

**STAFF REPORT**  
**Application # IWW, WPL-11053-20**  
**37 Spicer Road**  
**Assessor's Map: E09 Tax Lot: 029**  
**Public Hearing October 14, 2020**  
**Prepared September 18, 2020, Last revised October 9, 2020**

**Receipt Date:** September 9, 2020

**Application Classification:** Plenary

**Application Request:**

To construct new attached 24' x 48', two-story garage addition with room above. A 16' x 8' covered porch, additions and renovations to the existing residence including a new higher roof above the second floor and a new a/c unit. Structure to be FEMA compliant. Demo detached garage. Revised driveway and new drainage system.

**IWW and WPLO Regulated Areas**

There are two areas of the property regulated by the Inland Wetland and Watercourse Regulations. The wetland finger in the northern section of the property and the pipe that carries Pussy Willow Brook from north to south that runs through the middle of the site. Though the watercourse lies within a pipe it is still regulated as a watercourse. If it were not, IWW setbacks determined for this property include a 50' review area for additions, 30' review area for the driveway, and a 20' non-disturbance buffer for the proposed grading and drainage from wetland boundaries, the addition to the residence, revised driveway, and associated work would be located beyond each applicable setback and eligible for an administrative approval under these regulations.

The Waterway Protection Line Ordinance dictates that the WPL boundary be located 15' from the 25-year floodplain. The work for the addition, grading and drainage are proposed within the WPL area of Pussy Willow Brook requiring Flood & Erosion Control Board and Conservation Commission approvals.

**Plans reviewed:**

1. **Site Plan, Details & Notes** Spicer 37 Westport LLC., 37 Spicer Road, Westport, CT", Scale: 1"=20', dated May 27, 2020 and last revised to October 5, 2020, prepared by Chappa Site Consulting, LLC
2. **Drainage Computations** for the Dwelling and Site Improvements at 37 Spicer Road, Westport, CT", Scale: 1"=20', dated August 3, 2020 prepared by Chappa Site Consulting, LLC
3. **"Plot Plan** prepared for Spicer 37 Westport LLC 37 Spicer Road, Westport, Connecticut", Scale: 1"=20', dated November 13, 2003 and last revised to September 26, 2019, prepared by Leonard Surveyors, LLC.
4. **Architectural Plans:** "Proposed Additions for Spicer 37 Westport LLC., 37 Spicer Road Westport, CT", Scale ¼"=1', Dated June 1, 2020 prepared by Achilles Architects

### **Background Information:**

1. The Westport Wetlands Inventory, prepared by Flaherty Giavara Associates, P.C., dated June 1983 describes this wetland as “permanent streamside, floodplain with a wooded swamp and a perimeter of residential development.” The watercourse flows into a culvert that extends through the site to the south. Wetland soils are forming under poorly drained conditions in disturbed sediments.
2. The FEMA maps indicate that both Zone A (base flood elevation not determined) and Zone C (areas of minimal flooding) occur on this property.
3. Property exists within the Aquifer and Primary Recharge Areas further identified as coarse-grained stratified drift.
4. Property is **not** located within the Aquifer Protection overlay Zone.
5. Property does **not** exist within the Coastal Areas Management Zone.
6. The property is serviced by town sewer and municipal water supply.
7. Vegetation on this property is primarily lawn within the circular drive area with ornamental shrubs and thick deciduous tree and understory growth close to the residence.
8. The wetland and watercourse outlets to Pussy Willow Brook, which eventually drains to the Sherwood Mill Pond.
9. The Waterway Protection Line Boundary is located 15’ from the 25-year flood line boundary. The 25-year flood line is extrapolated from the Leonard Jackson Associates flood study.
10. The flagged wetland area is 1,900 sq. ft. Wetland soil types found onsite:
  - Aquents (Aq): This soil type generally has less than two (2) feet of fill over naturally occurring poorly or very poorly drained soils, or are located where the naturally occurring wetland soils are no longer identifiable, or the original soil materials have been excavated to the ground water table within twenty (20) inches of the soil surface, have an aquatic moisture regime and can be expected to support hydrophytic vegetation.
11. Existing driveway = 3,300 sq. ft.; Proposed driveway = 2,410 sq. ft. (**-890 sq. ft.**)  
Existing building = 1,415 sq. ft.; Proposed building = 2,300 sq. ft. (**885 sq. ft.**)  
Difference of total site coverage pre and post construction = **995 sq. ft.**
12. Flood & Erosion Control Board reviewed this application pursuant to the WPLO on October 7, 2020

### **Previous Permits issued:**

- #IWW/M-7575-05: Amended Wetland Map #E09
- #AA-WPL/E-7867-06: Winterize screened porch
- #AA-WPL/E- 9462-13: Deer fencing and stockade fencing
- #AA-WPL/E-10923-19: Sewer connection
- #AA-WPL/E-10937-19: Two propane tanks

### **Waterway Protection Line Ordinance**

*Section 148-9 of the Waterway Protection Line Ordinance states that the applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to*

*life and property and will not have an adverse impact on the preservation of the natural resources and ecosystem of the waterway, including but not limited to impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary exists 15' from the 25-year flood line onsite. The 25-year Flood Line is extrapolated from the Leonard Jackson & Associates Comprehensive Drainage Improvement Plan of Pussy Willow Brook.

This project includes changes to the driveway, reducing ~890 sq. ft. of driveway coverage, removal of an existing detached garage, constructing a new addition to the residence including a two-story garage, and renovating the existing residential structure. The new addition and existing garage will be built to meet FEMA guidelines for building within the 100-year flood plain. The existing cellar of the residence will be filled in 1 foot above base flood elevation (BFE) for a 100-year storm and the proposed garage will be constructed with flood vents that would make the new structure FEMA compliant. BFE for this property is established at elevation 101.3'. The ground floor for the garage will be set to 97.4' and the existing finished floor for the residence will remain at elevation 107.1'. A portion of the existing cellar of the house will be filled in to create a crawl space.

Stormwater runoff from the new driveway additions will be collected by a proposed yard drain. Stormwater from the new building addition will be collected by the gutters along the roof. These areas will discharge to two drainage areas consisting of 12" tall precast storm water galleries. The galleries have been sized to accommodate the additional runoff from a 25-year storm and to manage the first flush or 1" of rainfall for the Water Quality Volume in accordance with the 2004 Connecticut Stormwater Quality Manual. The Connecticut Stormwater Manual provides research that water quality experiences degradation when coverage in a watershed exceeds 10%. The proposed coverage for this project does increase by 995 sq. ft. The **building coverage** on site is proposed to increase from **5.87% (1,415 sq. ft.)** to **9.55% (2,300 sq. ft.)** the **overall coverage** on site is proposed to increase from **19.57% (4,715 sq. ft.)** to **23.70% (5,710 sq. ft.)**. The proposed addition to the residence and the driveway expansion is generally within the same location of the existing driveway. Staff does note that the existing garage within the 50' review area setback from the wetland line will be removed, which we consider an improvement to the site conditions.

The potential for most projects to have an adverse impact on the preservation of natural resources and the ecosystem of the adjacent waterways should focus on stormwater quality impacts and percentage of impervious area. In keeping with this premise, staff would typically request the applicant consider a pervious surface be utilized for the driveway. This would be considered a Low Impact Development and Best Management Practice (LID-BMP). These typically require a storage reservoir beneath the drive to allow for the proper volume of stormwater to be retained. However, this site is

distinctive in that the Pussy Willow Brook watercourse flows from north to south through this property, starting as an open channel for the first ~80' and then transitioning the next ~200' by way of an existing 36" reinforced concrete pipe (rcp). Aerial research reveals that the watercourse was piped at some time between 1934 and 1965, pre-dating any of our current regulations. The existing driveway and the proposed expansion area for parking cross this pipe. We would not recommend any changes to this proposal that would impact the pipe or direct water storage to the soils around the pipe. Staff also notes that the subsurface drainage areas, as proposed, are located on the same side of the property as the additions. This limits any need for drainage to cross the pipe, reducing the possibility to cause any interruption or damage to the pipe.

Staff has not seen any information regarding the pipe referencing an easement or ownership. Therefore, we must consider this a private drain. Staff feels it is imperative that this pipe functions properly as it carries a perennial watercourse. Staff recommends the owner consider having the pipe inspected by a drain specialist and document the pipe's current condition. Then, post construction, the owner should reinspect the pipe to ensure that it has not been damaged by any of the sitework. The Flood & Erosion Control Board has approved this application at the **October 7, 2020** hearing. They issued a Special Condition relating to the pipe (in addition to the standard conditions):

*The applicant shall internally-inspection-video the 36" RCP prior to commencing construction, and at the completion of construction to determine if the pipe was in any way compromised during construction. The pipe shall be repaired or replaced as necessary.*

Staff also recommends the Commission require the applicant to locate the pipe onsite prior to work commencement, and, protect the area with steel plates or other similar means.. This will allow machinery to traverse the pipe without fear of causing collapse. As stated above, a post construction inspection can verify the pipe structural condition and functionality. Staff notes that these conditions are requested with the owner's interest at hand, as this property will be the first to experience flooding if any blockage/breakage occurs. To that extent, Staff has had discussions with Engineering Department staff regarding the pipe, including future maintenance of the pipe, and recommended the owner confer with the Town Engineer. The applicant subsequently submitted the revised plans to include a "doghouse manhole" over the existing pipe located to the south of the proposed driveway expansion. This manhole will provide additional access to allow for cleaning of the pipe.

Sediment and erosion controls are shown installed around the perimeter of the proposed addition to the residence and drainage. Construction access and material stockpile areas are noted on the plans. A small soil stockpile is depicted for this project as little excavation for the foundation is required and final grade changes are limited. These should be adequate, along with routine sweeping of the road if any sediment does move offsite onto the adjacent pavement during site work especially as a result of filling in the fill activity required for the existing basement.

Regarding instituting mitigation measures to improve/protect wetland function, the plans show the installation of a bamboo barrier to stop the spread of the bamboo from the property to the north. In addition, an area for wetland plantings has been added within the 20-foot non-disturbance buffer to protect the wetland from encroachment, including, mowing activity. A detailed planting plan would be required, depicting native species, prior to the issuance of a Zoning Permit. Staff recommends the Commission allow staff to review the detailed plans and work with the applicant to adjust the plant locations, specific species, and number to adequately create a buffer along the open watercourse. Staff additionally recommends that the Commission consider requesting a bond to cover the cost of plantings for one full growing season to ensure vitality of the buffer.

Staff feels this addition, associated house renovation, and driveway changes will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance and Inland Wetland and Watercourse Regulations

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) Conformance to Flood & Erosion Control Board conditions of approval, dated October 7, 2020.
  - b) Install erosion control prior to construction commencement just outside the limit of disturbance as shown on the site plan.
  - c) Conservation Department to be contacted 48 hours prior to construction commencement.
  - d) Proposed flood vents to be installed in conformance with floodplain regulations and state building code as required by applicable departments.
  - e) The site engineer shall oversee the drainage installation and certify that it is installed correctly prior to the issuance of a CCC.
  - f) The pipe shall be inspected, pre-construction, by a drain specialist and document the pipe's current condition. Post construction, the pipe shall be re-inspected to ensure that it has not been damaged by any of the sitework. This shall be submitted prior to the issuance of a CCC.
  - g) Submit a detailed planting plan would be required, depicting native species, prior to the issuance of a Zoning Permit. Submit a bond to cover the cost of plantings for one full growing season to ensure vitality of the buffer. Buffer plantings shall be installed prior to the issuance of a CCC.
  - h) A bamboo barrier shall be installed prior to issuance of a CCC.