundwater elevations. In this scenario the lots would need to be brought up 2-3 feet in fill. Or another consideration is that the homes be built on slabs reducing the need to pump and would be graded to have gravity surface drainage flow away from the foundation. *The combinations of lot grading plans, limiting footer and basement elevations above elevation 496.00, and backflow prevention on pump lines will alleviate our concerns on the issue.*
2. Pumped system may need to have a separate line and not connect into the CB# 1 or CB#2 where there is a high chance of winter freezing due to shallow cover (less than 1.5 feet of cover). Insulation of pipes may help but we have concern of the CB itself freezing due to its limited ability to be insulated in the open street. *The applicant has provided notes for insulation, we recommend that the entire pipe be boxed with insulation to discourage frost from penetrating from the sides.*
3. The consideration of open swales and collect on the rear of the proposed south side lots may help, but we have concerns of winter flows along the rear of the northern side lots. Based on assumed grading that surface water could be trapped in higher storm events or during late fall to mid spring. *An open swale has been provided to tie into the rear of lots 1 and 3 at the southerly rear line and clips the edge of the retained land owned by the developer. The item has been addressed adequately.*
4. We agree with the cross country perforated system to collect high groundwater and further protect existing Barrow Street homes from spike groundwater conditions. This will assist but not permanently cure all of the infiltration or groundwater impacts to all the existing lots. *The perforated pipe will greatly assist conditions to the existing residents on the western side of Barrows Street. We agree with the proposed design objectives.*
5. During construction there will need to be a dewatering plan in place in the event that during construction we either have high water situations in the ground or experience a large rain event to cause a rapid rise in groundwater. The plan shall address how the contractor is to collect, drop groundwater levels, and where to discharge clean water into the city system. *We received the Dewatering Plan and revised detail as shown on sheet C8 - Erosion Control Detail and Notes. We would recommend the following be added to the plan or detail:*
  - A. *Improve the detail or add notes indicating that the sump for the collection of groundwater should be lined with crushed stone to*

*reduce sediment from getting re-suspended by the existing soil bottom or churned up by pumping or backflows.*

- B. Improve the detail to show a stone dam separate the incoming drainage from the pump side such that the stone creates a fore bay effect and allowing less turbid water to be pumped away.*
- C. Add a note or requirement that prior to any pumping that the Town Engineer review and inspect the program prior to activation to assure Town infrastructure is well protected from impacts.*

### **Section 506 Erosion and Sedimentation Control**

The applicant has provided a basic Erosion Control Plan for the activities associated with the 10 Lot subdivision. We would recommend given the flat elevation that consideration be added to the plan for dust control and or periodic street sweeping. In addition we will request that silt sacs be added to all catch basin that are directly impacted by the construction activity.

As previously mentioned we will want to see a dewatering plan with acceptable protection and avoidance of sediment transport to the nearest pipe system. This will require a small contained area to assure that there is a reasonable filtering of discharge before it gets placed into any drains which may eventually reach Mere Brook.

*The applicant still needs to add notes regarding dust control measures during construction and extension of Boody Street along with trucking materials in and out of the site during construction. It shall be the developer's responsibility to assure that Boody and Barrows remains free of tracked material and protected from dust and impacts to surrounding catch basins from Sedimentation.*

*With the approved dewatering plan and protection at existing CB we believe that the adjacent land and systems will be adequately protected from erosion and sediment during construction with the inclusion of a requirement for street sweeping during construction to reduce dust impacts.*

### **III. Recommendations:**

Upon review of the information provided in the submitted plans and documentations through March 11, 2015, we would recommend that the address the concerns as raised by our memo. The project is a wholesale revision to a previously approved subdivision as referenced on the plan. If members of the public are present the Board may wish to consider their input for the public hearing and to also hear if there are any immediate concerns regarding groundwater or season runoff issues. Based on the information we feel the plan needs to discuss and resolve winter freezing and basement elevations and pumping issues for the Board to have a certain level that these new homes will not be burdened with flooding issues nor will the issue be further aggravated by the final design.

It may be best for the applicant to meet with the staff and the consulting engineer to further discuss the points of concern and review all options and considerations to achieve a design that protects all parties from groundwater impacts or surface flooding.

Currently the Board should choose if the design and proposal clearly addresses the concerns raised in the memo, and focus should be on final specific lot grading, need for basement elevations or build on slabs, consideration for impacts due to winter freezing of shallow pipes,

and need for either common private drain easements for common lot drainage, or for public easements for drain systems away from road right of way such as the cross country drain and a dewatering plan for potential construction work in high groundwater conditions.

*We met with Mr. Neufield and John Foster PE, to discuss the memo and previous design as submitted. These revisions are a result of the engineer working with the reviewers to address several of our concerns and improve the design to additionally reduce impacts on neighbors. With exception to a few conditions and additional small details we feel the plan could be approved with conditions.*

*As always these are recommendations to the Planning Board and not final determinations but merely offer guidance, and approvals if appropriate, are left with the Board at their discretion*

***Respectfully Submitted,***

***SEBAGO TECHNICS, INC.***

***James R. Seymour, P.E.  
Engineering Consultant***

## Julie Erdman

---

**From:** Jeremy Doxsee  
**Sent:** Friday, April 10, 2015 2:31 PM  
**To:** Julie Erdman  
**Subject:** FW: Final Comments - Chamberlain Woods 8 lot Subdivision, Boody St

Jeremy Doxsee, AICP  
Town Planner  
The Department of Planning & Development  
Town of Brunswick  
85 Union Street  
Brunswick, ME 04011  
(207)725-6660 x4022  
[www.brunswickme.org](http://www.brunswickme.org)

---

**From:** John Foster  
**Sent:** Friday, April 10, 2015 11:42 AM  
**To:** Jeremy Doxsee  
**Cc:** Curt Neufeld (cneufeld@sitelinespa.com); James Seymour  
**Subject:** Final Comments - Chamberlain Woods 8 lot Subdivision, Boody St

Jeremy,

I have reviewed the final plans from Sitelines sent via email on April 1, 2015 and offer the following comments:

1. The pavement radii in the cul de sac is not acceptable and does not meet our design standards as contained in the town's street acceptance ordinance. See Figure 1 below as shown in the ordinance. A centerline radius of 45 feet is required and sheet C3 indicates it will be 34 feet, that is way too small and tight. I am sure the project can comply as the property line radius is as required, just need to revise the pavement radii in the cul-de-sac and resubmit for approval.
2. The proposed town storm drain easement is now shown with an appendage connecting to Lot 9 and I am not sure why the town needs that as part of the public drainage easement. On sheet C4 it is indicated a stub out will be provided to serve the sump pump for Lot 9 so the easement/connection is to benefit Lot 9 then it should be an easement that is conveyed to them and not the town as we don't want any maintenance jurisdiction for their lot connection. This issue needs to be clarified.
3. On sheet C4 a field inlet (pipe run P8) is shown from DMH2 and we don't object to this connection but it has been drawn on private property to be retained by the developer and outside the proposed storm drain easement. We will need the easement extended in this area to allow our maintenance of this pipe. It was also my understanding a drainage easement encumbering the development of lots 1, 3 and 5 was to be shown at the rear of these lots so that these property owners would maintain and not fill in or develop in the shown drainage swale to be constructed by the developer as part of the site development process. I would still recommend such a private easement be provided.
4. On sheet C4 new CB3 is proposed and it will replace an existing catch basin. The plans need to indicate the developer's contractor is responsible for completely removing the existing catch basin, salvaged frame and grate to be delivered to Public Works and the existing storm drain lateral pipe to be abandoned sealed for at least two feet with Portland cement concrete.

5. For impact fees we would recommend a solid waste impact for the 8 residential lot subdivision of \$2,284.48 (8 lots x 1 ton/lot x \$258.56/ton). We would also typically require one street light be provided through our CMP rental program at the cul-de-sac area (to be located based on final pole placement) so the recommended street light impact fee is \$296.03 ( 1 ea. X \$296.03/street light).
6. We recommend a performance security be required for all the subdivision infrastructure. The developer will need to submit a satisfactory 100% labor and material performance guarantee to the Town Manager for review and approval prior to the start of any work. The amount of the proposed financial guarantee is to be itemized by the consultant and submitted to the Town Engineer for review and approval. The guarantee amount must include at least a 10% contingency above the Engineer's estimate.
7. We recommend the Planning Board assess an inspection escrow fee to allow us to contract for construction inspection. We would recommend the developer deposit in a Town held escrow account an amount at least equal to 2% of the construction value. Funds from this escrow account will be used to fund an engineering consultant to be hired by the Town Engineer. The consultant will oversee the project construction and report all findings, tests and recommendations to the Town Engineer. Any of the escrowed funds not used for the construction administration will be returned to the developer and the developer will be responsible for any additional inspection costs needed above the escrowed amount if such additional inspection work is needed as determined by the Town Engineer.
8. A Street Opening Permit for the proposed subdivision road construction must be obtained from the Public Works Department prior to the start of any such work.
9. A pre-construction conference with Public Works staff, the engineering consultant and the roadway site work contractor is required prior to the start of any construction. Contact Public Works when a contractor has been selected and arrange for such a meeting at least one week prior to the start of construction.
10. A digitized electronic drawing file (CAD file and PDF) of the complete final approved plans, in an approved format, must be furnished to Public Works Department prior to the start of any construction. An "as-built" or set of record drawings shall be submitted in a form acceptable to the Public Works Department upon completion of the project

Please let me know if you have any questions or comments as regards our above recommendations. Thank you, John

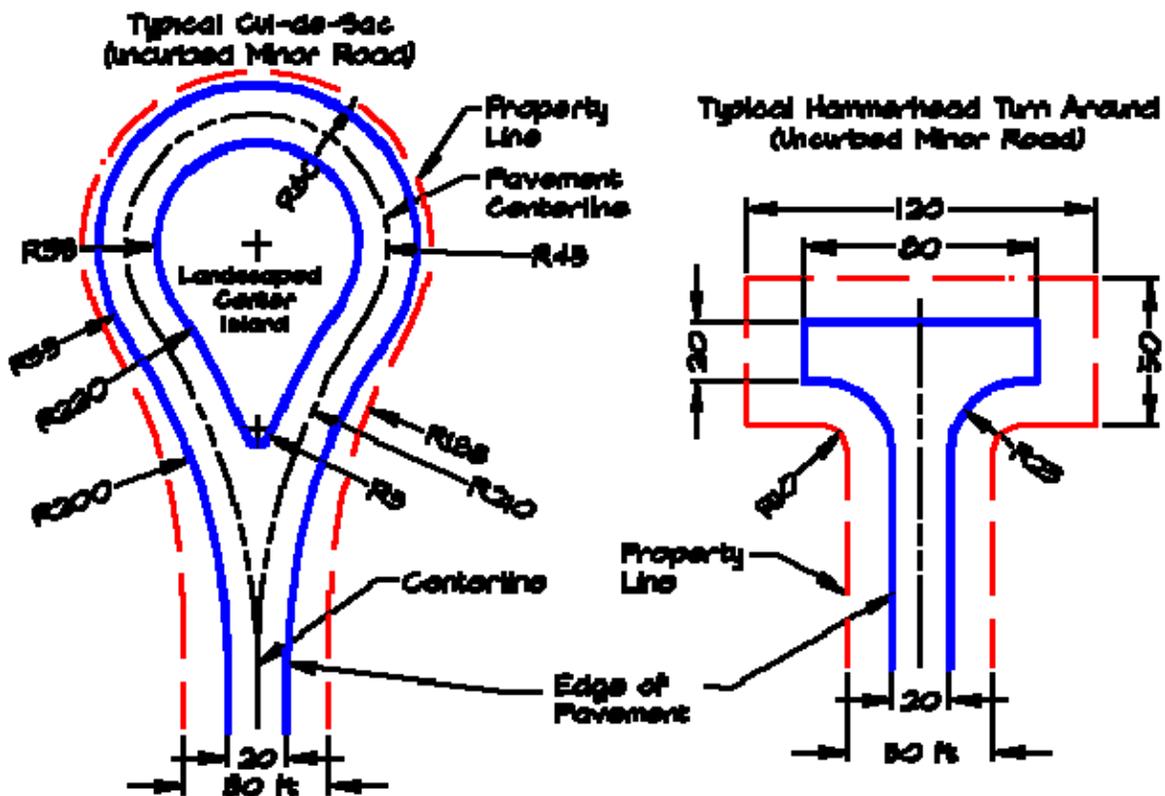


Figure 1

John A Foster, PE  
Town Engineer/Director of Public Works  
Public Works Dept  
9 Industry Rd  
Brunswick, ME 04011  
207.725.6654  
FAX 725.6655  
[ifoster@brunswickme.org](mailto:ifoster@brunswickme.org)



# TOWN OF BRUNSWICK, MAINE

INCORPORATED 1739

DEPARTMENT OF PLANNING & DEVELOPMENT

TOWN HALL - ROOM 216

85 UNION STREET

BRUNSWICK, ME 04011

ANNA BREINICH, FAICP  
DIRECTOR OF PLANNING & DEVELOPMENT

PHONE: 207-725-6660  
FAX: 207-725-6663

March 11, 2015

## STAFF REVIEW COMMITTEE NOTES

### Staff Present:

Clint Swett (Assessing), Jeff Hutchinson (Codes), Jeff Emerson (Fire), Anna Breinich (Planning), Rob Pontau (Sewer District), John Foster (Public Works)

Public Present: Phil Dumont

**Case # 15-002 Chamberlain Woods Final Subdivision:** The Committee will review and provide a recommendation to the Planning Board regarding a Final Plan Major Review application submitted by Coastal Buildings and Investments, Inc., for the development of a 9-lot residential subdivision, a 225 foot private drive, and associated site improvements, on a 7.22± acre parcel with frontage on Barrows Street and the end of Boody Street. The proposed subdivision is located in the Town Residential 5 – Columbia Avenue – Spring Street (TR5) Zoning District. Assessor's Map U27, Lot 6.

### Present for Applicant:

Curt Neufeld, Sitelines P.A.

- Curt, as the authorized representative for the developer, Coastal Buildings and Investments, Inc., provided an overview of the project. He also noted the results of an earlier meeting with John Foster regarding street design and construction. The street will now be built to Town standards for public streets and offered for dedication. Other change noted storm drainage will run by pipe to Belmont Street connection with a 20' easement provided.

### Staff Comments:

Jeff Hutchinson:

- Will existing pathway leading from lot 7 to Crimmins Field left in place and maintained? Curt- no and the pathway will be removed from the plan.
- Will filling the existing man-made ditch (located running north to south) to develop the subdivision, have any adverse effects on adjacent properties? Curt - the ditch is quite old and doesn't effectively drain any land area, therefore to discontinue it will not affect adjacent lots.

Jeff Emerson

- Requested that the fire hydrant be located at the top of the cul-de-sac towards Boody Street.

Rob Pontau

- Design acceptable.

John Foster

- Redesign of street to 26' wide with 2' shoulders links up better with Boody Street.
- Will need to repave where water and sewer lines connect into existing lines for approximately 75'.
- Will need cross-sections to determine grade at connections.
- Include list of all materials on drawings.
- Site lighting – One street light at end of cul-de-sac adjacent to trail connection is acceptable thereby serving as entry light for trail connection as well. Impact fee will be assessed by the Town.
- Pedestrian connection should be reviewed by Parks and Recreation and School Department.
- Performance security – First Certificate of Occupancy must be tied into Town Engineer certifying that completion of street construction. Requested street construction cost estimate to calculate performance security.
- Solid waste impact fee – Required.

Clint Swett

- Addresses are assigned.

Anna Breinich

- No additional comments.

Public Comment:

Phil Dumont, 90 Columbia Avenue

- Will mobile homes be allowed?
  - Jeff Hutchinson replied none permitted in zoning district.
- Will homes be built above ground level? Will they know about water table?
  - Curt replied homes will be built similar to existing home on previously approved subdivision. Homes and lawn areas will slope towards Boody Street.

**Case # 15-011 Tao Yuan Greenhouse/Storage:** The Committee will review and provide a recommendation to the Planning Board regarding a final Plan Major Review application, submitted by Cecile and John Stadler/Cara's Place LLC, as an amendment to a site plan approved 5/27/14. The proposed amendment includes the construction of a 2-story commercial structure, with a top-floor greenhouse, on the existing foundation with associated parking and site improvements, located on a .16 acre lot, 5-9 Abbey Road/22 Pleasant Street, and within the Town Center 1 (TC1) Zoning District and Village Review Overlay Zone. Assessor's Map U13, Lot 095/1-3.

Present for Applicant:

- John Stadler, co-owner (JS)  
Anna provided an overview of previous past plan approvals/submittals. John Stadler provided an overview of current project noting farm-to-table concept, 2<sup>nd</sup> floor greenhouse/aquaponic farm in basement will provide provisions for their two restaurants. Offices and a prep kitchen will be located on the first floor. Solar collectors will be built into greenhouse roofing.

## Staff Comments:

### Jeff Hutchinson:

- Any building design yet? JS – No
- Concern raised that building plans not done yet; loading issues for second floor may develop during design phase. How will accumulated snow on decks be handled? JS – snow will be cleaned off .
- Recommended holding a consultation with codes/fire staff prior to building permit being submitted.
- How many employees at one time? JS – 9-10; one employee to be added; some part-time workers.
- Noted 4 parking spaces are required for proposed office space. Basement parking should be restricted to staff; possibly limit to compact cars due to tight maneuverability.
- What is the purpose of the decks? JS – for cleaning and construction issues.
- Recommends deck not be open to public, no outdoor seating as are not ADA- compliant. Recommended a security gate at outdoor staircase be installed to prevent unauthorized access to decks.
- How often will loading dock be used? Location interferes with parking spaces. JS – meant for occasional use, primarily used before hours of restaurant use.
- Include tire stops on plan.
- What will be the extent of internal greenhouse lighting? JS – generally lighting will be consistent with June day length. Could use “heat curtain” to shield lighting from abutting properties. JH recommended its use at sunset during winter months.
- Adjust front deck to curbing at north end so as not to project into driveway.

### Jeff Emerson

- State Fire Marshall Permit is required.
- More review of building needed as may impact structural design.

### Rob Pontau

- Will need to be notified for connections.
- Are floor drains proposed? JS – yes.
- Will need to install sediment trap (part of building permit phase).

### John Foster

- Office space must be ADA compliant (ramp and bathrooms). Currently is not designed as such. Suggested installation of an elevator or internal lift. Ramping isn't possible due to building design.
- Will need at least a 3x3 landing at each of the three front entrances facing Abbey Road.
- Question status of 2014 approved plan amendment. JS stated that the existing diagonal parking spaces will be realigned as part of this project. May request approval to construct an outside patio along west side of structure at a later date.
- Noted tight parking configuration on existing lot. JS – proposed building being slightly moved to north.
- Show existing curb and existing lighting on plan.

- Need an updated photometric plan for site.

Clint Swett

- Addresses will need to be assigned.

Anna Breinich

- Remove reference to an “approved addition” on west side of structure. Was never submitted/approved by Planning Board. JS – Pavement to be removed on west side, replaced with loam and seed. Staff recommended a barrier be placed at end of parking lot to prevent drivers from driving through.
- Also noted pending VRB review and action of COA set for 3/17/15.

**Pre-application Consultation:** The Committee will discuss and offer comment to developer Michael Scholl and potential applicant Eric Emery of the NE Group, on lot division and development of 62 Pleasant Hill Rd, within the Residential 4 (R4) Zoning District and Medical Use Overlay Zone. Assessor’s Map 22, Lot 31.

Present for Applicant:

- Mike Scholl, owner of Smiling Sailboats LLC.  
Mike provided a project overview and requested feedback.

Staff Comments:

Jeff Hutchinson:

- No comments.

Jeff Emerson

- No comments.

Rob Pontau

- Will need to request letter to provide service, provide anticipated flow.
- 2 clean-outs not needed for Sewer District as shown on site plan.
- Will need street opening permit from Public Works to tie into manhole.

John Foster

- Noted no storm drainage in area and will need to address onsite.

Clint Swett

- Address will be 84 Baribeau Street.

Anna Breinich

- Suggested applicant request a sketch/final submittal due to the size of the proposed development.

END

**FINAL SUBDIVISION APPLICATION  
CHAMBERLAIN WOODS  
TAX MAP U27, LOT 6  
BOODY STREET  
BRUNSWICK, MAINE**

Prepared For

**COASTAL BUILDINGS AND INVESTMENTS, INC.**  
Mr. Robert (Bob) Cole  
141 Pleasant Street, #101  
Brunswick, Maine 04011

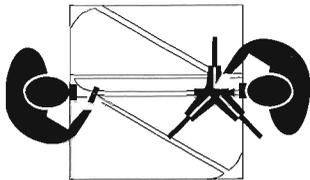
Prepared By

**SITELINES P.A.**  
8 Cumberland Street  
Brunswick, Maine 04011

February 27, 2015

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Attachment H	Stormwater Management Plan
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February 27, 2015

1019.01-7

Mr. Jeremy Doxsee, Town Planner  
Town of Brunswick  
28 Federal Street  
Brunswick, Maine 04011

**Re: Major Development Review  
Final Plan Application  
CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE  
Tax Map U27, Lot 6**

Dear Jeremy:

On behalf of Coastal Building and Investments, Inc., Sitelines, PA is pleased to submit the enclosed Major Development Review Final Application and supporting materials for the development of a residential subdivision and associated private road to be located along Boody Street. The project was presented to the Planning Board as a Sketch Plan on February 10, 2015.

Comments from that meeting have been incorporated into the revised plan. This letter is intended to summarize the project in order to facilitate the review process.

#### **PROPERTY**

Coastal Building and Investments, Inc. owns the parcel of land located along Barrows Street. The parcel contains 7.22± acres and has frontage on Barrows Street and the end of Boody Street. The majority of the site remains undeveloped. There have been some house lots developed adjacent to Barrows Street and there are two (2) unpaved trails traversing the property. The existing improvements result in approximately 12,200 s.f. (0.28 acres) of impervious area. The property is located in the Town Residential 5 / Columbia Ave – Spring St (TR5) Zoning district, in which residential dwellings are a Permitted Use. The property previously received approval from the Town in 2006 for the development of 33 condominium units. The units were never constructed and the permits have since lapsed.

#### **SITE DESIGN**

The proposed subdivision consists of ten (10) residential lots and an approximately 300-foot long private drive that terminates in a cul-de-sac. Eight (8) of these residential lots will be associated with the proposed private drive. The other two (2) lots consist of a lot off Barrows Street that was sold in February of 2015 and a lot that consists of the area to be retained by the owner. The proposed lots will have access from the private drive. A new 8-inch water main, 8-inch sewer main, and overhead communication and electric will be extended with the private drive. It is intended the road will be offered for public acceptance upon completion; however, it will be maintained via a shared maintenance agreement until it is.

## **SITELINES, PA**

ENGINEERS ■ PLANNERS ■ SURVEYORS ■ LANDSCAPE ARCHITECTS  
8 Cumberland Street ■ Brunswick, ME 04011 ■ TEL 207-725-1200 ■ FAX 207-725-1114 ■ [www.sitelinespa.com](http://www.sitelinespa.com)

The proposed roadway will create approximately 10,250 sq. ft. (0.24 acres) of impervious area. Assuming 2,500 s.f. of impervious area per lot, or 20,000 s.f. (0.46 acres) of impervious area for all of the lots combined, it can be estimated that the proposed development will result in approximately 30,250 s.f. (0.69 acres) of impervious area, or a net increase of approximately 24,439 s.f. (0.56 acres) when the loss of the existing gravel trail is taken into account.

The project is located within the Mere Brook watershed, which has been identified as an Urban Impaired Stream Watershed by the Maine Department of Environmental Protection (MDEP). If the developer's actions result in greater than 20,000 s.f. of new impervious area, they would be required to meet the Basic and General Standards of Chapter 500. For the purposes of MDEP permitting, only the lots developed by the property owner are subject to the permitting standards. As the owner is proposing to develop four (4) of the lots and sell the other four (4) lots undeveloped, only four (4) of the lots are subject to the permitting thresholds. Per discussions with the Applicant, a maximum impervious area of 2,500 s.f. per lot is proposed, resulting in a total impervious area of 10,000 s.f. for the lot development. Combined with the proposed roadway, this results in 20,250 s.f. (0.46 acres) of impervious area, or a net increase in 14,439 s.f. (0.33 acres) when the redevelopment of the existing gravel trail is taken into account. As the project results in less than 20,000 s.f. of new impervious area, it will not require a Stormwater Law permit from the MDEP.

There are forested wetlands located on-site, as shown on the enclosed plans; however, they will not be impacted as a result of the proposed development.

Based on the specifics of the project, the Applicant will request waivers for the following application items:

- Class A Soil Survey. The project is located on soils suitable for the proposed use. The site is served by municipal water and sewer, so no wells or subsurface disposal systems will be required, which may necessitate a soils survey.
- Profile, cross-section dimensions, curve radii of existing streets. No changes are proposed to Barrows Street or Boody Street.
- Sidewalks. The Applicant is requesting a waiver to 511.4, which would require a sidewalk. This was discussed at the Sketch Plan meeting where it was acknowledged the neighborhood does not have sidewalks and it would be out of character to add them for the proposed loop road.
- Location of Existing Trees. As the lot is completely forested, it would be impractical to locate all trees greater than 10". Clearing of the individual lots will be subject to the individual lot owners and will only be restricted on the lot with the wetlands.

Whereas the density of the subdivision is approximately half of the approval granted in 2006, the ability for the utility providers to meet the demands for water, sewer, etc., will be readily met.



### **Review Standards**

To facilitate your review of our proposal, the following issues are summarized in accordance with *CHAPTER 5: DEVELOPMENT REVIEW PLAN STANDARDS* of the Ordinance.

#### ***501 PRESERVATION OF NATURAL FEATURES AND NET SITE AREA:***

A perimeter of existing woody vegetation will be retained around the project to define the boundary with abutting neighborhoods and to protect the privacy between neighbors. Where desirable, supplemental plantings may be used by future homeowners to enhance the natural buffer. The land to be retained by the owner will remain forested.

The density of the proposed subdivision is within the maximum lot density of five (5) units per acre of Net Site Area, which is computed by the subtraction of undevelopable areas (i.e. wetlands, slopes greater than 25%, road and right of ways) from the total area.

#### ***502 FLOOD HAZARD AREA:***

The site is located within Zone C, designated as "areas of minimal flooding" on the Flood Insurance Rate Map (FIRM) for the Town of Brunswick. An excerpt of the applicable FIRM is enclosed with this application.

#### ***503 STEEP SLOPES AND EMBANKMENTS.***

There are no steep slopes or embankments on this site.

#### ***504 STORM WATER MANAGEMENT:***

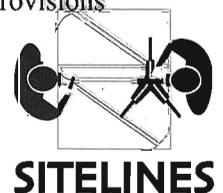
The site is relatively flat and is currently a forested area with two (2) gravel trails traversing the property. The site generally drains to low areas within the parcel boundaries, where ponded water infiltrates or is taken up by vegetation. The proposed road will be constructed with a storm drain system that includes ditches, which will direct runoff to Barrows Street. A storm drain was installed by the Applicant on the west side of Barrows Street in anticipation of development of the parcel. The individual lots will drain to the perimeter of the site and infiltrate. There are no known capacity issues with the municipal stormwater system in the area. A letter from the Director of Public Works indicating permission to connect to the municipal system during the previous approvals is attached for reference. There are no adverse impacts anticipated as a result of the proposed subdivision.

#### ***505 GROUNDWATER:***

The project will be serviced by public sewer and water. As the groundwater is shallow (approximately four (4) feet below grade), buildings will need to be constructed with finished floor elevations multiple feet above existing grade to accommodate basements. This will be the decision of the individual lot owners at the time of construction. There are no adverse impacts to groundwater anticipated from this development.

#### ***506 EROSION AND SEDIMENTATION:***

The disturbed areas of the site will be isolated through the use of silt sock and other measures to minimize the transport of sediment from the site. The project has been designed to incorporate Best Management Practices as outlined in the Maine Erosion and Sediment Control BMPs as published by the Maine Department of Environmental Control, current edition. Specific provisions



for permanent and temporary erosion control features have been provided in the construction drawings. The contractor will be bound to meet the performance standards of the BMPs including erosion control, stabilization, maintenance, and inspection requirements.

**507 SEWAGE DISPOSAL:**

The proposed subdivision will be serviced by a new 8-inch sewer main that will be extended with the road from the existing sewer mains in Boody Street. As part of the construction of the road, 6-inch sewer service stubs will be extended to the individual lots for future development. An ability to serve letter has been received from the Brunswick Sewer District and is enclosed with this letter. It should be noted that the ability to serve letter was for a prior concept that included 17-lots, but is still applicable to the proposed subdivision.

**508 WATER SYSTEM:**

A new 8-inch water main will be extended with the road and provide service to the new lots. In conjunction with the construction of the road, 1-inch water service stubs will be extended to the individual lots to serve the homes. A fire hydrant will be installed at the end of the roadway. A letter has been sent to the Brunswick and Topsham Water District, requesting their ability to serve the proposed development. Upon receipt of a response letter, a copy will be forwarded to the Town.

**509 COMMUNITY FACILITIES IMPACT ANALYSIS:**

The anticipated impacts on public services such as police, fire and public works would be what are regularly associated with a residential development. The project will be served by public water and sewer and letters of ability to serve have been requested/received from the districts.

Solid waste from individual units will be collected by the Town's curbside collection service. Neighborhood delivery and collection mailboxes will be located at the entrance to the development off Boody Street, with final locations coordinated with the local Post Master.

The anticipated demographic for the future homeowners is families of average size. Per the census for Cumberland County, the average household size is 2.33. For the eight (8) lot subdivision, an anticipated three (3) children will be added to the school system. No adverse impact to the school system is anticipated from the proposed subdivision.

Based on the Institute of Traffic Engineers (ITE) Manual, "Trip Generation, 7<sup>th</sup> Edition" data for Land Use Code 210, Single-Family Detached Housing, the proposed subdivision will result in an increase in peak-hour vehicle trip ends as follows:

Time Period	Avg. Rate	Trip-Ends
Weekday, A.M. Peak	0.77	6.16
Weekday, P.M. Peak	1.02	8.16
Saturday, Peak Hour	0.94	7.52



The anticipated increase in trip-ends does not trigger traffic permitting from the Maine Department of Transportation (MDOT), and will not have an adverse impact to the function of the surrounding roadways or intersections.

***510 DEVELOPMENT IMPACT FEES:***

The Solid Waste Impact Fee is calculated at a rate of \$258.56 (based on 1 ton/year/unit) for each of the new housing units, or \$2,068.48. The Brunswick Sewer District Entrance fee is calculated at a rate of \$1,178 for each of the 8 new housing units, resulting in an estimated fee of \$9,424.00, which we request be paid separately for each lot, prior to the issuance of building permits.

Recreation Impact fees are addressed in Section 519.

***511 DEVELOPMENT OF NEW STREETS:***

The proposed private road planned will be a 24-foot wide paved roadway consisting of two 12-foot travel lanes. The core public utilities will be placed within the traveled way, with water and sewer placed under the paved section and the overhead electrical and communications installed overhead along the edge of the ROW. It is intended the road will be offered for public acceptance; however, it will be maintained via a shared maintenance agreement until it is accepted.

***512 OFF STREET PARKING:***

Based on the depths of the lot, and size of the anticipated buildings, off street parking averages four (4) spaces per lot.

***513 CURB CUTS:***

There are no new curb cuts proposed for the subdivision. The proposed roadway will be an extension of Boody Street.

***514 OFF STREET LOADING:***

There are no requirements for off street loading associated with this project.

***515 APPEARANCE ASSESSMENT:***

The plan reflects the project's integration with the site and the surrounding area. The anticipated houses will be similar in appearance and spacing to those in existing neighborhoods in the vicinity. The lot configuration was designed to allow the construction of a home with a 65-foot wide building window. Although it is subject to the individual lot owners, it is anticipated that the houses will have clapboard siding and asphalt shingle roofs.

***516 BUILDING CONFIGURATION:***

All of the lots will access off the proposed private road. Due to orientation of the private road, the front doors will most likely face towards the private road. This is subject to the design of the homeowner, and alternate orientations could be considered.

***517 PRESERVATION OF HISTORIC RESOURCES:***

There are no historic resources associated with this project.



**518 ACCESS FOR PERSONS WITH DISABILITIES:**

Units can be modified for accessibility, if required. All grades and slopes will be accessible to those with disabilities.

**519 RECREATIONAL REQUIREMENTS FOR RESIDENTIAL DEVELOPMENTS:**

With regard to recreation and open space, there are no obvious areas of the parcel that would be appropriate for passive recreation. Given the proximity to Crimmins Field and playgrounds at the middle and high schools, the Applicant is not proposing reservation of land for parks, playgrounds or conservation areas. We respectfully request the Recreation Commission consider a waiver for this requirement. Should the Recreation Commission require it, a Fee-in-Lieu of Land for this project. The Recreation Impact fee is anticipated to be as follows: Average lot area=13,050 s.f. Total to be reserved 8.7% per §519. Total area 2.87 acres x 0.087=0.25 acres of area to be reserved. The average value of an undeveloped acre is estimated at \$50,000; therefore the fee would be approximately  $\$50,000 \times 0.25 = \$12,500$ . This will need to be confirmed with the Assessor.

**520 FISCAL CAPACITY:**

Coastal Building and Investments has been providing housing to the Brunswick area since 1974. Wood Pond is a subdivision completed by the Applicant in the vicinity that demonstrates their commitment to completing projects. The individual lot owners, through a financial institution, will pay for the development of the individual lots. The Applicant will pay for the development of the road and associated utilities. A copy of the Certificate of Good Standing from the Secretary of State has been enclosed with this letter.

**521 PERFORMANCE GUARANTEE:**

A performance guarantee for the utility improvements within the public right-of-way will be prepared for approval by the director of public works.

**522 HOME OWNERS/PROPERTY OWNERS ASSOCIATION:**

There is not a home owners/property owners association proposed by this project. A shared maintenance agreement for the common access will assure the road maintenance is completed equitably as required until it is accepted as a public road.

**523 PROTECTED CONSERVATION LAND:**

There is no protected conservation land proposed or involved with this project.

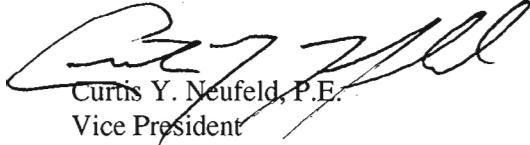
**524 NOISE AND DUST:**

Best Management Practices as outlined in the Maine Erosion and Sediment Control BMP's as published by the Maine Department of Environmental Control, will be utilized to control noise and dust during construction. Noise will be limited through the compliance of the site contractor with the standard hours of construction per Section 524.1. Upon construction completion, there are no anticipated impacts with regard to noise or dust. The proposed use will occur almost exclusively within the building.

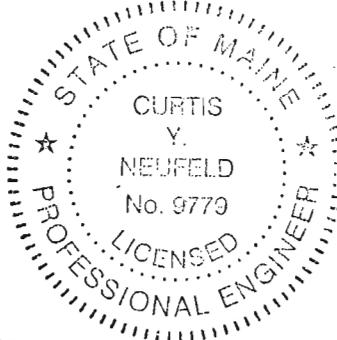


We look forward to meeting with you and the Planning Board at their next available meeting to review the project and gain their approval. We appreciate your assistance with this project. Should you have any questions, please call or contact me via [cneufeld@sitelinespa.com](mailto:cneufeld@sitelinespa.com).

Very truly yours,



Curtis Y. Neufeld, P.E.  
Vice President



Enclosures

cc: Robert Cole, Coastal Building and Investments, Inc.



Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment A**  
**Application Form & Checklists**

A completed copy of the Major Development Review Final Application Form and Site Plan Checklist is enclosed.

**MAJOR DEVELOPMENT REVIEW  
FINAL PLAN APPLICATION**

1. Project Name: \_\_\_\_\_

2. Project Applicant

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

3. Authorized Representative

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

4. List of Design Consultants. Indicate the registration number, address and phone number of any engineer, surveyor, architect, landscape architect or planner used:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

5. Physical location of property being affected: \_\_\_\_\_

6. Lot Size: \_\_\_\_\_

7. Zoning District: \_\_\_\_\_

8. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

9. Assessor's Tax Map \_\_\_\_\_ Lot Number \_\_\_\_\_ of subject property.

10. Brief Description of proposed: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

11. Describe Specific Physical Improvements to be Done: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Owner Signature: \_\_\_\_\_

Applicant Signature (*if different*): \_\_\_\_\_

**Required Attachments (by Applicant):**

- Final Plan Check List
- Final Plan Requirements for Open Space Developments (if applicable)
- Request for Waivers (if applicable)
- Required Copies of Final Plan

**Required Attachment (by Planning and Development Department):**

- Listing of all owners of property within 200-foot radius of property under review.

## FINAL PLAN REQUIREMENTS

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	Comments
Name of Development						
Scale, date, north point, area, number of lots (if subdivision)						
Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments property identified as existing or proposed.						
Certification by a professional land surveyor that the land has been surveyed and the boundaries established in accordance with the State of Maine Board of Licensure for Professional Surveyors standards for Category 1 (Standard Boundary Survey), conditions 1, 2, or 3.						
Existing zoning district and overlay designation.						
Names of engineer and surveyor; and professional registration numbers of those who prepared the plan.						
Names of current owner(s) of subject parcel and abutting parcels.						
Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of 1" equals 50' and vertical scale of 1 inch equals 5 feet, with all elevations referred to in U.S.G.S. datum.						
A general road plan noting circulation, direction, traffic control devices, street lighting and type of lighting proposed.						
Existing and proposed easements associated with the development.						
Kind, location, profile and cross-section of all proposed drainage facilities, both within the development and outside of it, and a storm-water management plan which includes the submission requirements listed in the storm-water management checklist available in the Planning Department.						
Location of features, natural and artificial, such as water bodies, wetlands, streams, vegetation, railroads, ditches and buildings.						

Location of existing and proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of any private wells.					
Existing and proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability.					
Topography with counter intervals of not more than 2 feet.					
A Class A (high intensity) Soil Survey prepared in accordance with the standards of the Maine Association of Professional Soil Scientists.					
Location of all existing trees over 10 inches in diameter, locations of tree stands, and a plan showing all trees to removed as a result of the development proposal.					
Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site.					
Existing locations and proposed locations, widths and profiles of sidewalks.					
Location map.					
Approximate locations and dimensions of proposed parking areas.					
Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation.					
Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization.					
Reference to special conditions stipulated by the Planning Board, with conditions either set forth in full or on the plan or identified as specific documents filed with the Board.					
A wetlands map drawn by a specialist delineating wetland boundaries in accordance with the methods prescribed by the US Army Corps of Engineers.					
Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas.					

For Open Space Development, a note indicating the total permitted lot count of the entire land tract based upon the destiny standards in this Ordinance, the number of lots created by the Plan, and the number of lots permitted to be subdivided in the future, as well as a table showing setback requirements and impervious surface coverage limits for each lot.						
Building envelopes showing acceptable locations for principal and accessory structures.						

**FINAL PLAN/SUPPORTING DOCUMENTS**

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	Comments
Documentation of Ownership or contract.						
Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which conservation land will be owned, maintained, and protected.						
Draft performance guarantee or conditional agreement.						
Disclosure of any required permits from the Department of Environmental Protection, Marine Resources, US Army Corps of Engineers, Department of Inland Fisheries and Wildlife, or other agencies, as applicable; or, if a permit has already been granted, a copy of that permit.						
Any additional studies required by the Planning Board, which are deemed necessary in accordance with this Ordinance.						
Storm water management program for the proposed project prepared by a professional engineer.						
A storm water management checklist prepared by the Cumberland County Soil and Water Conservation District made available at the Brunswick Department of Planning and Development.						

An erosion and sedimentation control checklist prepared by the Cumberland County Soil and Water Conservation District.						
A statement from the Brunswick-Topsham Water District of conditions under which water will be provided.						
A statement from the Brunswick-Topsham Water District of its review and comments on the proposed use if the project involves development within the Aquifer Protection Zone.						
A Statement from the Fire Chief recommending the number, size, and location of hydrants, available pressure levels, road layout and street and project name, and any other fire protection measures to be taken.						
A statement from the Superintendent of the Brunswick Sewer District of the conditions under which the Sewer District will provide sewerage disposal service and approval of the sanitary sewers proposed within the development.						
Where a septic system is to be used, evidence of soil suitability.						
All applicable materials necessary for the reviewing entity to review the proposal in accordance with the Criteria of Section 411.						
A plan of all buildings with new construction or expansion of an existing facility, including type, size, and footprint, floor layout, setback, elevation of first floor slab, storage, and loading areas.						
An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, and signage.						
A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems.						
The size and proposed location of water supply and sewage disposal systems.						
A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, location and purpose and type of vegetation.						

Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment B**  
**Right, Title, and Interest**

A copy of the current deed is included with this attachment. Also included is a copy of Coastal Building & Investments, LLC Certificate of Good Standing.

WARRANTY DEED

(Statutory Short Form)

MAINE REAL ESTATE TAX PAID

I, Richard D. Baribeau, of Jupiter, Palm Beach County, and State of Florida, for consideration paid, grant to Coastal Building & Investments, Inc., a Maine corporation with an office in Brunswick, Cumberland County, and State of Maine, with Warranty Covenants, a certain lot of land situated in Brunswick, Cumberland County, State of Maine, and bounded and described as follows:

Beginning at a point on the Westerly sideline of Barrows Street at the Northeasterly corner of land of the Central Maine Power Company, on which their substation is located; thence northerly along the said sideline of the street 242.65 feet to land formerly of Constance Luce; thence North 82° 45' West along said former Luce land 125 feet to a corner of same; thence North 7° 15' East along said Luce land 150 feet to land now or formerly of one Coulombe; thence North 82° 45' West along said Coulombe land and land formerly of Frank Thomas a distance of 60 feet; thence North 7° 15' East along said Thomas land 99.50 feet to the Southerly sideline of Boody Street; thence along the Southerly sideline of said street line in a Westerly direction 56.25 feet; thence North 7° 15' East 50 feet across said street to land formerly of David Barslow; thence in the same direction along said Barslow land 176.08 feet to an iron pin in the ground and land now of the Town of Brunswick and formerly of PSI Upsilon Fraternity; thence North 83° 33' West 332.99 feet to an iron pipe in the ground and other land of said Town held by it for a future athletic field; thence South 6° 27' West along said Town land 774.33 feet to the center of the Central Maine Power Company right-of-way; thence South 82° 45' East 313.50 feet to said Central Maine Power Company Substation land; thence North 7° 15' East along said Central Maine Power Company land 50 feet to an iron pin in the corner of same; thence South 82° 45' East 250 feet to said Barrows Street and the point of beginning.

Said premises are conveyed subject to any and all right, title and interest said Power Company has in and to a strip of land fifty (50) feet wide running from east to west on the south side of the above-conveyed premises.

EXCEPTING AND RESERVING from the above-described premises that portion thereof which was conveyed by the Grantor herein to Robert J. Cole by deed of even date and recorded herewith.

For reference, see Parcel IV in the Warranty Deed from Henry M. Baribeau, Jr. to Richard D. Baribeau dated January 3, 1985, and recorded in Cumberland County Registry of Deeds in Book 6659, Page 237.

WITNESS, my hand and seal this 29 day of October, 2003.

Witness [Signature]

[Signature] Richard D. Baribeau, Grantor

STATE OF MAINE Cumberland, ss.

October 29, 2003

Then personally appeared before me the above-named Richard D. Baribeau and acknowledged the foregoing instrument to be his free act and deed.

Received Recorded Register of Deeds Oct 28, 2003 12:00:00P Cumberland County John B. O'Brien

[Signature] Notary Public/Attorney-at-Law

SEAL

JAMES B. BARNES Notary Public, Maine My Commission Expires October 26, 2008

Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment C**  
**Abutting Property Owners**

A list of abutting property owners is included in this attachment for reference.

ABUTTING PROPERTY OWNERS

MAP-U27 LOT-1  
BRUNSWICK, TOWN OF  
28 FEDERAL ST  
BRUNSWICK, ME 04011

MAP-U27 LOT-8  
WHITEHEAD, CHARLES E  
52 COLUMBIA AVE  
BRUNSWICK, ME 04011  
BK 28436 PG 53

MAP-U27 LOT-2A  
CONGDON, WILLIAM J & COLLEEN B JT  
56 BOODY ST  
BRUNSWICK, ME 04011  
BK 17655 PG 5

MAP-U27 LOT-8C  
STADDEN, RONALD R & BRENDA R JT  
54 COLUMBIA AVE  
BRUNSWICK, ME 04011  
BK 13854 PG 4

MAP-U27 LOT-4  
ELLSMORE, ERIC E & LEIGHTON,  
ANGELA J JT  
57 BOODY ST  
BRUNSWICK, ME 04011  
BK 27360 PG 100

MAP-U27 LOT-9  
DUMONT, PHILIP H & CORINNE E JT  
58 COLUMBIA AVE  
BRUNSWICK, ME 04011  
BK 6989 PG 179

MAP-U27 LOT-5  
VIOLETTE, KAREN L & JEFFREY P JT  
4 BARROWS ST  
BRUNSWICK, ME 04011  
BK 10428 PG 259

MAP-U27 LOT-6  
VIOLETTE, SARAH H. & JEFFREY P JT  
6 BARROWS ST  
BRUNSWICK, ME 04011  
BK 32064 PG 115

MAP-U21 LOT-55  
JENQUINE, DIANE  
5 BARROWS ST  
BRUNSWICK, ME 04011  
BK 15526 PG 216

MAP-U21 LOT-105  
FIELDING, JOANNE B  
7 BARROWS ST  
BRUNSWICK, ME 04011  
BK 13555 PG 67

MAP-U27 LOT-19  
SIMPSON, MARTHA  
8 BARROWS ST  
BRUNSWICK, ME 04011  
BK 21845 PG 25

MAP-U27 LOT-7  
CENTRAL MAINE POWER CO  
C/O IBERDOLA USA MANAGEMENT  
CORP – LOCAL TAXES  
70 FARM VIEW DR  
NEW GLOUCESTER, ME 04260  
BK 2166 PG 140

Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment D**  
**Photographs**

Photographs of the existing conditions of the project site are enclosed.

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**



Photo 1 – Looking East from Boody Street onto Project Site



Photo 2 – Gravel trail extending off Boody Street onto Project Site

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**



Photo 3 – Swale across Project Site



Photo 4 – Looking from Project Site towards Boody Street

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**



Photo 5 – Looking North on Barrows Street from proposed Site entrance



Photo 6 – Looking West towards Belmont Street from proposed Site entrance

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**



Photo 7 – Looking South on Barrows Street from Belmont Street



Photo 8 – Gravel trail extending from Barrows Street onto Project Site

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**



Photo 9 – Looking West from gravel trail towards Barrows Street



Photo 7 – Looking East from Barrows Street towards Project Site

**CHAMBERLAIN WOODS SUBDIVISION, BRUNSWICK, MAINE**  
**Existing Conditions**

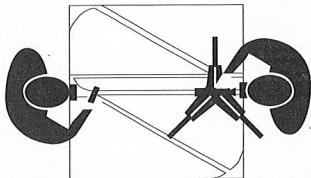


Photo 8 – Looking east down CMP ROW from Crimmins Field Path

Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment E**  
**Supporting Documents**

Copies of relevant correspondence and documents pertaining to the project are enclosed.



September 23, 2014

1019.01-2

Mr. Robert Cole  
Coastal Building and Investments, Inc.  
141 Pleasant Street, #101  
Brunswick, ME 04011

**Re: Designation of Agent Authorization  
Residential Subdivision  
Barrows Street, Brunswick**

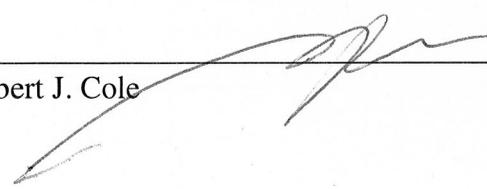
Dear Bob:

As required by various approval agencies, please indicate by signing below that Sitelines, PA is authorized to act as agent for Coastal Building and Investments, Inc., for the specific purpose of preparation and submission of local and state permitting applications on your behalf for the proposed residential subdivision to be located at end of Boody Street and Barrows Street in Brunswick, Maine.

Sincerely,

  
Curtis Y. Neufeld, P.E.  
Vice-President

The undersigned hereby gives Sitelines, PA the authority to act as agent for Coastal Building and Investments, Inc., for the specific purpose of preparation and submission of local and state permitting applications for the project specifically identified above.

  
Robert J. Cole

10/16/14  
Date

**SITELINES, PA**

ENGINEERS ■ PLANNERS ■ SURVEYORS ■ LANDSCAPE ARCHITECTS  
8 Cumberland Street ■ Brunswick, ME 04011 ■ TEL 207-725-1200 ■ FAX 207-725-1114 ■ [www.sitelinespa.com](http://www.sitelinespa.com)

March 11, 2015

**UPDATED HYDROGEOLOGIC INVESTIGATION  
CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK**

**INTRODUCTION:**

The purpose of this report is to assess the new layout for the Chamberlain Woods Subdivision in connection with the new plans for drainage to determine what the affect will be on ground and surface water within the subdivision and the surrounding neighborhood. A hydrogeologic investigation was done by Sweet Associates for this property on June 27, 2005. At that time it was proposed to subdivide the property into 12 building lots and the current plan is for 8 lots. In 2005, a number of test pits were dug and two borings were drilled. Based on the information gathered from that testing, calculations were made to determine groundwater elevations, flow direction, and hydraulic conductivity. Reference should be made to that report for testing and calculation details.

**DISCUSSION:**

The water table is shallow in this area primarily due to a silt and clay layer at 20 to 25 feet below the surface and a firm sand layer at approximately 6 inches to 12 inches below the surface. The sand from the surface down to 20 feet has a relatively high hydraulic conductivity at 40 feet per day. Based on the 4 monitoring wells that were measured over a one month period in the Spring of 2005, the water table varied from 0 to 7.6 feet below the surface suggesting that the shallow firm sand layer does not have more than a temporary effect on the water table. The water table is expected to be deeper in the dry seasons. The gradient or slope of the shallow groundwater is very slight in a southeasterly direction. Because of this, a heavy rainfall during an already shallow groundwater period, will cause the water table to rise rapidly to or near the surface for short periods before it can move laterally to the existing street drain system.

The proposed roadway into the subdivision will be paved and crowned with all rainfall landing on the road directed into drainage manholes situated on both sides of the road including the internal portion of the cul de sac. All driveways and at least a portion of the houses will be sloped to send surface water into the road storm drain system. In addition, all houses with basements below the seasonal high water table will be equipped with pumps in basement sumps that will discharge into the street storm drain system.

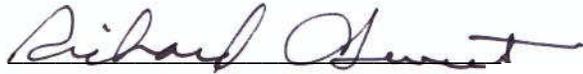
The street storm drain manholes connect a series of shallow perforated pipe drains sloped to discharge into the existing Barrow Street storm drain system. In addition to carrying surface

water and basement sump drain water, the perforated pipe will be picking up nearby groundwater that rises to the top of the pipes.

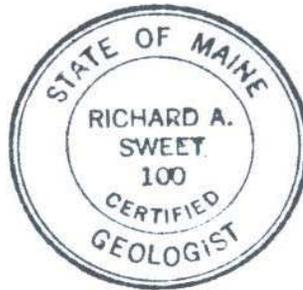
The result of the proposed storm drain system is that the problem of water build up in the soil and on the surface during heavy rainfall episodes is improved by allowing the rainfall that falls on the impervious surfaces such as the roadways and driveways to flow off site into the city storm drain system without ponding in those areas as it does now. That impervious surface runoff into the city system is larger than the remaining impervious roof runoff onto the ground surface, so there is a net gain of movement of surface and ground water into the city storm water system as a result of this subdivision.

**SUMMARY:**

Our assessment of the current proposal is that the surface runoff at this site will be improved from its current condition based primarily on the proposed buried storm water system connecting into the existing street storm water system. In addition, the rise in ground water during storms will be reduced by the proposed use of perforated pipe for the full length of the storm water system and by the use of house sump pump drains connected into the perforated pipe which will lower the water table in the near vicinity of each house.



Richard A. Sweet  
Certified Geologist #GE100



# State of Maine



## Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

*In testimony whereof*, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this twenty-second day of September 2014.



A handwritten signature in black ink, appearing to read 'Matthew Dunlap', written over a horizontal line.

Matthew Dunlap  
Secretary of State

### Additional Addresses

Legal Name	Title	Name	Charter #	Status
COASTAL BUILDING AND INVESTMENTS, INC.	Clerk	PAUL R. COPELAND, III	19931394 D	GOOD STANDING
Home Office Address (of foreign entity )	Other Mailing Address		Address in Maine	
	20 FEDERAL STREET BRUNSWICK, ME 04011			

STORM DRAIN EASEMENT

Know All Men By These Presents, that Coastal Building and Investments for one dollar and other valuable consideration, does hereby grant to the Town of Brunswick, a municipal corporation duly organized under the laws of the State of Maine and having its principal offices in the Town of Brunswick, County of Cumberland, its successors, and assigns, the permanent right to install, operate, maintain, remove, replace, and repair a storm drain with such structures and appurtenances, including catch basins and manholes, as are from time to time necessary or useful for the collection and conveyance of storm water, all under, over and across portions of Grantor's land in the Town of Brunswick, County of Cumberland, and State of Maine described in that certain deed to Grantor dated \_\_\_\_\_ and recorded at the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, which portions are more particularly described as follows:

Twenty (20) foot wide strip of land, the centerline of said strips being defined as extending a distance of ten (10) feet on each side of (a) the centerline of the storm drain as installed on said land running through and under \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_, and (b) the centerline of all service lines as installed on said land; all located generally as shown on the plan(s) attached hereto as Exhibit A (the "Easement Property").

Together with all other rights necessary or convenient for the full enjoyment and use of the easement rights herein granted, including (without limitation) the rights at all times to trim, cut down and remove bushes, trees, and other vegetation growing on the Easement Property to such extent as in the judgment of Grantee is necessary for any of the above purposes; to use the soil in the Easement Property to such extent as may be necessary to embank said storm drain and appurtenances; and to enter upon the Easement Property at any and all times for any of the foregoing purposes.

Reserving to Grantor, its successors and assigns, agents, tenants, guests, and invitees, the use and enjoyment of the Easement Property for such purposes only as will in no way interfere with the perpetual use of the easements rights herein set forth by Grantee, its successors and assigns; provided that no permanent structure shall be erected on the Easement Property by Grantor, its successors and assigns.

The easement herein granted is transferable, and may be sold, leased, assigned, pledged, and mortgaged by Grantee, and shall be binding upon an inure to the benefit of the parties hereto, their respective heirs, successors and assigns.

TO HAVE AND TO HOLD the said granted and bargained easement, privilege, and right-of-way and its appurtenances to the said Grantee and to its successors and assigns forever, to its and their own proper use. 2 And the Grantor covenants with the said Grantee, its successors and assigns, that he is well seized in fee of the premises, that they are free of all encumbrances and that he has good right to bargain and sell the same in manner and form as is above written. Furthermore, the Grantor does by these presents bind himself, his heirs and assigns forever to WARRANT AND DEFEND the above-granted premises to the Grantee, its successors and assigns against all claims and demands whatsoever.

WITNESS my hand and seal this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

[\_\_\_\_\_]

By: \_\_\_\_\_

STATE OF MAINE ,

SS, \_\_\_\_\_

Then personally appeared the above-named \_\_\_\_\_ and  
acknowledged the instrument to be his free act and deed.

Before me,

Notary Public

Print Name:

My Commission Expires: \_\_\_\_\_

# Brunswick, Maine

John A. Foster, PE  
Town Engineer/Director PWD  
foster@brunswickme.org

Public Works Department  
9 Industry Road  
Brunswick, Maine 04011  
(207) 725-6654 (Ext. 17)  
FAX (207) 725-6655  
www.brunswickme.org/dpw

18 December, 2006

Curtis Neufeld, P.E.  
Sitelines, Inc.  
8 Cumberland St  
BRUNSWICK ME 04011

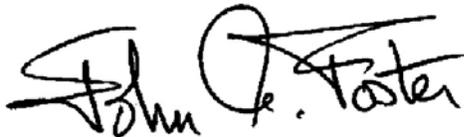
PROJECT: Churchill Woods Condominiums  
Connection of Storm Drainage Facilities to Town System

Dear Curt:

I have reviewed your December 8, 2006 submittal with storm management analysis and request to connect subsurface drainage facilities from the proposed single-family housing project to the Town operated and maintained storm drain system in Country Lane/McKeen St. We have reviewed and approved this request as we have concluded the Town storm drain system is adequate to handle this small increase in runoff resulting from subsurface drainage. Per our discussion, the plans should be revised to include a manhole structure in the public right-of-way to include a means to control the peak rate of discharge into the Town's system.

Therefore, please accept this letter as our acknowledgement and permission for the Churchill Woods Condominium Project to discharge stormwater from the project to the public storm drain system in Country Lane and McKeen Street, subject to final approval of the drainage plans and receipt of applicable DEP permits. If you have any questions on the above please let me know.  
Sincerely,

TOWN OF BRUNSWICK



John A. Foster,  
Town Engineer/Director PWD

85 Union Street  
Brunswick, Maine 04011



Telephone 207 725-6650  
FAX 207 725-6663

## Town of Brunswick, Maine

Incorporated 1739

Assessing Department

[www.brunswickme.org](http://www.brunswickme.org)

February 17, 2015

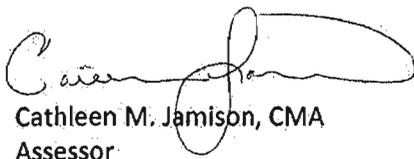
Thomas Farrell  
Parks & Recreation Department  
220 Neptune Drive  
Brunswick, ME 04011

Re: Chamberlain Woods Subdivision

Dear Tom,

I have determined the value of an undeveloped acre for Chamberlain Woods Subdivision to be \$55,000.

Sincerely,



Cathleen M. Jamison, CMA  
Assessor

**CHAMBERLAIN WOODS SUBDIVISION**

Lot #1 11,227 sq ft  
Lot #2 14,434 sq ft  
Lot #3 10,740 sq ft  
Lot #4 12,963 sq ft  
Lot #5 10,518 sq ft  
Lot #7 13,752 sq ft  
63,634 sq ft

$$\begin{array}{r} 63,634 \text{ sq ft} \\ \times .13 \\ \hline 8,272.42 \end{array}$$

$$8,272.42/43,560 = .190$$

.190 X price of an undeveloped acre

$$.190 \times \$55,000. = \$10,450.00$$

Lot #6 15,240 sq ft  
Lot #8 15,450 sq ft  
30,780 sq ft

$$\begin{array}{r} 30,780 \text{ sq ft} \\ \times .087 \\ \hline 2,677.86 \end{array}$$

$$2,677.86/43,560 = .061$$

.061 X price of an undeveloped acre

$$.061 \times \$55,000. = \$3,355$$

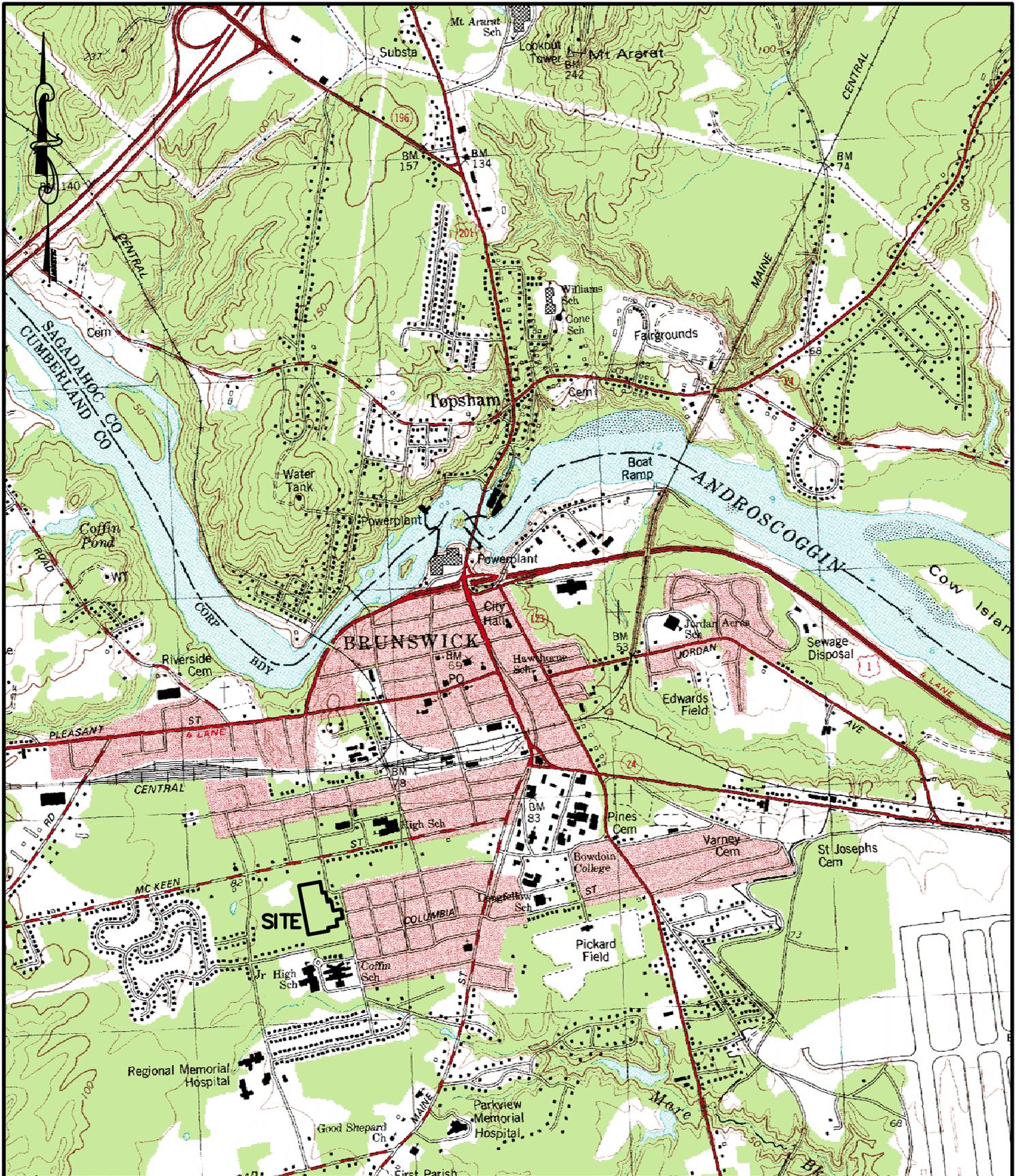
$$\$10,450.00 + \$3,355.00 = \$13,805$$

**FEE IN LIEU OF LAND IS \$13,805.00**

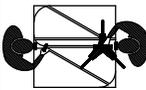
Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

## **Attachment F Supporting Graphics**

This attachment includes supporting materials and graphics for the application. This includes an excerpt of the FEMA flood rate insurance map (FIRM) and reduced size copies of the zoning map and tax maps. An excerpt of the applicable USGS 7.5 minute quadrangle map is provided for reference.



SHEET: 1 OF 1



**SITELINES**

ENGINEERS PLANNERS

8 CUMBERLAND ST. BRUNSWICK, ME 04011  
(207) 725-1200 FAX 725-1114

**FIGURE 1: LOCATION MAP**

CHAMBERLAIN WOODS  
BRUNSWICK, MAINE

DATE: 9-23-14

SCALE: 1" = 2000'

JOB: 1019

FILE: 1019MAPS





APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

# FIRM FLOOD INSURANCE RATE MAP

TOWN OF  
**BRUNSWICK, MAINE**  
CUMBERLAND COUNTY

PANEL 15 OF 35  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

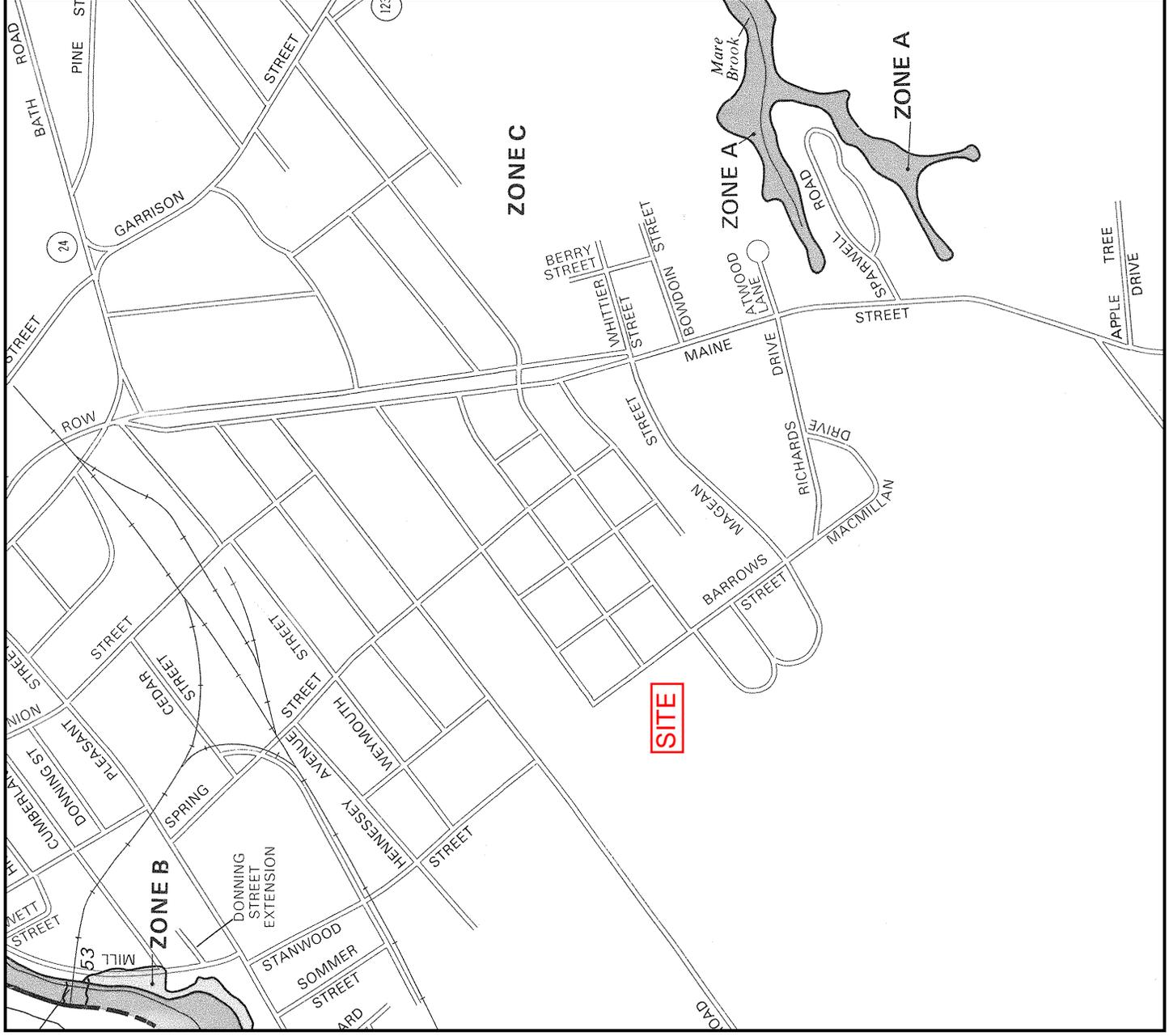
COMMUNITY-PANEL NUMBER  
230042 0015 B

EFFECTIVE DATE:  
JANUARY 3, 1986

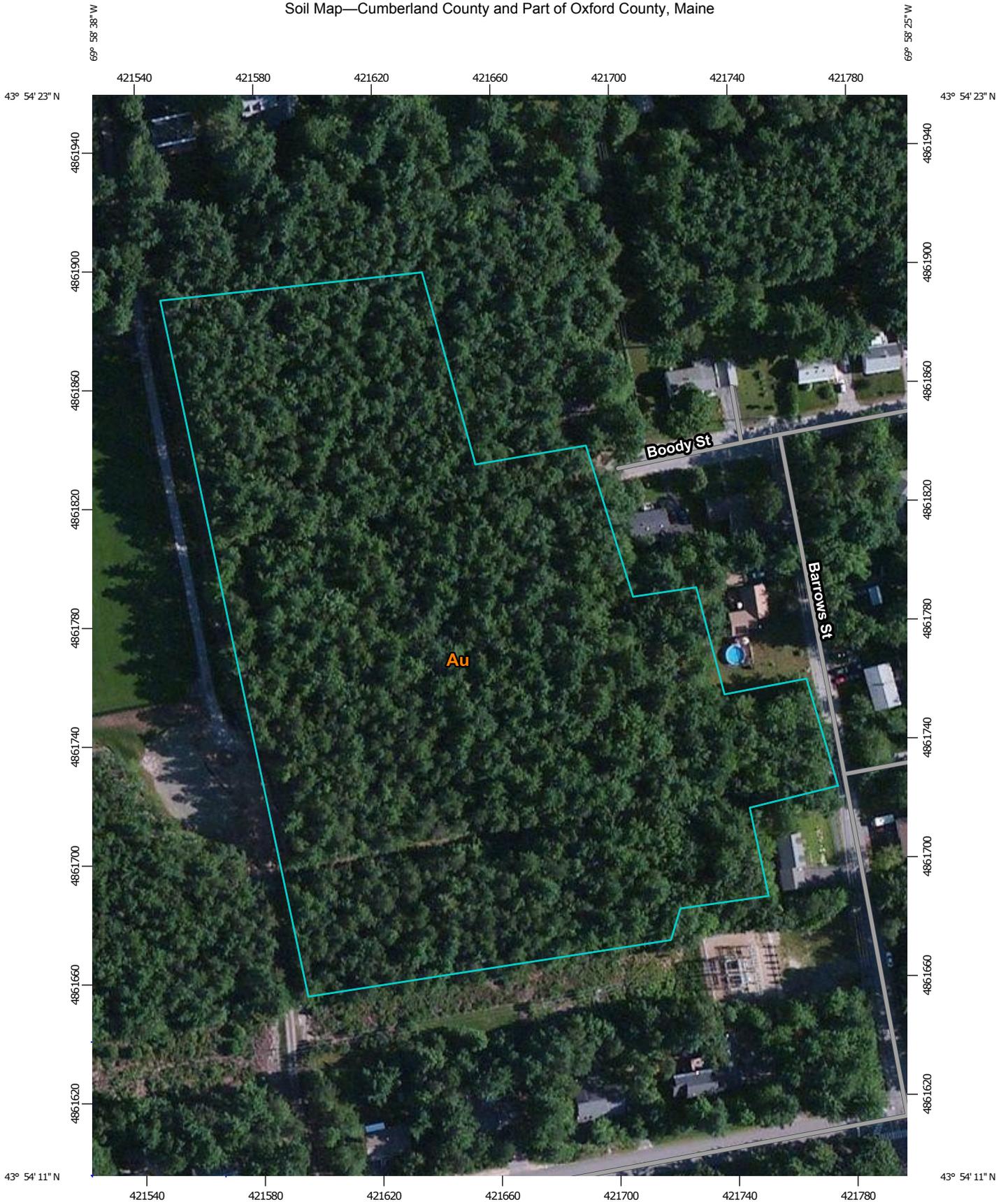


Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



Soil Map—Cumberland County and Part of Oxford County, Maine



Map Scale: 1:1,770 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

8/12/2014  
Page 1 of 3

## Map Unit Legend

Cumberland County and Part of Oxford County, Maine (ME005)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Au	Au Gres loamy sand	8.0	100.0%
<b>Totals for Area of Interest</b>		<b>8.0</b>	<b>100.0%</b>

Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment H**  
**Stormwater Management Plan**

A detailed stormwater management plan is included in this section for reference.

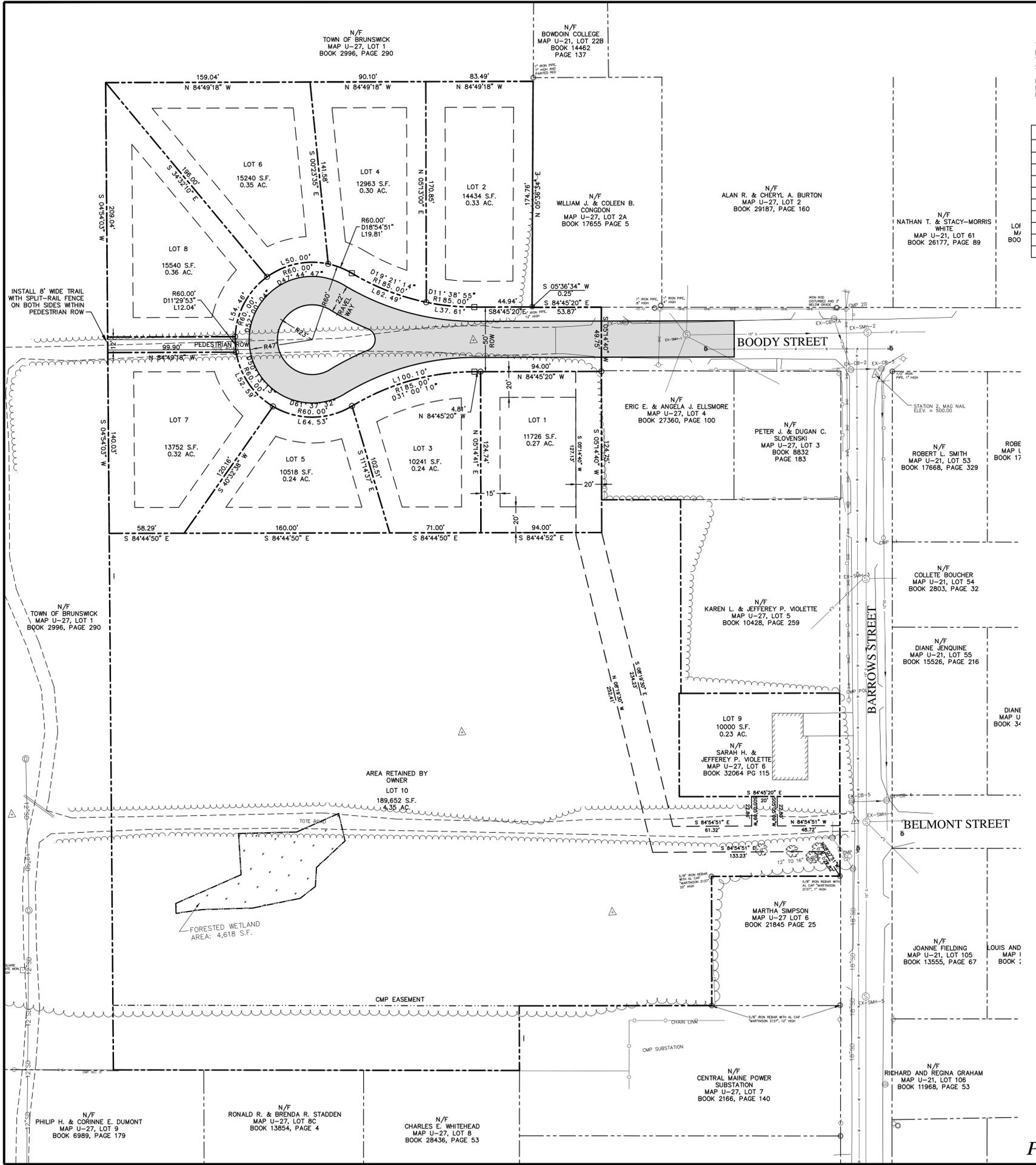
Chamberlain Woods Subdivision  
Major Development Review Application  
February 23, 2015

**Attachment I**  
**Site Plans**

The project site plans are included in reduced format for review, and full size copies have been provided as a separate plan sets of as required.







**DENSITY COMPUTATIONS:**

TOTAL AREA	324,703 S.F.	7.45 ACRES
R/W	20,511 S.F.	0.47 ACRES
WETLANDS	4,618 S.F.	0.11 ACRES
STEEP SLOPES	N/A	
NET SITE AREA	299,574 S.F.	6.88 ACRES
MAX. DENSITY=	5 UNITS PER ACRE	
MAX. UNITS=	34	

LOT #	STREET ADDRESS	MAP-LOT
LOT 1	61 BOODY STREET	U27-41
LOT 2	60 BOODY STREET	U27-34
LOT 3	63 BOODY STREET	U27-40
LOT 4	62 BOODY STREET	U27-35
LOT 5	65 BOODY STREET	U27-39
LOT 6	64 BOODY STREET	U27-36
LOT 7	67 BOODY STREET	U27-38
LOT 8	66 BOODY STREET	U27-37
LOT 9	6 BARROWS STREET	U27-6



LOCATION MAP  
NOT TO SCALE

- PLAN REFERENCE:**  
1. BOUNDARY INFORMATION TAKEN FROM A PLAN NAMED "PRELIMINARY PLAN OF WILDWOOD ACRES" BY HOWARD F. BABBIDGE, P.E., L.S. #5 FOR HENRY M. BARBEAU DATED JUNE 1, 1978.
- GENERAL NOTES:**  
1. THE SITE IS OWNED BY COASTAL BUILDING INVESTMENTS INC. (141 PLEASANT STREET, #101, BRUNSWICK, ME 04011) MAP U27-LOT 6.  
2. AREA OF EXISTING LOT = 7.22 AC.  
3. ORDINANCE STANDARDS:  
ZONE: TR5 (COLUMBIA AVE-SPRING ST NEIGHBORHOODS)  
MINIMUM LOT AREA: 10,000 S.F.  
DIMENSION REQUIREMENTS:  
1.) MINIMUM LOT WIDTH: 65'  
2.) YARD DEPTHS:  
A) FRONT = 20'  
B) REAR = 20'  
C) SIDE = 15'  
3.) MAXIMUM BUILDING HEIGHT = 35'  
MAXIMUM IMPERVIOUS SURFACE COVERAGE = 35%  
MAXIMUM BUILDING FOOTPRINT PER STRUCTURE = 5,000 SF  
MAXIMUM DENSITY = 5 UNITS PER ACRE  
\*50' ON CUL-DE-SAC  
4. THE SURFICIAL SOILS ARE CLASSIFIED BY THE SOIL SURVEY FOR CUMBERLAND COUNTY, MAINE BY THE SOIL CONSERVATION SERVICE  
Au - AU GRES LOAMY SAND  
5. BENCHMARK INFORMATION: CONTACT SITELINES PA. 725-1200  
6. FLOOD ZONE INFORMATION:  
PARCEL IS LOCATED WITHIN ZONE C (AREAS OF MINIMAL FLOODING) PER FEMA FIRM MAP COMMUNITY PANEL NUMBER 2300420015B EFFECTIVE DATE: JANUARY 3, 1986.  
7. WETLANDS SHOWN ON THE PLAN WERE LOCATED BY SWEET ASSOCIATES.  
8. ALL PARCELS WILL BE SERVED BY PUBLIC WATER AND SEWER.

- GRADING AND DRAINAGE NOTES:**  
1. FILL SHALL MEET EXISTING GRADES AT PROPERTY LINE.  
2. RECOMMENDED FFE RANGE IS 503 TO 506.  
3. GARAGE ELEVATION IS TYPICALLY 0.6 TO 1.5 FEET BELOW FFE.  
4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND REAR OF PARCEL.  
5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.  
6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPERTY SEEDING.  
7. CONSTRUCTION OF FOOTERS AND/OR FINISHED SPACE MORE THAN FOUR FEET BELOW GRADE IS PROHIBITED DUE TO HIGH GROUNDWATER IN THE VICINITY. DEPTH OF FOOTER IS PERMITTED TO BE BELOW ELEVATION 496.00.  
8. SUMP PUMPS ARE RECOMMENDED FOR ALL FOUNDATIONS. PUMP FORCE MAINS SHALL HAVE A BACKFLOW PREVENTOR INSTALLED. A STORM DRAIN STUB HAS BEEN PROVIDED ON EACH LOT.  
9. SUMP PUMPS SHALL BE INSTALLED WITH A BACK FLOW PREVENTOR.

APPROVAL  
TOWN OF BRUNSWICK PLANNING BOARD

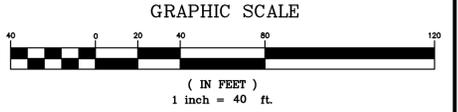
CHAIRMAN: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



CUMBERLAND COUNTY REGISTRY OF DEEDS:

RECEIVED: \_\_\_\_\_

AT \_\_\_\_ HRS \_\_\_\_ MIN \_\_\_\_ M, AND

FILED IN PLAN BOOK \_\_\_\_ PAGE \_\_\_\_

ATTESTED: \_\_\_\_\_ REGISTER

**SURVEYOR'S CERTIFICATION:**  
THE PREPARER HEREBY CERTIFIES THAT THIS SURVEY HAS BEEN UNDERTAKEN IN CONFORMANCE WITH THE RULES SET FORTH BY THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, DATED APRIL 1, 2001, FOR A BOUNDARY SURVEY.

**STATE OF MAINE**  
KEVIN P. CLARK  
#2245  
PROFESSIONAL LAND SURVEYOR

DATE: \_\_\_\_\_  
KEVIN P. CLARK, PLS #2245

NOT VALID UNLESS EMBOSSED HERE

**PRELIMINARY**

3.	03/30/15	REVISED PER REVIEW COMMENTS	JJM
2.	02/27/15	SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW	JJM
1.	01/20/15	SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW	JJM

TITLE: **SUBDIVISION PLAN**

PROJECT: **CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE**

PREPARED FOR: **COASTAL BUILDING AND INVESTMENTS, INC.  
BRUNSWICK, MAINE**

**SITELINES, PA**  
ENGINEERS • PLANNERS • SURVEYORS  
LANDSCAPE ARCHITECTS  
8 CUMBERLAND STREET, BRUNSWICK, ME 04011  
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=40'	SHEET:
DRN BY: RPL/JJM	JOB #: 1019.01	<b>C3</b>
CHD BY: CYN	MAP/LOT: U27/6	
DATE: 01/19/15	FILE: 1019.01-SITE	

N/F PHILIP H. & CORINNE E. DUMONT  
MAP U-27, LOT 9  
BOOK 6989, PAGE 179

N/F RONALD R. & BRENDA R. STADDEN  
MAP U-27, LOT 8C  
BOOK 13854, PAGE 4

N/F CHARLES E. WHITEHEAD  
MAP U-27, LOT 8  
BOOK 28436, PAGE 53

N/F MARTHA SIMPSON  
MAP U-27 LOT 6  
BOOK 21845 PAGE 25

N/F JOANNE FIELDING  
MAP U-21, LOT 105  
BOOK 13555, PAGE 67

N/F RICHARD AND REGINA GRAHAM  
MAP U-21, LOT 106  
BOOK 11968, PAGE 53

N/F CENTRAL MAINE POWER  
SUBSTATION  
MAP U-27, LOT 7  
BOOK 2166, PAGE 140

N/F NATHAN T. & STACY-MORRIS  
WHITE  
MAP U-21, LOT 61  
BOOK 26177, PAGE 89

N/F ALAN R. & CHERYL A. BURTON  
MAP U-27, LOT 2  
BOOK 29187, PAGE 160

N/F BOWDOIN COLLEGE  
MAP U-21, LOT 22B  
BOOK 14462  
PAGE 137

N/F TOWN OF BRUNSWICK  
MAP U-27, LOT 1  
BOOK 2996, PAGE 290

N/F WILLIAM J. & COLEEN B.  
CONGDON  
MAP U-27, LOT 2A  
BOOK 17655 PAGE 5

N/F ERIC E. & ANGELA J. ELLSMORE  
MAP U-27, LOT 4  
BOOK 27360, PAGE 100

N/F PETER J. & DUGAN C.  
SLOVENSKI  
MAP U-27, LOT 3  
BOOK 8832  
PAGE 183

N/F ROBERT L. SMITH  
MAP U-21, LOT 53  
BOOK 17668, PAGE 329

ROBE  
MAP L  
BOOK 17

N/F COLLETTE BOUCHER  
MAP U-21, LOT 54  
BOOK 2803, PAGE 32

N/F KAREN L. & JEFFEREY P. VIOLETTE  
MAP U-27, LOT 5  
BOOK 10428, PAGE 259

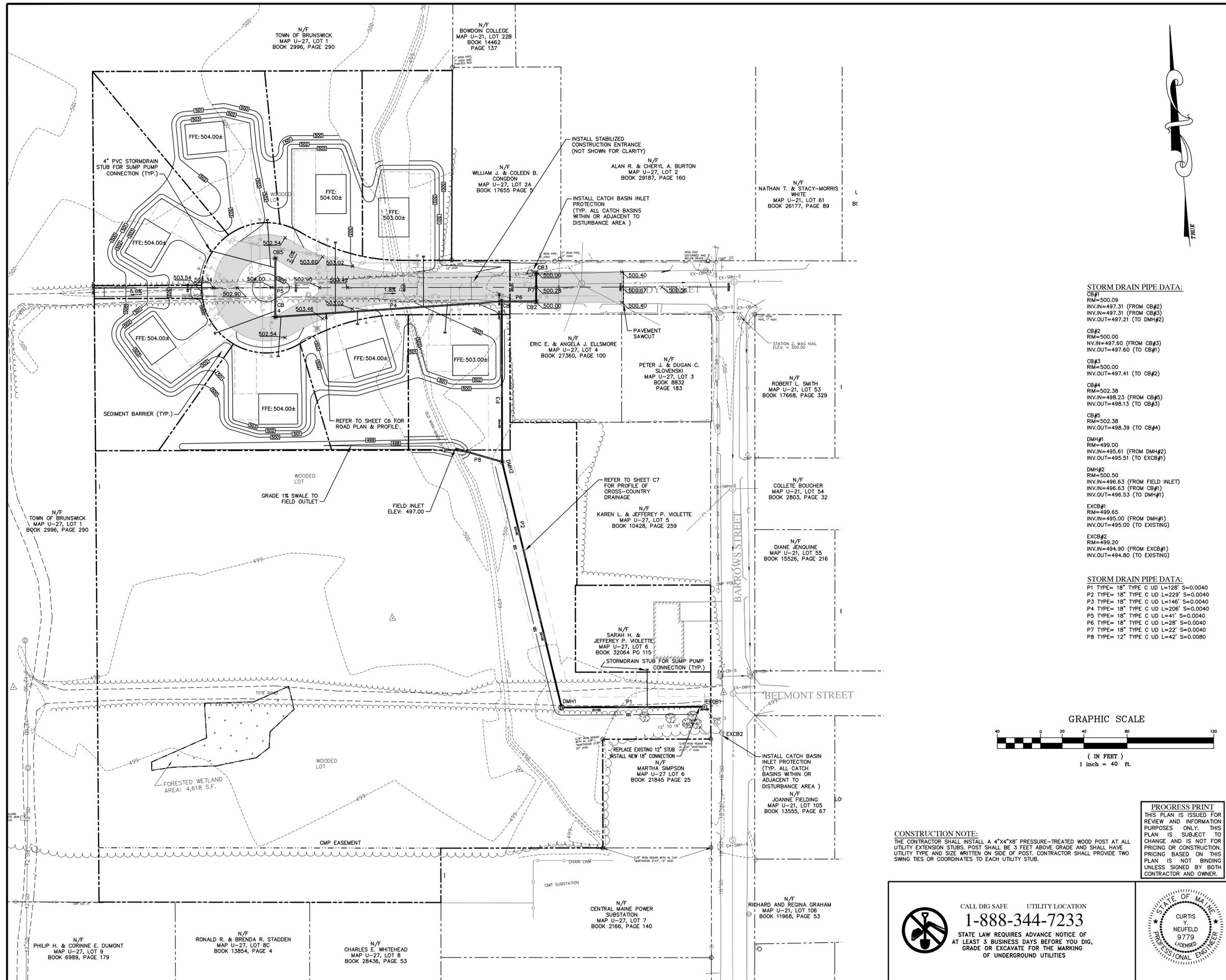
N/F DIANE JENQUINE  
MAP U-21, LOT 55  
BOOK 15526, PAGE 216

DIANE  
MAP U  
BOOK 34

LOT 9  
10000 S.F.  
0.23 AC.  
N/F SARAH H. &  
JEFFEREY P. VIOLETTE  
MAP U-27, LOT 5  
BOOK 32064 PG 115

AREA RETAINED BY  
OWNER  
LOT 10  
189,652 S.F.  
4.36 AC.

FORESTED WETLAND  
AREA: 4,618 S.F.



LOCATION MAP  
NOT TO SCALE

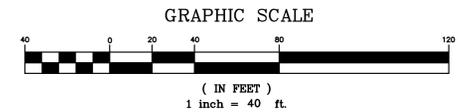
- GRADING AND DRAINAGE NOTES:**
1. THE CONTRACTOR SHALL PHASE GRADING EFFORTS SUCH THAT TOTAL SITE DISTURBANCE IS MINIMIZED. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRADING EFFORTS OR WITHOUT DELAY UPON THEIR COMPLETION, DEPENDENT UPON THE SITUATION.
  2. ALL FILL SLOPES SHALL BE A MINIMUM OF 3:1 HORIZONTAL TO VERTICAL UNLESS OTHERWISE NOTED OR DIRECTED.
  3. THE LIMITS OF DISTURBANCE SHALL GENERALLY BE THE MINIMAL EXTENT NECESSARY ONLY TO PERFORM THE GRADING EFFORTS SHOWN ON THE DRAWINGS. SPECIAL CARE SHALL BE TAKEN TO AVOID DISTURBANCE OF OBJECTS AND AREAS NOT SPECIFICALLY IDENTIFIED FOR MODIFICATION OR REMOVAL.
  4. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IN ACCORDANCE WITH THE DRAWINGS, UNLESS INTENDED FOR OTHER SURFACE COVER.
  5. STORM DRAINS SHALL BE CONSTRUCTED CONCURRENTLY WITH GRADING EFFORTS TO PROVIDE ADEQUATE CONVEYANCE FOR ANY SITE RUNOFF CONDITIONS.
  6. WHERE FINAL GRADING HAS BEEN COMPLETED, SURFACE RESTORATION FOR DISTURBED AREAS WILL BE COMPLETED AS SOON AS PRACTICABLE. FOR VEGETATIVE AREAS, VEGETATION WILL BE PROGRESSIVELY ESTABLISHED.
  7. UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDT SPECIFICATIONS SECTION 603. PIPE CULVERTS AND STORM DRAINS, LATEST REVISION WITH ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:  
SMOOTH BORE POLYETHYLENE PIPE - HDPE N-12 ADS
  8. BENCHMARK INFORMATION: SEE PLAN
  9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL DRAINAGE STRUCTURES AND PIPING PRIOR TO ORDERING.
  10. RIM ELEVATIONS OF PROPOSED DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLANS.
  11. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF RETAINING WALL TO ENGINEER PRIOR TO ORDERING MATERIALS. (STELINES P.A., 8 CUMBERLAND STREET, BRUNSWICK, MAINE 04011, 207-725-1200)
  12. FILL SHALL MEET EXISTING GRADES AT PROPERTY LINE.
  13. RECOMMENDED FFE RANGE IS 503 TO 506.
  14. GARAGE ELEVATION IS TYPICALLY 0.6 TO 1.5 FEET BELOW FFE.
  15. PRESERVE BUFFERS BETWEEN THE WORK AREA AND REAR OF PARCEL.
  16. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.
  17. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPERTY SEEDING.
  18. CONSTRUCTION OF FOOTERS AND/OR FINISHED SPACE MORE THAN FOUR FEET BELOW GRADE IS NOT RECOMMENDED DUE TO HIGH GROUNDWATER IN THE VICINITY. DEPTH OF FOOTER IS NOT RECOMMENDED TO BE BELOW ELEVATION 496.00.
  19. SUMP PUMPS ARE RECOMMENDED FOR ALL FOUNDATIONS. PUMP FORCE MAINS SHALL HAVE A BACKFLOW PREVENTOR INSTALLED. A STORM DRAIN STUB HAS BEEN PROVIDED ON EACH LOT.

**STORM DRAIN PIPE DATA:**

<b>CB#1</b>	RIM=500.09
	INV.IN=497.31 (FROM CB#2)
	INV.IN=497.31 (FROM CB#3)
	INV.OUT=497.21 (TO DMH#2)
<b>CB#2</b>	RIM=500.00
	INV.IN=497.60 (FROM CB#3)
	INV.OUT=497.60 (TO CB#1)
<b>CB#3</b>	RIM=500.00
	INV.OUT=497.41 (TO CB#2)
<b>CB#4</b>	RIM=502.38
	INV.IN=498.23 (FROM CB#5)
	INV.OUT=498.13 (TO CB#3)
<b>CB#5</b>	RIM=502.38
	INV.OUT=498.39 (TO CB#4)
<b>DMH#1</b>	RIM=499.00
	INV.IN=495.61 (FROM DMH#2)
	INV.OUT=495.51 (TO EXCB#1)
<b>DMH#2</b>	RIM=500.50
	INV.IN=496.63 (FROM FIELD INLET)
	INV.IN=496.63 (FROM CB#1)
	INV.OUT=496.53 (TO DMH#1)
<b>EXCB#1</b>	RIM=499.65
	INV.IN=495.00 (FROM DMH#1)
	INV.OUT=495.00 (TO EXISTING)
<b>EXCB#2</b>	RIM=498.20
	INV.IN=494.90 (FROM EXCB#1)
	INV.OUT=494.80 (TO EXISTING)

**STORM DRAIN PIPE DATA:**

<b>P1</b>	TYPE= 18" TYPE C UD L=128' S=0.0040
<b>P2</b>	TYPE= 18" TYPE C UD L=229' S=0.0040
<b>P3</b>	TYPE= 18" TYPE C UD L=146' S=0.0040
<b>P4</b>	TYPE= 18" TYPE C UD L=206' S=0.0040
<b>P5</b>	TYPE= 18" TYPE C UD L=41' S=0.0040
<b>P6</b>	TYPE= 18" TYPE C UD L=28' S=0.0040
<b>P7</b>	TYPE= 18" TYPE C UD L=22' S=0.0040
<b>P8</b>	TYPE= 12" TYPE C UD L=42' S=0.0080



**CONSTRUCTION NOTE:**  
THE CONTRACTOR SHALL INSTALL A 4"x4"x8' PRESSURE-TREATED WOOD POST AT ALL UTILITY EXTENSION STUBS. POST SHALL BE 3 FEET ABOVE GRADE AND SHALL HAVE UTILITY TYPE AND SIZE WRITTEN ON SIDE OF POST. CONTRACTOR SHALL PROVIDE TWO SWING TIES OR COORDINATES TO EACH UTILITY STUB.

CALL DIG SAFE UTILITY LOCATION  
**1-888-344-7233**  
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

**PROGRESS PRINT**  
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

3.	03/30/15	REVISED PER REVIEW COMMENTS	JJM
2.	02/27/15	SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW	JJM
1.	01/20/15	SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW	JJM

TITLE: **GRADING, DRAINAGE & EROSION CONTROL PLAN**  
PROJECT: **CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE**  
PREPARED FOR: **COASTAL BUILDING AND INVESTMENTS, INC.  
BRUNSWICK, MAINE**

**SITELINES, PA**  
ENGINEERS • PLANNERS • SURVEYORS  
LANDSCAPE ARCHITECTS  
8 CUMBERLAND STREET, BRUNSWICK, ME 04011  
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=40'	SHEET:
DRN BY: RPL/JJM	JOB #: 1019.01	<b>C4</b>
CHD BY: CYN	MAP/LOT: U27/6	
DATE: 01/19/15	FILE: 1019.01-SITE	

N/F PHILIP H. & CORINNE E. DUMONT  
MAP U-27, LOT 9  
BOOK 6989, PAGE 179

N/F RONALD R. & BRENDA R. STADDEN  
MAP U-27, LOT 8C  
BOOK 13854, PAGE 4

N/F CHARLES E. WHITEHEAD  
MAP U-27, LOT 8  
BOOK 28436, PAGE 53

N/F BOWDOIN COLLEGE  
MAP U-21, LOT 22B  
BOOK 14462  
PAGE 137

N/F WILLIAM J. & COLEEN B. CONGDON  
MAP U-27, LOT 2A  
BOOK 17655 PAGE 5

N/F ALAN R. & CHERYL A. BURTON  
MAP U-27, LOT 2  
BOOK 29187, PAGE 160

N/F NATHAN T. & STACY-MORRIS WHITE  
MAP U-21, LOT 61  
BOOK 26177, PAGE 89

N/F ERIC E. & ANGELA J. ELLSMORE  
MAP U-27, LOT 4  
BOOK 27360, PAGE 100

N/F PETER J. & DUGAN C. SLOVENSKI  
MAP U-27, LOT 3  
BOOK 8832  
PAGE 183

N/F ROBERT L. SMITH  
MAP U-21, LOT 53  
BOOK 17668, PAGE 329

N/F COLLETTE BOUCHER  
MAP U-21, LOT 54  
BOOK 2803, PAGE 32

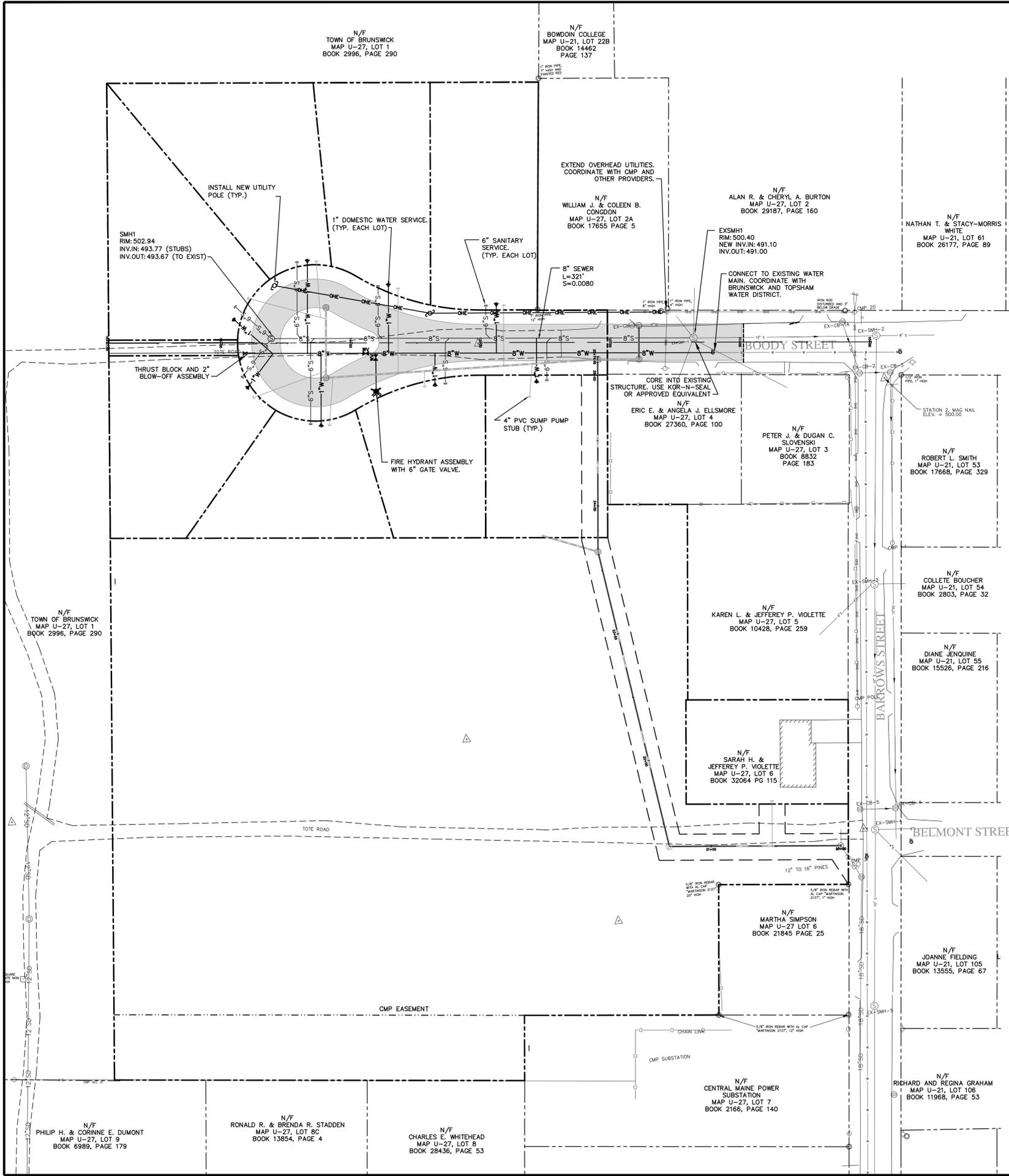
N/F DIANE JENQUINE  
MAP U-21, LOT 55  
BOOK 15526, PAGE 216

N/F SARAH H. & JEFFEREY P. VIOLETTE  
MAP U-27, LOT 6  
BOOK 32064 PG 115

N/F JOANNE FIELDING  
MAP U-21, LOT 105  
BOOK 13555, PAGE 67

N/F RICHARD AND REGINA GRAHAM  
MAP U-21, LOT 106  
BOOK 11968, PAGE 53

N/F CENTRAL MAINE POWER SUBSTATION  
MAP U-27, LOT 7  
BOOK 2166, PAGE 140



**DEWATERING NOTES**

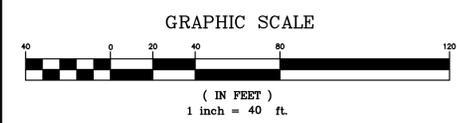
- THE FOLLOWING GENERAL PRACTICES WILL BE USED DURING CONSTRUCTION DEWATERING FOR THIS PROJECT:
- CONSTRUCTION DEWATERING SHALL BE PERFORMED CONSISTENT WITH THE PROVISIONS OF THIS EROSION AND SEDIMENTATION CONTROL PLAN.
  - GENERAL: FOR ALL EXCAVATION, THE CONTRACTOR SHALL PROVIDE SUITABLE EQUIPMENT AND LABOR TO REMOVE WATER, AND KEEP THE EXCAVATION DEWATERED SO THAT CONSTRUCTION CAN BE PERFORMED IN A DRY CONDITION AS REQUIRED BY THE DRAWINGS. WATER CONTROL SHALL BE ACCOMPLISHED SUCH THAT NO ADDITIONAL DISTURBANCE IS DONE TO ADJACENT AREAS, CHANNELS, STORM DRAIN PIPE OR STRUCTURES, AND OTHER FEATURES. THE CONTRACTOR IS RESPONSIBLE FOR PLANNING FOR DEWATERING EFFORTS BY INVESTIGATING SITE CONDITIONS THAT MAY AFFECT THE WORK INCLUDING SURFACE WATER, LEVEL OF GROUNDWATER AND THE TIME OF YEAR THE WORK IS TO BE DONE.
  - GROUNDWATER CONTROL: THE CONTRACTOR SHALL USE NECESSARY MEASURES TO MAINTAIN THE LEVEL OF GROUNDWATER BELOW EXCAVATION SUBGRADE AND MAINTAIN SUFFICIENT BEARING CAPACITY FOR ALL STRUCTURES, PIPELINES, EARTHWORK, AND ROCK WORK. SUCH MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, INSTALLATION OF PERIMETER SUBDRAINS, PUMPING FROM DRILLED HOLES (WELL POINT) OR BY PUMPING FROM TEMPORARY SUMPS EXCAVATED BELOW THE SUBGRADE ELEVATION.
  - DEWATERING COLLECTION: THE CONTRACTOR SHALL ACCOMMODATE DEWATERING BY LOCATING DISCHARGE LOCATIONS DOWNSLOPE AND/OR PHYSICALLY REMOVED FROM THE EXCAVATION AREA. DISCHARGE THAT IS CLEAR AND FREE OF SEDIMENT OR FINES MAY BE DISCHARGED TO THE MUNICIPAL STORM DRAIN SYSTEM WITH APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. OTHERWISE, DEWATERING SHALL DISCHARGE INTO TEMPORARY COLLECTION SUMPS FOR STILLING AND COARSE SEDIMENT REMOVAL. TEMPORARY COLLECTION SUMPS MAY INCLUDE THE FOLLOWING:
    - EXCAVATED SUMPS
    - TEMPORARY PONDING AREAS
    - PORTABLE BLADDER (E.G. DIRTBAG) AND TANKS
- DEWATERING DISCHARGES: THE DISCHARGE OF CONCENTRATED FLOWS FROM SUMPS SHALL BE THROUGH GRAVITY FLOW AND DIRECTED THROUGH EROSION CONTROL FEATURES TO COLLECT FINE SEDIMENTS AND DISPERSE FLOW. THE CONTRACTOR SHALL AVOID IMPACTS TO SURFACE OR SUBSURFACE DRAINAGE PATTERNS OF ADJACENT AREAS. ALL EXCAVATIONS MADE AS PART OF DEWATERING OPERATIONS SHALL BE BACKFILLED. ANY DAMAGE TO ADJACENT PROPERTY RESULTING FROM THE CONTRACTOR'S ALTERATION OF SURFACE OR SUBSURFACE DRAINAGE PATTERNS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE. CONTRACTOR SHALL REMOVE ALL TEMPORARY WATER CONTROL FACILITIES WHEN THEY ARE NO LONGER NEEDED OR AT THE COMPLETION OF THE PROJECT.
- DIRECT DISCHARGE FROM DEWATERING SUMPS PAST THE LIMITS OF THE PROJECT SITE IN CONCENTRATED FLOW IS NOT PERMITTED.



LOCATION MAP  
NOT TO SCALE

**UTILITY NOTES:**

- ALL TERMINATIONS AND CONNECTIONS OF SERVICES SHALL BE IN COMPLIANCE WITH REQUIREMENTS OF THE APPLICABLE UTILITY DISTRICT. ALL BACKFILLING AND COMPACTION OF WATER AND SEWER LINE TRENCHES SHALL BE AS APPROVED BY THE BRUNSWICK AND TOPSHAM WATER DISTRICT AND BRUNSWICK SEWER DISTRICT, RESPECTIVELY.
  - THE CONTRACTOR SHALL CONTACT DIGSAFE (888-344-7233) PRIOR TO COMMENCING EXCAVATION.
  - THE BASIS FOR PROJECT LAYOUT AND FOR CONSTRUCTION ELEVATIONS IS THE BASELINE AND BENCHMARK EXISTING ON THE SITE AND SHOWN ON THE DRAWINGS.
  - THE CONTRACTOR SHALL CONFIRM HORIZONTAL AND VERTICAL CONTROL BEFORE BEGINNING WORK.
  - SEE PLUMBING AND ELECTRICAL PLANS FOR LOCATION AND INVERTS OF SLEEVES IN FOUNDATIONS.
  - ELECTRIC SERVICE SHALL BE INSTALLED IN CONDUIT UNDER PAVEMENT AND CONCRETE.
  - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL SEWER, WATER, ELECTRICAL, AND SANITARY CONDUIT, MANHOLES, TRANSFORMERS, AND FITTINGS FOR APPROVAL.
  - CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA C150 AND C151, CLASS 52, AND HAVE PUSH ON OR FLANGED JOINTS AS REQUIRED. FITTINGS SHALL HAVE MECHANICAL JOINTS WITH RETAINER GLANDS.
  - SANITARY SEWER PIPE AND FITTINGS SHALL BE SDR-35 PVC.
  - INSTALL 2" RIGID STYROFOAM INSULATION OVER SANITARY SEWER IN AREAS WHERE THERE IS LESS THAN 4" OF COVER.
  - CONNECTIONS AT MANHOLES/CATCH BASINS SHALL HAVE A FLEXIBLE BOOT CAST ONTO THE BARREL AND SECURED WITH STAINLESS STEEL BANDS.
- LAYOUT NOTES:**
- ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR FOUNDATION.
  - OFFSETS TO CATCH BASINS AND MANHOLES ARE TO THE CENTER OF THE FRAME.
  - PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE HALF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
  - BOUNDARY INFORMATION ON LAYOUT PLAN IS FOR REFERENCE ONLY. REFER TO CERTIFIED BOUNDARY PLANS FOR BOUNDARY INFORMATION.
  - ALL HANDICAP ACCESSIBLE PARKING SPACES, RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
  - ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
  - BUILDING FOUNDATION SHOWN IS NOT FOR FOUNDATION LAYOUT. COORDINATE SITE WORK WITH ARCHITECTURAL DRAWINGS INCLUDING BUILDING FEATURES AND FOUNDATION PLAN.



3.	03/30/15	REVISED PER REVIEW COMMENTS	JJM
2.	02/27/15	SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW	JJM
1.	01/20/15	SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW	JJM

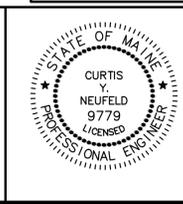
TITLE: **UTILITY PLAN**

PROJECT: **CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE**

PREPARED FOR: **COASTAL BUILDING AND INVESTMENTS, INC.  
BRUNSWICK, MAINE**

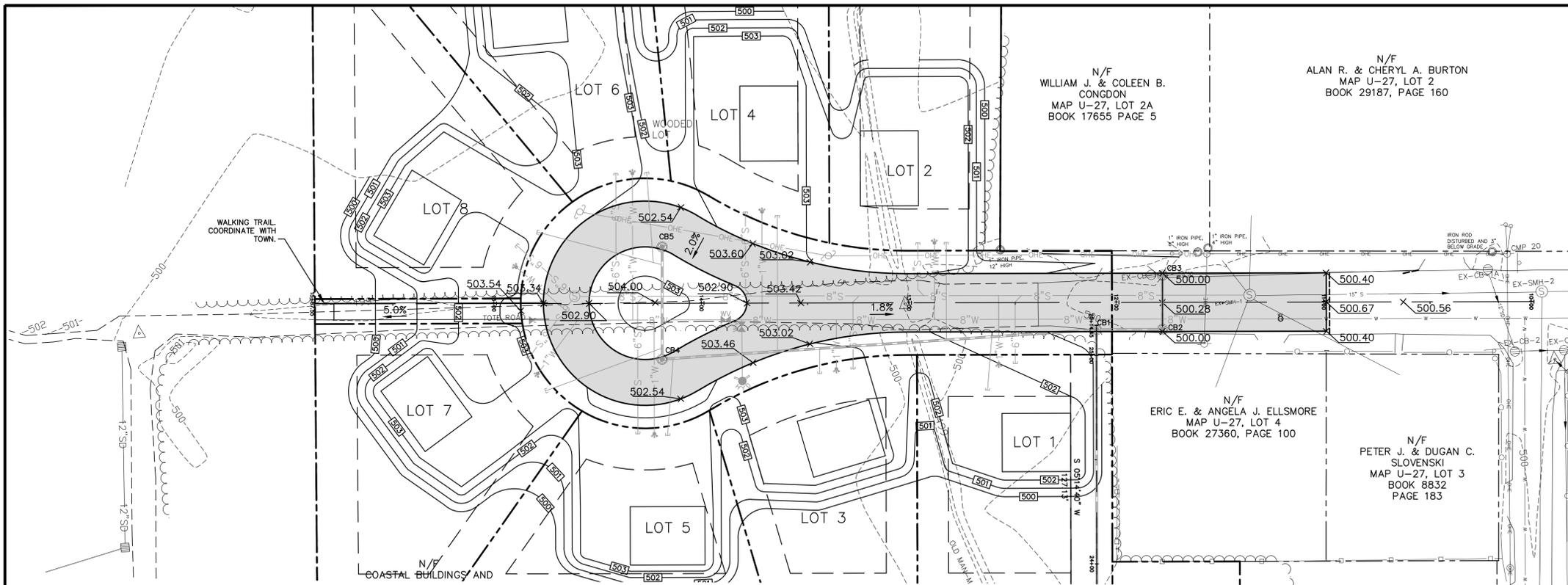
**CONSTRUCTION NOTE:**  
THE CONTRACTOR SHALL INSTALL A 4"x4"x8' PRESSURE-TREATED WOOD POST AT ALL UTILITY EXTENSION STUBS. POST SHALL BE 3 FEET ABOVE GRADE AND SHALL HAVE UTILITY TYPE AND SIZE WRITTEN ON SIDE OF POST. CONTRACTOR SHALL PROVIDE TWO SWING TIES OR COORDINATES TO EACH UTILITY STUB.

CALL DIG SAFE UTILITY LOCATION  
**1-888-344-7233**  
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

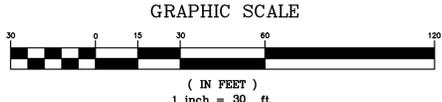
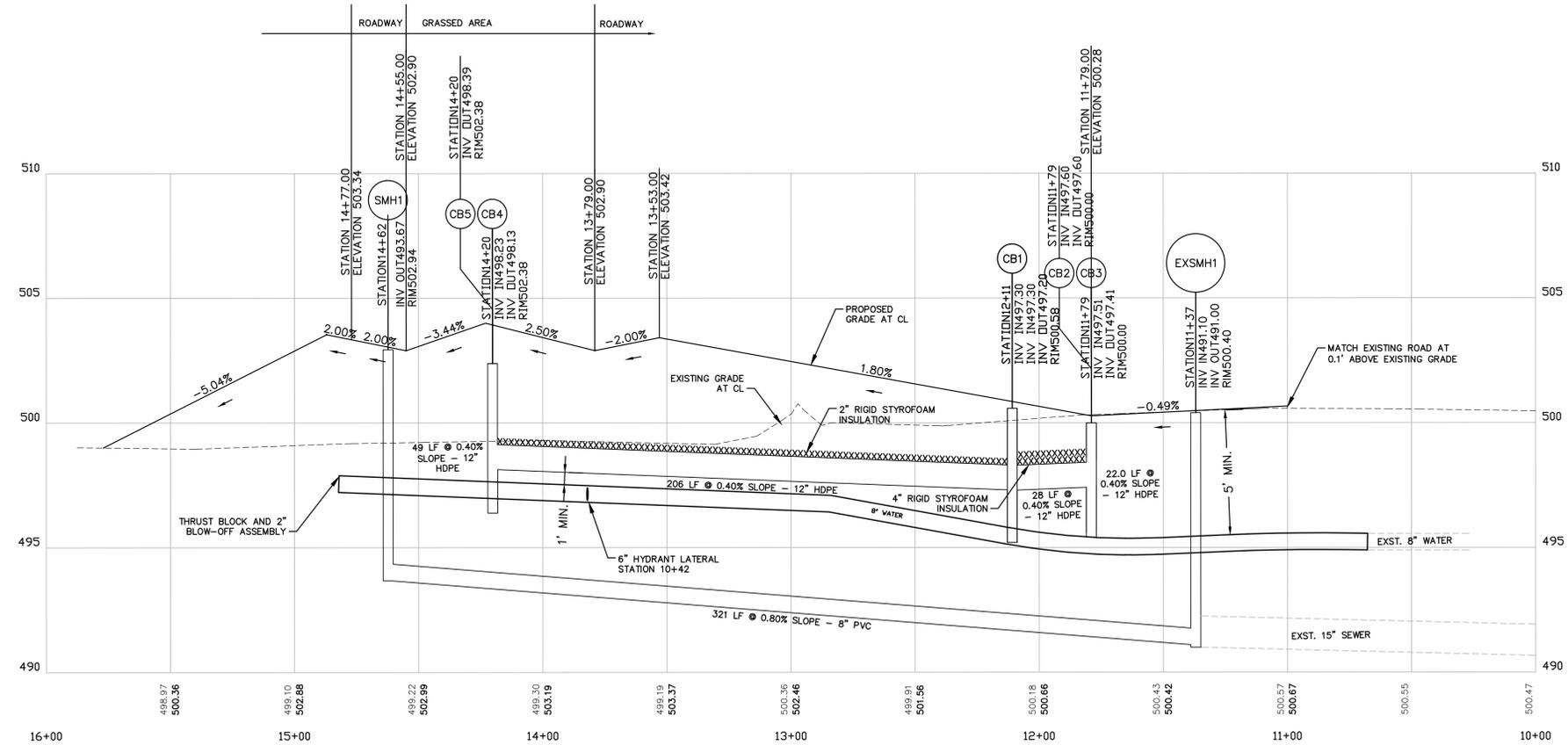


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207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=40'	SHEET:
DRN BY: RPL/JJM	JOB #: 1019.01	<b>C5</b>
CHD BY: CYN	MAP/LOT: U27/6	
DATE: 01/19/15	FILE: 1019.01-SITE	



LOCATION MAP  
NOT TO SCALE



- 3. 03/30/15 REVISED PER REVIEW COMMENTS JJM
- 2. 02/27/15 SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW JJM
- 1. 01/20/15 SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW JJM

TITLE: **PLAN & PROFILE**

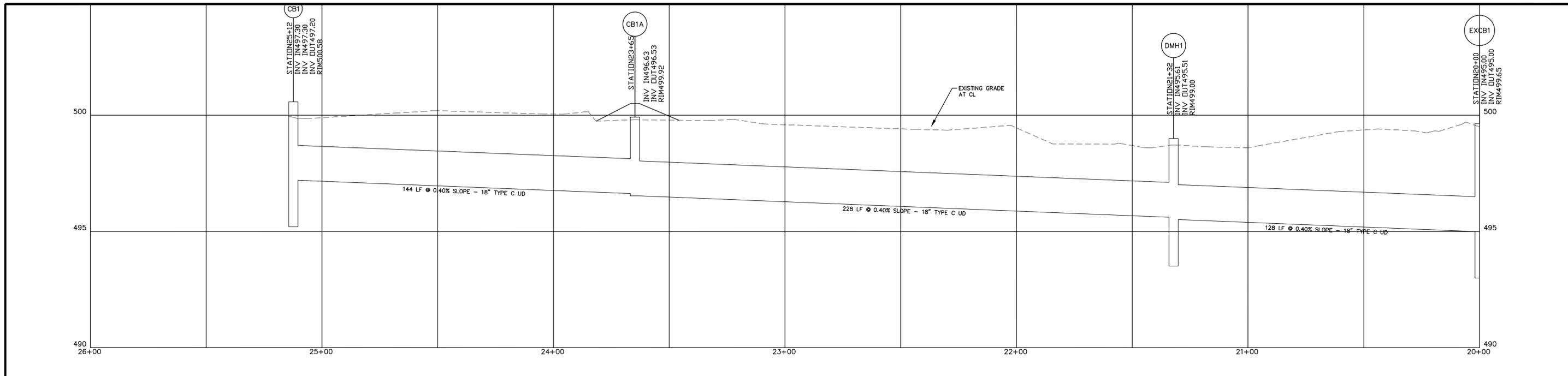
PROJECT: **CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE**

PREPARED FOR: **COASTAL BUILDING AND INVESTMENTS, INC.  
BRUNSWICK, MAINE**

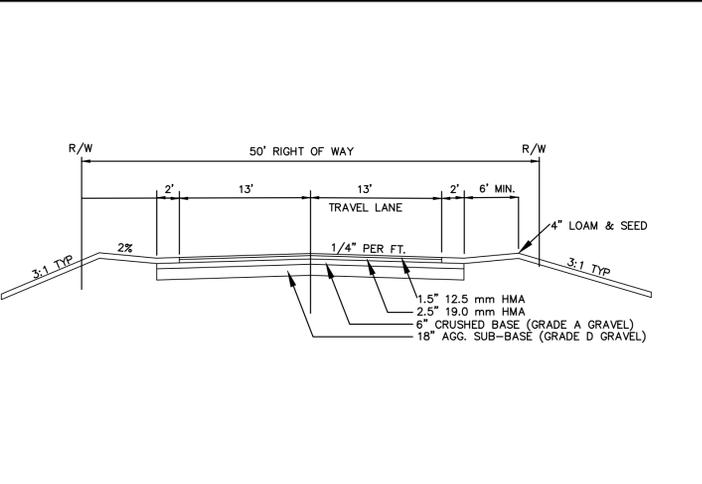
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207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=30'	SHEET:
DRN BY: RPL/JJM	JOB #: 1019.01	<b>C6</b>
CHD BY: CYN	MAP/PLOT: U27/6	
DATE: 01/19/15	FILE: 1019.01-SITE	

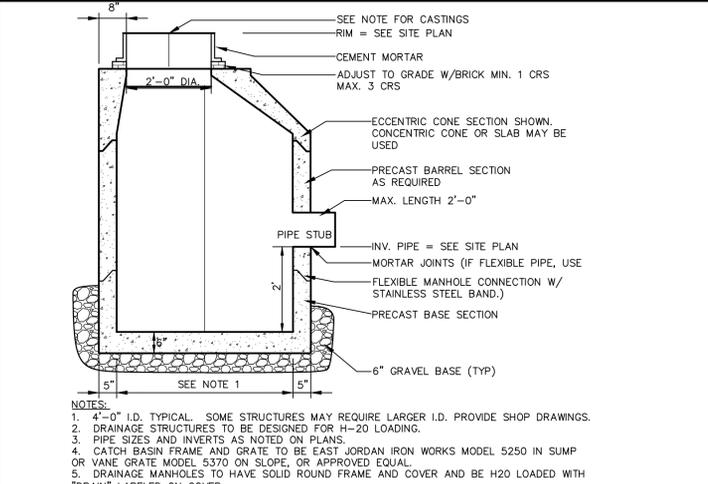
NOTE:  
GROUNDWATER SHOULD BE ANTICIPATED BELOW ELEVATION 496. CONTRACTOR SHALL PROVIDE LABOR & EQUIPMENT TO DEWATER EXCAVATION TO 1' BELOW TRENCH.



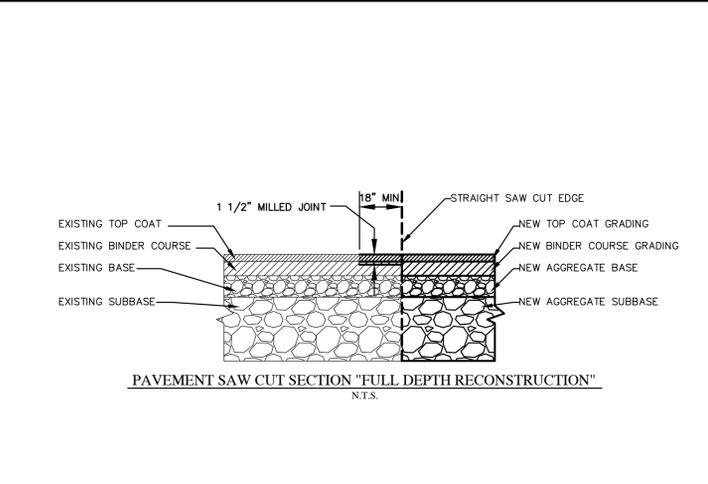
**A** CROSS-COUNTRY DRAINAGE PROFILE - 20+00 TO 25+14  
N.T.S.



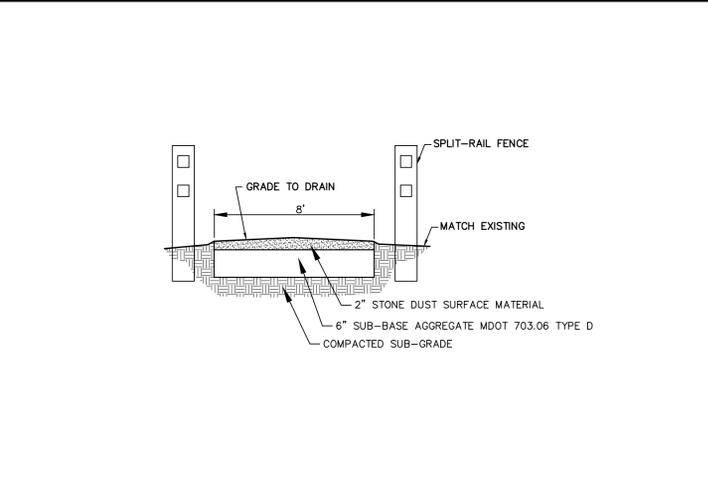
**F** DRAINAGE CATCH BASIN / MANHOLE  
N.T.S.



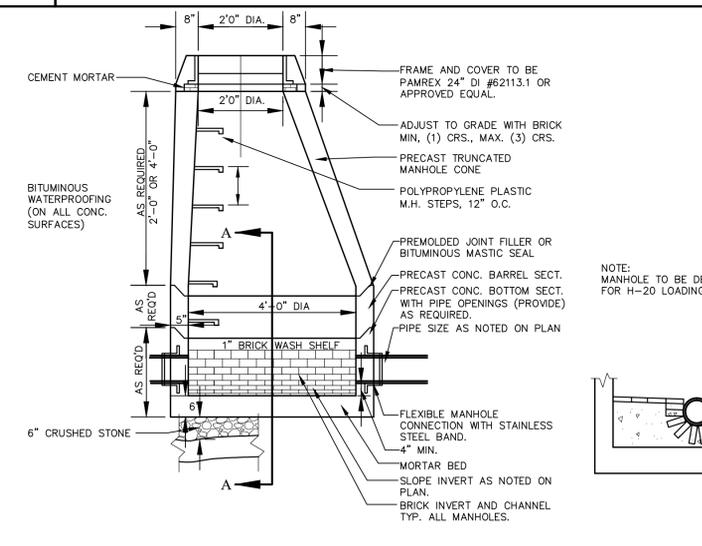
**G** PAVEMENT SAW CUT DETAILS  
N.T.S.



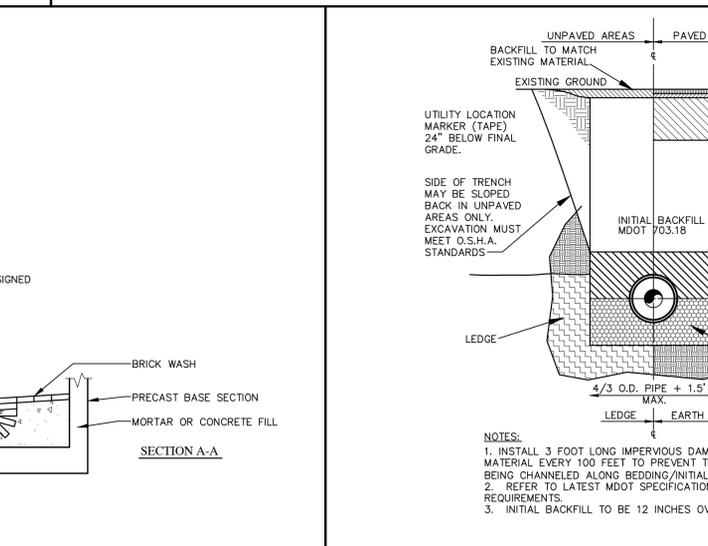
**H** WALKING TRAIL CROSS SECTION  
N.T.S.



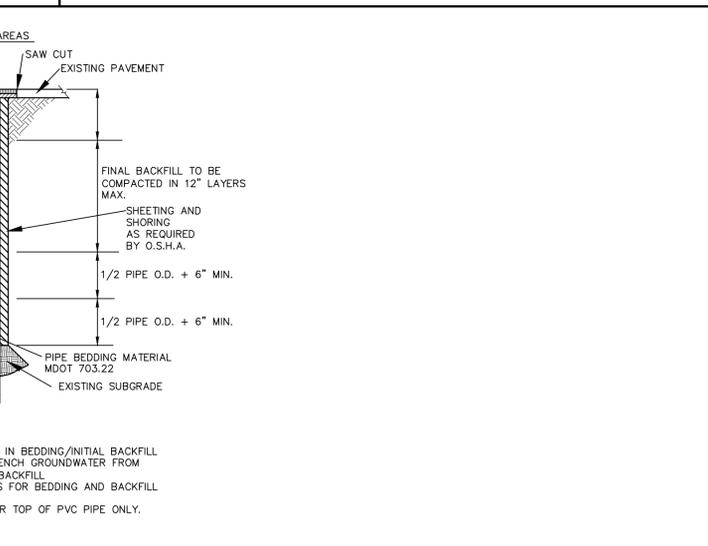
**E** TYPICAL ROAD SECTIONS  
N.T.S.



**J** TYPICAL PIPE TRENCH DETAIL  
N.T.S.

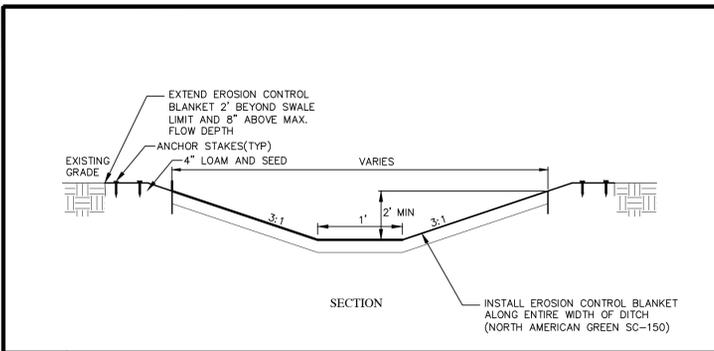


**I** SANITARY SEWER MANHOLE  
N.T.S.

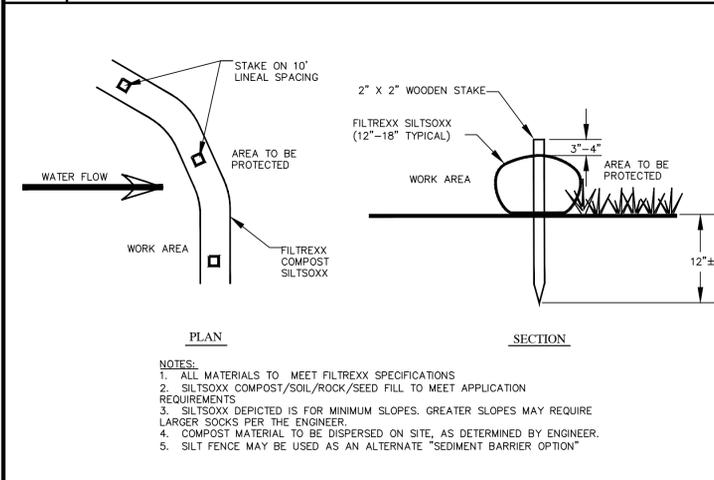


**J** TYPICAL PIPE TRENCH DETAIL  
N.T.S.

<p>3. 03/30/15 REVISED PER REVIEW COMMENTS JJM</p> <p>2. 02/27/15 SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW JJM</p> <p>1. 01/20/15 SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW JJM</p>	
<p><b>TITLE:</b> SITE DEVELOPMENT DETAILS</p>	
<p><b>PROJECT:</b> CHAMBERLAIN WOODS SUBDIVISION BOODY STREET, BRUNSWICK, MAINE</p>	
<p><b>PREPARED FOR:</b> COASTAL BUILDING AND INVESTMENTS, INC. BRUNSWICK, MAINE</p>	
<p><b>SITELINES, PA</b> ENGINEERS • PLANNERS • SURVEYORS LANDSCAPE ARCHITECTS 8 CUMBERLAND STREET, BRUNSWICK, ME 04011 207.725.1200 www.sitelinespa.com</p>	
<p><b>FIELD WK:</b> BWM</p> <p><b>DRN BY:</b> RPL/JJM</p> <p><b>CHD BY:</b> CYN</p> <p><b>DATE:</b> 01/19/15</p>	<p><b>SCALE:</b> NTS</p> <p><b>JOB #:</b> 1019.01</p> <p><b>MAP/LOT:</b> U27/6</p> <p><b>FILE:</b> 1019.01-DETAILS</p>
<p><b>SHEET:</b> C7</p>	



**A CHANNEL STABILIZATION**  
N.T.S.



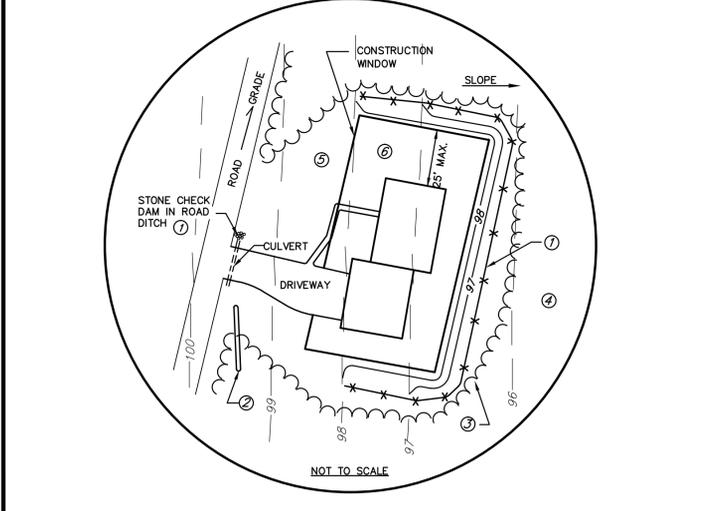
**B FILTREXX SILTISOXX DETAIL "SEDIMENT BARRIER OPTION"**  
N.T.S.

**INSTALLATION:**

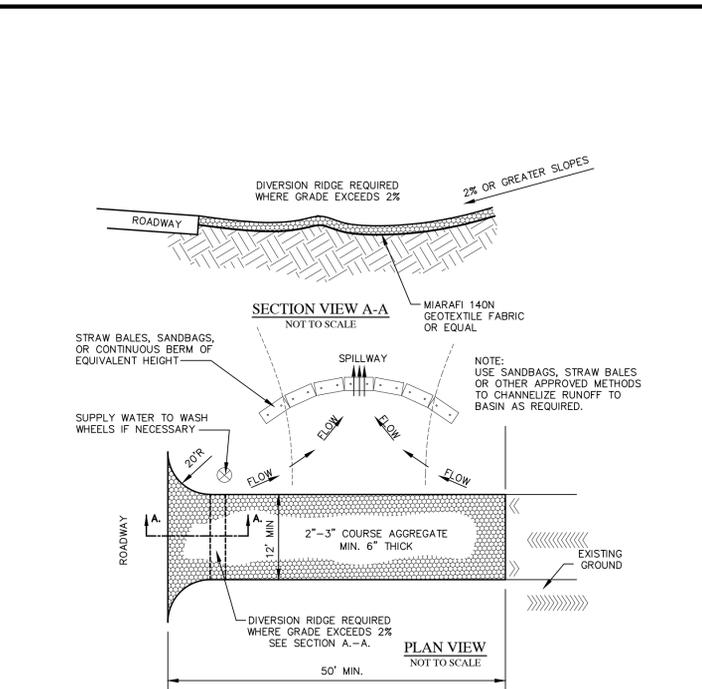
1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.
3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT SURFACE WATERS AND WETLANDS.
4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS. SEE THE "BUFFERS" MEASURE FOR BUFFER PRESERVATION.
5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.
6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING.

**MAINTENANCE:**

EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR VEGETATION GROWTH. FIX THESE PROBLEMS AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A BUFFER OR DITCH.



**D HOUSE SITE - BEST MANAGEMENT PRACTICES**  
N.T.S.



**NOTE:**

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR BASIN.

**C STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.

**EROSION AND SEDIMENTATION NOTES:**

1. CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES OF THE CUMBERLAND COUNTY SOIL CONSERVATION SERVICE AND THE MAINE DEP BEST MANAGEMENT PRACTICES HANDBOOK.

**GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:**

**EROSION/SEDIMENTATION CONTROL DEVICES:**

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

1. SEDIMENT BARRIER: SILT SOXX OR APPROVED EQUAL WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SEDIMENT BARRIER WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SEDIMENT BARRIER AND TO PROVIDE ADDITIONAL TREATMENT.
2. HAY BALES: HAY BALES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES. DO NOT PLACE HAY BALES IN FLOWING WATER OR STREAMS.
3. RIPRAP: PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN ON THE PLANS.
4. LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.
5. STRAW AND HAY MULCH: USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. JUTE MESH IS TO BE USED OVER MULCH ONLY.
6. IN LIEU OF MULCH, USE EROSION CONTROL BLANKET (EQUAL TO NORTH AMERICAN GREEN SC150) TO STABILIZE AREAS OF CONCENTRATED FLOW AND DRAINAGE WAYS.

**TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES:**

PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

1. SEDIMENT BARRIER ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SEDIMENT BARRIER WILL REMAIN IN PLACE UNTIL THE SITE IS 85% REVEGETATED.
2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SEDIMENT BARRIER.
3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:
  - A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
  - B. AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.
  - C. STABILIZE STOCKPILES WITHIN 7 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.
  - D. SURROUND STOCKPILE SOIL WITH SEDIMENT BARRIER AT BASE OF PILE.
4. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA SHALL RECEIVE MULCH WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL OR WITHIN 7 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOIL WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE APPLICABLE, IS NOT REQUIRED.
5. IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 15 DAY MAXIMUM.
6. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

**PERMANENT EROSION CONTROL MEASURES:**

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.
2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP. (NONE ANTICIPATED)

**POST-CONSTRUCTION REVEGETATION:**

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

1. A MINIMUM OF 6" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.
2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10:20:20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES:

LAWNS SHALL BE: ALLEN, STERLING & LATHROP "TUFTTUFF", 70% DIAMOND TALL FESCUE, 20% PLEASURE OLLUS PERENNIAL RYEGRASS, 10% BARON KENTUCKY BLUEGRASS. SEEDING RATE SHALL BE 7-LBS./1,000 SQ. FT.

SWALES SHALL BE: WILDFLOWER MEADOW: (SEED) FESTUCA OVINA SHEEP FESCUE; SOW AT A RATE OF 12 OZ. PER 1,000 SQFT. TRIFOLIUM REPENS WHITE CLOVER; SOW AT A RATE OF 1/2 OZ. PER 1,000 SQFT. (FLOWERS) ACHILLEA MILLEFOLIUM YARROW, AQUILEGIA CANADENSIS COLUMBINE, ASCLEPIAS TUBEROSE, BUTTERFLY MILKWEED, ASTER NOVAE-ANGLIAE NEW-ENGLAND ASTER, BAPTISIA AUSTRALIS WILD INDIGO, BOLTONIA ASTEROIDES FALSE ASTER, CHRYSANTHEMUM LEUCANTHEMUM OXEYE DAISY, DIGITALIS PURPUREA FOXGLOVE, ECHINACEA PURPUREA PURPLE CONEFLOWER, LUPINUS PERENNIS LUPINE, MONARDA FISTULOSA BERGAMOT, PAPAVER ORIENTAL POPY, RUDBECKIA HIRTA BLACK-EYED SUSAN, SALVIA OFFICINALIS SAGE; SOW AT A RATE OF 1/3 OZ. EACH PER 1,000 SQFT. OR 4 OZ. PER 1,000 SQFT. IN COMBINATION

**WET POND MIX:**

- TRANSITION ZONE (WHICH IS 4 FEET ABOVE AND BELOW PERMANENT POOL ELEVATION) SHALL BE NEW ENGLAND WETMIX (WETLAND SEED MIX) BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST, MA, (413) 548-8000. APPLY PER RECOMMENDED RATES.
- BANKING (FROM TRANSITION ZONE TO TOP OF BANK) SHALL BE NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST, MA, (413) 548-8000. APPLY PER RECOMMENDED RATES.

3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDDED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, JUTE NET OVER MULCH, PRE-MANUFACTURED EROSION MATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.
  - A. HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)
    - I. BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
    - II. BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.
  - III. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION.
- B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15.

- 4. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION.
- A. ONLY UNFROZEN LOAM SHALL BE USED.
- B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
- C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
- D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.8 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
- E. FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY.
- F. ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.

5. FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 85% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

**MONITORING SCHEDULE:**

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

1. HAY BALE BARRIERS, SEDIMENT BARRIER, AND STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SEDIMENT BARRIER BEHIND THE HAY BALES.
2. VISUALLY INSPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.
3. REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

**CONSTRUCTION PHASE:**

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 7 DAYS, SEE ITEM NO. 4.
2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SEDIMENT BARRIER AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.
3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. NO STOCKPILE SHALL BE CLOSER THAN 100' OF A RESOURCE INCLUDING, BUT NOT LIMITED TO, WETLANDS, STREAMS, AND OPEN WATER BODIES. ALL STOCKPILES SHALL HAVE A SEDIMENT BARRIER BELOW THEM REGARDLESS OF TIME OF PRESENCE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE:
  - A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
  - B. SEEDDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.
  - C. INSTALL SEDIMENT BARRIER AROUND STOCKPILE AT BASE OF PILE. STOCKPILES TO HAVE SEDIMENT BARRIER INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE.
4. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE EITHER:
  - A. TREATED WITH ANCHORED MULCH IMMEDIATELY, OR
  - B. SEEDDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT) AND MULCHED IMMEDIATELY.
5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 5 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)
6. ALL CULVERTS WILL BE PROTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE SPECIFIED) AT INLETS AND OUTLETS.

**THE FOLLOWING CONSTRUCTION SEQUENCE IS MANDATORY:**

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND MAINTAIN UNTIL SITE IS PAVED.
2. ONLY THOSE AREAS NECESSARY FOR CONSTRUCTION WILL BE DISTURBED.
3. PRIOR TO THE START OF CONSTRUCTION, SEDIMENT BARRIER WILL BE INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR, AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING; AND/OR JUST ABOVE ANY ADJACENT TRAVELLED WAY TO PROTECT IT FROM CONSTRUCTION-RELATED EROSION.
4. CLEAR AND GRUB WORK SITE AS NEEDED TO EXECUTE PLANS USING CAUTION NOT TO OVER EXPOSE THE SITE.
5. STORMWATER MANAGEMENT SYSTEM AND CATCH BASINS WILL BE INSTALLED PRIOR TO CONSTRUCTION OF SITE ELEMENTS THAT DISCHARGE TO THESE SYSTEMS. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED IN ALL NEW AND EXISTING CATCH BASINS THAT WILL RECEIVE RUNOFF FROM THE PROJECT. NO STORMWATER SHOULD BE DIRECTED TO THE SUBSURFACE SAND FILTER SYSTEM UNTIL THE SITE IS COMPLETELY STABILIZED.
6. DISTURBED AREAS WILL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 7 DAYS OF THE INITIAL DISTURBANCES OF SOILS. DISTURBED AREAS WILL BE STABILIZED BEFORE STORMS. LOAM WILL BE SAVED FOR LATER USE WHERE POSSIBLE. EXCESS SOIL MATERIALS WILL BE USED AS FILL OR REMOVED FROM SITE TO AN APPROVED LOCATION.
7. AT A MINIMUM, THE EROSION CONTROL MEASURES SHALL BE REVIEWED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOWMELT. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6 INCHES AND BE DISCARDED ON THE SITE. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS.
8. INSTALL UTILITIES AND APPURTENANCES.
9. CONSTRUCT PARKING AREAS.
10. INSTALL PAVEMENT.
13. LOAM, LIME, FERTILIZE, SEED, AND MULCH LANDSCAPED AND OTHER DISTURBED AREAS.
14. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP LOAM AND SEED.

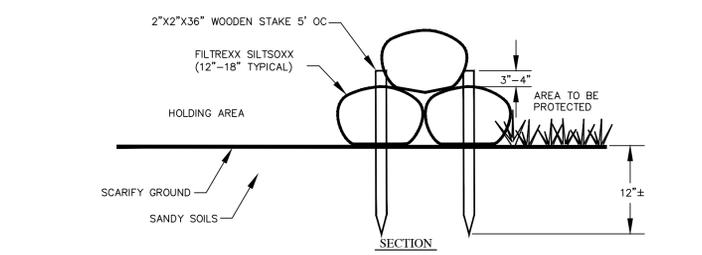
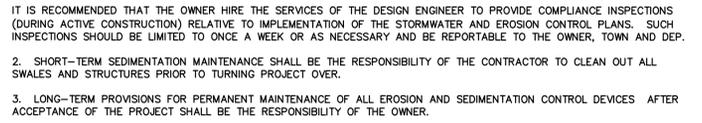
NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP OR GRAVEL SHALL BE REVEGETATED.

**EROSION CONTROL DURING WINTER CONSTRUCTION:**

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AT THE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.
4. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. NOTE: AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SEDIMENT BARRIER OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS BELOW 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.
7. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS, SLOPES GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8% VEGETATED DRAINAGE SWALES SHALL BE LINED WITH STRAW-COCONUT EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL).
8. BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS RECOMMENDED FOR STABILIZATION. AFTER NOVEMBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.
9. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

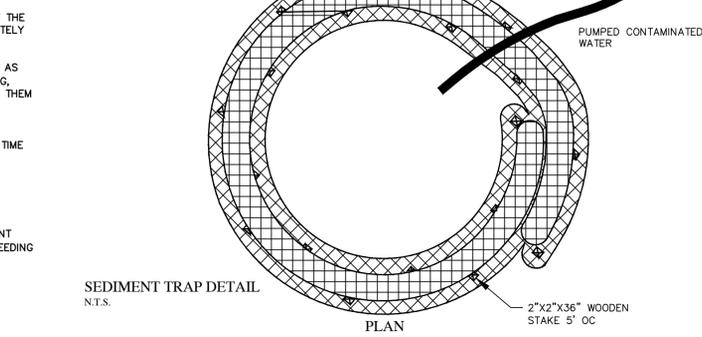
**SITE INSPECTION AND MAINTENANCE:**

1. WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING RAIN FALLS, SHALL BE CONDUCTED BY THE GENERAL CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE OF THE PROJECT (85% GRASS CATCH). NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES. UNTIL FINAL INSPECTION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION AND CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- IT IS RECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE COMPLIANCE INSPECTIONS (DURING ACTIVE CONSTRUCTION) RELATIVE TO IMPLEMENTATION OF THE STORMWATER AND EROSION CONTROL PLANS. SUCH INSPECTIONS SHOULD BE LIMITED TO ONCE A WEEK OR AS NECESSARY AND BE REPORTABLE TO THE OWNER, TOWN AND DEP.
2. SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER.
3. LONG-TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER.



**NOTES:**

1. INSTALL ON FLAT GRADE



3.	03/30/15	REVISED PER REVIEW COMMENTS	JJM
2.	02/27/15	SUBMITTED TO TOWN OF BRUNSWICK FOR FINAL PLAN REVIEW	JJM
1.	01/20/15	SUBMITTED TO TOWN OF BRUNSWICK FOR SKETCH PLAN REVIEW	JJM

**EROSION CONTROL DETAILS AND NOTES**

PROJECT: CHAMBERLAIN WOODS SUBDIVISION  
BOODY STREET, BRUNSWICK, MAINE

PREPARED FOR: COASTAL BUILDING AND INVESTMENTS, INC.  
BRUNSWICK, MAINE

**SITELINES, PA**  
ENGINEERS • PLANNERS • SURVEYORS  
LANDSCAPE ARCHITECTS  
8 CUMBERLAND STREET, BRUNSWICK, ME 04011  
207.725.1200 www.sitelinespa.com

FIELD WK: BWM SCALE: N/A SHEET: C8  
DRN BY: RPL/JJM JOB #: 1019.01  
CHD BY: CYN MAP/LOT: U27/6  
DATE: 01/19/15 FILE: 1019.01-DETAILS

**DRAFT FINDINGS OF FACT**  
**Major Development Review**  
**Amended Site Plan for Tao Yuan Restaurant**  
**Meeting Date: April 14, 2015**

**Project Name:** Tao Yuan Site Plan Amendment  
**Address:** 0 Abbey Road  
Brunswick, ME 04011  
**Case Number:** 15-014  
**Tax Map:** Map U13, Lot 095/1-3  
**Zoning:** Town Center 1  
**Applicant:** Cecile & John Stadler/Cara's Place LLC  
109 Holland Drive  
Phippsburg, ME 04562

**Authorized**

**Representative:** Kate Holcomb  
509 Cumberland Ave, # 5  
Portland, ME 04101

*Staff reviewed the application and determined it is complete*

**PROJECT SUMMARY**

Staff review is based on the following application materials:

- Application cover letter from Kate Holcomb, dated April 1, 2015.
- Application letter from Sitelines, PA, dated March 3, 2015.
- Major Development Review application and checklist, undated.
- VRB Approved Findings of Fact, dated March 17, 2015.
- Staff Review Committee meeting notes, dated March 26, 2015.
- Amended site plan approval memo, dated May 22, 2014.
- Five (5) Sketch Up renderings of the greenhouse elevations, undated.
- Ability to Service letter from the Brunswick & Topsham Water District, dated February 24, 2015.
- Ability to Service letter from the Brunswick Sewer District, dated February 25, 2015.
- Letter from property abutter Andy Friedman, undated.
- Sheet 1 by Sitelines, PA, entitled Site Development Plan, revised March 31, 2015.
- Lighting Plan by Sitelines, PA, dated April 7, 2015.

The Board will review and take action on a Major Review Amended Site Plan application, submitted by Cecile and John Stadler/Cara's Place LLC. A prior amendment was approved on May 27, 2014. The applicant has submitted a project narrative, which has been attached hereto.

**DRAFT MOTIONS  
TAO YUAN SITEPLAN AMENDMENT  
CASE NUMBER: 15-014**

**Motion 1:** That the Major Development Review Amended Site Plan is deemed complete.

**Motion 2:** That the Major Development Review Amended Site Plan is approved with the following conditions:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, its representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.
2. Prior to issuance of a building permit, the applicant shall submit a letter from a bank verifying financial capacity, satisfactory to the Director of Planning & Development.
3. Prior to issuance of a building permit, a note shall be added to the plan stating that rainwater will be collected from the greenhouse structure and diverted into cistern(s) in the basement.
4. Prior to issuance of a building permit, a parking layout plan shall be provided, to the satisfaction of the Director of Planning and Development.

\* Please note that Development Review Site Plan approvals by the Planning Board shall expire at the end of two years after the date of final approval unless all construction has been completed by that date (Section 407.4.B of the Brunswick Zoning Ordinance).



# TOWN OF BRUNSWICK, MAINE

INCORPORATED 1739

DEPARTMENT OF PLANNING & DEVELOPMENT

TOWN HALL - ROOM 216

85 UNION STREET

BRUNSWICK, ME 04011

ANNA BREINICH, FAICP  
DIRECTOR OF PLANNING & DEVELOPMENT

PHONE: 207-725-6660  
FAX: 207-725-6663

March 26, 2015

## STAFF REVIEW COMMITTEE NOTES

### Staff Present:

Jeff Hutchinson (Codes), Jeff Emerson (Fire), Anna Breinich (Planning), Rob Pontau (Sewer District), John Foster (Public Works), Jeremy Doxsee (Planning, Non-Voting Member), Linda Smith (Business Development, Non-Voting Member)

Public Present: None

**Case # 15-008 Brunswick Airport Snow Removal Building:** The Committee will review and take action on a Minor Development Review application submitted by Hoyle, Tanner & Associates for the construction of a 6,467 sq. ft. building to store the Airport's existing and future snow removal equipment. The building would be constructed within the perimeter fence that surrounds the airport on the existing concrete apron. The proposed structure is located in the BNAS Reuse - Aviation Related Land Use District (R-AR Zoning District). Assessor's Map 40, Lot 2.

### Present for Applicant:

Bob Rocheleau (MRRA), Marty McMann (MRRA), Suzanne Sheppard (Hoyle, Tanner & Associates), Jeff Luie (Oak Point Associates)

- Suzanne and Jeff gave an overview of the project; they noted it would be a pre-engineered metal building with 4 bays, office space, a storage room, and a mechanical room. The building will be sprinklered.

### Staff Comments:

Jeff Hutchinson:

- Which way will building be oriented?
  - Suzanne: to the west, facing runway.
- Why is no parking shown?
  - Bob R: It's not deemed necessary; existing MRRA employees will be using building, and only on an as-needed basis. No public will be accessing building, and employee cars can park in apron around building. Building will likely have minimal activity at least half of the year.
- Show one handicapped parking space next to door.
  - Committee agreed that only one handicapped parking space is necessary.

Anna Breinich:

- The plan needs to be sealed and signed by a licensed surveyor or engineer.
- Asked John F. if a stormwater plan is necessary – John indicated it is not.

Jeff Emerson

- Installation of a Knox box for the gate will be required. Add as a condition of approval.

Motions:

- Motion made by Jeff H to deem the application complete, seconded by Anna, approved unanimously.
- Motion made by Rob to grant the requested waivers, seconded by Jeff, approved unanimously.
- Motion made by Anna to approve the application with conditions, as amended, seconded by Jeff E., approved unanimously.

\*\*\* See attached Final Findings of Fact

**Case # 15-014 Tao Yuan Greenhouse/Apartments:** The Committee will review and provide a recommendation to the Planning Board regarding a Final Plan Major Review application, submitted by Cecile and John Stadler/Cara's Place LLC, as an amendment to a site plan approved 5/27/14. The proposed amendment includes the construction of a 2-story mixed-use structure, with a top-floor greenhouse and ground-floor apartments on the existing foundation with associated parking and site improvements, located on a .16 acre lot, 0 Abbey Road/22 Pleasant Street, and within the Town Center 1 (TC1) Zoning District and Village Review Overlay Zone. Assessor's Map U13, Lot 095/1-3.

Present for Applicant:

- Cecile Stadler (co-owner); Kate Holcolm (employee)  
Explained that, due to high recreation impact fees, they are no longer considering apartments on the bottom floor of the greenhouse; they will instead use the 1,000 ± sf as support space for the restaurant and greenhouse.
- Change back to support space will simplify parking.
- Re. light pollution at night from greenhouse, low impact LED lighting will be used, in conjunction with curtains to block light and seal in heat.

Staff Comments:

Anna Breinich

- Due to change from apartments to support space, application will have to be re-noticed. Planning Board meeting will be moved from April 7 to April 14.
- Disseminated a memo of concerns from abutter Andy Friedman and the conditions of approval from the VRB.
- Will windows be opened in summer for venting heat? Concern about potential noise impacts from HVAC. Kate: will talk to architect about having window openings on south side of greenhouse, away from condos.
- Need evidence of financial capability.

Jeff Hutchinson:

- Snow from greenhouse will slide to deck below – weight load will be reviewed as part of building permit application. Some concern that snow will slide off deck and fall below, potential creating a safety hazard.

- Kate: we will look at installing some type of barrier around railing of deck during winter months. But we need to be sensitive to aesthetic impacts. But heated greenhouse will help to melt snow on roof. Jeff: yes, although proposed use of insulated curtain at night to limit light pollution and trap heat will limit melting at night.
- Details in the packet need to be shown on the plan, because the approved plan is the document that staff will be referencing in the future.
- If access lane on west side of building is to be eliminated, new curbing will need to be installed. Coordinate with John Foster for curbing specifications. This area will be ideal for contractor trailer and laydown area for construction.
- How will rain be handled?
  - Kate: we plan on capturing rain and storing it for use in cisterns in basement of greenhouse.

Jeff Emerson

- Expressed some concern about VRB condition of approval that HVAC be located under stairs. (After additional research Jeff indicated there does not seem to be a requirement in the fire code, but there is some literature on the general clearance required for proper operation. Applicant may need a little flexibility to meet the required distances depending on the unit that they install. The code will defer to the manufacturers specifications regarding clearances.)
- Will look into whether a sprinkler system is required. (after researching determined that system is not required.)

John Foster

- Access to underground parking – is there an easement to allow access across property line?  
Cecile: yes
- Understands curtains will be used at night for block light, but what about endwall and bank of north facing windows? Kate: there will be curtains for these windows, too.
- A photometric plan for proposed lighting plan will be needed. (This was a condition of approval for prior approval).
- Sees an opportunity for placement of a handicapped accessible ramp behind the east side stairs and wall. This is entirely optional, but might allow for more flexibility for future uses.

END



**Cara's Place LLC**  
Owners: Cecile & John Stadler  
109 Holland Drive  
Phippsburg, ME 04562

Contact: Kate Holcomb  
(978) 821-3884  
[kholco@gmail.com](mailto:kholco@gmail.com)

April 1, 2015

Ms. Anna Breinich, FAICP  
Town of Brunswick  
85 Union St  
Brunswick, ME 04011

**Re: Tao Yuan Greenhouse**  
**22 Pleasant St & 0 Abbey Road**  
**Tax Map U13, Lot 095/1-3**

Dear Anna,

Attached please find our revised Major Development Review Final Plan Application. A brief description of the project is included below.

We are proposing the construction of a two-story building on the existing foundation at 0 Abbey Road, with minimal changes to the footprint on the lot. An exterior staircase, loading dock, overhanging deck space, and a new basement parking layout are changes that are represented in the revised site plan (included in this packet). The site plan has also been revised to incorporate changes based on feedback from Staff Review; including a dumpster enclosure, tire stops, changes to the Post Office side of Tao Yuan, and a re-working of the northeast corner of the second-story deck.

In addition to parking, the basement will include storage and workspace; the first floor will be dedicated to restaurant and greenhouse support tasks; and the second story will be an aquaponics greenhouse, designed to sustainably produce ecologically-grown food, year-round. The first floor, which as stated will support the growing business of the restaurant and greenhouse, will include bathrooms, storage, office space, additional greenhouse-related workspace, and an area for food production (plant processing, fermentation, and food prep, for example).

After Staff Review and meeting with the Village Review Board, we are aware of the stipulations and requirements necessitated by this project. I will address these specific points briefly here.

Snow removal on this structure and in this tight lot has been a concern. The greenhouse industry standard practice for snow removal is to heat the greenhouse enough to melt the snow as it hits, so as to prevent any build-up before it becomes an issue. As the goal in this case is actually heat loss, we would have the energy curtain disengaged during storms (and lights off at night time, so light escaping will not be an issue). During the inevitable intense storms that would occasionally outpace this method, staff will be on hand to manually remove snow when needed. Wide decks on the east and west sides can handle significant snow build-up; we have spoken to our engineers about snow load, and they confirm that structurally, this will not be an issue. Lastly, as we will be hiring someone for snow removal for the parking areas around the restaurant, if we need to include removal off these decks, we will do so as well.

Questions have been raised concerning noise, specifically in regards to fans on the greenhouse. While there will be vents on the north (condominium-facing) side, the fans will be on the south side, closest to Tao Yuan. This is so that the cooler air from the North will be drawn through the structure; this design answers to production best practices, energy efficiency, and noise concerns.

The lighting plans— including exterior lighting, greenhouse lighting, and light pollution control—is an ongoing investigation, and we will provide information on our fixtures, methods of lighting, and greenhouse curtain materials as needed. A photometric plan including specifications on exterior fixtures and an analysis by Sitelines, PA will be submitted prior to the Planning Board meeting on April 14<sup>th</sup>.

As the primary function of the building at 0 Abbey Road will be integrated with current operations at Tao Yuan, we will not be hiring additional staff for this space; however, we will be adding spaces for staff parking in the basement. This will open up parking in the lot between Tao Yuan and the greenhouse, which we'll also be expanding by 1-2 spaces by widening the parking area. This will increase parking capacity overall by 6 spaces. This will also eliminate the need for the hazardous driveway between Tao Yuan and the Post Office. We will be creating a new landscaped space where the driveway is presently.

As we move this project forward, we will provide any information the town requires to demonstrate our follow-through on the aforementioned plans.

Thank you.

Sincerely,

Kate Holcomb  
Farm Coordinator, Tao Yuan Restaurant

**MAJOR DEVELOPMENT REVIEW  
FINAL PLAN APPLICATION**

1. Project Name: Tao Yuan Greenhouse Project at 0 Abbey Road

2. Project Applicant

Name: Cecile & John Stadler/Cara's Place LLC

Address: 100 Holland Drive, Phippsburg, ME 04562

Phone Number: 207-388-2182 home | 207-288-2068 cell

3. Authorized Representative

Name: Kate Holcomb

Address: 509 Cumberland Ave #5, Portland, ME 04101

Phone Number: 978-821-3884

4. List of Design Consultants. Indicate the registration number, address and phone number of any engineer, surveyor, architect, landscape architect or planner used:

1. Sitelines, PA: 8 Cumberland St Brunswick 725-1200

2. \_\_\_\_\_

3. Architect and engineer TBD

5. Physical location of property being affected: 0 Abbey Road/22 Pleasant St, Brunswick

6. Lot Size: 0.36 (0.20 Tao + 0.16 lot)

7. Zoning District: TC1

8. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? We own the property

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Assessor's Tax Map 1113 Lot Number 095/1-3 of subject property.

10. Brief Description of proposed: Please see attached letter

\_\_\_\_\_  
\_\_\_\_\_

11. Describe Specific Physical Improvements to be Done: Please see attached letter

\_\_\_\_\_  
\_\_\_\_\_

Owner Signature: \_\_\_\_\_

Applicant Signature (if different): \_\_\_\_\_

Required Attachments (by Applicant):

- Final Plan Check List
- Final Plan Requirements for Open Space Developments (if applicable)
- Request for Waivers (if applicable)
- Required Copies of Final Plan

Required Attachment (by Planning and Development Department):

- Listing of all owners of property within 200-foot radius of property under review.

## FINAL PLAN REQUIREMENTS

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	Comments
Name of Development		✓				
Scale, date, north point, area, number of lots (if subdivision)		✓				
Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments property identified as existing or proposed.		✓				
Certification by a professional land surveyor that the land has been surveyed and the boundaries established in accordance with the State of Maine Board of Licensure for Professional Surveyors standards for Category 1 (Standard Boundary Survey), conditions 1, 2, or 3.		✓				
Existing zoning district and overlay designation.		✓				
Names of engineer and surveyor; and professional registration numbers of those who prepared the plan.		✓				
Names of current owner(s) of subject parcel and abutting parcels.		✓				
Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of 1" equals 50' and vertical scale of 1 inch equals 5 feet, with all elevations referred to in U.S.G.S. datum.				✓		No new streets are being proposed.
A general road plan noting circulation, direction, traffic control devices, street lighting and type of lighting proposed.		✓				
Existing and proposed easements associated with the development.		✓				
Kind, location, profile and cross-section of all proposed drainage facilities, both within the development and outside of it, and a storm-water management plan which includes the submission requirements listed in the storm-water management checklist available in the Planning Department.		✓				
Location of features, natural and artificial, such as water bodies, wetlands, streams, vegetation, railroads, ditches and buildings.		✓				

Location of existing and proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of any private wells.		✓				
Existing and proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability.		✓				
Topography with counter intervals of not more than 2 feet.				✓		
A Class A (high intensity) Soil Survey prepared in accordance with the standards of the Maine Association of Professional Soil Scientists.			✓			Site all impervious
Location of all existing trees over 10 inches in diameter, locations of tree stands, and a plan showing all trees to be removed as a result of the development proposal.			✓			
Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site.		✓				A photometric plan will be submitted.
Existing locations and proposed locations, widths and profiles of sidewalks.		✓				
Location map.		✓				
Approximate locations and dimensions of proposed parking areas.		✓				
Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation.		✓				
Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization.		✓				
Reference to special conditions stipulated by the Planning Board, with conditions either set forth in full or on the plan or identified as specific documents filed with the Board.			✓			
A wetlands map drawn by a specialist delineating wetland boundaries in accordance with the methods prescribed by the US Army Corps of Engineers.			✓			
Dedicated public open spaces, areas protected by conservation easements, and existing and proposed open spaces or recreation areas.			✓			

For Open Space Development, a note indicating the total permitted lot count of the entire land tract based upon the destiny standards in this Ordinance, the number of lots created by the Plan, and the numebr of lots permitted to be subdivided in the future, as well as a table showing setback requirements and impervious surface coverage limits for each lot.			✓			
Building envelops showing acceptable locations for principal and accessory structures.		✓				

### FINAL PLAN/SUPPORTING DOCUMENTS

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	Comments
Documentation of Ownership or contract.		✓				
Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which conservation land will be owned, maintained, and protected.		✓				
Draft performance guarantee or conditional agreement.			✓			
Disclosure of any required permits from the Department of Environmental Protection, Marine Resources, US Army Corps of Engineers, Department of Inland Fisheries and Wildlife, or other agencies, as applicable; or, if a permit has already been granted, a copy of that permit.		✓				We may require a permit from Dept of Inland Fisheries and Wildlife to stock fish for our system.
Any additional studies required by the Planning Baord, which are deemed necessary in accordance with this Ordiancne.			✓			
Storm water management program for the propsed project prepared by a professional engineer.		✓				
A storm water management checklist prepared by the Cumberlnd County Soil and Water Conservation District made availabel at the Brunswick Department of Planning and Development.	✓					

An erosion and sedimentation control checklist prepared by the Cumberland County Soil and Water Conservation District.	✓				
A statement from the Brunswick-Topsham Water District of conditions under which water will be provided.		✓			
A statement from the Brunswick-Topsham Water District of its review and comments on the proposed use if the project involves development within the Aquifer Protection Zone.			✓		
A Statement from the Fire Chief recommending the number, size, and location of hydrants, available pressure levels, road layout and street and project name, and any other fire protection measures to be taken.			✓		
A statement from the Superintendent of the Brunswick Sewer District of the conditions under which the Sewer District will provide sewerage disposal service and approval of the sanitary sewers proposed within the development.		✓			
Where a septic system is to be used, evidence of soil suitability.			✓		
All applicable materials necessary for the reviewing entity to review the proposal in accordance with the Criteria of Section 411.		✓			
A plan of all buildings with new construction or expansion of an existing facility, including type, size, and footprint, floor layout, setback, elevation of first floor slab, storage, and loading areas.		✓			
An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, and signage.		✓			
A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems.		✓			
The size and proposed location of water supply and sewage disposal systems.		✓			
A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, location and purpose and type of vegetation.		✓			



BRUNSWICK & TOPSHAM  
WATER DISTRICT

Alan J. Frasier, PE  
General Manager

Craig W. Douglas, PE  
District Engineer

PO Box 489  
Topsham, Maine 04086  
Telephone (207) 729-9956  
Fax (207) 725-6470

Daniel O. Knowles, CPA  
Director of Finance and  
Data Management System

William G. Alexander, J  
Operations Manager

February 24, 2015

Kate Holcomb  
22 Pleasant Street  
Brunswick, ME 04011  
Via email: kholco@gmail.com

RE: 0 Abby Ln (behind 22 Pleasant St), Brunswick, Maine

Dear Ms. Holcomb:

This letter is to inform you that the District has the ability to serve the referenced project, and will provide service in accordance with Maine Public Utilities Commission and Brunswick & Topsham Water District Rules and Regulations.

We understand that you will be adding a new building at 0 Abby Ln with a couple of wash closets and some small commercial water use. The District has the ability to adequately serve this establishment with a 1-inch domestic service that will need to be installed by the customer to the main on Abby Ln. At this time there are no fire service requirements.

The District requires the customer or its authorized agent to make application for service for all new service and meter installation requests. An application form can be found on our website [www.btwater.org](http://www.btwater.org).

Feel free to contact me if you have any questions.

Sincerely,

Craig Douglas PE  
District Engineer

## Brunswick Sewer District

10 PINE TREE ROAD  
BRUNSWICK, MAINE 04011  
[bad@brunswicksewer.org](mailto:bad@brunswicksewer.org)

TELEPHONE (207) 729-0148

FAX (207) 729-0149

February 25, 2015

Kate Holcomb  
22 Pleasant Street  
Brunswick, Maine 04011

Re: Willingness and Capacity to Serve

Dear Kate,

This letter is in response to your request for an "ability to serve" letter regarding construction of a new Building at 0 Abbey Road/22 Pleasant Street in Brunswick, Maine. Through our discussions I understand that you are going to construct a two story building, including basement work space, first story commercial/office space, and a second story aquaponics greenhouse on the property.

I have reviewed the material provided and conclude that the project as proposed will not adversely affect facilities of the District. **The Brunswick Sewer District (BSD) has both the willingness and capacity to serve the proposed project.**

An entrance charge permit for the property was obtained in September of 2007. From your description of the project, the new construction will have similar flow as the previously permitted use, therefor your project is covered under the existing permit (BSD Permit # 1130). District personnel will need to be notified for inspection prior to connecting to the existing sewer. There is no charge for inspection services. More information about our entrance charge program can be found at <http://www.brunswicksewer.org/ecp.html#6>.

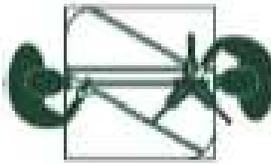
If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,



Robert A. Pontau Jr., PE  
Assistant General Manager  
[rpontau@brunswicksewer.org](mailto:rpontau@brunswicksewer.org)

CC: Darcy Dutton, Administration, Brunswick Sewer District  
Wes Wharff, Supervisor, Brunswick Sewer District



March 3, 2015

2225-7

Mr. Jeremy Doxsee, Town Planner  
Town of Brunswick  
85 Union Street  
Brunswick, Maine 04011

Re: **Final Plan Application**  
**TAO RESTAURANT**  
**11 PLEASANT STREET, BRUNSWICK, MAINE**

Dear Jeremy:

On behalf of Cara's Place, LLC, Sitelines, PA has considered the impact of the proposed construction of a greenhouse building over the existing foundation previously constructed for use as a multi-tenant condominium building. Our review was limited to stormwater management and lighting impacts.

#### Stormwater Management

The proposed greenhouse building will be constructed on top of the foundation that was constructed as part of the previously approved condominium project. The previous approvals included a stormwater management system consisting of catch basins and a pump station to convey the runoff to the municipal storm drain in Pleasant Street. Stormwater runoff patterns and volume from the proposed building will be consistent with the roof of the previously approved building. The impervious area resulting from the new building and site improvements will be essentially the same as the original approval. The existing stormwater infrastructure will manage the runoff from the improvements without adverse impact to the abutting parcels on municipal system.

#### Lighting

Site lighting was previously installed with the foundation as part of the condominium project. This lighting will be maintained and serve as site lighting for the new greenhouse use. An additional wall pack fixture is proposed at the lower portion of the site opposite the garage entrance to the condominium building. No additional pole mounted site lighting is proposed. The location of the building will limit the illumination to the applicant's parcel and preclude any light trespass to the west (post office parcel). Since the illumination of the site will utilize the previously approved lighting scheme, no adverse impacts or light trespass will result.

## **SITELINES**

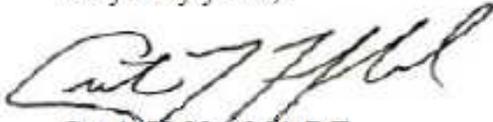
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

8 Cumberland Street • Brunswick, ME 04011 • TEL 207-725-1200 • FAX 207-725-1114 • [www.sitelinespa.com](http://www.sitelinespa.com)

Final Plan Application  
Tao Restaurant Addition  
3/3/2015  
Page 2

We hope this addressed the review requirements for these items. Should you have any questions, please call or contact me via [cneufeld@sitelinespa.com](mailto:cneufeld@sitelinespa.com).

Very truly yours,

A handwritten signature in black ink, appearing to read "Curtis Y. Neufeld". The signature is fluid and cursive, with the first name "Curtis" being more prominent and the last name "Neufeld" following in a similar style.

Curtis Y. Neufeld, P.E.  
Vice President



# Tao Yuan Greenhouse Project at 0 Abbey Road

SketchUp Illustrations



Above: East view, facing Abbey Road and the Business Center

Below: North view, facing the condominiums





Above: West view, facing the Post Office

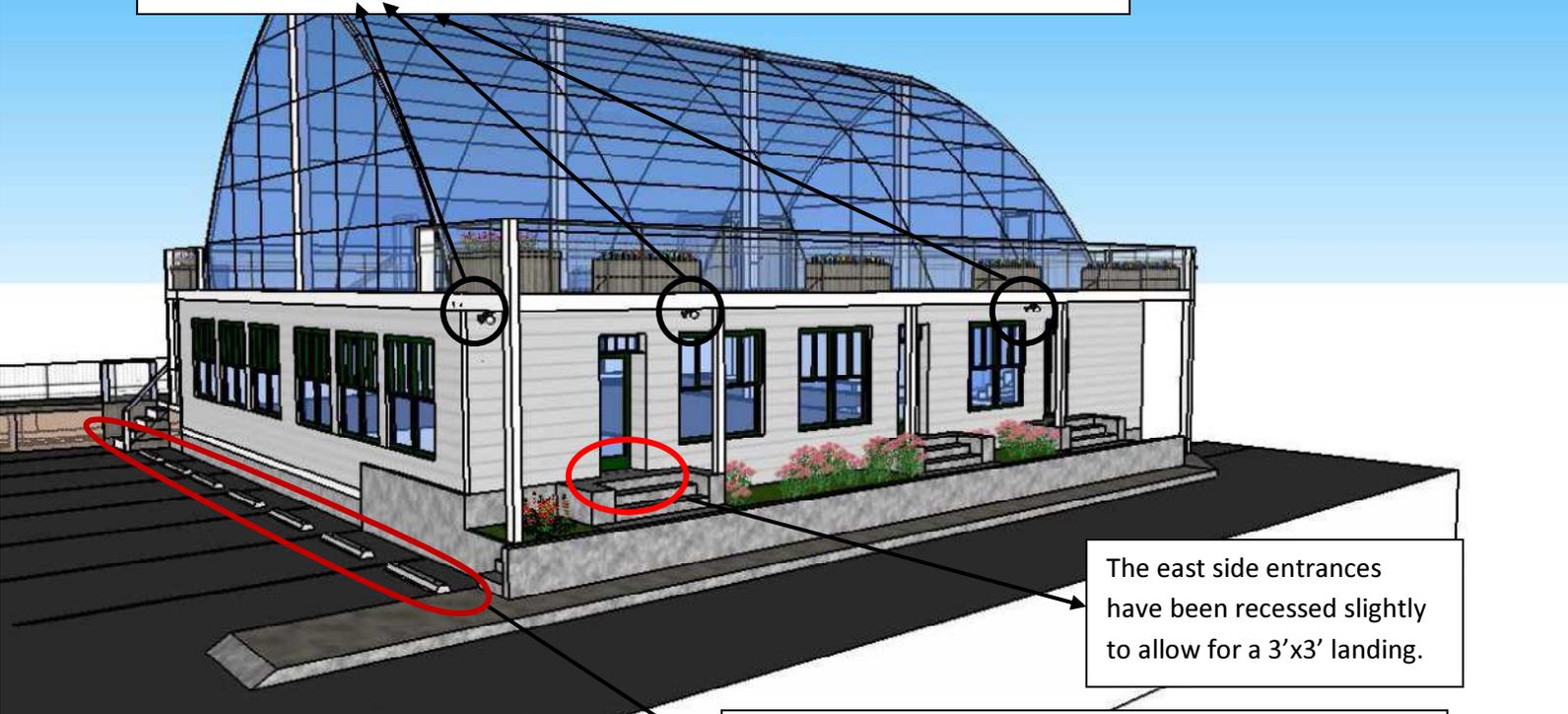
Below: South view, facing Tao Yuan restaurant



Doorframe and gate added to prevent public access to the upper deck

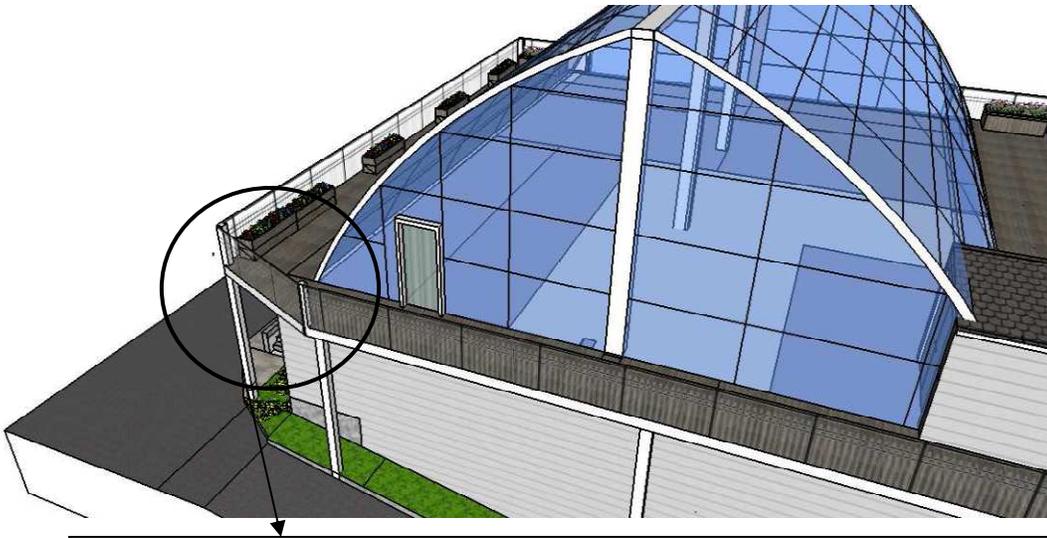


Lighting is now shown on the exterior of the building, illuminating the stairs, deck, and dumpster on the west side (shown above), the entries and parking on Abbey Road and the South side (shown below), and the garage entrance (see following page).



The east side entrances have been recessed slightly to allow for a 3'x3' landing.

Tire stops will be installed to prevent parking cars from bumping the building.



The deck has been slightly altered to prevent an overhang in the road, therefore eliminating the potential of obstructing access for tall vehicles.



A lighting fixture will be installed on the northwest corner of the building, which will illuminate the garage entrance area.



Dumpsters for trash and recycling will be enclosed, as shown here.



# Tao Yuan Greenhouse Project at 0 Abbey Road

## View of design placed into existing surroundings











**TAO GREENHOUSE**  
 LIGHTING PLAN



Plan View  
Scale 1" = 30'

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.2 fc	2.4 fc	0.2 fc	12.0:1	6.0:1

LUMINAIRE SCHEDULE									
Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
●	A	2	PRMS-V3-250HPS	PROMENADE SERIES, PRECISION FOCUSED OPTICAL SYSTEM, CLEAR DROP GLASS LENS, VERTICAL LAMP, TOOL-LESS ACCESS TO LAMP AND BALLAST, EASY TO REMOVE BALLAST MODULE, CAST ALUMINUM HOUSING, SUPER TGIC POLYESTER POWDER COAT FINISH, ALL FASTENERS AND HARDWARE STAINLESS STEEL.	ONE 250W E18 MOG BASE CLEAR HPS LAMP LUMENS=28000	PRMS-V3-250HPS.IES	28000	1.00	310
■	B	0	LCN-9LU-5K-4	LCN-9 LED, 5100K, TYPE 4	9- NICHIA 5K LEDS	LCN-9LU-5K-4.ies	Absolute	1.00	22.2
■	C	5	LCN-7LU-4K-3	LCN-7 LED, 4200K, TYPE 3	7- NICHIA 4K LEDS	LCN-7LU-4K-3.ies	Absolute	1.00	17.4



**SITELINES, PA**  
 ENGINEERS • PLANNERS • SURVEYORS  
 LANDSCAPE ARCHITECTS  
 8 CUMBERLAND STREET, BRUNSWICK, ME 04011  
 207.725.1200 www.sitelinespa.com

**Designer**  
 C.NEUFELD

**Date**  
 Apr 7 2015

**Scale**  
 1"=30'

**Drawing No.**

**Julie Erdman**

---

**Subject:** RE: Approval of Tao Yuan's Project as Part of MTI Funded Year Round Agriculture Project

---

**From:** Mark Hews [<mailto:mehews@mesas.org>]

**Sent:** Thursday, April 02, 2015 6:22 PM

**To:** Anna Breinich

**Cc:** kholco; jas

**Subject:** Approval of Tao Yuan's Project as Part of MTI Funded Year Round Agriculture Project

Dear Anna,

This is to confirm that Tao Yuan's project in the Town of Brunswick is part of the Maine Sustainable Agriculture Society's (MESAS) Year Round Agriculture Cluster Initiative funded by the Maine Technology Institute. MESAS is the project manager for the Cluster Initiative and is under contract with MTI to establish a new year round agriculture industry in Maine. Our agreement is to oversee the integration of the agriculture, energy, and composites sectors into a new industry cluster and manage 5 demonstration projects as part of that cluster to validate new technology applications and collect data for commercialization of year round growing technologies.

Tao Yuan is partnered with the Olivia's Garden project because of the similarity in technologies being designed and tested. MTI funds allocated for Tao Yuan's portion of the demonstration are approximately \$59,121.00 over five phases. Phase I and II are project initiation and design. Phase III is construction. Phase IV is divided into two segments - year one demonstration and year two demonstration. Phase V is the final report phase. Appendix B provided to you in a previous document outlines the funding by phases and the conditions needed to be met for each phase.

If you need any further information please let me know.

Sincerely;

Mark Hews

Mark Hews, Executive Director  
Maine Sustainable Agriculture Society  
60 Cassie Lane  
Poland, ME 04274  
(207) 577-0209  
[mehews@mesas.org](mailto:mehews@mesas.org)



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## MAINE SUSTAINABLE AGRICULTURE SOCIETY

---

“Restoring the Health and Wealth of our Soils, Farms, and Communities”

### MESAS Board

September 12, 2014

**Nanne Kennedy,  
President,  
Meadowcroft Farm**

Martha Bentley  
Maine Technology Institute  
8 Venture Avenue  
Brunswick, ME 04011

**Molly Clark, Vice  
President, Cold  
Spring Ranch**

Martha,

**Bill Eldridge,  
Secretary/Treasurer  
MOO Milk**

The Sustainable Year Round Agriculture Cluster Initiative is off to a good start with a number of activities and actions being started. The two main areas of focus have been getting the demonstration sites launched, and setting up the Steering Committee to help guide the Cluster for the next two plus years. We have also put in place financial management processes and are making good progress on contracting with the necessary vendors and consultants to make the project successful.

**Dick Brzozowski,  
UMaine CE**

**Barry Higgins,  
Maple Lane Farms**

The demonstration sites are progressing at different paces as envisioned when we developed Appendix B, and decided to have site specific deliverables, benchmarks, and phase implementation. As we have pushed demonstration sites to stay on the agreed to timeline, we have encountered minor adjustments related to things like permitting, etc. that we have been able to handle easily.

**Ellen Mallory,  
UMaine CE**

**Brendan McQuillan,  
Morning Dew Farm**

One change that is not a simple internal adjustment as part of our project management is related to a Scope of Work change that Olivia's Garden would like to do based on their current needs, and an assessment of their expansion plans based on those needs. Scott is proposing to scale back the original expansion plan to first test the aquaponics and lighting technologies that are a part of the overall expansion. This would provide data and knowledge that are critical to ensuring the larger expansion is justified. In light of this we have an opportunity to bring Tao Yuan Restaurant into the initiative and add an additional dimension to the Cluster Initiative.

**Justin Jamison,  
Martin Kilby Farm**

**Paul Schultz, King  
Hill Farm**

**John Chartier,  
MOFGA**

Specifically, Olivia's is going to delay its greenhouse expansion but still conduct the research and development related to the original proposal, only in the footprint of the existing location. At the same time, round one participant and alternate and owner of Tao Yuan restaurant, John Stadler has expressed his desire to move forward with his project.

We are proposing to split the original Olivia's project into two different projects, leveraging the initial amount of MTI funding across two demonstrations. While both projects would share an aquaponics component, the Olivia's project will focus on aquaponics vs. hydroponic production and study both under different conditions of supplemental light, using HPS lights as well as LED lights. The Tao Yuan project will

examine production of a different set of crops grown aquaponically and in soil under a PV integrated greenhouse, with and without using supplemental LED lighting.

These changes are an important part of what the Cluster Initiative is all about. Being nimble and adaptable to how technologies can combine successfully together but more importantly learning lessons that will lead to successful expansion of our demonstrations and easy replication across the agriculture sector.

As part of this request, both sites have prepared letters outlining the proposed changes, budgets supporting both, and the rationale that ties it all together. We are not proposing any additional money but rather helping Olivia's Garden adjust their project that will lead to longer-term success, and adding an additional site that will only strengthen the Cluster Initiative. We can do this all within our current budget and make it a win-win for the demonstrations and the Cluster.

We hope that you agree this is the right way to go and a good example of how the Cluster should function moving forward as information and new opportunities present themselves.

If you have any questions please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Hews", with a long horizontal flourish extending to the right.

Mark Hews, Executive Director  
Maine Sustainable Agriculture Society

**BRUNSWICK PLANNING BOARD  
MEETING MINUTES  
FEBRUARY 10, 2015**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Bill Dana, Dale King, Dann Lewis, and Richard Visser

**MEMBERS ABSENT:** Soxna Dice and Margaret Wilson

**STAFF PRESENT:** Town Planner, Jeremy Doxsee

A meeting of the Brunswick Planning Board was held on Tuesday, February 10, 2015 in Council Chambers, 1<sup>ST</sup> Floor, 85 Union Street. Chair Charlie Frizzle, called the meeting to order at 7:00 P.M.

**1. Case # 15-002 Chamberlain Woods 10-Lot Subdivision:** The Planning Board will review and take action on a Sketch Plan Major Review Subdivision application submitted by Coastal Building Investments, Inc., for a 10-lot residential subdivision, a 225 foot private drive, and associated site improvements, on the 7.45 ± acre property located along Boody Street, in the Town Residential 5 /Columbia Ave – Spring Street (TR5) Zoning District. Assessor’s Map U27, Lot 6.

*(Staff note: the applicant had previously submitted a 17 lot subdivision application, but has decided to move forward with a smaller subdivision application at this time.)*

Jeremy Doxsee introduced the application for a 10-lot residential subdivision, a 225 foot private drive, and associated site improvements for Chamberlain Woods. Jeremy said that this application has been reviewed before the Planning Board previously for a 17-lot subdivision, however, the applicant received the estimate for road construction costs that were considerably higher than anticipated and the applicant decided to scale back the project. Jeremy clarified that the agenda states that this review is for 10 lots but this is really for the creation of 8 new lots to include a parcel located on the corner of Barrows Street and a house under contract on Belmont Street; the 4.4 mother parcel will remain undeveloped for the time being.

Curt Neufeld of Sitelines, reviewed a PowerPoint presentation for Chamberlain Woods Subdivision and stated that due to feedback the developer/applicant has decided to scale back to a smaller subdivision. The road will terminate at a cul-de-sac with connections to water and public services extended to the road right-of-way. The applicant plans to maintain a trail to Crimmins Field. Lot sizes will range from 10,000sqft to 15,000sqft and are similar to the surrounding neighborhood. Curt clarified that the intention of the applicant is to sell 4 lots as land and 4 lots build ready. Curt noted that the applicant has already invested a substantial amount of interest in the development. Jeremy Doxsee added that this proposed development will fall below the DEP threshold.

Charlie Frizzle reminded members and citizens that that this is a Sketch Plan review and reviewed the intention of the meeting. Charlie pointed out that the agenda indicates that this project will include a 225 foot private drive but the application indicates that it will become a

public street. Curt Neufeld replied that it is the intention that the town will eventually take over the road as it is being constructed to the Town of Brunswick standards.

Richard Visser asked for clarification on the road rise 2%. Curt Neufeld replied that the road will go up gently on the cul-de-sac for drainage so that the runoff can be collected by the municipal drainage systems. Richard asked about the swails and catch basins. Curt replied that one catch basin only has a 2 inch pipe which makes it difficult to extend further and if you have swails on both sides of the road, the water can flow off the roadway and travel down to a culvert which will allow for the water to run through a vegetative field. Curt noted that John Foster, the Town Engineer, has indicated that he likes catch basins and the applicant will make sure that they will continue to work with him as the final plan is completed.

With all the interest in respect to stormwater management, Charlie Frizzle asked that staff allow John Foster the opportunity to thoroughly review the final submittal so that he may properly advise the Planning Board before the Final application is presented. Jeremy Doxsee agreed and added that staff will be forwarding the stormwater plans to Sebago Technics for additional independent review.

Bill Dana asked what becomes of the mother lot and if there are future plans. Curt Neufeld replied that there are no plans; the applicant has other projects going on in the area and has no intention of doing anything at this time.

Chair Charlie Frizzle opened the meeting to public comment.

**Colleen Congdon, resident of 56 Boody Street,** stated that she likes this plan better and that it fits the neighborhood and maintains access to Crimmins Field. Colleen said that she is concerned about acreage accuracy and asked about snow removal. Colleen asked what houses will be built and what lots will be speck and does the Town have any control of the fill that comes in? Colleen asked, when they are allowed 20,000 feet for impervious space, are the houses that are spec going to be included in this impervious space. Colleen pointed out that there are catch basins at 56, 54 and 55 Boody Street and when the town takes control of the street, is there considerations for the Crimmins Field parking. In terms of snow removal, Charlie Frizzle replied that snow removal will be a private contractor while it is a private road and when and if it becomes town property, snow will go to the sides of the road. In regards to the impervious surface, Charlie replied that in add to the sub-divider each lot owner will have to comply with the same percentage of impervious surface that applies to the whole subdivision. Curt Neufeld pointed out that the lot that is located on Belmont Street was just closed a week ago. Curt said that part of the review comments for Sebago Tech was that they show where the houses would sit on the lot and the impervious area will be accounted for. In regards to parking along the road for the ball field, Curt replied that this will be an issue of the homeowners. Charlie noted that parking for Crimmins Field is a matter best left for Town Council. Curt said that the catch basins will be reviewed and considered.

**John Portela, resident of 60 Columbia Ave,** said that most of the water that exists in this area is below the surface and the high water table for the area. John said that it was his understanding that when the Jr. High was built, they were looking at this area but moved across the street due to

water issues. John said that they have serious standing water and flooding issues especially in the springtime. John said that he was told that when the new path was put in to Crimmins Field, that it would help alleviate this issue, but he has not seen any improvement. John thinks the problem is that when you start digging down you are pushing out and up the water table and the water is being displaced somewhere else. John pointed out that the property that was developed on Barrows Street is somewhat noticeable for the above grade foundation and suspects that this is because of the water.

Chair Charlie Frizzle closed the public comment period.

Curt Neufeld replied that the water issue has come up at every review and the new foundations will not change that as this is a larger issue. Curt said that the new home on Barrows Street was built higher and was on consideration because of the water and he suspects that the houses being built will also take this into consideration. Curt said that he has discussed the water issue with the original groundwater hydrologist when they were preparing the original application and believes that he can obtain a letter stating that these houses will not impact the water table; Curt reviewed the water test pits.

Charlie Frizzle reaffirmed that the applicant was asked and has agreed to show the limits of clearing on the plan.

**MOTION BY DANN LEWIS THAT THE BOARD DEEMS THE SKETCH PLAN TO BE COMPLETE. SECONDED BY BILL DANA, APPROVED UNANIMOUSLY.**

**MOTION BY DALE KING THAT THE BOARD APPROVES THE SKETCH PLAN. SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

## **2. Zoning Ordinance Rewrite Committee (ZORC) Update**

The next ZORC meeting is scheduled for February 19<sup>th</sup>.

## **3. Other Business**

- 2/24 meeting will be for an amendment to the Common Development Plan.
- 4/4 meeting for the Sewer District and AVITA care facility in Brunswick Landing.  
Brunswick Landing.

## **4. Approval of Minutes**

**MOTION BY BILL DANA TO APPROVE THE MINUTES OF JULY 1, 2014 AND JULY 22, 2014. SECONDED BY DANN LEWIS, APPROVED UNANIMOUSLY.**

**MOTION BY BILL DANA TO APPROVE THE MINUTES OF NOVEMBER 13, 2014. SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

**MOTION BY DALE KING TO APPROVE THE MINUTES OF DECEMBER 9, 2014 AS AMENDED. SECONDED BY RICHARD VISSER, UNANIMOUS AMONG THOSE PRESENT.**

**5. Adjourn**

This meeting was adjourned at 7:37 P.M.

Attest

Tonya D. Jenusaitis  
Recording Secretary

**BRUNSWICK PLANNING BOARD**

**MARCH 3, 2015**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Bill Dana, Soxna Dice, and Richard Visser

**STAFF PRESENT:** Director of Planning Anna Breinich

A meeting of the Brunswick Planning Board was held on Tuesday, march 3, 2015 in Council Chambers, 1ST Floor, 85 Union Street. Director of Planning and Development, Anna Breinich called the meeting to order at 7:00 P.M.

**Election of Officers**

**MOTION BY BILL DANA TO NOMINATE CHARLIE FRIZZLE AS CHAIR OF THE PLANNING BOARD. SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

**MOTION BY DALE KING TO NOMINATE MARGARET WILSON AS VICE CHAIR OF THE PLANNING BOARD. SECONDED BY SOXNA DICE, APPROVED UNANIMOUSLY.**

**Case # 15-004 Brunswick Sewer District Garage/Office Facilities:** The Board will review and take action on a combined Sketch and Final Major Review application submitted by the Brunswick Sewer District, for construction of a 4,950 sf garage/office building, a 4,950 sf garage, and associated site improvements on two lots totaling 29.9 acres; located at 10 Pine Tree Road, in the Town Residential 4 / Jordan Acres (TR4) Zoning District. Assessor's Map U54, Lots 7 & 12.

Anna Breinich introduced the combined Sketch and Final application for the Brunswick Sewer Department and reminded members that the Sewer District had started going through the review process of building the garage on Pine Tree Road, but this fell through due to funding and has only just come to fruition. Anna said that because of restrictions on the footprint size because it is in residential district TR4 the footprint cannot be larger than 5,000 sqft so the Sewer District is proposing two buildings which will total 9,900 sqft.

Jeff Preble from Wright Pierce reiterated that the project consists of an office and a garage buildings each 4,900 sqft and will look to the west of the existing administration building. The applicant is proposing to access off the existing access on Pine Tree Road. Garage #1 will house the office for the collections systems crew and the remaining space will be used for district vehicles and storage. They will be using the utility connect to the Brunswick Topsham Water District. The garage will have interior trench drains that will go through an oil water separator. Heat will be supplied via natural gas. The applicant is following the best management practices for stormwater practices and will try to treat 80% of the developed area and 95% of the impervious surface through trenches, bio retention cells and swails.

Soxna dice asked for more information on the bio retention cell. Jeff Preble replied that they are a mix of sand, bark mulch and aquatic plants that go into the underground drainage system and eventually tie into the sewer system. With regards to the suggestion by Jeff Hutchinson and John Foster at Staff Review for the possibility of reducing impervious surface, Charlie Frizzle asked if the applicant had given any consideration to this. Jeff Preble replied that they have included the suggestions and are planning on planting area along the front walkway for Garage #1 and also a planting beds on each side of the entrance. They are planting trees in the center island and did end up shrinking the entrance to the administration office. Soxna asked what size vehicles will be serviced in this area. Lenny Blanchette replied that the goal is to get all their equipment and vehicles under one roof and will consist of 4 wheel drive pickups, compressor, pumps, TV van, jet vac, one ton dump truck, and plow. Dale King asked if they will be doing maintenance in this area and Lenny replied that they will do only minor maintenance. Richard Visser asked if they could talk about the buffer between the facilities and the homes. Jeff replied that the area is heavily forested and about where the garages will be situated there is a natural burn and forest. Jeff said that they are clearing quite a bit of trees but are also allowing for an area for someone to take a walk or run around the facilities. Richard asked if the buildings will be handicapped accessible and Jeff replied that the administration office is handicapped accessible and noted that this building will be intended for very little public access. Bill Dana asked if there could be better insulation on the garage. Lenny replied that because of the garage doors, this would not be beneficial but that they are still insulating the garages and will have a heating systems similar to cold storage.

Chair Charlie Frizzle opened the meeting to public comment. No public comment, period was closed.

**MOTION BY DALE KING THAT THE MAJOR DEVELOPMENT REVIEW COMBINED SKETCH AND FINAL SITE PLAN APPLICATION IS DEEMED COMPLETE. SECONDED BY SOXNA DICE, APPROVED UNANIMOUSLY.**

**MOTION BY BILL DANA THAT THE BOARD WAIVES THE FOLLOWING REQUIREMENTS:**

1. Class A High Intensity Soil Survey.
2. Show all trees over 10 inches in diameter.

**SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

**MOTION BY SOXNA DICE THAT THE MAJOR DEVELOPMENT COMBINED SKETCH AND FINAL SITE PLAN APPLICATION IS APPROVED WITH THE FOLLOWING CONDITIONS:**

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, its representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a

minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. 2. Prior to issuance of a Building Permit, bicycle parking shall be shown on the approved plan in front of the administrative building, to the satisfaction of the Director of Planning and Development.
3. 3. Prior to issuance of a Building Permit, provide a copy to the Planning Department of the completed Permit-By-Rule that was submitted to the DEP.

**SECONDED BY BILL DANA, APPROVED UNANIMOUSLY.**

**Case # 15-007 Common Development Plan Amendment:** The Planning Board will review and take action on proposed boundary and dimensional amendments to the previously approved Common Development Plan (CDP). Submitted by Priority Real Estate Group, LLC, and the Midcoast Regional Redevelopment Authority; located in the BNAS Reuse District. Assessor's Map 40, Lots 1, 10, 16, 32, 34, 37, 48, 50, 52, 52, 72, 76, 84, &103.

Anna Breinich introduced the application is for an amendment to the Brunswick Landing Common Development Plan (CDP) jointly submitted by Midcoast Regionals Redevelopment Authority and Priority Real Estate Group. The purpose behind the amendment is to add an additional parcel, Lot 32 at the intersection of Anchor and Neptune Dr. and is considered a rear lot. With this addition, the applicant is also asking for a change in dimensional requirements to allow for a larger building footprint on rear lots, only those that do not front on Admiral Fitch or Pegasus Dr. The amendment, if approved, would allow the maximum building footprint to go as high as 50,000 sqft. Anna noted that this area is Community Mixed Use Land Use District within the Reuse Zoning District and the lot being proposed abuts the Residential Land Use District where there is no maximum building footprint.

Steve Levesque, Executive Director for MRRA said that this lot was the former mobile home park for the Navy Base and will facilitate a senior elderly care project the will becoming before the Board.

Chairman Charlie Frizzle opened the meeting to public comment. No public present and the public comment period was closed.

**MOTION BY DALE KING THAT THE COMBINED SKETCH/FINAL MAJOR DEVELOPMENT REVIEW COMMON DEVELOPMENT PLAN APPLICATION IS DEEMED COMPLETE. SECONDED BY SOXNA DICE, APPROVED UNANIMOUSLY.**

**MOTION BILL DANA THAT THE ORIGINALLY APPROVED MAJOR DEVELOPMENT REVIEW FINAL COMMON DEVELOPMENT PLAN CONDITIONS SHALL APPLY TO AMENDMENT #1 IN ADDITION TO THE FOLLOWING CONDITIONS:**

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, its representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions

of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. Prior to issuance of a Building Permit, the applicant shall submit an amended Common Development Plan, sealed and signed by a qualified Surveyor or Engineer, containing the following: a. All information from the original July 22, 2014 approval. b. The amended CDP boundary, to include Lot 32. c. The amended Dimensional Standards table, to include footnotes 3 & 4.

**SECONDED BY SOXNA DICE, APPROVED UNANIMOUSLY.**

**Zoning Ordinance Rewrite Committe Update**

Met last week and will be meeting on 3/13 beginning at 9 am and rest of the dates will be forthcoming. Hoping to have the ordinance text wrapped up by the beginning of April.

**Minutes**

No minutes were reviewed at this meeting.

**Other Business**

- Jeremy Evans will be joining the planning board.
- March 10<sup>th</sup> meeting – Avita Memory Care facility sketch plan
- March 24<sup>th</sup> meeting for Final Plan for Chamberlain Woods and Sketch/Final for Tao restaurant

**Adjourn**

This meeting was adjourned at 8:40 P.M.

Respectfully Submitted

Tonya Jenusaitis,

Recording Secretary

**BRUNSWICK PLANNING BOARD**

**MARCH 10, 2015**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Bill Dana, Soxna Dice, Dale King and Richard Visser

**STAFF PRESENT:** Director of Planning Anna Breinich

A meeting of the Brunswick Planning Board was held on Tuesday, March 10, 2015 in Council Chambers, 1ST Floor, 85 Union Street. Chair Carlie Frizzle called the meeting to order at 7:00 P.M.

Case # 15-006 Avita Assisted Living Facility: The Board will review and take action on a Sketch Major Review application submitted by the Sandy River Company, for construction of a single story 45,408 sf assisted living facility, two parking areas totaling 65 spaces, and associated site improvements on two lots totaling 13.64 acres. The site will be accessed from Admiral Fitch Avenue and is located in the BNAS Reuse Zoning District - Community Mixed Use Land Use Subdistrict. A boundary expansion to the existing Common Development Plan area to include this development has been filed and will be acted upon by the Planning Board on March 3, 2015. Assessor's Map 40, Lots 50 & 82.

Anna Breinich introduced the application for Sketch Plan approval for Avita Assisted Living Facility that follows on the heels of the Common Development Plan amendment that was approved at the Planning Board meeting of March 3, 2015 which enabled the development to occur. Anna said that this project is consistent with the abutting surroundings and will be located on 2 lots. The lot that abuts on Admiral Fitch will only have a driveway and would be restricted to the 20,000 sqft footprint in the CDP. The rear lot, lot 82, would have the proposed single story assist living facility with three parking areas (65 parking spaces) and associated site improvements. The application would be bound by the CDP approval for landscaping, the basic site design and arch and site improvements.

Richard Visser declared that he is on an advisory committee for assisted living and stated that he did not feel that this project would be in conflict but asked if members of the Board and the applicant if they would like him to abstain from voting. No members or the applicant had any issues and Richard remained.

Daniel McGuire of Sandy River introduced himself and stated that he and his partners, North Bridge COS, are focused on memory care assisted living. Daniel said that they have opened three similar facilities in the area over the past few years one as close as Falmouth, another located in Westbrook and another in Wells. Daniel said that this memory care facility will be for 60 beds. At this time they do not plan to accommodate Maine Care beds. Daniel explained memory care is more than just for those with Alzheimer's but also for those who deal with memory loss brought on other things such as strokes, and Parkinson's. The building will be one story residential in character with a goal to make it feel like home. Daniel reviewed the site layout and

the desire to maintain one story buildings. Daniel said that they do mostly private rooms but have a few rooms for couples. The outside therapy gardens will have furniture and landscape and be fenced in on each unit.

Will Conway with Sebago Technic, reviewed the site plan. Will said that as part of this project all the roads that are currently existing will be removed and returned to a vegetative state. Will said that the arrival to the entrance is import and will located on Admiral Fitch with a circular turnaround area with accessible parking; residents primarily do not drive and staff parking will be to the side. Will said that the three courtyards will have a cedar fence with a lattice top with extensive landscaping and perennials with scents and seasonal color. Signage and lighting will be in compliance with the CDP. Will said that when they met with staff, the Fire Department asked them to provide them an emergency access connect from Neptune Drives with a locked gate and they will be providing this as part of the final plan application. In terms of Stormwater management, they will probably do an underdrain filter pond or a permit wet pond; the project will require a stormwater permit from DEP.

Soxna Dice asked about the composition of the fire lane and asked what material will be used. Will Conway replied that it will not be paved, but it will be stable gravel. Richard Visser asked about the Staff Review Committee discussion request to consider the use of mountable curbing for the center island roundabout for larger emergency response vehicles and deliveries and if they would be willing to do this. Will replied that they have no objection to this. Richard asked if they would also consider installing “no parking: emergency access” signage in front of main Entrance as recommended by Jeff Hutchinson and Will replied that they have no objection to this as well.

Charlie Frizzle opened the meeting to public comment. No public comment made, Charlie frizzle closed the public hearing.

**MOTION BY DALE KING THAT THE BOARD DEEMS THE SKETCH PLAN COMPLETE. SECOND BY SOXNA DICE, APPROVED UNANIMOUSLY.**

**MOTION TO BILL DANA THAT THE BOARD APPROVES THE SKETCH PLAN. SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

### **Zoning Ordinance Rewrite Committee Update**

Anna Breinich reviewed the meeting schedule and agenda topics.

### **Minutes**

**MOTION BY BILL DANA TO APPROVE THE MINUTES OF JANUARY 13, 2015. SECONDED BY DALE KING, APPROVED UNANIMOUSLY.**

### **Other Business**

Two items will be coming up for approval, one for Chamberlain Woods Subdivision and the other for Tao Yuan.

### **Adjourn**

This meeting was adjourned at 7:30 P.M.

Respectfully Submitted

Tonya Jenusaitis,

Recording Secretary