

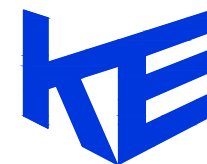
REPORT TO ACCOMPANY PLANNING BOARD
APPLICATION FOR SITE PLAN & SPECIAL PERMIT
05/17/19



PREPARED FOR:

HANOVER CROSSING
1775 WASHINGTON STREET
HANOVER, MA

PREP PROPERTY GROUP
5905 E. GALBRAITH ROAD, SUITE 1000
CINCINNATI, OH 45236



PREPARED BY:

KELLY ENGINEERING GROUP
civil engineering consultants
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KELLY ENGINEERING GROUP, INC.
0 Campanelli Drive-Braintree-MA 02184 Phone 781 843 4333

May 21, 2019

Town of Hanover Planning Board
Town Hall Ste. 24
550 Hanover Street
Hanover MA 02339

Re: Special Permit & Site Plan Approval
1775 Washington Street, Washington Street rear,
Mill Street
Hanover, MA 02339

Cc: Lloyd Sova, PREP
David Hall, The Hanover Company
Frank Marinelli Esq.

Dear Members of the Board:

On behalf of our client, PREP, 5905 E. Galbraith Road, Suite 1000, Cincinnati, Ohio 45236, we are pleased to submit the following documents:

- One original of the Application for Site Plan and Special Permit
- 10 copies of the Application for Site Plan and Special Permit**
- 10 copies of Development Impact Statement incorporated in the Application**
- 10 full size and 10- (11x17**) copies of the “Site Development Plans Hanover Crossing- Commercial” by Kelly Engineering Group, Inc. dated 05/17/19 sheet 1 to 35
- 2 full size and 10 (11x17**) copies of the “Hanover Crossing Commercial Site Landscape Plans” by Hawk Design, Inc. dated 05/17/19 Sheet L1.0 to D3
- 2 full size & 10 (11x17**) copies of “Photometric Plan” by Boston Light Source dated 05/17/19
- 2 full size & 10 (11x17**) copies of the Hanover Crossing Commercial Building Elevations and Renderings **
- 10 (11x17) copies of the Proposed Signage (Commercial)**
- 10 full size and 10- (11x17**) copies of the “Hanover Crossing- Residential, Hanover MA Site Development Plans” dated May 17,2019 which include the following:
 - Site Plans Sheet C-1 to C-9 (by Tetrattech, Inc.)
 - Landscape Plans Sheet L1.01 to L6.01 (by GWH Landscape Architects),
 - Architectural Plans A1.1.01 to AG1.1.01 (by W. Partnership)
- 2 copies of the Transportation Impact Assessment by VAI
- 2 copies of the Stormwater Management Report
- 1 copy of the Certified Abutter’s List both Hanover and Norwell
- One check in the amount of \$2,000 for filing fee of Site Plan Review
- One check in the amount of \$6,000 for Consultant Review Fee
- One check in the amount of \$2,000 for Special Permit fee. Calculated as follows: (4 Special Permits @ \$500 / Special Permit)

** Included in the “Report to accompany Special Permit and Site Plan Application” dated 5/17/2019

The purpose of these documents is to respectfully request that the Board take the following actions:

1. Issue a Special permit per zoning bylaw section 6.11.0 to allow a Village Planned Unit Development (“VPUD”).
2. Issue a Special permit per zoning bylaw section 6.320 (which references section 6.220) to allow the following uses within the Planned Shopping Center District:
 - *B. Restaurants or other places for food service primarily within a structure but with incidental service not confined within said structure.*
 - *I. Theaters, halls, bowling alleys, skating rinks, clubs and other places of indoor amusement or assembly.*
 - *N. Drive-in windows for banks, drugstores, restaurants, and other similar businesses, allowed or permitted in the Commercial District,*
3. Issue a Special permit per Zoning Bylaw section 6.860 B6 to allow a multifamily or non-residential structure resulting in greater than 15% impervious coverage in the AP zoning district.
4. Issue Site Plan Approval per Section 10 of the Zoning Bylaws.
5. Issue the following waivers:
 - Section 6.11.30 A which requires that dwellings in the VPUD shall be not less than 1/3 one-bedroom, not less than 1/3 two-bedroom and not more than 1/3 three-bedroom.
 - Section 6.11.30 B which requires three (3) numbered parking spaces for each unit.
6. Issue a finding relative to the existing buffer requirements per Section 4.420 of the Zoning Bylaw.

A further explanation of these requests is included below.

Project Description:

Hanover Mall was built in the late 1960’s and early 1970’s and is located on an approximately 106.4 acre parcel on Washington Street (Route 53) in Hanover and Norwell. The Mall also includes an approximately 5.6 acre secondary parcel located south of the main mall property. Third Herring Brook runs through the property and generally defines the Town boundary. The property consists of an aging enclosed mall with outparcels totaling approximately 833,781 sf of commercial space and approximately 3,509 parking spaces. The property has been in decline in recent years, the victim of e-commerce, changing consumer habits, more modern competition in nearby communities resulting in the loss of tenants. Access to the property is through four driveways on Washington Street and two on Mill Street. The property is located within the town’s Planned Shopping Center Zoning District.

The proposed project entails the removal of the majority of the existing enclosed mall and the construction of a new mixed use lifestyle center consisting of approximately 506,035 sf of retail, 92,500 sf grocery store and a 297 unit apartment complex with total parking of approximately 3,703 spaces.

The property contains bordering vegetated wetlands, riverfront and bordering land subject to flooding resource areas. Resource areas have been recently delineated by Ecotec, Inc. and have been located by survey. The project will require some disturbance of these resource areas in order to develop the property and a portion of the development will be located in the buffer zone to these wetlands. The project will require an Order of Conditions under the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00). A notice of Intent has not yet been filed.

The property is serviced by an aging wastewater treatment plant permitted under the DEP groundwater discharge regulations for 85,000 GPD. The plant is currently located on the primary property and the final filter beds are located on a secondary property south of the primary property. In order to accommodate the project the wastewater treatment plant will be relocated to the secondary property and additional final filter beds will be constructed to accommodate the additional flows for a total flow of approximately 130,000 GPD.

The existing property contains an older stormwater system with no groundwater recharge and limited water quality systems. The project includes a stormwater management system designed in accordance with DEP’s Stormwater Management Handbook. The Stormwater management system will incorporate many Best Management Practices (BMPs), which will include deep sump catch basins, subsurface and surface infiltration/detention basins, proprietary water quality devices, Low Impact Development measures where feasible and a long term pollution prevention operations and maintenance program for the entire site.

The project has been designed to minimize land disturbance. Pavement is minimized by constructing only the minimum number of parking spaces at the minimum parking dimensions necessary to service the project. Retaining walls will be installed as necessary to limit impacts to resource areas.

Traffic related impacts and associated mitigation are presented in the attached Transportation Impact Assessment (“TIA”). The TIA indicates that ample roadway capacity is available to support the proposed project with no material degradation of traffic operations relative to no-build conditions for the development. To offset any impacts of the proposed project the applicant will implement mitigation measures that include traffic signal timing along the corridor, traffic signal equipment improvements, Transportation Demand Measures and traffic monitoring. The project team has met with MassDOT and the TIA reflects scoping elements discussed at those meetings.

The property contains an existing dam structure (The Peterson pond dam). PREP has been cooperating with the North South Watershed Association to remove the dam and has funded studies and permitting associated with the removal.

The commercial component of the project will be owned and operated by PREP. The residential component will be owned and operated by The Hanover Company of Houston Texas. Both PREP and the Hanover Company are preeminently qualified developers of commercial and residential properties respectively. They successfully own and operate many similar projects throughout the US.

Upon completion of this permitting process an ANR plan will be filed to create two lots- the residential and commercial lots. At the same time a request will be made to rescind the subdivision approved in 1971 that created Hanover Mall Drive off Mill Street. This way has been used as a private driveway for many years. Hanover Mall Drive extending from Route 53 to the mall boundary will remain but is expected to be renamed Hanover Crossing Way.

In addition to the Hanover permits, small components of the project will require permits from the Town of Norwell. A small area of the movie theater is located in the Town of Norwell C3 zoning district requiring a special permit and site plan approval through the Norwell Zoning Board. Work adjacent to Third Herring Brook will require an Order of Conditions from the Town of Norwell Conservation Commission.

Permits Requested:

1. Issue a Special permit per zoning bylaw section 6.11.0 to allow a Village Planned Unit Development (“VPUD”):

The proposed project is eligible for approval as a VPUD per section 6.11.0 of the Zoning Bylaws since it meets the following criteria:

- *Section 6.11.10 B:* The project is serviced by a minimum of two driveways and a TIA is provided demonstrating that road capacity is available to service the project.

- *Section 6.11.20 B:* The project contains more than 25 acres of land and more than 10 acres exclusive of any wetlands resource areas or flood plains.
- *Section 6.11.20 C:* The project contains the required frontage as noted in section 7.
- *Section 6.11.20 D:* The project provides the required 20% open space.
- *Section 6.11.20 E:* Lot coverage of the portion of land in the aquifer protection zone does not exceed 50%.
- *Section 6.11.20 F 1:* Required buffer zones are provided. (We note that there are existing buffers to remain that are non-conforming.)
- *Section 6.11.20 H:* the project meets the height requirements of 7.100 except for the residential component that received a variance from the Zoning Board of Appeals by Decision filed with the Town Clerk on February 25, 2019.
- *Section 6.11.20 I:* The project structures are located greater than 100’ from any residentially zoned property. (The only residentially zoned property is located in Norwell)
- *Section 6.11.50 B:* The residential component of the VPUD is less than 20% of the VPUD area.

As demonstrated in the material filed with this Application, the proposed project is consistent with the purpose of the VPUD as described in section 6.11.0 of the Zoning Bylaws: The project creates an economically viable mixed-use development that provides a housing alternative to typical detached single family residential subdivisions; the project will include a variety of building types in a village-style setting; and will create an area of distinct visual character consistent with traditional New England style development in close proximity to Route 53.

2. Issue a Special permit per Zoning Bylaw section 6.320 (which references section 6.220) to allow the following uses within the Planned Shopping Center District:

- B. Restaurants or other places for food service primarily within a structure but with incidental service not confined within said structure.
- I. Theaters, halls, bowling alleys, skating rinks, clubs and other places of indoor amusement or assembly.
- N. Drive-in windows for banks, drugstores, restaurants, and other similar businesses, allowed or permitted in the Commercial District.

As demonstrated in the material filed with this Application, the proposed project is consistent with the purpose of the Planned Shopping Center District. As described in section 6.300 of the bylaws that purpose is to assure that “shopping centers in the district are allowed to evolve and change in a commercially competitive manner consistent with current industry standards for area shopping centers, while avoiding commercial blight and protecting the Town from adverse impacts associated with unplanned development.”

As described in this Application, the property has been in decline in recent years, the victim of e-commerce, changing consumer habits and more modern competition in nearby communities resulting in the loss of tenants. The current market requires a mixed-use development consisting of restaurants, entertainment, retail and a residential use, all in a modern pedestrian friendly development. Granting the special permits for uses to include restaurants, movie theaters and other place of indoor amusement and drive-in windows will allow the property to evolve and be competitive.

The project is consistent with the Special permit criteria established in section 5.890 of the Zoning Bylaw. The proposed use will comply with all pertinent provisions of the Zoning Bylaw and is not injurious, noxious, or offensive to the neighborhood. The proposed use will not create a nuisance nor derogate from the intent of the Hanover Zoning Bylaw by virtue of noise, odor, smoke, vibration, traffic generated, or unsightliness. See the attached Development Impact Statement.

3. Issue a Special permit per Zoning Bylaw section 6.860 B6 to allow a multifamily or non-residential structure resulting in greater than 15% impervious coverage in the AP zoning district.

A portion of the project is located in the Water Resource Protection District (the Aquifer Protection District). That portion located at the south side contains approximately 15.6 acres and consists of a portion of the Dick’s Sporting Goods and Macy’s Furniture buildings, their associated parking and a portion of the proposed residential development. The project will result in greater than 15% impervious coverage within the Aquifer Protection District however rainfall will redirected to artificial recharge on the lot as required by Section 6.860 B6. We note that the project which will render 26.7% impervious is consistent with section 6.870 which limits impervious area to 50%.

4. Issue Site Plan Approval per Section 10 of the Zoning Bylaws.

Site Plan Approval is required per section 10.020 of the Zoning Bylaws for the project which: includes uses within the Water Resource Protection District (per Section 10.020 F); includes additions to off-street parking (per Section 10.020 L) and involves new structures exceeding 8,000 square feet (per Section 10.030).

As described in the attached Development Impact Statement the project will result in positive impacts to the town.

As demonstrated in the material filed with this Application, the proposed project is consistent with the Criteria established in Section 10.200 of the Zoning Bylaws: The proposed project will: protect abutting property and the adjoining neighborhood from any detrimental impact resulting from the use of the subject property; ensure traffic flow and convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent streets and ways; has adequate water supply and methods of disposal of sewage, refuse and other wastes; stormwater runoff and surface water drainage; provides sufficient off-street parking; contains scale of structures consistent with the existing terrain; will not impact public safety and fire protection and is in compliance with the provisions of the Zoning Bylaw.

5. Issue the following waivers:

- Section 6.11.30 A which requires that dwellings in the VPUD shall be not less than 1/3 one-bedroom, not less than 1/3 two-bedroom and not more than 1/3 three-bedroom.

The project will provide a mix of units as follows:

One-bedroom – 188 units (63.3%)
Two-bedroom – 97 units (32.7%)
Three-bedroom – 12 units (4%)

The proposed mix is consistent with market needs and will ensure a mix that provides the necessary housing unit mix to ensure a vibrant project that will limit impacts to the community.

- Section 6.11.30 B which requires three (3) numbered parking spaces for each unit.

As noted above upon completion of the VPUD permit process two lots will be created. The residential lot will provide greater than 1.5 parking spaces per unit which is consistent with market needs for the unit mix and to the needs of other similar multifamily projects. We note that there are additional parking spaces available on the commercial portion of Hanover Crossing to provide overflow parking if ever needed.

- Section 6.11.50 J which requires permits the Board to grant waivers from Section 8 of the Zoning By-Law relating to Landscaping and Buffers.

As noted above upon completion of the VPUD permit process two lots will be created. The residential lot will provide less than the 15’ side line buffer required by section 8.130 B once the new lot line is created. The buffering in this area in total

does provide for 15’ in total and will provide an adequate screen to the remaining commercial component of the Hanover Crossing project. Because this buffer area is between two components of the Hanover Crossing project a waiver is also requested as necessary from section 8.270 to allow the planting and screening program proposed in the landscape plans as filed.

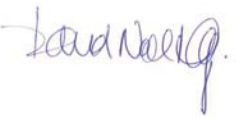
6. Issue a finding or waiver relative to the existing buffer requirements per Section 4.420 of the Zoning Bylaw.

As noted above the Section 6.11.20 F of the Zoning Bylaw requires that a 50’ buffer be maintained from the limit of the VPUD. As shown on the plans there are a number of areas where existing buffers are less than 50’. All new development will conform to the 50’ buffer requirement. The existing buffer will not be reduced in size. Bringing said non-conformance into compliance is not feasible or not appropriate and waiving of such will not be substantially more detrimental to the neighborhood.

We look forward to presenting this project to you at your next scheduled meeting. If you have any questions or desire any additional information regarding this matter, please do not hesitate to call our office.

Sincerely,

KELLY ENGINEERING GROUP, INC.



Digitally signed by David Noel Kelly P.E.
DN: cn=David Noel Kelly P.E., o=Kelly
Engineering GGroup, Inc., ou,
email=dkelly@kellyengineeringgroup.
com, c=US
Date: 2019.05.28 09:35:08 -04'00'

David N. Kelly, P.E., President

KELLY ENGINEERING GROUP, INC.
0 Campanelli Drive-Braintree-MA 02184 Phone 781 843 4333

TRANSPORTATION IMPACT ASSESSMENT EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has conducted a Transportation Impact Assessment (TIA) in order to determine the potential impacts on the transportation infrastructure associated with the proposed re-envisioning of the Hanover Mall located at 1775 Washington Street (Route 53) in Hanover, Massachusetts, as a mixed-use, life-style center to be known as Hanover Crossing (hereafter referred to as the “Project”). The Project will include the phased reconstruction of the enclosed mall and associated outparcel buildings to provide 598,535± square feet (sf) of retail, restaurant, grocery and entertainment space centered around an open-air courtyard, with a 297-unit multifamily residential community to be constructed in the eastern portion of the site. At present, the Project site encompasses 833,481± sf of retail, restaurant and entertainment space and associated appurtenances that are supported by 3,509 parking spaces. Accordingly, the Project represents an overall reduction in the amount of retail/restaurant/entertainment space located within the Project site.

The Project will require the issuance of a State Highway Access Permit from the Massachusetts Department of Transportation (MassDOT) for access to Washington Street (Route 53), a State Highway under the jurisdiction of MassDOT.

This assessment was prepared in consultation with MassDOT and the Towns of Hanover and Norwell; was performed in accordance with MassDOT’s *Transportation Impact Assessment (TIA) Guidelines* and the scoping determination issued by MassDOT for the preparation of this assessment; and was conducted pursuant to the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. Based on this assessment, we have concluded the following with respect to the Project:

- 1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)¹ and after adjustment to account for internal trips and pass-by trips, the Project is expected to generate approximately 18,942 primary vehicle trips on an average weekday and 29,116 primary vehicle trips on a Saturday (both two-way, 24-hour volumes), with 587 primary vehicle trips expected during the weekday morning peak-hour, 1,697 primary vehicle trips expected during the weekday evening peak-hour and 2,221 primary vehicle trips expected during the Saturday midday peak-hour;

¹*Trip Generation*, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2017.

- 2. In comparison to the existing uses that occupy the Project site, the Project is expected to result in 3,032 additional vehicle trips on an average weekday and 8,022 additional vehicle trips on a Saturday (two-way, 24-hour volumes), with 27 additional vehicle trips expected during the weekday morning peak-hour, 389 additional vehicle trips expected during the weekday evening peak-hour and 337 additional vehicle trips expected during the Saturday midday peak-hour. ***The average weekday daily and Saturday increases exceed the Transportation thresholds of the Massachusetts Environmental Policy Act (MEPA) that would necessitate the filing of an Environmental Notification Form (ENF) and an Environmental Impact Report (EIR) for the Project based on Traffic/Transportation;***
- 3. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with the majority of the movements at the study area intersections shown to operate at a level-of-service (LOS) of D or better under all analysis conditions, where an LOS of “D” or better is defined as “acceptable” traffic operations;
- 4. With the exception of the Mill Street/Mill Pond Drive/Hanover Mall Drive intersection, the study area intersections were found to have motor vehicle crash rates that were below the MassDOT average crash rates for a signalized or unsignalized intersection, as appropriate. The Town has advanced safety-related improvements at the Mill Street/Mill Pond Drive/Hanover Mall Drive intersection that include the implementation of all-way STOP-sign control; and
- 5. Lines of sight to and from the Project site driveway intersections with Route 53 and Mill Street exceed the recommended minimum distances for the intersections to function in a safe manner.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to maintain safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The improvements that have been recommended as a part of this evaluation, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site is and will continue to be provided by way of four (4) driveways that intersect the east side of Route 53 (two (2) full access driveways under traffic signal control located opposite the Route 3 southbound ramps and 250-feet south of Woodland Drive, respectively; a full ingress, right-turn only egress driveway located approximately 700 feet south of the Route 3 southbound ramps; and a full access driveway located at the south end of the Project site) and two (2) full access driveways that intersect the north side of Mill Street, with the eastern Mill Street driveway (Hanover Mall Drive) aligned opposite Mill Pond Drive. The following recommendations are offered with respect to Project access and internal circulation:

- The Project site driveways and internal circulating roadways should continue to support the turning and maneuvering requirements of delivery trucks and the largest anticipated responding emergency vehicle as defined by the Hanover Fire Department.
- Vehicles exiting the Project site should continue to operate as presently configured under traffic signal or STOP-sign control.

- All signs and pavement markings to be installed within the Project shall conform to the applicable standards of the *Manual on Uniform Traffic Control Devices (MUTCD)*.²
- A sidewalk should be provided along at least one side of Hanover Mall Drive between the multifamily residential community and Mill Street, where a crosswalk would then be provided to allow pedestrians to walk to/from Mill Pond Drive and the South Shore YMCA.
- A defined pedestrian route should be provided between the multifamily residential community and the commercial area.
- Marked crosswalks and Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at pedestrian crossings within the Project site.
- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas of the Project site driveways should be designed and maintained so as not to restrict lines of sight.
- Snow windrows within the sight triangle areas of the Project site driveways shall be promptly removed where such accumulations would impede sight lines.
- A school bus waiting area should be provided for the multifamily residential community at an appropriate location defined in consultation with the Town.
- Consideration should be given to installing electric vehicle charging stations within the Project site and to accommodating the staging of car-sharing vehicles (ZipCar or similar).

Off-Site

Route 53 at Route 123

The addition of Project-related traffic to this signalized intersection was not shown to result in a change in overall intersection operations; however, one or more movements were shown to operate below LOS D. In an effort to improve traffic operations, the Project proponent will design and implement an optimal traffic signal timing and phasing plan for the intersection. With the implementation of an optimal traffic signal timing and phasing plan, overall intersection operations will remain at LOS D and all movements will generally operate similar to or will be improved over 2026 No-Build Build conditions. These improvements will be completed prior to the issuance of the final Certificate of Occupancy for the Project.

Route 53 at the Route 3 Northbound Ramps

The addition of Project-related traffic to this signalized intersection was not shown to result in a change in overall intersection operations; however, left-turn/through movements from the Route 3 northbound off-ramp were shown to degrade to LOS F during the Saturday midday peak-hour. In an effort to improve traffic operations, the Project proponent will design and implement an optimal traffic signal timing and phasing plan for the intersection. With the implementation of an optimal traffic signal timing and phasing plan, overall intersection operations will remain at LOS C or better, with no movement predicted to operate below LOS D. These improvements will be completed prior to the issuance of the final Certificate of Occupancy for the Project.

Route 53 Traffic Signal System

²*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

Overall operating conditions at the three (3) traffic signals that comprise the Washington Street (Route 53) traffic signal system (Route 53/Route 3 southbound ramps/Hanover Mall Drive, Route 53/Hanover Mall center driveway, and Route 53/Mill Street/Frank’s Lane) were shown to remain acceptable; however, one or more movements were shown to operate below LOS D. In an effort to improve traffic operations, the Project proponent will design and implement an optimal traffic signal timing, phasing and coordination plan for the three (3) traffic signals that comprise the Washington Street traffic signal system, including the upgrade/replacement of traffic signal equipment and appurtenances as may be necessary to effectuate the recommended changes. In addition and as discussed with the Town of Hanover, the Project proponent will repair and/or replace the emergency vehicle pre-emption system (OPTICOM™) at these intersections. With the implementation of an optimal traffic signal timing, phasing and coordination plan, overall intersection operations will be maintained at LOS C or better during the peak hours, with no movement predicted to operate below LOS D. These improvements will be completed prior to the issuance of the final Certificate of Occupancy for the Project.

Route 53 at Old Washington Street and Pond Street

The addition of Project-related traffic to this signalized intersection was shown to result in a degradation in overall operating conditions during both the weekday evening and Saturday midday peak hours from LOS D to LOS E. In an effort to improve traffic operations, the Project proponent will design and implement an optimal traffic signal timing and phasing plan for this intersection. With the implementation of an optimal traffic signal timing and phasing plan, overall intersection operations were shown to improve to LOS D or better and all movements will operate similar to or will be improved over 2026 No-Build Build conditions. These improvements will be completed prior to the issuance of the final Certificate of Occupancy for the Project.

Mill Street/Mill Pond Drive/Hanover Mall Drive

The Mill Street/Mill Pond Drive/Hanover Mall Drive intersection was found to have a motor vehicle crash rate above the MassDOT statewide and District averages for an unsignalized intersection. Improvements were recently completed by the Town at this intersection in an effort to improve safety and included the implementation of all-way STOP-sign control. As such, the Project proponent will participate with the Town and other area stakeholders to facilitate the completion of an “after” study of the intersection in order to determine if the recently completed safety improvements have been effective at reducing the frequency and severity of motor vehicle collisions at the intersection. The “after” study will performed in conjunction with the annual Traffic Monitoring and Reporting Program for the Project (discussion follows).

Mill Street/South Street

All movements at this unsignalized intersection are predicted to operate at LOS C or better during the peak-hours with minimal vehicle queuing (up to two (2) vehicles) with the addition of Project-related traffic. In an effort to assist the Town of Norwell in advancing geometric improvements at the Mill Street/South Street intersection, the Project proponent will prepare a Functional Design Report (FDR) that will assess alternative improvement strategies at the intersection and will include conceptual design plans for each alternative. The FDR and conceptual design plans will be provided to the Town of Norwell prior to the issuance of a Certificate of Occupancy for the residential component of the Project.

Main Street/South Street and Main Street/Prospect Street

The addition of Project-related traffic to the Main Street/South Street and Main Street/Prospect Street intersections was not shown to result in a significant increase in motorist delays or vehicle queuing over No-Build conditions; however, it was noted that all movements exiting from South Street and Prospect Street are operating at over capacity during the weekday morning and evening peak hours independent of the Project due to the relatively large volume of conflicting traffic on Main Street. In order to assess potential improvement strategies at these intersections, a Traffic

Signal Warrant Analysis (TSWA) was performed following the methodology defined in the MUTCD.³ This analysis indicates that the installation of a traffic control signal is warranted at both intersections under 2019 Existing conditions, again, independent of the Project.

In an effort to assist the Town of Norwell in advancing improvements at the Main Street/South Street and Main Street/Prospect Street intersections that are warranted as a result of existing conditions unrelated to the Project, the Project proponent will prepare a FDR that will assess alternative improvement strategies at the intersections and will include conceptual design plans for each alternative. The FDR and conceptual design plans will be provided to the Town of Norwell prior to the issuance of the issuance of a Certificate of Occupancy for the residential component of the Project.

Transportation Demand Management

Regularly scheduled public transportation services are not currently provided within the study area or to the Project site. The Town of Hanover is served by the Greater Attleboro-Taunton Regional Transit Authority (GATRA), which provides demand response (Dial-A-Ride) services for people with disabilities and seniors. In addition, the Hanover Council on Aging (COA) provides transportation services by appointment for doctor’s appointments, shopping and errands. In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles (SOVs), the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- The owner or property manager will contact MassRIDES to obtain information on facilitating and encouraging healthy transportation options for residents and employees of the Project, and will become a MassRIDES employer partner;
- Information regarding public transportation services, maps, schedules and fare information will be posted in a central location and/or otherwise made available to residents and employees;
- A “welcome packet” will be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and commuter options available through MassRIDES’ and their Bay State Commute program which rewards individuals that choose to walk, bicycle, carpool, vanpool or that use public transportation to travel to and from work;
- Residents and employees will be made aware of the Emergency Ride Home (ERH) program available through MassRIDES, which reimburses employees of a participating MassRIDES employer partner worksite that is registered for ERH and that carpool, take transit, bicycle, walk or vanpool to work;
- Pedestrian accommodations have been incorporated within the Project site consisting of sidewalks/walkways linking buildings and parking to on-site amenities, and should be expanded to include a sidewalk connection between the multifamily residential community and Mill Street;
- A mail drop will be provided in a central location within the multifamily residential building; and
- Secure bicycle parking will be provided consisting of: i) exterior bicycle parking conveniently located proximate to building entrances; and ii) weather protected bicycle parking located in secure areas.

In addition, the Project proponent will initiate discussions with the Town of Hanover and GATRA concerning the establishment of fixed-route bus service within the Town. In the interim, space will be reserved within the Project site for a bus stop to serve the commercial and residential components of the Project.

³Ibid.

Traffic Monitoring and Reporting Program

The Project proponent will conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to evaluate the success and refine the elements of the TDM program. The monitoring program will include:

- i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project site;
- ii) Performing manual turning movement and vehicle classification counts at the Project site driveway intersections during the weekday morning (7:00 to 9:00 AM), weekday evening (4:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak periods; and
- iii) Evaluating motor vehicle crash data at the Project site driveways intersections with Route 53 and Mill Street.

The monitoring program will commence six (6) months after issuance of the first Certificate of Occupancy for the Project and will continue on an annual basis thereafter for a period not to exceed 5-years after completion of the Project. The results of the monitoring program will be summarized in a report to be provided to the Town of Hanover and MassDOT within 2-months after the completion of the data collection effort. The report will document: i) traffic volumes associated with the Project; ii) motorist delays, vehicle queuing, crash severity and calculated crash rates at the Project site driveway intersections; and iii) the elements of the TDM program that have been implemented and use of alternative modes of transportation to single-occupant vehicles by residents and employees of the Project.

If any of the following conditions are documented as a part of the monitoring program: i) the measured traffic volumes exceed the observed traffic volumes that are presented herein by more than 10 percent on a regular and sustained basis during the monitoring period; ii) there is a material increase in the number of motor vehicle crashes occurring at or in immediate vicinity of the Project site driveway intersections that are attributable to the Project; or iii) the overall directional distribution of Project-related traffic as measured at the Project site driveways varies by more than 10 percent from the direction distribution that form the basis of this assessment; the Project proponent will identify and undertake corrective measures in conjunction with the appropriate parties and subject to receipt of all necessary rights permits and approvals. These measures may include without limitation:

- Traffic signal timing modifications
- Sign and pavement marking improvements
- Wayfinding sign program to encourage regional traffic to use Route 53 (vs. Mill Street and South Street)
- On-site operation and management strategies that are designed to reduce overall and peak traffic volumes and parking demands
- Providing financial incentives for employees to carpool or use alternative modes of transportation to SOVs

The identified corrective measures, if any, will be documented in the transportation monitoring program report, and will identify the appropriate parties responsible for implementation, required approvals, and the timeline for implementation. The status of implementation of the identified improvement measure(s) will be documented in the subsequent monitoring report.

With implementation of the aforementioned recommendations, safe and efficient access will continue to be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

KELLY ENGINEERING GROUP, INC.
0 Campanelli Drive-Braintree-MA 02184 Phone 781 843 4333

Conformance with DEP’s Stormwater Management Standards

The Proposed Project will fully comply with Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards and consists of the following Best Management Practices (BMP’s):

- Subsurface infiltration chamber systems and infiltration basin will be constructed to insure that runoff from the site is maintained at or below existing levels for all storms up to the 100-year storm.
- Subsurface infiltration chamber systems will ensure that pre-existing levels of recharge to the ground are maintained.
- Stormwater quality areas have been constructed, which will insure that total suspended solids (TSS) from storm runoff are trapped prior to release of storm flow from the site. These water quality areas will filter runoff from the paved areas. These areas have been sized to exceed DEP requirements and will store and treat in excess of the 1-inch “First Flush” volume.
- Proprietary separators will be installed.
- Catch basins with deep sumps and oil separating elbows will be installed at each drainage inlet.
- Oil grit separators are located on the site.
- Low Impact Development Measures including exfiltrating bioretention areas are incorporated.
- A pavement maintenance and operation program will be incorporated that will insure that a minimum of solids enters the stormwater management system.

These measures will ensure that the DEP goal of 80% total suspended solids reduction is met. See BMP Location Map.

During construction, the stormwater pollution prevention and erosion control plan will be instituted as needed to ensure that no silt leaves the site. This erosion control plan will include tracking pads at the access points to the site, silt socks that will prevent erosion of the surrounding vegetation, silt sacks in all drainage inlets, and temporary sediment stilling basins during construction.

STORMWATER MANAGEMENT STANDARDS

The following is a discussion of conformance with the Massachusetts Stormwater Management Standards

STANDARD 1: NO NEW UNTREATED DISCHARGES

The proposed project has been designed for no new untreated discharges from the site. The proposed pavement areas will be treated by a treatment train that will provide the necessary water quality for all runoff.

STANDARD 2: PEAK RATE ATTENUATION

Existing and developed sites are modeled using Hydraflow Hydrographs Extension version 10.5 computer program by AutoCAD Civil 3D 2016. This computer software uses the TR55/TR20 tabular method of

computing peak flows, hydrograph addition, and pond routing. The curve numbers for the existing conditions analysis were determined using soil survey maps.

The peak flows from the design storm on the site will be reduced as a result of this project. Peak flow mitigation will be provided within the subsurface recharge systems and the infiltration basin.

STANDARD 3: RECHARGE

The development area is located within urban land according to the NRCS soil map. Urban land does not have an associated hydrologic soil group. The adjacent soils to the south are hydrologic group B soils. Recharge volume has been calculated based on group B soils. Based on MassDEP guidelines for recharge, the required recharge volume for hydrologic group B soils is 0.35”.

The dedicated recharge volume has been provided in the infiltration basin and subsurface recharge systems and far exceeds the volume required. See Required Dedicated Recharge Volume Calculation in Attachment C for recharge calculations.

STANDARD 4: STORMWATER QUALITY

Stormwater runoff from the site will be enhanced by means of a number of BMPs, which have been designed to comply with the MassDEP Stormwater Management Standards. See BMP Location Map in Attachment C. The following BMPs will be incorporated:

- o Pavement sweeping and maintenance program
- o Deep sump catch basins with water quality elbows
- o Oil grit separators
- o Proprietary separators
- o Subsurface infiltration chamber systems
- o Infiltration basin
- o Exfiltrating bioretention areas

The Total Suspended Solids (TSS) removal will be greater than 80%.

STANDARD 5: Land Uses with Higher Potential Pollutant Loads (LUHPPL’s)

The proposed project is considered a land use with higher potential pollutant loads for high-intensity use parking lots. Treatment has been provided for 1 inch of water quality volume in the equivalent flow rate from the proprietary separators. BMPs have been chosen from the list of approved BMPs for use on LUPHPLs. The proposed use is not an industrial use and is not subject to a NPDES Multi-Sector General Permit.

STANDARD 6: CRITICAL AREAS

Third Herring Brook has recently been designated as a Coldwater Fishery Resource associated with an unnamed tributary (SARIS 9456540). Coldwater Fisheries are an outstanding resource waters (ORW). BMPs chosen are within the list of approved BMPs for Coldwater Fisheries.

The southern portion of the property is located within the Town of Hanover’s Aquifer Protection District. The entire property is not located within the Zone II Groundwater Protection Area, surface water protection

area, or an area of critical environmental concern.

STANDARD 7: REDEVELOPMENT

The proposed project is a redevelopment project and has been designed to comply with the DEP Stormwater Management Standards to the maximum extent practicable.

STANDARD 8: CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION CONTROL

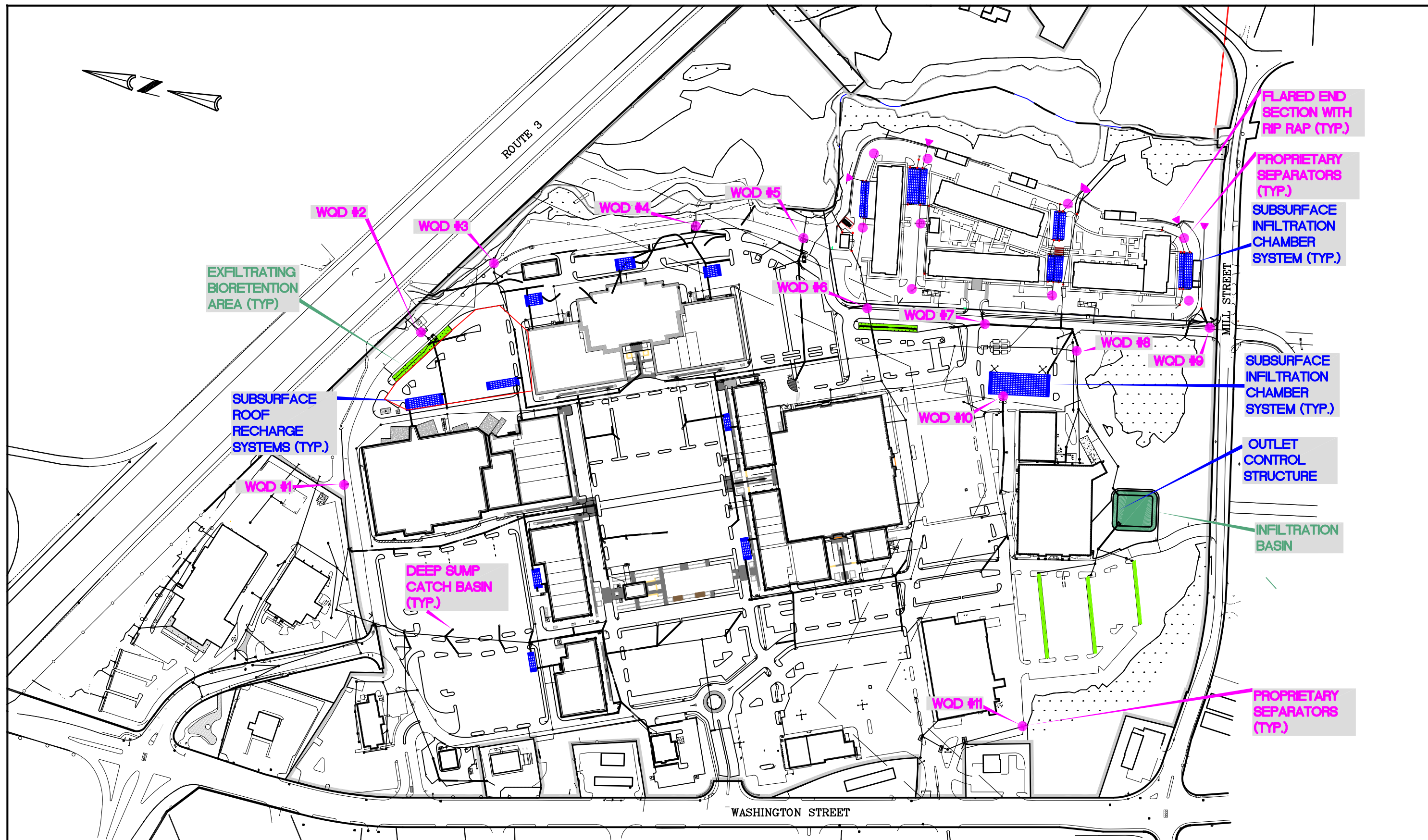
A construction period pollution prevention plan is included in the Demolition Plans provided within the Site Development Plans for Hanover Crossing Commercial by Kelly Engineering Group, Inc. The project is subject to a NPDES General Construction Permit and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and submitted to the EPA once a site contractor is established.

STANDARD 9: OPERATIONS AND MAINTENANCE PLAN

The project will include a Stormwater Management System Operation and Maintenance Plan and Long Term Pollution Prevention Plan,

STANDARD 10: ILLICIT DISCHARGES

No illicit discharges exist on the property today. The project will not include illicit discharges.



HANOVER CROSSING
1775 WASHINGTON ST.
HANOVER, MA

SCALE: 1" = 250'
DATE: 05/17/19
2016-075-BMP00

BMP
LOCATION
MAP



KELLY ENGINEERING GROUP
civil engineering consultants
0 Campanelli Drive, Braintree, MA 02184
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PLANNING BOARD	PAGE 1 OF 2	VERSION: FY 2006 (9/27/05)
TOWN OF HANOVER, MASSACHUSETTS		APPLICATION FOR SITE PLAN & SPECIAL PERMIT

KELLY ENGINEERING GROUP, INC.
0 Campanelli Drive-Braintree-MA 02184 Phone 781 843 4333

**DEVELOPMENT IMPACT STATEMENT
IN SUPPORT OF THE APPLICATION FOR PECIAL PERMITS AND
SITE PLAN REVIEW
HANOVER CROSSING**

May 15, 2019

Note for a comprehensive analysis of the projects impacts and mitigation of those impacts please see the Expanded Environmental Notification Form filed with the Executive Office of Environmental Affairs dated May 15, 2019 and on file at the Town of Hanover Planning Board.

Introduction:

Hanover Mall was built in the late 1960's and early 1970's is located on an approximately 106.4 acre parcel on Washington Street (Route 53) in Hanover and Norwell. The Mall also includes an approximately 5.6 acre secondary parcel located south of the main mall property. Third Herring Brook runs through the property and generally defines the Town boundary. The property consists of an aging enclosed mall with outparcel developments containing approximately 833,781 sf of commercial space and approximately 3,509 parking spaces. The property has been in decline in recent years, the victim of e-commerce, changing consumer habits, more modern competition in nearby communities resulting in the loss of tenants. Access to the property is through four driveways on Washington Street and two on Mill Street. The property is located within the town's Planned Shopping Center Zoning District.

The proposed project entails the removal of the majority of the existing enclosed mall and the construction of a new mixed use lifestyle center consisting of approximately 506,035 sf of retail, 92,500 sf grocery store and a 297 unit apartment complex with total parking of approximately 3,700 spaces.

A. Traffic Impact Assessment:

1. Existing Traffic Conditions

Average daily and peak hour volumes, average and peak speeds, sight distances, accident data, and levels of service (LOS) of intersections and streets and ways likely to be affected by the proposed development. Such data shall be presented for all streets and ways and intersections adjacent to or within one thousand (1,000) feet of the project boundaries and shall be no more than twelve (12) months old at the date of application, unless other data are specifically approved by the Planning Board.

Please see attached Transportation Impact Assessment by VAI.

2. Projected traffic conditions for design year of occupancy:

Statement of design year occupancy, background traffic growth on an annual average basis, impacts of proposed developments which have already been approved in part or in whole by the town.

Please see attached Transportation Impact Assessment by VAI.

3. Projected impact of proposed development:

Projected peak hour and daily traffic generated by the development on streets and ways in the vicinity of the development; sight lines at the intersections of the proposed driveways with streets and ways; existing and proposed traffic control devices in the vicinity of the proposed development; and projected post-development traffic volumes and levels of service of intersections and streets and ways likely to be affected by the proposed development.

Please see attached Transportation Impact Assessment by VAI.

4. Proposed mitigation measures:

Description of measures for mitigation of any potential adverse impacts identified above.

Please see attached Transportation Impact Assessment by VAI.

B. Environment Impact Assessment:

1. Identification of potential impacts:

Description and evaluation of potential impacts on the quality of air, surface water, and ground water adjacent to or directly affected by the proposed development; on-site and off-site loading, erosion, and/or sedimentation resulting from alterations to the project site, including grading changes and increases in impervious area:

Overview:

The project will not result in negative impacts to air, surface water or groundwater.

The Proposed Project will fully comply with DEP Standards for Stormwater Management and consists of the following Best Management Practices (BMP's):

- On-site subsurface detention systems will be constructed to insure that runoff from the site is maintained at or below existing levels for all storms up to the 100-year storm.
- On-site recharge system will ensure that pre-existing levels of recharge to the ground are maintained.

- Stormwater quality areas have been constructed, which will insure that total suspended solids (TSS) from storm runoff are trapped prior to release of storm flow from the site. These water quality areas will filter runoff from the paved areas. These areas have been sized to exceed DEP requirements and will store and treat in excess of the 1-inch “First Flush” volume.
- Proprietary water quality devices will be installed.
- Catch basins with deep sumps and oil separating elbows will be installed at each drainage inlet.
- Low Impact Development Measures are incorporated
- A pavement maintenance and operation program will be incorporated that will insure that a minimum of solids enters the stormwater management system.

These measures will ensure that the DEP goal of 80% total suspended solids reduction is met.

During construction, a stormwater pollution prevention and erosion control plan will be instituted as needed to ensure that no silt leaves the site. This erosion control plan will include tracking pads at the access points to the site, silt socks that will prevent erosion of the surrounding vegetation, and temporary sediment stilling basins during construction.

2. Systems capacity:

Evaluation of the adequacy of existing or proposed systems and services for water supply and disposal of liquid and solid wastes.

Water:

The proposed project will install an entire new water infrastructure for the property. The new water system will meet fire and domestic needs for the project.

Sewage:

The property is currently serviced by an aging wastewater treatment plant permitted under the DEP groundwater discharge regulations for 85,000 GPD. The plant is currently located on the main mall property and the final filter beds are located on a property south of the primary property behind the YMCA. In order to accommodate the project a new state of the art wastewater treatment plant will be relocated to the secondary property and additional final filter beds will be constructed to accommodate the additional flows for a total flow of approximately 130,000 GPD.

Onsite dumpsters and compactors will be provided on the site. These will be serviced by a licensed private hauler.

3. Proposed mitigation measures:

Description of proposed measures for mitigation of any potential adverse impacts identified above.

As noted above, the proposed project will have little adverse impacts on the property or surrounding properties or town services.

C. Fiscal Impact Assessment:

Fiscal Impact Assessment

1. Projections of costs arising from increased demand for public services and upon the infrastructure of the Town:

See attached Fiscal Impact Analysis by Fougere Planning and Development.

2. Projections of benefits from increased tax revenues, employment (construction and permanent) and value of public infrastructure to be provided:

See attached Fiscal Impact Analysis by Fougere Planning and Development.

3. Projections of the impacts of the proposed development on the values of abutting properties:

See attached Fiscal Impact Analysis by Fougere Planning and Development.

4. Five-year projections of the increased Town revenues versus costs resulting from the proposed development:

See attached Fiscal Impact Analysis by Fougere Planning and Development.

D. Community Impact Assessment:

1. Site design and neighborhood impact: Evaluation of the relationship of proposed new structures or alterations to the surrounding pre-existing structures in terms of character and intensity of use (e.g., scale, materials, color, door and window size and location, setbacks, roof and cornice lines, and other major design elements) and the location and configuration of proposed structures, parking areas, and open space with respect to neighboring properties.

The proposed project is located within the Commercial District and is permitted as a Village Planned Unit Development by special permit. The property is abutted by Route

53 and other commercial properties. The project has been designed to fully comply with the Town's bylaws for density, open space, setbacks and buffering.

The architecture and arrangement of buildings is designed to create a New England Village atmosphere consistent with the goals of the Planned Shopping Center and Village Planned Unit Development zoning districts. Architectural plans are included with this application.

2. Historic impact: Identification of impacts on significant historic properties, historic districts or areas, or archeological resources in the vicinity of the proposed development.

There are no historic properties, historic districts or archaeological resources on or near the proposed development.

3. Development goals: Evaluation of the proposed project's consistency or compatibility with existing local and regional master plans or comprehensive plans.

The Town of Hanover issued a Master Plan entitled "Hanover 300" dated 2018. The Master Plan "Economic Development" section noted that "growth in appropriate sectors will be critical in relieving the tax burden on local homeowners. Many residents value Hanover's close-knit community and its rich history, signaling the need for a "downtown" that allows residents to socialize, in addition to fulfilling retail and service needs."

The proposed project is consistent with this Master Plan goal since it will recreate the Hanover Mall as Hanover Crossing, a live, work, play community, and will create a new "downtown" that will increase tax revenue for the town.

A survey performed in connection with the Master Plan concluded that Hanover's housing stock was catered to young families with or without kids, but older couples looking to downsize would be challenged in looking for suitable housing types to transition to within the community and that smaller, single family alternative units such as town houses and cottages are needed in Hanover, in addition to some multifamily rental and condominium units. The Master Plan "Housing" Goal 1 is to create opportunities to develop a diverse and affordable housing stock to meet the needs of a changing demographic profile in the town.

The Proposed project is consistent with this Master Plan by providing 297 units of multifamily housing helping to achieve the housing goals of the Master Plan.

The proposed project is located within the town's Planned Shopping Center district and will meet all requirements of that district. The project will be permitted under the town's

Village Planned Unit Development District that encourages mixed use development on larger parcels along Route 53.

Hanover Crossing is also consistent with the goals of Metrofuture, MAPC's Regional Policy Plan. Goal 2 of the Plan notes that "Reuse of previously developed land and buildings can add housing and tax revenue without the loss of open space. It also conserves land, energy, and previous investments in buildings and infrastructure." Hanover Crossing will be a reuse of an aging retail facility and will add housing and enhance tax revenue. Goal 18 of the Plan is to encourage more housing choices and notes that production of 83,000 units in multifamily buildings near suburban town centers or existing commercial areas and transit is necessary. The proposed project will provide more housing choices to Hanover Residents near existing commercial areas consistent with the Plan.

FOUGERE PLANNING & DEVELOPMENT, Inc.
Mark J. Fougere, AICP

FISCAL IMPACT ANALYSIS¹

May 23, 2019

I. Introduction

Fougere Planning and Development has been engaged by PREP to estimate the net fiscal impact to the Town of Hanover, MA from both the proposed major redevelopment of the Hanover Mall into an outdoor mixed use retail center and the development of a 297 unit apartment community.

The existing approximately 833,781 square foot mall, sitting on approximately 106 acres, has had a presence in the community since the early 1970's. Due to the dramatic changes occurring in the commercial retail marketplace, it has become clear that the existing enclosed mall retail format is not surviving. Currently a major anchor store stands empty, and the mall is experiencing a 40% interior retail vacancy rate. The proposed Hanover Crossing retail center will involve removing a majority of the main mall building except for the Macy's and constructing 370,335 square feet of new commercial space. This area will include a series of smaller retail shops & restaurants constructed into a U shaped design. Table One outlines the major tenant space breakdown.

Table One

Tenant Breakdown

Existing Stores including Macy's, Dick's Sporting Goods & Office Max	228,200 Square Feet
Movie Theatre	42,508 Square Feet
Grocery Store	92,500 Square Feet
Small to Medium Retailers	191,327 Square Feet
Restaurants	44,000 Square Feet

¹ This fiscal report combines the findings summarized in the January 10, 2019 Residences at Hanover Crossing Fiscal Analysis and the March 11, 2019 Fiscal Impact Analysis Hanover Crossing. Tax rates have been updated to 2019, changes to project program have been added, but no other material changes have been made.

A key feature of the Hanover Crossings retail project will be the creation of a 30,000 square foot all- season common gathering area located in the center of the site. This space will be used to host numerous public events throughout the year involving entertainment, exercise, food and other public interest events. As part of this redevelopment initiative a 297 unit of market rate apartment complex will be constructed on an adjoining 8.1 acre property. As documented by the Metropolitan Area Planning Council², the addition of market rate housing units is an essential component to addressing a significant housing need in the community and region.

The proposed apartments will be located on a site located behind the Mall, replacing an existing movie cinema that will be relocating as part of the Hanover Crossing retail redevelopment program. Four, 4-story buildings are proposed with onsite amenities including a pool, gym, movie room and other common areas. Onsite parking for 453 vehicles will be provided, with 60 of these spaces covered. The property will be privately maintained, along with all trash removal. Table Two outlines the apartment mix contemplated by the development proposal.

Table Two
Apartment Unit Mix

Unit Type	Unit #
One Bedroom	188
Two Bedroom	97
Three Bedroom	128
Total	297

This residential proposal is consistent with a number of Housing Goals outlined in the Housing Production Plan, including: Providing a wide range of housing alternatives to meet diverse housing needs; Leveraging other public and private resources to the greatest extent possible. Promoting smart growth development: Allow higher density housing or mixed-use development near transit stops, along commercial corridors or in town and village centers.

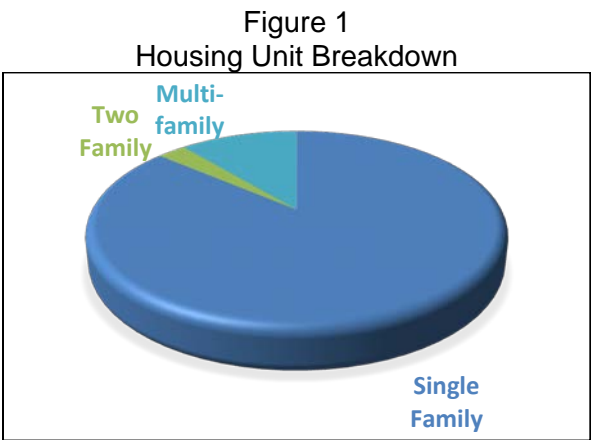
II. Local Trends

² Regional Trends and Local Needs in Metro Boston and the Town of Hanover, September 27, 2017 MAPC Housing Forum.

A U.S. Census report¹ reveals that from 2000 to 2010 Hanover's population increased from 13,164 to 13,879, a growth rate of 5.4% over the 10-year period. The Census Bureau estimates the 2017 population to be 14,328, indicating a continued but more modest increase (only 3.2%) in the Town's population.

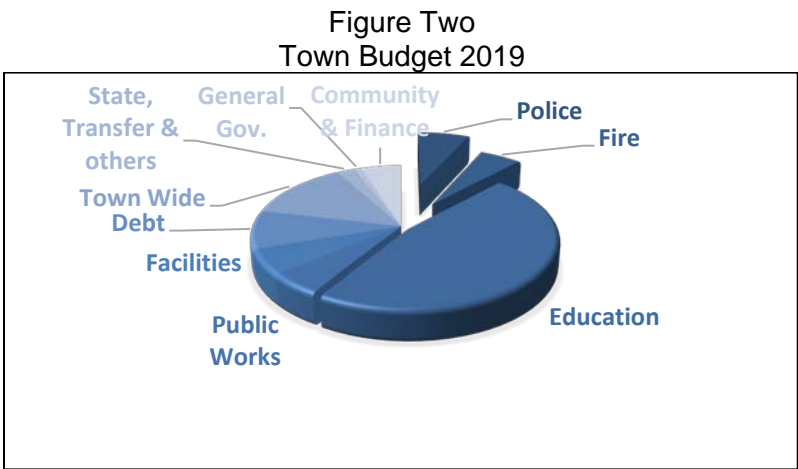
A majority of Hanover's housing stock consists of single- family homes, with the most recent Census data (2017) reporting 4,333 single-family dwellings out of a total housing stock of 5,026 units as outlined in Figure 1.

Commercial development represents 10.3% of the Town of Hanover's total property valuation. The Hanover Mall, as it currently exists, equates to 13.8% of all commercial property value in the community.



Budget

Education, along with the Public Safety departments, are some of the largest cost centers in the community as outlined in Figure Two. Since the proposed retail land use will not create new dwelling units and students, the focus of this analysis will be to review potential impacts to emergency service departments.



III. Per Capita Methodology & Marginal Cost Approach

There are a number of methodologies that are used to estimate fiscal impacts of proposed development projects. The Per Capita Multiplier Method is the most often used analysis to determine municipal cost allocation. This method is the classic “average” costing method for projecting the impact of population growth on local spending patterns and is used to establish the costs of existing services for a new development. This method uses the current revenue/cost ratios per person and/or per unit as an indicator for future revenue/cost impacts occasioned by population growth. New capital expenditures required for provision of services to a development are not added to current costs; instead, the present debt service for previous improvements is included to represent ongoing capital projects. The advantage of this approach is its simplicity of implementation and its wide acceptance by both consultants and local officials. The downside of this approach is that the methodology calculates the “average” cost as being the expected cost, which is often not the case as costs are exaggerated - significantly in some instances. (For example, if one student is added to a school system, limited cost impacts will occur; however based on an “average” cost to educate one student the cost could be noted as \$15,000/year, which includes such costs as existing debt, building maintenance, administrative and other factors, all of which will be minimally impacted by the addition of one student. The “true cost” could be significantly less, especially in those communities with declining enrollment.)

The Marginal Cost Approach is a more realistic methodology that can be used to estimate and measure developmental impacts based on actual costs that occur in the community. At this time, a “level of service” exists in Hanover to serve the community. This existing service level, for the most part, addresses the needs of the community through existing tax collections. As new development occurs, pressures are placed on some departments to address increased demands, while other departments experience negligible, if any impacts. In reviewing the potentially impacted town departments specifically, a truer picture of anticipated cost impacts can be determined.

Given the unique nature of this retail redevelopment project which will actually remove 235,246 square feet of retail space, few new measurable impacts will be seen in the community. Any required off-site traffic and roadway improvements are expected to be addressed during the approval process with the Town. Solid waste generated will be removed by a private hauler. Water expenses associated with the commercial center will be offset through user fees, and all wastewater will be managed by a privately- owned sewer treatment facility and this service will also be funded through user fees. Since this venture primarily involves redevelopment of existing commercial space, our fiscal analysis anticipates only minor new demands on emergency services. Other Town agencies are

projected to experience little or no measurable impacts from this redevelopment proposal. The proposed housing development holds many of the same attributes, will all onsite maintenance private and solid waste removed by a private hauler.

Hanover Crossing– Mall Redevelopment

IV. Local Revenues from Retail Development

1) Revenue Sources

a. Property Taxes

Local property taxes provide the bulk of general fund revenues for the Town, with fiscal year 2019 figures showing that 73.87% of municipal proceeds will be generated from this revenue source, with the remaining income being received from state aid, local receipts and other financing sources. The 2019 Residential Tax Rate for the Town is \$16.41 and the Commercial/Industrial rate is \$17.38 per \$1,000 valuation.

In 2017 the Town of Hanover and PREP entered into a Tax Increment Financing Agreement where, in exchange for initiating an onsite redevelopment investment program of at least \$40,000,000 along with job creation, the Town would provide a rebate of future real estate and personal property taxes for a 16 -year time period. The details of the Agreement state that through 2026, 100% of the increase in property valuation is exempt, from 2027-2031 75% of the increase is exempt, and to the end of the agreement in 2034, 50% of the property valuation increase is exempt. Following the conclusion of the program, the Town of Hanover will receive 100% of all taxes.

When construction is complete, the commercial property will generate approximately \$700,000 in property taxes per year, with the taxes increasing slightly during the course of the agreement. For this analysis, we will use the **\$700,000** figure as a base annual real estate tax payment for this project.

b. Community Preservation Surcharge

In 2005 the Town adopted the Massachusetts Community Preservation Act (CPA), agreeing to a 3% surcharge on the total property taxes paid. Based on the estimated taxes from the proposed redevelopment, the CPA surcharge revenue is estimated to be \$28,500 annually as outline in Table Three.

Table Three
Estimated CPA Revenue
3% x \$700,000 = \$21,000

c. Local Meals Tax

In addition to the State imposed 6.25% meals tax, the Town of Hanover collects .75% as a local revenue source. Hanover Crossing is expected to have approximately 44,000 square feet of leased restaurant space which is estimated to generate \$20,000,000 is gross annual revenue. This estimated revenue will generate \$150,000 in meal taxes for the community which is in addition to the \$45,000 in meals taxes presently be received by Hanover.

d. Total Revenues

As summarized in Table Four, Hanover Crossing will generate an estimated \$916,000 in annual revenues to the community through 2026, but will increase over the agreement period. At the end of the Agreement in 2036, 100% of all tax revenues will remain with the Town. Over the 15 Agreement period, an estimated \$18,884,850 will be generated from the project development.

Retail Revenue	Table Four Estimated Annual Revenues				TOTAL over 15 Year Period
	2022-2026	2027-2031	2032-2034	2035-2036	
Annual Property Taxes ³	\$700,000	\$950,000	\$1,235,000	\$1,770,000	\$15,495,000
Annual CPA Surcharges	\$21,000	\$28,500	\$37,050	\$53,100	\$464,850
Annual Meal Taxes	\$195,000	\$195,000	\$195,000	\$195,000	\$2,925,000
Total	\$ 916,000	\$1,173,500	1,467,050	\$2,018,100	\$18,884,850

Other Revenues

This analysis estimates that building permit fees of \$578,000 may be generated by construction of this project.

V. Department Impacts

Police and Fire Departments

³ Property tax estimates obtained from PREP.

As noted above, the Police and Fire Departments account for a large percentage of the Town’s operating expenses and are the two departments that will realize the most direct and measurable impact from the proposed project. Unlike other new developments in the community, this is not a new land use and has been in operation since the 70’s. Both the Police and Fire Department have a long demand history at the subject site. To gain an understanding of the existing demands on emergency services, recent call data to the Mall was obtained and adjusted to reflect the vacancies presently seen at the property. See Table Five.

Table Five
Existing Emergency Calls

Town	# Stores	Square Feet	Police Calls	Police Calls/Sq. Ft.	Fire Calls	Fire Calls / Sq. Ft.	EMS Calls	EMS Calls/Sq. Ft.
Existing Mall (Occu.) Calls		605,075	317	0.00052	67	0.00011	45	0.00007
Existing Mall - Vacant		127,176	67		14		9	
Total Existing Mall			384		81		54	

To assess the potential emergency call impact of the proposed redevelopment project, we obtained call data from two similar outdoor retail centers. Both the 429,118 square foot Market Street retail project in Lynnfield and the 445,584 square foot Derby Street development in Hingham were reviewed. Recent data was obtained from emergency service departments in both communities which was then analyzed to arrive at an average emergency call ratio per square foot, which was then used to generate projected emergency calls for each department. These findings are summarized in Table Six.

Table Six
Emergency Call Estimates

Town	# Stores	Square Feet	Police Calls	Police Calls/Sq. Ft.	Fire Calls	Fire Calls / Sq. Ft.	EMS Calls	EMS Calls/Sq. Ft.
Lynnfield - Market Street	140	429,118	431	0.00100	64	0.00015	57	0.00013
Hingham - Derby Street	59	445,584	311	0.00070	49	0.00011	51	0.00011
Totals	199	874,702	742	0.00085	113	0.00013	108	0.00012
Estimated Hanover Crossing Calls	45	598,535	509		78		72	

Based on this emergency call data analysis, it is estimated that the commercial property will generate 509 annual police calls, 78 fire calls and 72 EMS calls. Police calls may increase by 2.6 calls per over past Mall activity, but significant change in impacts are not anticipated.

Police Department

Police Department calls are estimated total 509 calls annually (384 existing calls) or an average of 10 calls per week. To put the call volume into perspective, the Department received approximately 13,688 calls for service in 2017 (263 per week).

To gain an understanding of potential impact the Consultant met with Police Chief Walter Sweeney and reviewed the proposed project. The Chief does not believe the proposed project will impact his Department and staffing levels are adequate to handle the anticipated call volume. The Chief did note that this opinion would be contingent upon the existing police coverage agreement presently in place with PREP remaining for the future. Under that agreement, the Mall owner pays the community approximately \$120,000 annually to cover the cost of onsite police coverage. Should that arrangement not be continued, the Chief believed that at least one if not two additional police officers would have to be hired, at an annual cost of \$90,000 each.

Discussions will be taking place with community officials relative to police officer coverage at Hanover Crossing. To be conservative, we will carry the cost of two new full time police officers in this analysis. If this private PREP agreement is renewed with the Police Department, no new police costs will be expended from the Town’s general fund

Fire Department

The Department responded to 2,682 calls in 2017, of which 1,708 were EMS calls. The Consultant discussed the proposed project with Fire Chief Jeff Blanchard. The Department has adequate staffing levels and equipment to address any calls from the proposed mall redevelopment. The proposed project will not require increased staffing levels or burden the Department with additional costs.

It should be noted that ambulance calls generate an average of \$600 per call⁴ for the community. Based upon the site generating 72 annual EMS calls, \$43,200 in estimated annual EMS income is anticipated.

Other Departments

(4) 2017 ambulance income was \$1,025,316 on 1708 EMS calls.

Given the minimal impacts associated with the proposed project, few financial impacts are expected to other Town Departments. All on- site trash and snow removal will continue to be privately maintained. Sewage will be treated by a privately owned wastewater treatment facility, and water will be addressed by the current fee structure with responsibility for upgrades to existing infrastructure, if any, to be addressed during the approval process. No new public roads are proposed in association with the redevelopment and any public roadway improvements are expected to be addressed in the course of review. To assign some costs to miscellaneous expenses that may incur to the Town, we have allocated a general government impact of \$10,000 for this development.

VI. MALL REDEVELOPMENT SUMMARY

As outlined in Table Seven, this fiscal impact analysis indicates that there will be a net positive annualized impact related to construction of the proposed development, with revenues increasing over the life of the agreement and exceeding \$15,000,000 over the life of the program.

Table Seven Fiscal Summary					
Retail Revenue	2022-2026	2027-2031	2032-2034	2035-2036	TOTAL over 15 Year Period
Annual Property Taxes	\$700,000	\$950,000	\$1,235,000	\$1,770,000	\$15,495,000
Annual CPA Surcharges	\$21,000	\$28,500	\$37,050	\$53,100	\$464,850
Annual Meal Taxes	\$195,000	\$195,000	\$195,000	\$195,000	\$2,925,000
Total	\$916,000	\$1,173,500	\$1,467,050	\$2,018,100	\$18,884,850
Retail Expenses					
Police ⁽¹⁾⁽²⁾	\$ (180,000)	\$(189,000)	\$(198,450)	\$(208,373)	\$(2,857,095)
Other General Fund Impact ⁽¹⁾	\$(10,000)	\$(10,500)	\$(11,025)	\$(11,576)	\$(158,728)
	\$(190,000)	\$(199,500)	\$(209,475)	\$(219,949)	\$(3,015,823)
Net Positive Fiscal Impact	\$726,000	\$974,000	\$1,257,575	\$1,798,151	\$15,869,028

Key findings supporting this retail development include:

- The planned redevelopment will generate a minimum of \$916,000 in gross revenues annually, increasing to \$2,018,100 by 2035. Over the life of the Agreement gross revenues are estimated to be \$18,884,850 and net positive impact will be realized totaling \$15,869,028.
- All on-site property maintenance and trash collection will remain private, no new public roads are proposed;
- Police Department call volume is anticipated to be similar to existing historical demands seen from the Mall, approximately 10 calls per week. Town wide call volume is presently 13,688;

- The Fire Department is expected to receive approximately 150 calls a year from the proposed project, which is similar to past experiences at the Mall. In addition, an estimated \$43,200 of ambulance revenue may be realized;
- Both short-term and long-term positive economic benefits are anticipated to occur, with construction related jobs being created and local business activity enhanced by the new residential community.
- The building permit fee for the project is estimated to be \$578,000.

(1)Assumes a 5% increase every 5 years.
(2)Assumes the current police program with the mall is not continued, which has yet to be determined at this time.

Residences at Hanover Crossing

VII. Local Revenues from Residential Development

1) Revenue

The 2019 Residential Tax Rate for the Town is \$16.41. Table Eight outlines the estimated municipal tax revenue that may be generated by the redevelopment, based upon the anticipated assessed value⁵ Based upon these values, the new apartment complex is estimated to generate \$891,900 in annual property tax revenue

Table Eight Estimated Property Tax Revenue			
Units	Value/Unit	Total Value	Property Taxes
297	\$183,000	\$54,351,000	\$891,900

2) Miscellaneous Yearly Revenues

Another major revenue source for the community is from motor vehicle excise taxes. In fiscal year 2018, the Town received a total of \$2,330,000⁶ from this revenue source. Table Nine outlines the projected excise tax revenue stream for the redevelopment project, which is estimated to be \$151,500 annually

Table Nine Motor Vehicle Excise Taxes		
Vehicles ⁷	Avg. Value	Excise Taxes ⁸
404	\$15,000	\$151,500

3) Total Revenues from Redevelopment

The planned development of the apartment complex is expected to generate \$1,043,400 in annual tax revenue as outlined in Table Ten.

Table Ten Estimated Gross Revenues	
Property Taxes	\$891,900
Vehicle Excise	\$151,500
Total	\$1,043,400

⁵ Assessments are based on current market conditions, the new Webster Village was utilized as the primary property comp.
⁶ Budget Summary.
⁷ Estimated 1.36 vehicles per unit, Hanover Limited in house data.
⁸ 404 vehicles x \$15,000 =\$6,060,000, tax \$25/\$1000.

4) Community Preservation Surcharge

In 2005 the Town adopted the Massachusetts Community Preservation Act (CPA), agreeing to a 3% surcharge on the total property taxes paid. Based on the estimated taxes from the proposed redevelopment, the CPA surcharge revenue is estimated to be \$26,757 annually as outline in Table Eleven. As these funds are designated for a number of specific uses including preservation and affordable housing, they are not allocated to the general fund revenue but set aside for specific purposes outlined under the Act.

Table Eleven Estimated CPA Revenue
3% x \$891,900 = \$26,757

Other income sources were reviewed for this analysis but not included in the income figures. The Town receives state aid from a number of sources based upon the Town’s population and school enrollments. The anticipated new residents will create demand for local services, thereby creating a positive impact on the local economy. In addition, one- time building permit fees will be paid to the Town, and the construction economy will be enhanced from this new development project.

VIII. Department Impacts

As noted above, the Police, Fire and School Departments account for a significant percentage of the Town’s operating expenses. These Departments employ the largest number of personnel and have the most dramatic impact on Hanover’s municipal budget. Given the large budgetary impact these Departments have on the Town, they are closely analyzed in this Report.

Police & Fire

Both the Police and Fire Departments will see a measurable increase in demand for services which can be attributed to the new apartment complex⁹. To gain a firm understanding of the degree of impact this redevelopment would have on these departments, call data from apartment complexes were reviewed to collect the emergency call volume generated by the proposed apartment complex. The data was analyzed to arrive at an average emergency call ratio per unit, which was then used to generate projected emergency calls for each department. Extrapolating

⁹ The apartment complex is replacing an existing movie theatre and emergency service calls to the existing cinema have not been included in the analysis.

from the comparable call data, increases in calls are projected for both the Town’s Police and Fire Departments¹⁰. Table Twelve and Thirteen outline the findings from this research.

Table Twelve Estimated Annual Police Emergency Calls ¹¹		
Units	Police Call Ratio Per Unit	Estimated Calls
297	.402	119

Table Thirteen Estimated Annual Fire/EMS Emergency Calls		
Units	Fire Call Ratio Per Unit	Estimated Calls
297	.210	63
Units	EMS Call Ratio Per Unit	Estimated Calls
297	.289	86

Police Department

Police Department calls are estimated to increase by 119 calls annually or an average of 2.2 calls per week. To put the call volume into perspective, the Department received approximately 13,688 calls for service in 2017 (263 per week).

To gain an understanding of potential impact the Consultant met with Police Chief Walter Sweeney and reviewed the proposed project. The Chief does not believe the proposed project will impact his Department and staffing levels are adequate to handle the anticipated increased call volume. These comments were consistent with the Chief’s project impact outline reported to the Town Manager and included in a letter¹² to the Town Planner outlining municipal impacts from proposed project. To assign some expense to the proposed project, a cost of \$45,000 will be carried which equates to ½ the cost of a police officer’s salary.

Fire Department

The Department responded to 2,682 calls in 2017, of which 1,708 were EMS calls. The Consultant discussed the proposed project with Fire Chief Jeff Blanchard. The Department has adequate staffing levels and equipment to address new calls to the proposed development. The proposed project will not require increased staffing levels or burden the Department with additional costs, consistent with the outline detailed in the December 14th letter from the Town Manager’s to the Town Planner. As detailed in Table Seven, based upon call data from Webster Village, the Chief estimates that 149 new calls¹³ will be generated by the apartments (63 fire calls and 86 EMS calls). Although no cost impacts are anticipated to the Department, a cost of \$60,000¹⁴ will be carried as a potential expense. In addition, it should be noted that ambulance calls generate an average of \$600 per call¹⁵, which translates into a \$51,600 in estimated annual income to the community.

Other Departments

Given the minimal impacts associated with the proposed apartment community, few financial impacts are expected on other Town Departments. All on site trash and snow removal will continue to be privately maintained. Sewage will be treated by a privately owned wastewater treatment facility, and water will be addressed by the current fee structure with responsibility for upgrades to existing infrastructure, if any, to be addressed during the approval process. No new public roads are proposed in association with the redevelopment and any public roadway improvements are expected to be addressed in the course of review. To assign some costs to miscellaneous expenses that may incur to the Town, we have allocated a general government impact of \$20,000 for this development.

School Department

The School Department’s budget is the largest in the Town, with a fiscal year 2019 budget of \$28,880,650 representing 46.9% of the total Town budget.

To allocate expected costs associated with the proposed apartment complex, the number of children that may live in a multi-family community must be calculated. As outlined in Table 1 above, the proposed market rate apartment

¹⁰ Per the request of the Fire Chief, fire and EMS call data from the new 40B Webster Village was used to estimate Fire Department calls to the new apartment complex.
¹¹ Complete list of emergency calls located in Appendix. Data includes calls from over 2,500 40B area apartment complexes. In addition, data from 810 Quincy market rate apartments and data from 2,140 units of market rate apartments in New Hampshire are included, which show a lower call impact ranging from 78 to 108 new calls.
¹² Letter from Town Manager Joe Colangelo to Town Planner Michaela Shoemaker dated December 14, 2018.

¹³ Fire Department emergency call data from over 2,500 40B apartment complexes and market rate developments indicate a lower call volume estimate ranging from 27 to 54 calls.
¹⁴ This cost is ½ of the full expense of a fire fighter, based upon cost data supplied by the Chief.
¹⁵ 2017 ambulance income was \$1,025,316 on 1708 EMS calls.

community is expected to be comprised of 188 one bedroom units, 97 two bedroom units and 12 three bedroom units. To estimate the potential generation of school aged children, data from comparable Hanover Company projects, and a survey of 669 regional market rate apartments was reviewed. Hanover Company's market rate unit demographic database resulted in an estimated 29 SAC, as outlined in Table Fourteen. Table Fifteen shows data from per unit SAC ratios of 669 regional market rate apartments, and Table Sixteen shows data from Lenox Farms in Braintree, a former Hanover Company community comparable in terms of both product type and location. Based upon the number of school children presently living at Webster Village (12 school children), a 76 unit 40B apartment complex, the School Department's Assistant Superintendent for Business and Finance estimated that 48 school children¹⁶ would reside within the proposed apartment complex.

Table Fourteen Hanover Company Market Rate Units			
Unit Type	Unit #	SAC/Unit	SAC
One Bedroom	188	0.01	1.88
Two Bedroom	97	0.15	14.55
Three Bedroom	12	1.07	12.84
Totals	297		29

Table Fifteen Regional Apartment Market Rate Units		
Unit Type	Unit #	SAC/Unit
One Bedroom	261	0.007
Two Bedroom	356	0.117
Three Bedroom	52	0.815
Total Units	669	

Table Sixteen Lenox Farms – Braintree	
338 Townhome Apt. Units	
37 School Age Children	

¹⁶ Letter dated December 14, 2018 from TM Joe Colangelo to Town Planner Michaela Shoemaker.

Schools

Table Seventeen illustrates a seven-year enrollment trend for the schools along with total school enrollment. The most up to date enrollment projection estimates¹⁷ indicate an increasing enrollment trend concentrated in the elementary and middle schools, with the high school showing a declining enrollment for five years and then returning to present levels.

Table Seventeen School Enrollments						
	2014	2015	2016	2017	2018	% Change
PK – 5	972	1,003	1,001	978	1,048	7.82%
4 – 8	876	821	834	831	800	-8.68%
9 – 12	790	808	790	801	805	1.90%
	2,638	2,632	2,625	2,610	2,653	0.57%

In order to obtain information on the school system, enrollment growth trends, and to reconcile the differences between the estimated number of new school children anticipated from the proposed development, a meeting was held with Superintendent Matthew Ferron and Assistant Superintendent Tom Raab.

The Consultant noted 40B apartment developments generate more school age children than market rate units as supported by the data outlined above. Assistant Superintendent Tom Raab explained that he based his estimate of new school children for the proposed apartment complex based upon the number of school children presently living in the new Webster Village apartment project. Webster Village is a 40B development with 76 apartment units of which 19 are affordable. Affordable units will generate 2-3 times the number of school age children than market rate units. In addition it was noted that using Webster Village to estimate potential school age children from the proposed market rate complex would overestimate the number of school children. The Superintendent and Assistant Superintendent recognized that affordable units would tend to have higher enrollment rates than market rate units. To reconcile the difference between the two estimates, an average of both figures was agreed to, with an estimate of **38 school children** potentially residing within the new apartment complex.

The Superintendent stated that the school system will be able to accommodate these new students, but additional staffing may be necessary. The Superintendent believed a new teacher may have to be hired as a result in the

¹⁷ NESDEC, dated December 5, 2018.

increased enrollment. In addition, special education costs were of a concern. To account for these potential costs, the full cost of a new teacher (\$90,000) and special education costs¹⁸ (\$112,000) will be carried in this analysis, resulting in a total estimated school cost of \$202,000.

Based upon the grade enrollment profile of area market rate apartment complexes, the estimated grade level profile of the new students is outlined in Table Eighteen.

Table Eighteen
Grade Enrollment Profile

Grade Level	%	Est. SAC
K – 4	55%	20
5 – 8	29%	10
9 - 12	15%	6

IV. RESIDENTIAL SUMMARY

As outlined in Table Nineteen, this fiscal impact analysis indicates that there will be a net positive annualized impact related to construction of the proposed development.

Table Nineteen
Fiscal Summary

Gross Projected Revenues	\$1,043,400
Estimated Municipal Costs	
Police	-\$45,000
Fire	-\$60,000
Schools	-\$202,000
Other General Fund Impacts	-\$20,000
Total Costs	-\$327,000
Net Positive Fiscal Impact	+\$716,400
CPA Revenue	\$26,757

Key findings supporting this residential development include:

- The planned redevelopment will generate approximately \$1,043,400 in gross taxes per year. Taking into consideration estimated municipal costs, the redevelopment will yield \$716,400 in positive net tax revenue. In addition, \$26,26,757 in CPA revenue will be realized;
- The residential site’s estimated assessed value (\$54,351,000) is a substantial increase over the existing assessment of the entire Hanover Mall property (\$38,595,100);
- All on-site property maintenance and trash collection will remain private, no new public roads are proposed.
- Calls to the Police Department are projected to increase by 119, compared with an annual Town wide call volume of 13,688.
- The Fire Department is expected to receive approximately 149 calls a year from the proposed project, adding to the 2,682 calls a year that are presently received by the Department. In addition, an estimated \$51,600 of ambulance revenue may be realized.
- It is estimated that 36 school age children will reside in the apartment community;
- Both short-term and long-term positive economic benefits are anticipated to occur, with construction related jobs being created and local business activity enhanced by the new residential community.
- Additional community benefits will be realized through proactive planning to make progress in the goals of the Town’s Housing Production Plan, thereby enabling the community to take greater control over future development.
- The current Building Permit Fee of \$10 per \$1000 of value equates to a fee of approximately \$600,000 for the residential project.

¹⁸ 19% of school population receives special education assistance at an annual cost of \$8,000,000 (\$16,000 per student avg.). An estimated 7 school children (.19% x 38) may require services.

Hanover Crossing Residential/Retail Fiscal Summary

Taking into consideration Fiscal Report findings from the Residences at Hanover Crossing, Table Twenty summarizes the positive revenue that will be realized over the project agreement timeline, with over \$28,400,000 in net positive revenue anticipated.

Table Twenty
Hanover Crossing Residential/Retail Fiscal Summary

Retail					
Retail Revenue	2022-2026	2027-2031	2032-2034	2035-2036	TOTAL over 15 Year Period
Annual Property Taxes	\$ 700,000	\$ 950,000	\$ 1,235,000	\$ 1,770,000	\$ 15,495,000
Annual CPA Surcharges	\$ 21,000	\$ 28,500	\$ 37,050	\$ 53,100	\$ 464,850
Annual Meal Taxes	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 2,925,000
Total	\$ 916,000	\$ 1,173,500	\$ 1,467,050	\$ 2,018,100	\$ 18,884,850
Retail Expenses					
Police ⁽¹⁾⁽²⁾	\$ (180,000)	\$ (189,000)	\$ (198,450)	\$ (208,373)	\$ (2,857,095)
Other General Fund Impact ⁽¹⁾	\$ (10,000)	\$ (10,500)	\$ (11,025)	\$ (11,576)	\$ (158,728)
	\$ (190,000)	\$ (199,500)	\$ (209,475)	\$ (219,949)	\$ (3,015,823)
Net Positive Fiscal Impact	\$ 726,000	\$ 974,000	\$ 1,257,575	\$ 1,798,151	\$ 15,869,028

Residential					
Residential Revenue	2022-2026	2027-2031	2032-2034	2035-2036	TOTAL over 15 Year Period
Annual Property Taxes ⁽¹⁾	\$ 891,900	\$ 936,495	\$ 983,319	\$ 1,032,485	\$ 14,156,901
Annual CPA Surcharges	\$ 26,757	\$ 28,094	\$ 29,498	\$ 30,972	\$ 424,693
Annual Excise Tax ⁽¹⁾	\$ 151,000	\$ 158,550	\$ 166,478	\$ 174,802	\$ 2,396,786
Annual Ambulance Calls ⁽¹⁾	\$ 51,600	\$ 54,180	\$ 56,889	\$ 59,733	\$ 819,034
Total	\$ 1,121,257	\$ 1,177,319	\$ 1,236,183	\$ 1,297,992	\$ 17,797,414
Residential Expenses					
Police ⁽¹⁾	\$ (45,000)	\$ (47,250)	\$ (49,613)	\$ (52,094)	\$ (714,275)
Fire ⁽¹⁾	\$ (60,000)	\$ (63,000)	\$ (66,150)	\$ (69,458)	\$ (952,365)
Schools ⁽¹⁾	\$ (202,000)	\$ (212,100)	\$ (222,705)	\$ (233,840)	\$ (3,206,296)
Other General Fund Impact ⁽¹⁾	\$ (20,000)	\$ (21,000)	\$ (22,155)	\$ (23,263)	\$ (317,991)
	\$ (222,000)	\$ (233,100)	\$ (244,860)	\$ (257,103)	\$ (5,190,926)
Net Positive Fiscal Impact	\$ 899,257	\$ 944,219	\$ 991,323	\$ 1,040,889	\$ 12,606,488

(1)Assumes a 5% increase every 5 years

Total Net Positive Fiscal Impact Over 15 Year Period	\$ 1,625,257	\$ 1,918,219	\$ 2,248,898	\$ 2,839,041	\$ 28,475,516
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