
Development Impact Statement

“Valley Road Minigolf”

Assessor’s Map 107NE, Lot 402A
0 Valley Road
Middletown, RI

Prepared For

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1.0 INTRODUCTION

This Development Impact Statement is required under Section 310 – Development Impact Review of the Town of Middletown Zoning Ordinance, October 2006.

1.1 Site Description

The existing 3.72-acre Site includes a single parcel which was formerly Parcel “A” of a three-lot subdivision of Lot 402 completed in 2021. The Site is, and has historically been, a vacant property. The Site fronts on Valley Road (RI RT 214), a state maintained right of way. The Site also has a small amount of frontage at the rear of the lot on Bristol Road, a town-maintained roadway. There is no formal access to the Site from either roadway. The Site abuts an occupied commercial property to the south, and a vacant commercial property to the northwest, both of which also front on Valley Road. To the rear and northeast of the Site lie small residential properties. Ground cover on the Site is limited to primarily grasses, with larger shrub vegetation along the perimeter edges and street trees along Valley Road. Municipal sewer is available in Valley Road in limited areas, while municipal water is available in both Valley Road and Bristol Road. Overhead electrical and communication services are available on the east side of Valley Road. There are no stormwater quality or control devices located on the property. The frontage along Valley Road includes a bituminous concrete sidewalk with precast concrete curbing. Both the sidewalk and the curbing are in poor condition.

There are no features protected by the state located on the property. The property is located in the town of Middletown Watershed Protection District Zone 2. The ultimate receiving waterbody for the property is Bailey’s Brook (WB ID RI0007035R-01). This waterway has been assessed with a TMDL for bacteria (enterococcus).

1.2 Zoning

The existing subject property and the adjacent commercial properties along Valley Road are zoned Limited Business, Traffic Sensitive (LBA). This district was established to provide areas for day-to-day localized shopping needs, convenience shopping services to neighborhood areas, and to provide limited specialized business uses in certain parts of town. Within the LB District, a miniature golf course is designated as a special use.

Residential properties located to the rear of the Site are zoned Medium Density Residential (R20).

1.3 Regulations and Guidelines

Regulations and Ordinances that helped to shape the development of the project Site were the following:

1. Town of Middletown Comprehensive Amendment Zoning Ordinance.
2. Town of Middletown Rules and Regulations Regarding the Subdivision and Development of Land.
3. State of Rhode Island Stormwater Design and Installation Standards Manual.
4. Urban Hydrology for Small Watersheds. (TR-55 Manual)
5. Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction.
6. Rhode Island Department of Transportation Standard Details.
7. Soil Erosion and Sediment Control Handbook.

2.0 SITE IMPROVEMENTS

The applicant intends to construct a miniature golf course on the vacant property. The development will be limited towards the front half of the property, with the rear half remaining vacant. The 18-hole mini golf course will be supported by a small structure which will house restroom facilities and a small office. The site shall be accessed via a new paved driveway from Valley Road. This driveway will require a curb cut, as the site currently has none. This new curb cut is to be situated sufficiently far from the southern property line so as to provide appropriate sight lines past existing vegetation. The paved access will lead into the site, behind the golf course, into a paved parking area. The proposed lot coverage shall be well within the maximum 35% lot coverage allowable by the zoning ordinance.

2.1 District Regulations (Middletown Zoning Ordinance Article 6)

The project as proposed does not require any dimensional variances from the Zoning Ordinance (Article 6).

2.2 Supplementary Regulations (Article 7)

The following information details the project's conformance with the Supplementary Regulations (Article 7) of the Zoning Ordinance:

- The front, side and rear yards shall be unoccupied and unobstructed by buildings or structures
- No accessory structures are proposed within ten (10) feet of a proposed property line
- All proposed structures shall not exceed the District Dimensional Regulations.
- Any fencing shall not exceed 6 feet in height
- There will be no storage or parking of major recreation equipment, mobile homes or unserviceable vehicles
- Stormwater management shall be provided in accordance with Section 715 of the Middletown Zoning Ordinance. All stormwater best management practices shall be installed prior to construction of the building or surfacing of the parking area.
- All yard requirements shall comply with Section 716 of the Middletown Zoning Ordinance.
- There will be no farm activity on the project site.
- The property meets the increased frontage requirement of Section 720 of the Middletown Zoning Ordinance.
- Any landscaping shall conform to Section 723 of the Middletown Zoning Ordinance.

3.0 TRAFFIC CONDITIONS

A trip generation calculation was performed defining both existing and proposed conditions at the Site. Presently, the site is vacant. The proposal is to construct a miniature golf course. This use is a seasonal recreational business typically open during the warmer months of May through October, or approximately six (6) months of the year in the northeast region. During the off-season periods (6 months) the site is anticipated to generate little to no daily traffic. When in operation, the greatest impact of site related traffic would be limited to the daily afternoon peak hour, as this use is not open

during the morning commuter period, where it typically opens mid to late morning and runs through the late evening hours.

During the afternoon peak hour, this land use, based upon ITE code 431 is estimated to generate a total of six (6) vehicle trips (2 entering/4 exiting). Therefore, it can be concluded that there will be no adverse impact to the local street system of Valley Road, and specifically at the proposed site driveway intersection, due to the low volume of peak hour traffic generated by the proposed recreational land use (6 trips).

3.1 Proposed Development Traffic Conditions

The proposed miniature golf course will be accessed from a new curb cut on Valley Road, a state-maintained right-of-way. The site does not currently have a curb cut. The new curb cut will meet the edge clearance requirements of the RIDOT. This section of Valley Road serves as a major arterial roadway between West Main Road (RI RT 114) and East Main Road (RI RT 138), and serves a number of commercial properties.

The proposed intersection of the driveway with Valley Road will be reasonably sloped with the excellent visibility up the access and towards the proposed structure. This intersection will be at approximately a ninety (90) degree angle to the existing roadway. The access location has no significant existing trees that will remain or any proposed vegetation near the intersection thereby providing acceptable visibility.

The proposed two-way entrance has been designed with a 20-foot-wide clearance. The aisle of the parking area is provided with a 24-foot-wide clearance. A sidewalk will be provided along the parking area and across the front of the office and restroom structure. A sidewalk will also be provided along the side of the access linking to the existing sidewalk on Valley Road.

3.2 Parking (Middletown Zoning Ordinance Article 13)

The proposed development meets or exceeds the parking requirements of Middletown. A total of 27 parking spaces are required for the new commercial use. A total of 41 spaces shall be provided in the proposed conditions scenario. No public parking is required by the proposed use.

4.0 WATER SUPPLY - DOMESTIC

The project will be served by municipal water (Newport Water). The water connection is proposed from Bristol Road to the rear of the site so as to avoid cutting Valley Road.

Water Quantity Methodology

The Rhode Island Department of Environmental Management, Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems provided the estimated sewer flow from the residential structure. The Civil Engineering Reference Manual was used to calculate the Max Daily Flow and Max Peak Hourly Flow.

References

1. The Rhode Island Department of Environmental Management, Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems, dated November 2018.
2. Civil Engineering Reference Manual, Ninth Edition, 2003
3. International Building Code

Water Quantity Demand Calculations

The following chart illustrates the estimated water usage:

Number of Restrooms	Water Usage Rate (gpd)	Total Water Usage (gpd)
2	400	800

Based on the demand table above, the Average Daily Flow for the new structure is estimated at 800 gallons per day. This is based on the RIDEM expected flows, which is considered to be a conservative estimate. Based on the average water consumption of 800 gallons per day, we will calculate the maximum daily flow and maximum peak hourly flow on the following formulas:

$$\text{Max Daily Flow} = \text{Average Daily Flow} \times \text{Max Daily Multiplier}$$

$$\text{Max Daily Flow} = 800 \text{ gpd} \times 1.50$$

$$\text{Max Daily Flow} = 1200 \text{ gpd} = 50 \text{ gph}$$

$$\text{Max Peak Hourly Flow} = \text{Average Daily Flow} \times \text{Max Peak Hourly Flow Multiplier}$$

$$\text{Max Peak Hourly Flow} = 800 \text{ gpd} \times 2.5$$

$$\text{Max Peak Hourly Flow} = 2,000 \text{ gpd} = 83 \text{ gph} = 0.003 \text{ cfs}$$

5.0 SEWAGE DISPOSAL

The Town of Middletown provides limited public sewer disposal along Valley Road Avenue. No main is present along the frontage of the property. A connection is proposed to the existing sewer line running through the abutting property to the south. This sewer line crosses into Valley Road and flows towards the west. This sewer connection will require approval from the abutter and the town. An easement for the line will also be required. All sewer work will be performed in accordance with the Town of Middletown Public Works standards.

6.0 STORMWATER

Stormwater control for this development will be provided by an infiltration basin located at the front of the property. Discharge from this device towards the northwesterly abutter shall be via a staged concrete weir. Pretreatment for this device shall be provided by a sediment forebay located to the south of the access driveway. Stormwater from the developed portions of the site shall be conveyed by precast concrete structures located in the parking area and in the aisle. This conveyance includes a diversion manhole that routes low flow to the sediment forebay and higher flow directly to the infiltration basin. A bituminous spill off from the aisle shall convey another component of runoff to the sediment forebay. Closer to Valley Road, a trench drain captures another small portion of runoff and conveys it to the infiltration basin. To the rear of the developed portion of a site, a dry swale runs westerly across the property, effectively routing upstream runoff around the improvements. This device provides additional stormwater treatment for upstream off-site impervious surfaces in order to offset pollutants generated by the development. The 200 feet of grassed area to remain undisturbed will effectively provide pretreatment for the dry swale. Only a small portion of the site will drain via surface flow towards Valley Road, as in the existing conditions.

The proposed drainage system has been designed to maintain or reduce the peak runoff rate to equal or less than that of the existing conditions during the Type III, 24-hour design storms for the 1,2, 10, 25 and 100-year storm events. The proposed drainage system will also be designed to provide water quality treatment in conformance with current RIDEM recommendations.

For detailed description and calculations please refer to the project Drainage Report.

7.0 ELECTRIC SERVICE

National Grid provides overhead electrical services along Valley Road. The project proposes to tie into the overhead service and run underground conduit to the proposed structure. National Grid is expected to have the capacity and willingness to service the project; however, they have not yet reviewed the proposed connection. All construction and design will be in accordance with the National Grid Rules and Regulations.

8.0 GAS SERVICE

No natural gas services are proposed at this time.

9.0 POLICE

Police enforcement shall be provided by the Middletown Police Department. Since the project is surrounded by similar use developments and does not contain any special or unusual features, the project should receive similar protection.

10.0 FIRE PROTECTION

Fire protection shall be provided by the Middletown Fire Department. A fire hydrant is located on Valley Road across from the property, adjacent to the NAPA Auto Parts driveway. The parking lot access shall be approved by the Fire Department.

11.0 SCHOOLS

As no new residential units are proposed, the project is not anticipated to have any effect on the public school system.

12.0 EMERGENCY SERVICES

Since the project is surrounded by similar use developments and does not contain any special or unusual features, the project should have similar access to emergency services.

13.0 PHYSICAL AND ECOLOGICAL CHARACTERISTICS

13.1 Surrounding Lands

Surrounding land use consists primarily of small-scale commercial uses including retail, office space, and restaurants. The other two lots of the Happy Valley subdivision are currently vacant, but they are expected to house additional commercial uses in the near future. To the rear of the site, lies a dense residential neighborhood.

13.2 Wetlands

There are no wetlands or other features protected by the state located on the Site.

13.3 Flood Plain & Soils

According to the Flood Insurance Rate Mapping for the Town of Middletown the site is located in Zone X. Zone X is within the area of minimal flooding for the 100-year flood.

The soil types on site are mapped as PmA and PmB (Pittstown silt loam) by the USDA Natural Resource Conservation Service. These silt loams are a type C hydrologic soil common to Aquidneck Island. Class IV soil evaluations performed in the area of development revealed **sandy loams** with water tables varying from 40 to 60 inches, increasing towards the front of the site. According to historical aerial photography, this site has never been developed, seeing exclusively agricultural uses.

13.4 Vegetation

There is no significant vegetation on the property aside from unmaintained grasses and perimeter vegetation. A small number of street trees are present along Valley Road.

13.5 Wildlife Habitat

Since the site is surrounded by developed urban areas, the subject property is not considered a significant wildlife habitat. To the best of our knowledge, there are no endangered or threatened species living on the site.

13.6 Environmental

The applicant will meet all environmental requirements of the Rhode Island Department of Environmental Management and the Town of Middletown. Construction of this development will improve the environmental conditions of the site with sediment collection measures, a reduction in peak run-off, and an increase in water quality of the site stormwater discharge. There will be an overall reduction in specific pollutants, such as bacteria, to the downstream impaired waterway.

14.0 CHARACTER OF THE COMMUNITY

14.1 Scenic

An evaluation of the site surroundings reveals that the site is located in an area appropriate for a small-scale commercial use. The property is located in an area consisting of similar uses and will complement local tourism. The property and its direct surroundings have the scenic value one might expect from a limited business district. The proposed use is not expected to detract from this value as a substantial portion of the property is to remain undisturbed. A significant buffer to the adjacent residential use is proposed.

14.2 Archaeological Conditions

There are no special or unique archaeological conditions known to exist on the site as it is located centrally in town. If any archaeological artifacts or remains are found during construction, work will stop immediately and a historic/archaeological expert will be consulted to determine the significance of the find. The archaeological remains, if they are found to be significant, will be preserved based on the Town and expert's recommendation and/or opinion.

14.3 Scale

The scale of the proposed commercial support building is the smallest that could reasonably be expected to be seen in this application. The structure features only a small office, a ticket window, and two restrooms.

14.4 Placement

The placement of the proposed structure shall meet all setback requirements of Middletown. More than 300 feet of separation is provided to the nearest residentially zoned structure. Screening and general appearance were considered during development so as to have the minimal impact to neighbors, while still maintaining visibility from Valley Road.

14.5 Lighting

All proposed lighting shall be consistent with Article 27B and shall be dark sky compliant.

14.6 Abutting Properties and Property Value

This development will have no detrimental effects on abutting property values since abutting properties are of primarily the same type of land use (limited business). The proposed development is proposed sufficiently far from abutting residential uses to anticipate that there will be no negative impacts to these property values.

15.0 CONCLUSION

It is our opinion that this proposed development will have no negative environmental impacts on the Town of Middletown as a whole or to abutting property owners. The quality of the development and its intended purpose to provide a desirable, centrally located, tourist attraction, which will be an asset to the town.