

Project Mitigation Plan

I. Reduction of Non-Conformity and Site Placement

- The proposed project actively reduces structural non-conformity by relocating the existing structure from a 12-foot setback (non-conforming) on the northern property line to a 20-foot setback (conforming).
- The portion of the former structural footprint that does not overlap with the reconstructed building will be fully restored using native, non-invasive vegetation.

II. Impervious Surface Management and Stormwater Mitigation

- To mitigate the slight increase in roof area (due to a covered porch and entryway) and the addition of a new driveway section, comprehensive Low Impact Development (LID) practices are being implemented in accordance with the *Vermont Low Impact Development Guide for Residential and Small Sites*.
- The rooftop will be guttered and directed to rain barrels and/or rain gardens to prevent runoff from reaching Caspian Lake.
- A robust stormwater infiltration network is being finalized on-site, including at least two new rain gardens for a total of seven rain gardens (strategically placed on the south and east sides of both the office building and the upper house, and replacing lawn area between the lake house and ADU, and to the west of the ADU). Please refer to the associated site plan including mitigation features. Past and future mitigation features have and will be installed with the oversight and assistance of Ecotone.
- Additional water filtration measures include an infiltration trench (recommended by the Lake Wise program), a series of linked absorption pits fed by rain garden overflow, and an isolated absorption pit with overflow directed to a rain garden.
- At least 1,600 square feet of lawn will be returned to native vegetation. This includes: approximately 275 square feet of current lawn which will be converted into a riparian buffer; an approximately 1,312 square foot area of lawn near the eastern site boundary which will be converted to native vegetation; and 13 of the 21 new trees, which have been planted in our current lawn and add another 13 square feet to our Covered Surface. Supplemental planting with appropriate vegetation will be used to restore and enhance the effective filtering and bank stabilization functions of a Shoreland Buffer.
- The project includes a strict commitment to creating no new lawn areas.
- The site is supported by a previously upgraded, state-permitted septic system designed to protect lake shore water quality.

III. Vegetative Cover and Shoreland Buffer Enhancement

- A comprehensive planting strategy is almost entirely completed, incorporating 21 new trees and 40 shrubs this summer to enhance water filtration, stabilize soils, and decrease runoff (refer to the attached "Tree, Shrub, and Rain Garden List" and corresponding site plan showing tree placement).
- In strict adherence to Greensboro Bylaw Article 8 (maintaining a minimum of 60% tree cover), any trees removed during construction or due to hazardous age/health (as assessed by North Country Tree Service or a suitable successor) will be replaced. Projected percentages after completion of the upper house and driveway are:
 - 11.6% Impervious
 - 62.7% Covered
 - 25.7% Open
- Tree replacement will occur at a minimum 1:1 ratio, with no fewer than fifteen (15) new trees planted post-construction to ensure canopy preservation.
- In direct alignment with Bylaw 8.6(E), a riparian buffer is being installed between the ADU and an existing steep drainage ditch leading to Caspian Lake to maximize bank stabilization and soil erosion control where standard rain gardens are not topographically feasible. As this area is currently lawn, the creation of this riparian buffer will involve converting approximately 275 sq ft of lawn into native vegetation.

IV. Construction Phase Erosion Control and Accessibility

- Construction will adhere strictly to the *Low Risk Site Handbook for Erosion Prevention and Sediment Control*, utilizing silt fencing and all appropriate runoff management measures.
- The new driveway section is routed to hug the west and north sides of the septic mound, incorporating the required 10-foot setback for leachfields from trees. Consequently, zero tree removal is required along the septic perimeter, with removal strictly limited to the junction at Gunther Lane.
- During the project, this new driveway will serve as the primary construction access road to localize site disturbance.
- Post-construction, the driveway provides necessary, gently sloping access to the upper house, serving as a vital logistical accommodation for both property owners' documented medical and mobility restrictions.