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March 29, 2018

Newburyport Planning Board

Re: Draft Environmental and Community Impact Analysis, Preliminary Plan, Colby Farm,

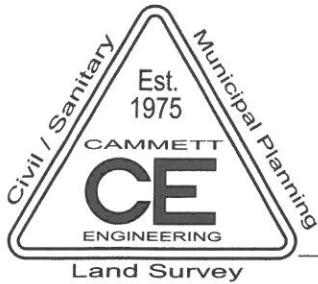
The Project consists of a five lot subdivision, associated roadway, and infrastructure. The Project is situated on an existing parcel of land located off of Colby Farm Lane, Newburyport, MA hereinafter referred to as the Site.

The Site is located approximately 500-feet southwest of the intersection of Low Street and Colby Farm Lane on the southeast side of Colby Farm Lane and consists of six existing parcels approximately 14.23 acres in total. The Site is currently used for farming purposes and contains several buildings including 4 barns and 1 garage. The Site is mostly covered with lawn and contains varying sized tree clusters. The western and eastern corners of the Site include wetlands. It is expected the 4 barns and 1 garage will be removed. Existing utilities found in Low Street include municipal water and sewer, and storm drain. Existing utilities found in Colby Farm Lane include municipal water and sewer. Both Low Street and Colby Farm Lane include overhead wires that may include electricity, telephone, and cable television.

The Project is situated in the R-1 Residential zone and lots created will be in compliance with the Newburyport Zoning Bylaw requirements. The Project includes a private lane, Mallow Lane, which will provide frontage for 3 lots (Lots 1, 2, and 3). The remaining lots (Lots 4 and 5) will front on an existing way, Low Street. The Project includes associated infrastructure improvements including roadway, driveways, utility installation, and landscaping. The Project's homes will be constructed in typical architecture and landscape styles associated with single family home construction. Utilities servicing the Project may include electricity, telephone, cable television, water, sewer, and natural gas (if available). Any utilities serving the Project will be buried within the proposed right of way.

The anticipated increase in energy use will be minimal, use typical for a single family dwelling, which would include electricity and natural gas or propane energy supplies.

Several measures are incorporated in the Project to provide safety for the general public and the immediate abutters. The improvements at the roadway entrance will provide safe vehicular movements onto and off of Colby Farm Lane; stormwater from the proposed roadway and driveways will be controlled and treated in accordance with state requirements prior to releasing to the nearby wetland system.



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The Project, when completed, will have virtually no impact on resident's public health due to no or minimal changes in water quality, air quality, and noise levels.

The remainder of this Draft Environmental and Community Impact Analysis assesses the relationship of the Project to the natural and man-made environment of Newburyport.

1. Natural Environment

a. Air and Noise Pollution

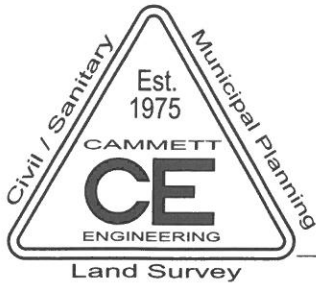
Local air quality due to the Project is not expected to diminish. The Project proposes the construction of five single family houses that may use natural gas or propane for home heating, cooking, and heating water.

During construction of the Project, the main source of air pollution expected is dust related to earth moving activities. When dust becomes prevalent, watering methods will be utilized to reduce dust generation.

Dust impacts will generally be related to soil exposed to wind and construction traffic. The quantity of dust generated from the on-site construction process will vary depending on the area of the Project being disturbed, the soil silt content and moisture, wind characteristics and the amount of construction activity.

Dust mitigation measures that may be employed for the project would include, but not necessarily be limited to, the following:

- Load covers on trucks transporting soil products;
- Limiting the amount and length of time exposed soil conditions occur on the site. Project phasing will result in minimizing disturbed soil conditions over an extended period of time;
- Provide stabilized construction entrances/exits at project access points from public ways. These components will minimize transport of soil from vehicle tires to the public roads, which in turn, will minimize dust transport; and
- Watering methods may be utilized on a regular basis to control on-site dust generation as weather dictates.



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Exhaust from diesel powered engines will be minimized during construction activities by reducing engine idle times and no idling overnight. Access to the Project for construction vehicles will be limited to between the hours of 8am and 5pm. Exhaust from the single family homes will be from heating and/or cooling equipment. No significant amount of odor or smoke is expected.

Noise impacts are expected to be temporary in nature, occurring only during the construction phase of the Project for infrastructure and building construction. Noise generating equipment/processes would include:

- Trucks
- Excavators/Dozers
- Compaction Equipment
- Air Compressors
- Tree Clearing Operation
- Building Construction

Measure to mitigate noise impacts will be especially important where residential dwellings are in close proximity to the construction activity.

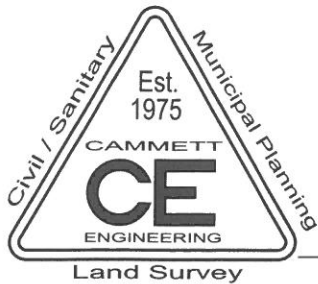
Noise mitigation measures that may be employed for the Project include, but not necessarily be limited to the following:

- Restrict noise generating construction activities to between the hours of 8 am to 5 pm, Monday through Saturday, with no construction occurring on Sunday or national holidays.
- Provide effective intake and exhaust mufflers on all equipment in accordance with Occupational Safety and Health Administration standards.
- All equipment shall be properly maintained in good operating condition.

During construction of the roadway and houses, noise will be of the most concern. The noise will be typical of construction equipment associated with this type of project and would be limited to typical daily working hours until the Project is completed.

b. Water Pollution

Surface drainage characteristics will be altered due to the change in surface conditions from



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lawn and wooded areas to pavement, rooftops, lawn, and landscaped areas. These changes in surface type will result in an increase in runoff volume. However, mitigation of the increase in runoff may be attained by utilizing stormwater basin(s). The mitigation measures will allow the Project to approximately emulate existing peak runoff conditions.

The Site's existing condition allows stormwater runoff to migrate into a nearby wetland. In order to minimize post-developed stormwater impacts, the Project may utilize stormwater basin(s) to mitigate stormwater runoff by potentially infiltrating and attenuating a portion of the Project's stormwater runoff in order to closely mimic existing conditions. The stormwater management design will be prepared in compliance with MASS DEP stormwater management standards. The resultant stormwater management design will reduce the peak rate of runoff to equal to or less than pre-developed conditions. Therefore, no negative downstream impacts are anticipated.

Pollutants expected to be generated by the paved areas include gas/oils from vehicles and sand sediments from erosion. Remediation efforts may include street sweeping, water quality swales, and infiltration basins. The treatment from the stormwater devices provides removal of total suspended solids (TSS), oils, and trash that may accumulate on the pavement.

The Project is not located within an existing public water supply watershed. The Project proposes to connect the homes to the existing municipal sewer collection system. A branch sewer line and manhole may be needed and will be designed and installed in accordance with local and state regulations. Therefore, no impact to surface or groundwater supplies is expected.

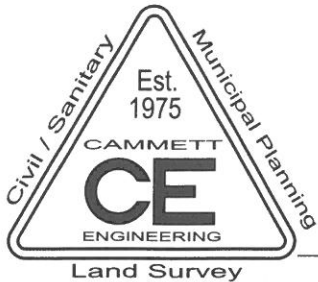
With proper design, installation procedures, and maintenance of the Project's Stormwater Management System, no significant impact to existing surface and ground waters is expected.

Stormwater will be collected, cleaned, and allowed to discharge from the Project in a controlled manner. The peak flow rates associated with the Project will be the same or less than the peak flow rates associated with existing conditions.

c. Land

As with any construction project, the potential for impacts from soil erosion and sediment transport are very high without proper erosion and sediment control plans in place.

The Site is mostly lawn with varying sized tree clusters and a generally flat slope that has developed on glacial till deposits. Erosion and sedimentation (E/S) is generally not a concern on such landscapes that are maintained in their current state. E/S becomes a concern when site activities occur that disturb and expose the underlying soil.



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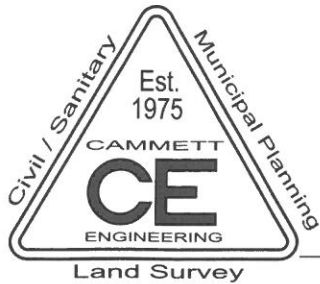
Potential impact areas include the adjacent wetland resource area. Silt fence and hay bale erosion control measures will be installed to define a limit of work prior to construction. This limit of work will minimize the potential for downstream sediment transport from construction activities. In addition, a crushed stone blanket will be installed at the Project entrance/exits for construction vehicles in order to minimize sediment transport to onto adjacent roadways. If necessary, street sweeping can occur as added mitigation to reduced sediment transport.

During construction erosion and sediment will be controlled with the use of temporary erosion control devices to include hay bales, silt fence, and sediment basins. Disturbance of the land necessary to construct the roadway will occur initially and be stabilized in a timely fashion prior to developing the house sites.

A typical construction sequence for this type of project includes.

- Install system of erosion control;
- Install stabilized construction entrance;
- Remove trees within the limit of work;
- Chip branches and brush and stockpile or remove;
- Remove tree stumps;
- Strip topsoil and unsuitable material. Remove unsuitable material from site. Topsoil will be stockpiled onsite for reuse;
- Install road to sub-grade;
- Install underground utilities;
- Import and compact soil fill as needed;
- Import gravel base for pavement and compact;
- Fine grade pavement gravel base:
- Install pavement binder course;
- Excavate and install foundation for building;
- Install landscape features and stabilize all disturbed areas(season appropriate);
- Install stormwater basin(s);
- Install top course of conventional pavement; and
- Remove erosion control devices.

As part of the projects Stormwater Pollution Prevention Plan (SWPPP), inspections will be made weekly and after each rainfall event greater than 0.50-inch to inspect erosion and sediment control measures and recommend upgrades or alternatives to keep erosion and/or sediment transport in check until construction is complete.



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Tree clearing and earth moving activities are necessary in developing property with roadways, buildings and associated utilities. Utilizing a controlled construction pattern, the property can be developed minimizing potential land erosion through the use of erosion control devices, sediment traps, and stabilizing disturbed areas as soon as possible. With proper construction techniques, sequencing, and monitoring no significant impact is expected from developing the proposed project.

Permanent methods to be used to control erosion and sedimentation will include loaming and seeding all disturbed areas not covered by pavement or structures.

d. Plants and Wildlife

The proposed improvements for the Project have been located on the property in a configuration that results in the least amount of impact to the existing wetland systems and wildlife habitat. As stated above, the Project is mostly covered with lawn. Construction of the Project will result in a loss of the existing lawn area and a small amount of existing wooded land. The Project does not propose direct wetland impacts and there is no known rare or endangered plant or wildlife.

e. Water Supply

The Project may be served by a 6-inch municipal water supply pipe located in Colby Farm Lane by extending a new 6-inch water main into the Project. A hydrant will be provided on the Project.

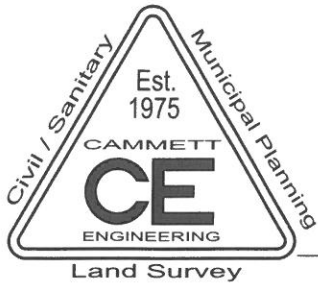
f. Sewage Disposal

The Project may be served by the municipal sewer collection system located in Colby Farm Lane by extending a new 6-inch into the project. Sewer manholes will be provided.

2. Man-Made Environment

a. Existing Neighborhood Land Use

The proposed use is in substantial harmony with existing residential uses in the area. Significant portions of other property along Low Street and Colby Farm Lane are zoned for uses similar in nature as that proposed for the site. Residential properties are adjacent to the Project along the north and south sides, the Project use will not have a significant impact on harmony with the character of surrounding existing or future development.



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The Project preserves and maximizes the integrity of the natural characteristics and the rural atmosphere and character of the site and, correspondingly for the area in general, in keeping with the rural character of the municipality.

b. Zoning

The Project is located in an existing residential neighborhood, zoned as a residential district. Construction of the Project will keep with the existing residential neighborhood. The Project will include a roadway, driveways, single family homes, and landscaped areas. There is no existing or proposed public or common open space associated with this project.

3. Public Services

a. Schools

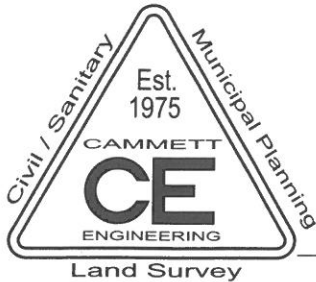
Public school impact from the Project is expected to be minimal. The five homes proposed may produce up to ten school aged children. The nearest elementary school is Francis T. Bresnahan Elementary School located on High Street, the nearest middle school is Rupert A. Nock Middle School located on Low Street, and the nearest high school is Newburyport High School located on High Street. These schools are located within 1-mile of the Project.

b. Police

The population of the Project is estimated at twenty (20), ten adults and ten children, with approximately ten (10) vehicles. The expected impact on police service is minimal. The Newburyport Police Station located on Green Street is approximately 1.5 miles from the Project. The need for special alarms, warning devices, or agents is not expected.

c. Fire

The project will result in five single family homes constructed as a wood frame structure of typical residential construction. The proposed roadway will allow firefighting and rescue equipment access to the homes. The need for special alarms or warning devices is not expected. A 6-inch cement lined ductile iron (CLDI) water main will be extended into the Project with a hydrant located off the end of the main. It is expected the water main will provide the fire-flow water needs.



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d. Recreation

The offsite recreation demand is expected to be minimal due to the small population increase associated with the Project. There are no on-site recreation facilities for public or private use proposed for the Project. Open space provisions will not be entertained. The project is not removing any area associated with existing parks, recreation or open space areas. It is expected that the nearby ball fields and playground located at Newburyport High School will be utilized.

e. Solid Waste Disposal

Trash will be collected curb side once per week and be performed by the municipality. Recyclables will be collected curb side every other week by the municipality.

f. Traffic

Existing vehicular traffic patterns are not expected to be altered due a project of this size. The five homes associated with the Project are expected to have 10 cars. The trips associated with 10 cars will not significantly impact existing traffic conditions on Low Street. Parking will be provided on the new lots and will accommodate at least two vehicles per lot.

g. Highway

The Project's road will remain private. A homeowner's association will be formed for the purpose of maintaining the roadway. There will be little to no impact to the municipality. The impact to nearby existing roadways during construction will be no more extensive than normal daily construction traffic that would normally use the nearby roadways.

4. Aesthetics

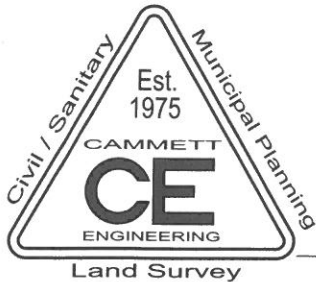
a. Lighting

Street lights will not be installed. Each home may have a lamp post or landscape type lighting features.

b. Landscaping

Landscaping will be consistent with a typical residential development and include:

- Lawn, ornamental type shrubs, and trees around the houses;



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- Lawn for the roadway shoulder and side slopes;
- Lawn for the swales and stormwater basins; and
- Mulch, shrubs, and trees in landscaped areas.

The periphery of the Project will be allowed, over time, to grow in naturally.

c. Visual

In general, impacts related to existing views will be minimal. Significant portions of the Project will remain undeveloped. Views along Low Street will remain essentially unchanged except for the new homes; views along Colby Farm Lane will remain essentially unchanged except for the proposed roadway entrance. Views from abutting residential properties may be altered slightly due to building construction.

5. Planning

The overall Project population is expected to be twenty (20). The family size of each of the five single family homes is estimated at four (4) and each single family home will have 3-4 bedrooms. The expected income range is \$100,000 to \$150,000 per year.

The project consists of a small, five lot residential development which may use local contractors for its construction. A significant labor force requirement for the Project is not expected.

6. Traffic Impacts

The existing Level of Service (LOS) of the nearby road system has been estimated to be A.

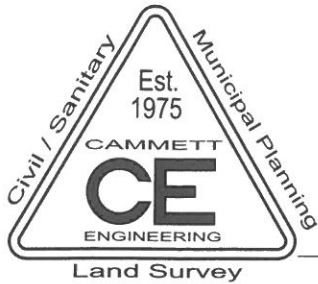
The posted speed limit for Low Street is 35 miles per hour (MPH). The posted speed limit for Colby Farm Lane is unknown but has been assumed to be no more than 25 MPH.

Travel delays are not expected to change significantly.

The Project's road will be designed and constructed to provide adequate sight and stopping distances. No changes are proposed to the existing intersection at Low Street and Colby Farm Lane.

Vehicular traffic patterns are not expected to be altered due a project of this size.

No change is anticipated or proposed to the nearby road systems as a result of the Project.



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The five homes associated with the Project are expected to have 10 cars or approximately 0.7 cars per acre. The additional vehicle trips associated with 10 cars will not significantly impact existing traffic conditions on Low Street.

The existing vehicular traffic generation from the existing nearby road system is unknown at this time.

Parking will be provided on the new lots to accommodate at least two vehicles per lot.

Approximately 350 feet of roadway will be constructed. The road will remain private and maintained by a homeowner's association. Maintenance associated with the roadway will include:

- Snow plowing;
- Street sweeping; and
- Stormwater system maintenance that includes;
 - Mowing; and
 - Trash removal.

Due to the private ownership of the roadway, the cost impact to the town for street maintenance is negligible.

The nearest commuter rail station to the Project is located on Parker Street in Newburyport, approximately 2.1 miles from the Project. There are no MBTA Bus Stops within a 10 mile radius of the Project. The local bus service, Merrimack Valley Regional Transit Authority (MVRTA), has several bus stops near the Project. The closest stop is within 1 mile at Anna Jaques Hospital

7. Cost/Benefit Analysis

Due to the small size of the development, the assumed tax revenue net benefit or cost to the town has been assumed to be negligible.