

SITE IMPACT STATEMENT FOR SITE PLAN REVIEW

**"Automobile Dealership"
Proposed by
Boch Shrewsbury-Worcester, LLC**

**701 Boston Turnpike
Shrewsbury, Massachusetts**

Revised January 26, 2023

Pursuant to Shrewsbury Zoning Bylaw Section VII F.3.g, we offer this Site Impact Analysis in conjunction with the submission of an application for Site Plan approval. The accompanying Site Plans are titled "Site Plan, Proposed Automobile Dealership, 701 Boston Turnpike, Shrewsbury, Massachusetts, Prepared for Applicant Subaru of New England, LLC," and dated August 22, 2022. We have reformatted this report to be responsive to the request made by Assistant Town Planner Lousie O'Neill provide answers to specific questions based upon the most recent version of the Planning Board's Site Plan Rules and Regulations.

Site Description

The subject site is located on the northerly side of Boston Turnpike at number 701 and is bounded on the easterly side by South Street. It is bounded northerly and westerly by residential properties on Brentwood Drive and Boston Turnpike. The property comprises 25.89 acres +/- of land zoned partially "Commercial Business" and partially "Residence A". No portion of the automobile dealership is proposed within the portion of the lot zoned as "Residence A". The only work proposed in the residential district is related to the construction of a portion of the stormwater mitigation system, including the construction of an infiltration basin. Until recently, the use of the property was as two single-family homes with appurtenant driveways, outbuildings, and yards.

Project Description

The Applicant proposes to construct a 57,862 square foot Automobile Dealership. with associated parking, utilities and landscaping areas. Access to the site will be from South Street with one entering (right in only) and one exiting lane (right turn only) and from Boston Turnpike with one entering and one exiting lane. A total of 600 vehicle spaces are proposed, including 418 vehicles in the sales inventory, 26 vehicles in featured display areas, 77 parking spaces for employees, 79 parking spaces for sales and service customers.

Traffic, Transportation and Circulation

Traffic impact: projected total and peak-hour trip generations, capacity and pre- and post-project (buildout) level of service (LOS) of streets and intersections to be affected by the project, existing and proposed traffic controls and sight lines at the intersections of proposed driveways and streets.

Level of service. Level of service shall be analyzed using the procedures described in the most recent edition of the Highway Capacity Manual, published by the Transportation Research Board.

Trip generation. Traffic generated by a proposed use shall be estimated in accordance with the most recent edition of Trip Generation, published by the Institute of Transportation Engineers (ITE).

A Traffic Impact Study was completed by McMahon Associates, which estimated new trips to the site in accordance with ITE. The study area intersections were analyzed for existing 2022, 2029 No Build, and 2029 Build conditions using Synchro capacity analysis software which is based on the methodologies and procedures in the Highway Capacity Manual (HCM). Based on the analysis completed, the estimated new trips are not anticipated to have a significant impact on the overall traffic operations of the study area intersections and roadways.

See the Traffic Impact Study for more detail, including existing and projected trip counts and level of service (LOS).

Stormwater

The stormwater management systems shall be designed in accordance with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Policy Handbook and Technical Handbook, as most recently amended.

The stormwater management system has been designed in accordance with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Policy Handbook and Technical Handbook, as most recently amended, and the Town of Shrewsbury Stormwater Standards. The site lies over soils classified as Paxton and Merrimac Series. Infiltration of runoff is imperative in the design of the site. Roof runoff from the building will be directed to three infiltration areas. Runoff from the paved parking area will be treated by Deep Sump Catch Basins and hydrodynamic separators prior to being directed to the infiltration ponds. Peak rates of runoff will be mitigated to be at or below the predevelopment conditions. Thompson-Liston Associates, Inc has prepared a comprehensive Stormwater Report. A stormwater permit is required pursuant to the Town of Shrewsbury Stormwater Management Rules and Regulations. Through recharge of stormwater to the ground, treatment and detention, the peak rate of post-development stormwater runoff from the site will be mitigated in compliance with Town and Massachusetts DEP standards.

See the Stormwater Report for additional details, including summaries of the various BMPs, the peak rates of flow, and the DEP Stormwater Checklist.

Public Services and Fiscal Impacts

Fiscal impact: projections of costs rising from increased demand for public services and infrastructure; projections of benefits from increased tax revenues, employment and infrastructure improvements; and impacts on adjacent property values.

Public Services and Infrastructure

The Automobile Dealership will add jobs to the existing business base and will increase the commercial tax base in Shrewsbury by millions of dollars with minimal demands upon municipal services including none on the school system. A negligible increase in the need for emergency services results from any business development. We cannot predict how many additional police or EMT calls might result from a business of this size.

Sanitary Sewer System

The building will discharge sanitary sewage to the sanitary sewer system. We have confirmed with the DPW and Engineering Department that the property can discharge to the public sewer system. Using daily flows based upon DEP regulations 310CMR15.203, based upon office space and service bays, the facility would be predicted to generate approximately 4,300 GPD of sewage flow. However, looking at real world flows of 778 GPD from the existing Patrick Subaru dealership, obtained from Town water records, it is evident that this would be a significant overstatement of the expected flows. If we double the daily flow from the existing facility to reflect the proposed facility, in accordance with 310CMR15 practice, and then double them for the new facility, the projected daily flow is 3,111 GPD. Additional connection fees and quarterly fees are designated to cover the cost of the sewer service.

Water Supply System

The building will be served by a connection to the existing municipal water system in South Street. Shrewsbury DPW indicates that there is adequate supply capacity at this location to serve the facility. Once the fire suppression has been designed, we will have better knowledge of the adequacy of pressure for the fire flow demand. As with sewer, additional connection fees and quarterly fees are designated to cover the costs of the water service.

Projected Fees and Tax Revenue:

We estimate that the project will generate significant Building Permit fees and annual property tax revenue for the Town. Anticipated Annual Tax Revenue: \$308,000. Additional substantial ongoing revenue will also be realized by the Town from excise and personal property taxes, sewer and water fees, and stormwater fees, as is the case with other dealerships in Town.

Employment:

Patrick Subaru will likely expand its workforce at its new facility to more than double, to approximately 70 people. The new facility is modern, efficient, and significantly larger than twice its existing facility. The Subaru brand is now the #3 auto brand in New England in terms of volume, and demand continues to grow.

No infrastructure improvements have been identified that are directly attributable to the project. Some minor improvements will be made to the South Street/Route 9 signalized intersection, as have been identified in a safety audit. The MassDOT will assign certain improvements to the project through the access permitting process.

Impacts on adjacent property values

Though much can be said about the effect upon properties that result from commercial development, there is not much evidence to support it in a commercial area such as Route 9. Based upon demand for property in the immediate area, the low inventory of properties for sale, and continued increases in sales prices, we have to disagree with this premise. We hear similar claims from abutters to all types of land development projects, including residential, medical, retail, and food service uses, but in truth, there is continued demand for property in an expanding commercial area, in a growing community, and having a good school system. This is the reputation of Shrewsbury, being among the best in all categories, and attracting real estate investment.

Environmental Impacts

Environmental impact: written analysis of the project's potential impacts on the quality of air, surface water and groundwater; flooding potential; increases in impervious

surfaces; compliance with groundwater protection overlay district requirements; hazards from radioactive emissions; other hazardous materials; solar access to adjacent properties; noise and light impacts.

Air Quality

Although the use is related to transportation, and there is a large number of automobiles in the vehicle inventory, these will not generate exhaust on a regular basis. The transportation study outlines the number of vehicle trips per day that are expected, and given the size and proximity of the site adjacent to a major thoroughfare, these represent only a fraction of daily vehicle trips on Boston Turnpike. Only limited truck traffic is expected, the largest of which is required to deliver new cars to the site. As described by the representatives of Subaru of New England, these amount to less than one truck per day on average. Some additional weekly trips will result from parts deliveries and waste removal. Again, an average of less than one truck per day. We anticipate the building will be served by natural gas service via connection to the existing NStar main in Boston Turnpike. We expect no issues of capacity with this service. Highly efficient and clean-burning gas rooftop units are a very efficient means of providing heating of the facility.

Surface Water and Groundwater

Impacts on surface and ground water will be minimal. As described under stormwater above, the project will greatly exceed the minimum recharge volume specified in the Massachusetts DEP Standards, stormwater runoff is treated to a higher standard and reduced in volume, such that surface waters will be protected. There is a wetland resource area located in the northeasterly portion of the site, downstream of the infiltration system. There is no alteration proposed in a wetland resource area, only work in the respective outer 100-foot buffer zone for the construction of the stormwater management system.

Although the site is not in a groundwater protection overlay district, recharge of groundwater is a required element of the DEP Stormwater Standards, as described in detail in the Massachusetts Stormwater Handbook. Recharge measures incorporated into this site to protect the groundwater include structural measures: deep sump catch basins, trap outlets in the catch basins and CDS hydrodynamic separator units to provide for the treatment of stormwater flows before their discharge to the infiltration basins, as well as structural infiltration systems for roof runoff, that provide for recharge of the rainfall to maintain the recharge of groundwater that closely matches the existing natural water cycle.

The design plans incorporate a number of means and methods for the protection of the ground and surface water quality and quantity on the site. First and foremost, a phased erosion and sedimentation control plan provides construction period controls, sequence and methods of work, and installed BMPs, including sedimentation control barriers and various temporary construction phase protections that will serve to trap, slow or redirect surface flows while the parking areas and the building are being built.

A comprehensive construction period stormwater pollution prevention plan (SWPPP) will be developed in consultation with the site contractor as part of the EPA NPDES permit program. Measures will include stabilizing construction areas as quickly as is possible as work is completed. All disturbed areas of the site will be permanently stabilized upon completion of work. Erosion and sedimentation control efforts will also require regular inspections by the Site Operator's inspector and others. It will be the Operator's responsibility to quickly respond to any erosion problems and to provide corrective or remediation methods of control. An Erosion and Sedimentation Control Plan is included in the Site Plan set.

Flooding Potential:

The site does not lie in a defined or regulated flood zone. Given the robust stormwater management and recharge program that is proposed, no increase in downstream flooding is anticipated from the project.

Increases in Impervious Surfaces:

As designed, the site will involve the construction of approximately seven (7.0) acres of impervious surfaces, including pavements, walks, concrete pads, and the building roof itself. Since there are existing homes, driveways, and other improvements on the site, these are deducted to determine that the net increase in impervious surfaces is approximately 5.5 acres. Some low use areas of the site will be constructed with pervious grass pavement. Runoff from the roof will be directed to structural recharge ponds. Runoff from most of the remainder of the new impervious surfaces will be managed by deep sump catch basin collectors, routed through hydrodynamic separators to provide superior reduction in fines and floatables, and then directed to two open air infiltration ponds.

Compliance with Groundwater Protection Overlay District requirements:

The site is not in a Groundwater Protection District.

Hazards from radioactive emissions:

None are expected.

Hazardous Materials:

Petrochemical materials are expected to be stored and used on site. There is a proposed multi-chambered double-walled fiberglass tank to hold fuel and oil. The materials and installation will be completed according to the most stringent requirements and the design and installation will be done under oversight of the Shrewsbury Fire Department. Materials used, moved, and stored as well as those sent for disposal from the maintenance/service bays are strictly controlled by a myriad of laws and protocols and in all cases will be kept from reaching resource areas. Once installed and inspected, the Operator of the site must ensure that no illicit discharges reach the stormwater system.

Solar access to adjacent properties:

Due to the topography of the site, the tree clearing, grading and construction activities is expected to have little or no change to solar access to any residential properties to the north or west of the building, since the site is largely below them, and a significant buffer of forested land will remain. Though it is difficult to say where there in an existing 80-ft of site relief, tree clearing might increase the available summer afternoon sunlight to the properties on the east side of South Street.

Noise and light impacts:

When we are looking at properties that front on a major thoroughfare like Boston Turnpike (a/k/a State Route 9), it is difficult to say how noise from a development site could affect the adjacent properties, where there is already significant background noise. We have identified some potential sources of noise that might affect neighboring properties, and we have addressed them as follows.

The use itself, automobile repairs, could be a source of noise. The service area of the proposed facility is built into the hill, with only a solid wall facing the north and northwest residential properties, which are also separated from the building by a forested buffer. Access to the service department will be first through normally closed, motion activated garage doors, into a customer receiving area, where the vehicle is handed over to a service

technician, and is moved into the actual service bay through another door. When work on the vehicle is completed, the vehicle is driven out to the lot at the southwest end of the building into a customer service lot. Likewise at the east end of the building, cleaning and reconditioning of vehicles occurs in a closed garage space with only one door. The automatic closing doors function to provide noise reduction as well heating and cooling efficiency.

Truck traffic, both auto carriers and trash trucks were another identified potential source of noise. Subaru of New England has explained that they own the fleet of delivery trucks and can control hours of delivery. They can also stipulate acceptable hours in their trash hauling contract. The proponents have agreed to limit delivery and trash pickup to hours of operation 7:00 am – 7:00 pm. It should be noted that the location where trucks are expected to load and unload vehicles, and the trash storage area are separated from most residential properties horizontally by over 500 feet.

Lighting of the site has been designed with full-cutoff, or dark sky compliant, lighting fixtures, as required by the Shrewsbury Zoning Bylaw. That is to say, the fixtures may not project light above the horizontal plane. To avoid off-site effects upon residential neighbors, the proponent has stated that 60-70% of the lights will be turned off during overnight hours, one hour after business hours. They have also offered to turn off any one specific after-hours light fixture if it causes a glare problem to a residential abutter. Due to the distance of separation from the lighting to the property boundary and the significant forested buffer that will remain, we do not foresee any lighting issues.

Community Impacts

Community impact: analysis of the project's impact on the surrounding neighborhood in terms of architectural character, pedestrian movement and overall character; impacts on nearby historic structures or sites; and an evaluation of the proposed project's consistency and compatibility with existing local and regional plans.

Since the focus of the site is Route 9, largely forested buffers will remain between the dealership and the abutting neighborhoods. The site is sited in the Commercial Business Zone, and other nearby uses include retail, food service, a pharmacy, automobile sales and service, multi-family housing, and the Town of Shrewsbury public works garage.

HFA has designed a modern aesthetically pleasing auto dealership that will be sited on a hill overlooking the intersection of South Street and Boston Turnpike (Route 9). In this area, and diagonally across from the site, several other auto dealerships also sit upon the opposite hillside. It is not a building that will be situated at the sidewalk, and will be viewed by most travelers from several hundred feet away. It fits in perfectly with the architectural character of a highway business area.

In accordance with the requirements of the Zoning Bylaw, pedestrian access to the building is provided from the public way, and throughout the site to separate pedestrian and vehicle traffic. There are no walks on these public ways, however, to which the walk will connect. The overall character of the project is compatible with and an improvement upon the existing character of the Commercial Business District.

As one interested resident of Shrewsbury pointed out that, there is an antique colonial house on the property that was owned at one time by someone famous. That in and of itself does not make it a historic property, however. The property is not listed on the State or Federal

Historic Register, and it has been vacant for some time. It is in a state of disrepair. The owner has offered to donate the house to any interested party to relocate the house to another site.

Given that automobile sales and service is a use that is specifically allowed in the Zoning Bylaw in the Commercial Business District, the siting of a dealership here is compatible with the Town's overall plan. Given that auto-centric uses are generally sited on major thoroughfares, this east-west highway is an ideal location for an automobile dealership. Patrick Subaru will be moving to this location from its existing facility further west on Route 9. At least seven other new and used auto sales facilities are located in a three mile stretch of Route 9. These are successful business enterprises that take advantage of the volume of commuter traffic passing by every day. We cannot say whether the local or regional plan states a preference for the location of an automobile sales facility, but from a dealership perspective, a site at a traffic light, on a major regional highway with significant daily traffic is an ideal location.

Respectfully submitted,

THOMPSON-LISTON ASSOCIATES, INC.



Patrick J. Healy, P.E.
Principal