

Flood Hazard Area Regulations ***Application Review Template***

Application Completenessⁱ

- Submission of fully completed application form
- Thorough description of the development
- Proof of written notification to abutters
- Application & filing fees
- Site location map
- Sketch or site plan showing property boundaries, surface waters, topography/elevations, delineation of floodway and floodway fringe areas, existing and proposed conditions (i.e. roads, driveways, easements/ROW, utilities, grading and drainage, excavation or fill, building footprints), scale bar, elevation datum conversions (where appropriate), north arrow, relevant landmarks
- Architectural/engineering plans or other information adequately showing base flood elevations, building elevations, elevation of the lowest floor, construction materials/methods/practices, etc. The elevation datum should be referenced to that of the most recent NFIP Flood Insurance Rate Map or Flood Study.
- Additional plans or documentation in sufficient detail to show that the project meets all applicable standards
- Description or plan for proposed potable water supply and wastewater disposal
- Detailed cost estimations sufficient to determine if the project meets substantial improvement

Flood Zone Determinationⁱⁱ – Project is located at least partially within:

- Floodway Floodway Fringe, Zone AE Floodway Fringe, Zone A Not within SFHA

Required Review Procedure

- Permitted Use (Administrative Review)ⁱⁱⁱ:
 - non-substantial improvements of existing buildings
 - all other development within floodway fringe areas not specified for CU review
- Conditional Use (DRB Review):
 - new buildings
 - substantial improvement of existing buildings
 - subdivisions (5 acres + or 50 units +)
 - all other development in the floodway
 - variances

Project Description

Property Owner: _____

Tax/Parcel ID: _____

E911 Address: _____

Parcel Acreage: _____

Project Details
(new construction,
expansion,
renovations, etc.): _____

Abutting properties: _____

Complete Application

Received: _____

Submit copies for VT

DEC Review: _____

Public Hearing(s): _____

Summary of DEC

Comments Provided: _____

Date Hearing Closed: _____

Decision Issued: _____

Interested Parties: _____

Witnesses: _____

Other Information: _____

Substantial Improvement Determination

Estimated Project Cost^{iv}: _____

Structure Market Value^v: _____

%of Improvement/Market Value: _____

- Not Applicable/New Construction
- Not substantial improvement (project cost estimate is under 50% of the structure market value)
- Substantial improvement (project cost estimate is under 50% of the structure market value)

(See Flood Cost Estimate Worksheet in Application)

Standards for All Developments (floodway & floodway fringe) – see Section 5.6(H)(1)

- Reasonably safe from flooding
- Anchored to prevent floatation, collapse or lateral movement
- Constructed with flood-resistant materials

- Construction methods and practices that minimize flood damage
- Building systems (e.g. heating, electrical, ventilation, plumbing, air conditioning) designed and/or located to prevent flood water from entering or accumulating within components

Standards for Floodway – see Section 5.6(h)(2)

- Development is prohibited unless applicant’s hydrologic and hydraulic analysis determines that the proposed development will result in no increase in flood levels (i.e. “no rise”); certified by licensed registered engineer
- All development and subdivisions shall be reviewed to assure: ^{vi}
 - Minimize potential flood damage
 - Public facilities (sewer, electrical, water systems) are constructed to minimize flood damage
 - Adequate drainage is provided to reduce exposure to flood damage
 - Comply with Floodway Fringe standards in Section 5.6(H)(3)

Standards for Floodway Fringe (Floodplain)

For Development in Zone A (no base flood elevation determined) – see Section 5.6(H)(3)(c) ^{vi}:

- Elevate residential structures for new construction and substantial improvements
- Elevate new construction of non-residential structures
- Elevate or flood-proof substantial improvements of non-residential structures

For Development in Zone AE (base flood elevation determined) – see Section 5.6(h)(2):

- New construction & existing residential buildings to be substantially improved shall have lowest floor elevated one foot above BFE (i.e. basement floor must be one foot above BFE)
- Existing non-residential buildings to be substantially improved are elevated one foot above BFE or designed to be watertight and resistant to hydrostatic/hydrodynamic loads and effects of buoyancy; and certified by a professional engineer or architect
- New, replaced or substantially improved manufactured homes are adequately elevated and anchored
- Fully enclosed areas below grade are prohibited
- Fully enclosed areas above grade can only be used for parking or storage, and must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters through at least two adequately sized openings
- Subdivisions and other developments greater than 50 lots or 5 acres shall include BFE data
- Subdivisions and manufactured home parks are designed to:
 - Minimize flood damage w/in the flood prone area
 - Public facilities (sewer, electrical, water systems) are located and constructed to minimize flood damage

- Adequate drainage is provided to reduce exposure to flood hazards
- Small accessory buildings that represent a minimal investment do not need to be elevated if it is:
 - Used only for parking and storage
 - Provides in- and out-floodwater openings
 - Constructed with flood resistant materials below BFE
 - Adequately anchored
 - All building utilities (electrical, heating) are elevated or flood-proofed
- New and replacement water supply systems minimize or eliminate infiltration of flood waters
- New and replacement sanitary sewer systems minimize or eliminate infiltration of flood waters and system discharges into flood waters
- On-site waste disposal systems located to avoid impairment to them or contamination from them during flooding
- Any altered or relocated portion of a watercourse will maintain the flood carrying capacity
- Building utilities (e.g. electrical, heating, ventilation, plumbing, air conditioning) located one foot above BFE, and prevents flood water from entering and accumulating
- Fuel storage tanks located one foot above BFE and tied down to prevent floatation. No underground tanks allowed.
- In AE zones where floodways have not yet been determined, there will be no encroachments, fill or new structures unless licensed registered professional engineer certifies that cumulative effect of proposed development will not increase BFE by more than one foot [see Sections 5.6(H)(3)(n) and 5.6(E)(3)]

ⁱ This section is based upon application requirements in Section 5.6(G) of the *Windsor Zoning Regulations* (2007) as well as the VT Dept. of Environmental Conservation's *Development Review Submission Checklist*

ⁱⁱ The flood zone determination for each application shall be determined by the ZA for administratively issued permits or the DRB for all other projects. This determination is to be based on information provided in the application in sufficient enough detail in order to make this finding. This generally involves a site plan developed by a professional engineer - for and at the cost of the applicant - that clearly shows the boundaries of the parcel, water bodies, special flood hazard areas (SFHA), and all relevant project details. (Please note that it is the ZAs job to meet with and advise people who are preparing an application. At that time the ZA should evaluate the project in relation to the SFHA boundaries. At that point the ZA will identify if the proposed project is (1) clearly outside of the SFHA, (2) at least partially within the SFHA, or (3) too close to determine. The purpose of that identification process is to indicate to the applicant if a permit application is needed. A flood permit application will be required for the second and third scenarios.)

ⁱⁱⁱ As currently written, the *Windsor Zoning Regulations* are not explicitly clear regarding this. However, this is our interpretation of the permitted use permits based upon federal rules and the way the local requirements are written.

^{iv} See the project cost worksheet & FEMS guidance [Substantial Improvement/Substantial Damage Desk Reference](#), FEMA P-758

^v This figure represents the approved structure market value determined by the DRB. It is the policy of the Town of Windsor to require very specific cost estimating detail if the initial project estimate is 40% or more of the structure's market value. Market Value is determined based upon the most recent Town Grand List. The applicant may submit a request for the DRB to determine market value based upon a professional property assessment completed at the cost of the applicant.

^{vi} Windsor provisions do not appear to be consistent with ANR model standards