

**1.15.25 Flood Hazard Overlay District amendments approved on 11.20.24 for Planning Commission public hearing mini-redline, affected sections only**

**4.7 Nonconforming Structures**

4.7.1. A nonconforming structure located within the Flood Hazard Overlay District shall be regulated entirely by Section 6.8.15, and not by this Section 4.7.

4.7.2 -The regulations under this section do not construe or imply the permitting of the use of a structure declared unsafe by an appropriate governmental authority or the continuation of an establishment declared to be health hazard by an appropriate governmental authority.

4.7.3 ~~2.~~ Nonconforming structures may continue to exist unchanged indefinitely.

~~4.7.3. Nonconforming structures within the Flood Hazard Overlay District shall be regulated entirely by Section 6.8.15, and not by this Section 4.7 will also be subject to the regulations of Section 6.8.~~

4.7.4. Nonconforming structures may undergo normal repair and maintenance without a zoning permit provided that the structure's degree of nonconformity is not increased.

4.7.5. The Administrative Officer may approve the replacement, restoration, or reconstruction of a nonconforming structure after damage or destruction by fire, flood, collapse, explosion, or other similar casualty to its prior condition provided that:

- a) the reconstruction does not increase the degree of nonconformity that existed prior to the damage; and
- b) a zoning permit is issued within 12 months of the date the damage occurred.

4.7.6. The Administrative Officer may approve the replacement, restoration, reconstruction, and expansion of a nonconforming structure for reasons other than damage or destruction provided that the structure's degree of nonconformity is not increased.

4.7.7. The Administrative Officer may approve the relocation of a nonconforming structure on the same property provided that the change in location of the structure does not increase the structure's degree of nonconformity.

4.7.8. The Development Review Board may allow a nonconforming structure to extend, or further extend, into a wetland or wetland buffer, thus increasing its degree of nonconformity, provided that it is permitted by the state Wetlands Program as pursuant to Section 6.9.5.

4.7.9. For the purpose of Section 4.7, the phrase "degree of nonconformity" shall mean:

- a) the volume of the nonconforming structure within a required setback;
- b) The height of the nonconforming structure above a maximum height;
- c) the square footage that the nonconforming structure's footprint or any associated impervious surface occupies within a wetland buffer; or
- d) the extent to which the nonconforming structure exceeds any other required dimensional standard.

**4.7.10** Setback Modifications - Subject to Conditional Use Review, the Development Review Board may allow for the expansion of any nonconforming structure built prior to April 1, 1969 no closer than five (5) feet to any lot line or edge of a public or private right of way and an increase in building footprint as a result of the expansion by no more than 10% of the total ground area of the lot. For example, if the lot is 8,000 square feet, the Development Review Board could allow an increase of 800 square feet in lot coverage.

## **4.8 Nonconforming Uses**

**4.8.1.** A non-conforming use located within the Flood Hazard Overlay District shall be regulated entirely by Section 6.8.15, not by this Section 4.8.

4.8.2 A non-conforming use may be continued indefinitely provided it remains unchanged.

**4.8.3.2.** The structure containing a nonconforming use may undergo normal repair and maintenance without a zoning permit provided that the nonconforming use is not changed, enlarged, expanded, moved or altered.

**4.8.4.3.** The Administrative Officer may approve the replacement, restoration, or reconstruction of a structure containing a nonconforming use to its prior condition after damage or destruction by fire, flood, explosion, collapse, or other similar casualty provided that:

- a) the reconstruction does not change, enlarge, expand, move or alter the nonconforming use; and
- b) a zoning permit is issued within 12 months of the date the damage or destruction occurred; and
- c) all other requirements of the zoning district in which the structure containing the use is located are met.

**4.8.5.4** A nonconforming non-residential use that ceases for 12 or more months shall be deemed discontinued by the Administrative Officer, regardless of the intent to resume the prior use, and shall not be permitted to resume. A residential use may be resumed within a legal, vacant structure at any time.

4.8.

## **6.8 Flood Hazard Overlay District**

### **6.8.1. Statutory Authority for Flood Hazard Overlay District and Underlying Districts**

In accordance with 10 V.S.A. Chapter 32 and V.S.A. Chapter 117 §4424, §4411, §4414 and §4469(d), these Flood Hazard Overlay District Regulations are hereby established for areas at risk of Flood damage in the Town of Richmond. With the exception of specified exempt activities described in Section 6.8.9, Development in the Flood Hazard Overlay District requires a Zoning Permit from the Town of Richmond. All Development must comply with the provisions of the Flood Hazard Overlay District and the underlying zoning district. If a conflict exists between the provisions of the Flood Hazard Overlay District and

the underlying zoning district, the provisions of the Flood Hazard Overlay District shall take precedence, unless the use is not permitted within the underlying zoning district.

### **6.8.2. Statement of Purpose**

The purposes of the Flood Hazard Overlay District are:

1. To implement the goals, policies, and recommendations in the current Town Plan;
2. To avoid and minimize the loss of life and property, the disruption of commerce, and the public expenditures and demands on public service that result from Flooding related to inundation;
3. To restrict new residential and commercial development along river corridors leading to healthier rivers and natural areas;
4. To ensure that the selection, design, creation, and use of development in the flood hazard area is reasonably safe and accomplished in a manner that is consistent with public wellbeing and does not impair the stream equilibrium, the function served by the Floodplain, or the stream corridor; and
5. To manage all Special Flood Hazard Areas designated pursuant to 10 V.S.A., Chapter 32, §753, the Town of Richmond “All-Hazards Mitigation Plan”; and
6. To make the Town of Richmond, its citizens, and businesses eligible for federal Flood insurance, federal disaster recovery funds, and hazard mitigation funds as may be available. In recognition of the high level of exposure to the Base Flood in Richmond and the resulting risks, these regulations are designed to meet the minimum requirements established by the National Flood Insurance Program.

### **6.8.3. Other Provisions**

- a) Precedence of Bylaw – The provisions of Section 6.8 shall not in any way impair or remove the necessity of compliance with any other local, state, or federal laws or regulations. Where Section 6.8 imposes a greater restriction than other provisions in the Richmond Zoning Regulations, the provisions of this section shall take precedence.
- b) Warning of Disclaimer of Liability – These Flood Hazard Overlay District regulations do not imply that land outside the Flood Hazard Overlay District or Development permitted within such district will be free from Flooding or Flood damages. These regulations shall not create liability on the part of the Town of Richmond or any town official or employee for any Flood damages that result from reliance on these Zoning Regulations or any administrative decision lawfully made hereunder. These regulations do not imply that a property is or is not eligible for Flood insurance. These regulations do not determine Flood insurance rates. The strength of the ordinance is, however, taken into consideration when determining the Town’s cost share during a federally declared disaster that damages the Town’s public infrastructure. The ordinance may play a factor in determining individuals’ flood insurance rates through FEMA’s Community Rating System.

### **6.8.4 Definitions**

In addition to the definitions in Section 7, the following definitions apply only to Section 6.8 and supersede Section 7 definitions if presented in both sections.

**Accessory Structures** – A structure on the same lot with and of a nature which is customarily incidental and subordinate to the principal structure.

**Area of Special Flood Hazard** – synonymous in meaning with the phrase “Special Flood Hazard Area” for the purposes of these regulations.

**Base Flood** – the Flood having a one (1) percent chance of being equaled or exceeded in any given year, generally known as the one hundred (100) Year Flood.

**Base Flood Elevation (BFE)** – the elevation of the water surface elevation resulting from a Flood that has a 1 percent chance of equaling or exceeding that level in any given year. On the Flood Insurance Rate Map, the elevation is usually in feet, in relation to the National Geodetic Vertical Datum of 1929, the North American Vertical Datum of 1988, or other datum referenced in the Flood Insurance Study report, or the average depth of the Base Flood, usually in feet, above the ground surface.

**Basement** – any area of the building having its floor elevation below ground level on all sides.

**Basement, walkout-on-grade** – Any area that is sub grade on only three sides, with the downhill side at or above grade. Also known as daylight basements or terrace basements.

**Channel** – an area that contains continuously or periodic flowing water that is confined by banks and a streambed.

**Contents** – personal property that is not considered part of the structure and may include furniture, portable and window air conditioners, portable microwave ovens and portable dishwashers, clothes washers and dryers, food freezers, and machinery and equipment which are not integral to the structures primary heating, ventilation and cooling systems. Contents may also include outdoor furniture and seasonal decorations.

**Critical Facilities** – include police stations, fire and rescue facilities, hospitals, shelters, schools, nursing homes, community water supply and waste treatment facilities, and other Structures the community identifies as essential to the health and welfare of the population and that are especially important following a disaster.

**Development** – [For the Flood Hazard Overlay District, the use of the term “Development” in Section 6.8 replaces the term “Land Development” which is defined in Section 7.0 and applies to the rest of the Richmond Zoning Regulations.] “Development” means any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, but excluding maintenance and insignificant repairs.

**Degree of flood hazard** - the “degree of flood hazard” means the degree to which the velocity, volume or impact of floodwaters is increased above the normal during a flood. Any additional obstruction in the floodway or reduction in size of the floodway is considered to increase the degree of flood hazard.

**Elevation Certificate** – an administrative tool of the NFIP that documents elevation information necessary to ensure compliance with the floodplain management regulations,

determining proper insurance rates and to support a request for a Letter of Map Amendment.

**Engineering Report and Plan** – a report and a plan prepared by and signed by an engineer licensed to practice in Vermont, delineating the Base Flood Elevation Area on a property by an accepted engineering method, including but not limited to a methodology recognized by a federal or Vermont state agency, and which show the calculated Special Flood Hazard Area boundary with sufficient information for such boundary to be confirmed. The Engineering Report and Plan must include a contour map showing the actual BFE of the area and, if no BFE is available from a Flood Insurance Study, a hydrologic and hydraulic study is needed as part of the Engineering Report and Plan to provide the BFE.

**Existing Manufactured home park or subdivision** – A Manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the Manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before June 21, 1982 (the date of Richmond’s first adopted “Flood Hazard Area Development Standards”) and includes any subsequent improvements to such Structures.

**Existing Structure or Facility** – A structure or facility that, as of the time an exempt activity is undertaken or an application for a proposed permitted or conditional use development is made under this Section 6.8, that: i) qualifies as a nonconforming structure (as defined in Section 7.2); or ii) complies with this Section 6.8.

**Expansion to an Existing Manufactured home Park or Subdivision** – [The Flood Hazard Overlay

*District regulations do not allow the expansion to an Existing Manufacturing Home Park or Subdivision.] Means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).*

**Farm Structure** – a Building, enclosure, or fence for housing livestock, raising horticultural or agronomic plants (e.g., a silo or commercial greenhouse) or carrying out other practices associated with Accepted Agricultural Practice, including a silo, as “farming” is defined in state law [10 V.S.A. §6001 (22)], but excludes a Dwelling for human habitation, in accordance with the Act (§4413).

**FEMA** – U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency

**Fill** – Any placed material that changes the natural grade, increases the elevation, or diminishes the Flood storage capacity at the site.

**Fill as needed to elevate an existing principal structure** – fill required to elevate and reinforce a newly elevated existing principal structure.

**Flood** – is (a) A general and temporary condition of partial or complete inundation of normally dry land areas from: the overflow of inland or tidal waters; the unusual and rapid

accumulation or runoff of surface waters from any source; and mudslides which are proximately caused by Flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current, or (b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash Flood or abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in Flooding.

**Flood Insurance Rate Map (FIRM)** – an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

**Flood Insurance Study (FIS)** – A FEMA examination, evaluation and determination of Flood hazards and, if appropriate, the corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and /or Flood related erosion hazards. *[For purposes of these regulations, the term “Flood Elevation Study” is synonymous in meaning with the Flood Insurance Study.]*

**Floodplain or Flood-prone area** – any land area susceptible to being inundated by water from any source (see definition of “Flood”).

**Flood proofing** – any combination of structural and non-structural additions, changes, or adjustments to Structures which reduce or eliminate Flood damage to real estate or improved real property, water and sanitary facilities, Structures and their contents.

**Floodway, Regulatory, in Town of Richmond** – the Channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the Base Flood without cumulatively increasing the water surface elevation more than one foot at any point.

**Footprint of a structure** - the “footprint of a structure” in the Flood Hazard Overlay District shall be considered the area where the structure is in contact with or directly above the ground, as measured in square feet.

**Historic Structure** – any Structure that is: (a) listed individually in the National Register of Historic Places

(a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either: (i) by an approved state program as determined by the Secretary of the Interior or (ii) directly by the Secretary of the Interior in states without approved programs.

**Improvement, non-substantial** – any reconstruction, rehabilitation, addition, or other improvement to a Structure which does not meet the definition of Substantial Improvement, Maintenance, Insignificant Repair or Insignificant Activities. Non-substantial improvements will not result in new obstructions to flood flows or impair drainage

**Improvement, Substantial** – any reconstruction, rehabilitation, addition, or other improvement of a Structure, after the Effective Date of adoption, the cost of which, cumulatively exceeds 50 percent of the market value of the Structure before the Start of Construction of the improvement, or which results in an expansion of greater than 25% of the existing Gross Floor Area, whichever is less. This term includes Structures which have incurred Substantial Damage, regardless of the actual repair work performed. The term does not, however, include (a) any project for improvement of a Structure to correct existing Violations of state or local health, sanitary, or safety code specification which have been identified by the state or local code enforcement official and which are the minimum necessary to assure safe conditions or (b) any alteration of a Historic Structure, provided that the alteration will not preclude the Structure's continued designation as a Historic Structure.

**Incidental structures - structures with footprints of 150 square feet or less that are incidental and de minimis to a use, such as refuse containers, picnic tables, dog waste bags dispensers and bins, poles, tents or canopies, soccer goals and other structures incidental to outdoor recreational sports, signs (see also Section 5.7.1), portable toilets, and other structures not considered to increase the degree of flood hazard. No structures greater than 150 square feet in area shall be considered incidental structures.**

**Insignificant activities** – placement or erection of decorative or directional elements which do not result in new obstructions to flood flows or alter drainage or have the potential to be a substantial improvement. Insignificant activities may include mowing, planting a garden, adding soil amendments, installing a mail box for the delivery of US postal mail or newspaper, or erecting a flag pole. Insignificant activities will not result in new obstructions to flood flows or impair drainage or have the potential to be a substantial improvement.

**Insignificant repair** – to fix or mend to a sound condition after decay or damage and the cost of which does not exceed \$500 or does not result in the replacement, alteration, addition or extension of an existing structure. Insignificant repairs will not result in new obstructions to flood flows or impair drainage or have the potential to be a substantial improvement.

~~**Improvement, non-substantial** – any reconstruction, rehabilitation, addition, or other improvement to a Structure which does not meet the definition of Substantial Improvement, Maintenance, Insignificant Repair or Insignificant Activities. Non-substantial improvements will not result in new obstructions to flood flows or impair drainage~~

~~**Improvement, Substantial** – any reconstruction, rehabilitation, addition, or other improvement of a Structure, after the Effective Date of adoption, the cost of which, cumulatively exceeds 50 percent of the market value of the Structure before the Start of~~



Construction of the improvement, or which results in an expansion of greater than 25% of the existing Gross Floor Area, whichever is less. This term includes Structures which have incurred Substantial Damage, regardless of the actual repair work performed. The term does not, however, include (a) any project for improvement of a Structure to correct existing Violations of state or local health, sanitary, or safety code specification which have been identified by the state or local code enforcement official and which are the minimum necessary to assure safe conditions or (b) any alteration of a Historic Structure, provided that the alteration will not preclude the Structure's continued designation as a Historic Structure.

**Letter of Map Change** – a general term used to refer to the several types of revisions and amendments to maps issued by FEMA that can be accomplished by letter. The following are types of Letter of Map Change:

- A. **“LOMA”; Letter of Map Amendment** – A letter of map revision issued by FEMA officially removing a Structure, Lot, or portion of a Lot from the FEMA Special Flood Hazard Area (SFHA) as designated on the Flood Insurance Rate Maps, based on information provided by a certified engineer or surveyor. This is used where Structures or Lots are located above the Base Flood Elevation and have been inadvertently included in the mapped Special Flood Hazard Area.
- B. **“LOMR”; Letter of Map Revision** – Based on a formal request from a property owner or Applicant and supporting documentation, a LOMR is a revision to a Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a Flooding source and thus result in the modification of the existing regulatory Floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA).
- C. **“LOMR-F”; Letter of Map Revision based on Fill** – A modification of the Special Flood Hazard Area (based on Fill placed to raise a Structure or Lot to or above the 1% annual chance Flood elevation) outside of the existing regulatory Floodway, based on a formal request from a property owner or Applicant and supporting documentation.

**Lowest Floor** – the Lowest Floor of the lowest enclosed area, including Basement or Walkout-on-grade Basement.

**Maintenance** – routine care or upkeep of a structure or property which results in retention of the current condition or value. Routine maintenance will not result in new obstructions to flood flows or impair drainage or have the potential to be a substantial improvement. Also includes maintenance of existing paths, recreation areas, storm water drainage areas, roads, bridges, culverts, boardwalks or channel management activities

**Manufactured home** – [For purposes of Section 6.8, the term “Manufactured home” includes a “modular home” and a “Mobile Home” but does not include a “recreational vehicle.”] Means a Structure, transportable in one or more sections, which is built on a Permanent chassis and is designed for use with or without a Permanent foundation when attached to the required utilities.

**Manufactured home park or subdivision** – a parcel (or contiguous parcels) of land divided into two or more Manufactured home lots for rent or sale.



~~**Minor Accessory Structures**— A structure on the same lot with and of a nature which is customarily incidental and subordinate to the principal use or structure and is smaller than 500 square feet as measured by the gross floor area and that represents a minimal investment. If the Minor accessory structures has two or more walls and a roof, it may not be used for human habitation. Minor accessory structures may include buildings without walls such as carports, picnic pavilions, board walks and decks.~~

**New Construction** – For the purposes of determining insurance rates, Structures for which the “Start of Construction” commenced on or after the effective date of the original Flood Insurance Rate Maps for the Town of Richmond [dated January 5, 1982], including any subsequent improvements to such Structures.

For *Floodplain management purposes*, New Construction means Structures for which the Start of Construction commenced on or after June 21, 1982 (the date of Richmond’s first adopted “Flood Hazard Area Development Standards”) and includes any subsequent improvements to such Structures.

**New Manufactured home park or subdivision** – [For purposes of Section 6.8, *Manufactured home parks are not permitted or conditional uses.*] Means a Manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the Manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after June 21, 1982.

**No-Rise Certification** – A certification by a licensed engineer supported by hydraulic or hydrologic technical data (or an explanation of why an analysis is not required) based on the computer model utilized to develop the 100-year floodway shown on the FEMA Flood Insurance Rate Map (FIRM) and the results tabulated in the Flood Insurance Study (FIS) for Richmond.

**Nonconforming Structure or Use** - a structure, part of a structure, or a use, that does not conform to these zoning regulations, but was lawfully in existence prior to ( \_\_\_\_\_ date of adoption of this zoning revision). In the absence of any evidence to the contrary, such a structure or use will be assumed to have been lawful and in conformance with, or approved as if in conformance with, the regulations, laws and ordinances in place at the time of its creation.

~~**Nonconforming Structure**— a Structure or part of a Structure that does not conform to these Zoning Regulations but was in conformance with all applicable laws, ordinances, and regulations prior to the enactment of these Zoning Regulations, including a Structure improperly authorized as a result of error by the administrative officer. Structures that were in Violation of the Flood hazard regulations at the time of their creation, and remain so, remain Violations and are not Nonconforming Structures.~~

~~**Nonconforming use**— use of land that does not conform to these Zoning Regulations but did conform to all applicable laws, ordinances, and regulations prior to the enactment of these Zoning Regulations, including a use improperly authorized as a result of error by the administrative officer.~~

**Nonconformity** – a Nonconforming use, structure, lot, or parcel.

**Non-Residential** – includes but is not limited to: small business concerns, churches, schools, nursing homes, farm buildings (including grain bins and silos), pool houses, clubhouses, recreational buildings, government buildings, mercantile Structures, agricultural and industrial Structures, and warehouses.

**Open air recreational structure** – a structure consisting of a roof and one or more open sides that is (are) not enclosed by a wall. There may or may not be a constructed floor. The use of the structure is to provide a sheltered outdoor space for gatherings such as musical or other performances or events, picnicking, sheltering from the rain or sun or any other recreational purpose. Open air recreational structures include, but are not limited to, bandshells, bandstands, gazebos, and pavilions.

**Playground equipment** - structures designed for children’s physical activities such as, but not limited to, climbing, sliding, swinging, riding or playing on, located in an area with a special soft-landing surface. The equipment and the area in which it stands may or may not be surrounded by a fence to prevent the children from encountering contiguous hazards.

**Principal Structure** – A structure, which includes a walled and roofed building, in which is conducted the main or principal use of the lot on which the structure is situated.

**Recreational vehicle** – a vehicle which is: (a) Built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) Designed to be self-propelled or permanently towable by a light duty truck; and (d) Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.

**Special Flood Hazard Area** or FEMA Special Flood Hazard Area – the Floodplain within a community subject to a 1 percent or greater chance of Flooding in any given year. *For purposes of these regulations, the term “special Flood hazard area” is synonymous in meaning with the phrases “area of special Flood hazard” and “Flood Hazard Area”.* Also note that zone designations from the Federal Flood Insurance Program apply to FEMA Special Flood Hazard Areas. This area is usually labeled Zone A, AO, AH, AE, or A1-30 in the most current Flood insurance studies and on the maps published by the Federal Emergency Management Agency.

**Start of Construction** – for purposes of Floodplain management, determines the effective map or Bylaw that regulated Development in the Special Flood Hazard Area. The “Start of Construction” includes Substantial Improvement, and means the date the Zoning Permit was issued provided the actual Start of Construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a Structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond

the stage of excavation; or the placement of a Manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and Filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a Basement, footing, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main Structure. For any improvement, the actual Start of Construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, regardless whether that alteration affects the external dimensions of the building.

**Structure** – An assembly of materials for occupancy or use, including, but not limited to, a building, mobile home or trailer, sign, wall or fence, except a wall or fence on an operating farm. The term Structure also includes liquid and gas storage tanks that are principally above ground. Unless otherwise specifically provided, (1) the term Structure does not include parking areas, driveways, or paved paths that provide accessibility to a structure, (2) for purposes of determining setbacks, the term Structure does not include fences, except where specifically provided, and (3) for the determination of setbacks, septic systems shall not be considered structures and the setbacks shall be dictated by state law. See also Recreational Vehicle and Existing Structure.

**Substantial Damage** – damage of any origin sustained by a Structure whereby the cost of restoring the Structure to its before-damaged conditions would equal or exceed 50 percent of the market value of the Structure before the damage occurred.

**Temporary Structures** – One-story structures not on the site for more than 180 consecutive days, which do not exceed 400 square feet of floor area and do not involve wastewater systems, includes recreational vehicles.

**Violation** – Failure of a Structure or other Development to be fully compliant with Section 6.8 and all provisions pertaining to Flood hazards. A Structure or other Development without the Elevation Certificate, other certifications, or other evidence of compliance required in 44 CFR 60.3 is presumed to be in Violation until such time as that documentation is provided.

#### **6.8.5 Lands to Which These Regulations Apply**

- a) **Regulated Flood Hazard Areas** – These regulations shall apply to the Flood Hazard Overlay District which overlays any other existing zoning districts and the regulations herein are the minimum standards that must be met before meeting the additional standards applicable in the underlying district. The Flood Hazard Overlay District includes FEMA Special Flood Hazard Areas (however identified and by whatever language or terms described) on the most current Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies (FIS) published by the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) as provided by the Secretary of the Agency of Natural Resources pursuant to V.S.A. 10, Chapter 32 §753. The FEMA Flood insurance studies and maps are hereby adopted by reference and declared to be part of these Zoning Regulations; and
- b) **Base Flood Elevations** – Where available, Base Flood Elevations (BFE) and Floodway limits provided by the National Flood Insurance Program and in the Flood Insurance Study and accompanying maps shall be used to administer and

enforce these regulations. In Special Flood Hazard Areas where Base Flood Elevations and/or Floodway limits *have not* been provided by the National Flood Insurance Program in the Flood Insurance Study and accompanying maps, it is the applicant's responsibility to develop the necessary base flood data. Where available, the applicant shall use regulatory data provided by FEMA, or State, or Federal agencies. An engineering report or plan or a FEMA determination may be used to determine a BFE.

#### **6.8.6 Flood Hazard Overlay District Jurisdictional Determination Process**

The purpose of the Flood Hazard Overlay District jurisdictional determination process is to establish whether a given area on a property shall be subject to the jurisdiction of Section 6.8.

- a) **General Review** – The process for establishing jurisdiction for the Flood Hazard Overlay District begins with a review by the Administrative Officer regarding the locations of any parcel proposed for Development to assess whether the area (measured horizontally) is within the FEMA Special Flood Hazard Area as defined in Section 6.8.5.a). Any area within the FEMA Special Flood Hazard Area is subject to the Flood Hazard Overlay District regulations. The Flood Hazard Overlay District jurisdictional determination shall be made by the Administrative Officer prior to any action taken on an application for proposed Development for any parcel.
- b) **Jurisdictional Determination Process** – The Flood Hazard Overlay District jurisdictional determination is an opinion issued by the Administrative Officer and must be conducted for any parcel proposed for Development. The Administrative Officer shall institute the Flood Hazard Overlay District jurisdictional determination process, based on the following: When an area proposed for Development is inside the FEMA Special Flood Hazard Area, the jurisdictional determination process is initiated by the Administrative Officer upon receipt of a complete application for proposed Development. The jurisdictional determination follows procedures for Administrative Officer approval as established in Section 5.2.2.
  1. The Administrative Officer shall review the application for proposed Development provided by the Applicant and refer to the boundaries and other features shown on the most recent FEMA Flood Insurance Rate Maps. In addition, the Administrative Officer will review any applicable map amendments created via a Letter of Map Change Approved by FEMA. The information presented on any FEMA maps or studies, adopted by reference, is presumed accurate. The Administrative Officer will make a jurisdictional determination regarding the locations of all areas proposed for Development on the property. The Administrative Officer may require additional information if necessary to make that determination.
  2. Any area within the FEMA Special Flood Hazard Area shall be under the jurisdiction of Richmond's Flood Hazard Overlay District unless that area is formally removed by a Letter of Map Change, specifically a LOMA or LOMR as determined by FEMA, per Section 6.8.8. A LOMR-F shall not be used to remove land from the jurisdiction of the Town of Richmond Flood Hazard Overlay District. A Letter of Map Change includes a report of findings which shall be presented by the Applicant to the Administrative Officer. If the area proposed for Development appears to be within the FEMA Special Flood Hazard Area, the Administrative Officer shall consider the area to be within the FEMA Special Flood Hazard Area.

3. The Applicant has the option to concede that the area proposed for Development falls within the jurisdiction of the Flood Hazard Overlay District regarding a specific application. This concession is not applicable and is not binding on any future Flood Hazard Overlay District jurisdictional determinations or new applications for either the Applicant or the Town of Richmond.
  4. Notwithstanding b), an applicant has the option of seeking a jurisdictional opinion from the Administrative Officer to determine if an area is within the FEMA Special Flood Hazard Area without filing a Zoning Permit application.
- c) **Jurisdictional Determination Decisions** – Jurisdictional Determinations by the Administrative Officer shall be issued in writing within the following time frames based on the nature of the request or application:
- i) Within 30 days of the date when a complete application for Land Development is submitted. Or
  - ii) If applicable, within 30 days of expiration of the time provided in Section 6.8.17.c).
- d) **Jurisdictional Determination Appeals** – Appeals concerning Flood Hazard Overlay District jurisdictional determination of the Administrative Officer may be made to the DRB within 15 days of the issuance of the jurisdictional determination or of the Zoning Permit approval or denial in which a Flood Hazard Overlay District jurisdictional determination was made. The DRB shall hear the appeal in accordance with Section 5.2.3 and Section 8.5 and shall make its decision in conformance with Section 6.8.6.

### **6.8.7 Substantial Improvement Determinations**

When a proposal for development within the Special Flood Hazard Area is reviewed, the Administrative Officer shall make a Substantial Improvement determination. Such determinations, shall be used to determine the appropriate development standards for additions, improvements, rehabilitation, repair and rebuilding of an existing structure. In making such a determination the Administrative Officer may require:

- a) An estimate of the market value of structure from one of the following sources:
  1. An independent appraisal by a professional appraiser
  2. Property values used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect current market conditions;
  3. The value of buildings taken from NFIP claims data;
- b) A cost estimate provided by a qualified contractor, Professional Engineer or Licensed Architect. The cost estimate shall include a detailed accounting of the proposed improvements, additions, reconstruction or rehabilitation work, repairs or associated construction and development. A Substantial Improvement determination can be appealed by an applicant to the Development Review Board. The DRB shall hear the appeal in accordance with Section 5.2.3 and Section 8.5.

### **6.8.8 Removing Land from a FEMA Special Flood Hazard Area**

By federal regulation, land can only be removed from a FEMA Special Flood Hazard Area by obtaining from FEMA a Letter of Map Amendment (LOMA) or Letter of Map Change (LOMC). No Permit for Development may be issued for land within the FEMA Special Flood Hazard Area, except as provided in this Section 6.8, unless a LOMA or LOMR is first obtained from FEMA. The property owner or Applicant must submit the application for a request for a LOMA or LOMR directly to FEMA. A LOMR-F shall not be used to remove

land from the jurisdiction of the Flood Hazard Overlay District. Existing principal structures which have received LOMR-F's are prohibited from developing basements or walkout on grade basements. No new structure may be built on Filled areas unless that Structure would have been allowed in that location prior to the Fill being placed there. See Section 6.8.16.s) regarding limitations for use of a LOMR-F.

**6.8.9 Required Permits in Flood Hazard Overlay District**

If any portion of proposed development is within the FEMA Special Flood Hazard Area, the entire development is considered to be within the FEMA Special Flood Hazard Area. Except for exempt activities, per Section 6.8.10, a Zoning Permit is required from the Administrative Officer for all Development in all areas within the Flood Hazard Overlay District. Development that requires a conditional use approval, change or expansion of non-conforming structures or use approval, or a variance from the DRB under Section 6.8 must have such approvals prior to the issuance of a Zoning Permit by the Administrative Officer. Any Development subject to municipal jurisdiction in the Flood Hazard Overlay District shall meet the development standards in Section 6.8.16. See Section 6.8.17.c) regarding state and federal permits.

Uses and activities within the Special Flood Hazard Overlay District, as listed in Figure 6.8-1 are subject to the following permit requirements. Please refer the underlying District requirements to determine which additional requirement may apply.

- X – Prohibited, development not allowed within the FHOD
- ✓ - Exempt, not subject to FHOD review,
- P – Permitted use, subject to FHOD review by Administrative Official
- CU – Conditional Use, subject to FHOD review by Development Review Board

Figure 6.8 -1 Special Flood Hazard Overlay District Use Standards Table

Activity	SFHA	Floodway
Additions to existing accessory structures	P	X
<del>Additions to existing minor structures</del>	<del>P</del>	<del>CU</del>
Additions to existing principal structures	CU	X
Temporary structures	P	X
<del>New minor accessory structures</del>	<del>P</del>	<del>X</del>
New accessory structures	CU	X
New dwelling units (including accessory apartments)	X	X
New principal structures	X	X
New basements	X	X
Maintenance	✓	✓
Insignificant Repairs and Insignificant Activities	✓	✓
<u>Incidental Structures</u>	✓	✓
Removal, repair, replacement or additions of contents	✓	✓
Demolition of a structure in whole or in part	✓	✓
Improvements, Non substantial	P	CU
Improvements, Substantial	CU	CU
Replacement of a manufactured home	P	CU
New parking area and driveways, at-grade	P	<del>P</del> -CU
New Parking areas and driveways requiring grading or excavating	P	CU

Grading or excavating for the purpose of any other activity not specifically listed	CU	CU
Creation of a pond	CU	CU
Widening, re-aligning or significant changes to existing roads	CU	CU
New bridges, culverts, docks or other public projects which are functionally dependent on stream access or stream crossings	CU	CU
New drainage or channel management projects	CU	CU
New dams or bank stabilization projects	CU	CU
New fill as needed to elevate an existing principal structure	CU	CU
New fill	X	X
New Agricultural activities in accordance with VT Agency of Agriculture, Food & Markets Accepted Agricultural Practices (AAP)	✓	✓
New Silvicultural (forestry) activities in accordance with VT Dept of Forest & Parks Acceptable Management Practices (AMP)	✓	✓
<del>New Recreation Areas w/out Structures</del>	<del>P</del>	<del>P</del>
New Public Utilities	CU	CU
New Outdoor storage	CU	X
New Junk yards	X	X
New Storage of Hazardous materials	X	X
New Critical facilities	X	X
<del>Changes to pre-existing nonconformities (see Section 6.8.15)</del>	<del>CU</del>	<del>CU</del>

#### 6.8.10 Exempt Activities

As listed within Figure 6.8-1, the following are exempt from regulation under Section 6.8:

1. Agricultural activities conducted in accordance with VT Agency of Agriculture, Food & Markets Accepted Agricultural Practices (AAP)
2. Removal, repair, replacement of Content
3. Insignificant Repairs and insignificant Activities
4. Incidental Structures
5. Maintenance
6. Demolition of a structure in whole or in part
7. Silvicultural (forestry) activities conducted in accordance with VT Dept of Forest and Parks Acceptable Management Practices (AMP)

#### 6.8.11 Permitted Development by Administrative Officer Approval

As listed within Figure 6.8-1, the following Development activities require a Zoning Permit from the Administrative Officer, and must conform with the applicable standards presented in Section 6.8.16:

##### a) In SFHA and outside of the Floodway

1. Additions to Accessory structures
2. Additions to minor accessory structures
3. Temporary structures
4. New Minor accessory structures
5. Improvements, non-substantial
6. Replacement of a manufactured home
7. New parking area and driveways, at-grade
8. New parking areas and driveways requiring grading or excavating



9. ~~New Recreation Areas w/out Structures~~

b) **Within the Floodway**

1. New parking area and driveways, at-grade

2. ~~New Recreation Areas w/out Structures~~

**6.8.12 Conditional Use Approval by the DRB after a Public Hearing**

As listed within Figure 6.8-1, the following Development activities may be approved as a conditional use by the Development Review Board as per section 5.6. and 8.2, and must conform with the applicable standards presented in Section 6.8.16:

a) **In SFHA and outside of the Floodway**

1. Additions to existing principal structures
2. New Accessory Structures
3. Improvements, Substantial (not including replacement of a manufactured home)
4. Grading, excavating, or the creation of a pond
5. Widening, re-aligning or significant changes to existing roads
6. New bridges, culverts, docks or other public projects which are functionally dependent on stream access or stream crossings
7. New Dams or bank stabilization projects
8. New Drainage or channel management projects
9. New fill as needed to elevate an existing principal structure
10. New Public Utilities
11. New Outdoor Storage

12. Changes to pre-existing nonconformities (see Section 6.8.15)

b) **Within the Floodway**

1. Additions to existing minor accessory structures
2. Improvements, Substantial (not including replacement of a manufactured home)
3. Improvements, non- substantial
4. Replacement of a manufactured home
5. New parking areas and driveways requiring grading or excavating
6. Creation of a pond
7. Grading or excavating for the purpose of any other activity not specifically listed
8. Grading, excavating, or the creation of a pond
9. Widening, re-aligning or significant changes to existing roads
10. New bridges, culverts, docks or other public projects which are functionally dependent on stream access or stream crossings
11. New Dams or bank stabilization projects
12. New Drainage or channel management projects
13. New fill as needed to elevate an existing structure
14. Public Utilities

15. Changes to pre-existing nonconformities (see Section 6.8.15)

**6.8.13 Prohibited Development**

As listed within Figure 6.8-1, the following development is prohibited in the Flood Hazard Overlay District. Prohibited Development includes, but is not limited to:

a) **In SFHA and outside of the Floodway**

1. New dwelling units
  2. New Principal structures
  3. New basements
  4. New Fill
  5. New Junk yards
  6. New Storage of Hazardous materials
  7. New Critical facilities
- b) **Within the Floodway**
1. Additions to existing accessory structures
  2. Additions to existing principal structures
  3. Temporary Structures
  4. ~~New Minor accessory structures~~
  5. New accessory structures
  6. New dwelling units
  7. New principal structures
  8. New basements
  9. New Fill
  10. New outdoor storage
  11. New Junk yards
  12. New Storage of Hazardous materials
  13. New Critical facilities

#### **6.8.14 Variances**

Variances to specific provisions of Section 6.8 may be granted by the DRB only in accordance with 24 VSA Section 4469(d) and 44 CFR Section 60.6 of the National Flood Insurance Program regulations, after a public hearing noticed as described in Section 8.4. Special provisions for variances for Development in the Flood Hazard Overlay District include the following:

- a) Any variance issued in the Special Flood Hazard Area will not increase Flood heights, and will inform the applicant in writing over the signature of a community official that the issuance of a variance to construct a Structure below the Base Flood Elevation increases risk to life and property and will result in increased Flood insurance premiums up to amounts as high as \$25 for \$100 of coverage. Such notification shall be maintained with a record of all variance actions. A copy of such a variance shall be affixed to the deed of the property on file in the municipal clerk's office.

#### **6.8.15 Nonconforming Structures and Uses**

6.8.15.1 Nonconforming Structures and Uses in the Flood Hazard Overlay District shall be regulated entirely by Section 6.8.15:

- a) A nonconforming structure or use may continue to exist unchanged indefinitely.
- b) A nonconforming structure, or a structure containing a nonconforming use, may undergo normal repair and maintenance without a permit provided that the nonconforming use is not changed, enlarged, expanded, moved or altered.
- c) The regulations under this section do not construe or imply the authorization of the use of a structure declared unsafe by an appropriate governmental authority or the continuation of an establishment declared to be a health hazard by an appropriate

governmental authority.

- d) The DRB, after public notice and hearing per Section 8.2, may approve the replacement, restoration, reconstruction, relocation, enlargement, or reduction in size of an existing nonconforming structure, or of a structure containing an existing nonconforming use, that is located within the SFHA but outside of the Floodway, provided that conditions i. through iv. below are satisfied:
- i. The degree of nonconformity is not increased.
  - ii. The proposed Development is in compliance with the Development Standards in Section 6.8.16 and meets the requirements of the definitions in Section 6.8.4.
  - iii. A Nonconforming Structure that is Substantially Damaged or destroyed may be reconstructed only in circumstances when the Structure cannot be relocated to a less hazardous location on the same lot.
  - iv. The Lowest Floor of a reconstructed residential Principal Structure shall be rebuilt to one foot or more above the Base Flood Elevation and the residential Principal Structure must otherwise comply with all requirements of the National Flood Insurance Program;
  - v. A reasonable degree of accessibility, including a paved path for wheelchair traverse, leading to a nonconforming structure may be provided, in addition to the footprint of the nonconforming structure, as long as the flood hazard is not increased beyond that of the structure to be accessed. Additional on-ground improvements shall be the minimum needed to achieve accessibility, and "reasonable" in this context means accepting the current terrain as given, and accepting that assistance to some disabled visitors might be required.
  - vi. A safety fence around a nonconforming structure or use may be allowed as needed to protect children from contiguous dangers. This fencing shall provide the least possible resistance to floodwaters and debris while still achieving its protective function.
  - vii. Removeable improvements as well as permanent improvements shall be considered for the above subsections v. and vi. as long as they satisfy the purposes outlined.
- e) The DRB, after public notice and hearing per Section 8.2, may approve the replacement, restoration, reconstruction, relocation, or reduction in size of an existing nonconforming structure, or of a structure containing an existing nonconforming use, located within the Floodway, provided that conditions i. through iv. below are satisfied:
- i. The degree of nonconformity is not increased. Within the floodway, enlarging the footprint of a structure is considered increasing the degree of nonconformity.
  - ii. The proposed Development is in compliance with the Development Standards in Section 6.8.16 and meets the requirements of the definitions in Section 6.8.4.
  - iii. A Nonconforming Structure that is Substantially Damaged or destroyed may be reconstructed only in circumstances when the Structure cannot be relocated to a less hazardous location on the lot.
  - iv. The Lowest Floor of a reconstructed residential Principal Structure shall be rebuilt to one foot or more above the Base Flood Elevation and the residential Principal Structure must otherwise comply with all requirements

of the National Flood Insurance Program;

- v. A reasonable degree of accessibility, including a paved path for wheelchair traverse, to a nonconforming structure may be provided in addition to the footprint of the nonconforming structure, as long as the flood hazard is not increased beyond that of the structure to be accessed. Additional on-ground improvements shall be the minimum needed to achieve accessibility, and "reasonable" in this context means accepting the current terrain as given, and accepting that assistance to some disabled visitors might be required.
- vi. A safety fence around a nonconforming structure or use may be allowed as needed to protect children from contiguous dangers. This fencing shall provide the least possible resistance to floodwaters and debris while still achieving its protective function.
- vii. Removeable improvements as well as permanent improvements shall be considered for the above Subsections v. and vi. as long as they satisfy the purposes outlined.

f) A Nonconforming Structure or Use shall be considered abandoned when such structure or use is discontinued for more than 12 months from the date of damage or cessation of the use, irrespective of the intent to abandon or discontinue.

g) An individual Manufactured home lot in an existing Manufactured home park that is vacated shall not be considered a discontinuance or abandonment of a nonconformity. Replacement Manufactured homes must be placed so as to meet the Development Standards in Section 6.8.16.

*Special provisions regarding Nonconforming Structures and uses in the Hazard Overlay District shall be regulated entirely by Section 6.8.3, apply to Section 6.8. The general provisions of Section 4.7 and 4.8 shall also apply. The DRB, after public notice and hearing per Section 8.2, may approve the repair, relocation, replacement, or enlargement of a Nonconforming Structure within the jurisdiction of the Flood Hazard Overlay District *provided that:**

- ~~a) The proposed Development is in compliance with all the Development standards in Section 6.8.16 and must meet the requirements covered under definitions in Section 6.8.4.~~
- ~~b) A Nonconforming Structure that is Substantially Damaged or destroyed may be reconstructed only in circumstances when the Structure cannot be relocated to a less hazardous location on the parcel. The Lowest Floor of the reconstructed residential principal Structure must be rebuilt to one foot or more above the Base Flood Elevation and the Structure must otherwise comply with all requirements of the National Flood Insurance Program;~~
- ~~c) Nonconforming Structures or uses shall be considered abandoned where such Structures or uses are discontinued for more than 12 months; and~~
- ~~d) An individual Manufactured home lot in an existing Manufactured home park that is vacated shall not be considered a discontinuance or abandonment of nonconformity. Replacement Manufactured homes must be placed so as to meet the Development standards in Section 6.8.16~~

### **6.8.16 Development Standards**

- a)** Where more than one area is involved (i.e., the Floodway, FEMA Special Flood Hazard Area) the more restrictive standard shall apply. Illustrated examples of the standards are found at the end of this section.
- b)** All Development shall be reasonably safe from Flooding;
- 1.** Designed, operated, maintained, modified, and adequately anchored to prevent flotation, collapse, release, or lateral movement of the Structure during the occurrence of the Base Flood;
  - 2.** Constructed with materials resistant to Flood damage;
  - 3.** Constructed by methods and practices that minimizes Flood damage;
  - 4.** Constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of Flooding;
  - 5.** Adequately drained to reduce exposure to Flood hazards;
  - 6.** Located so as to minimize conflict with changes in Channel location over time and the need to intervene with such changes;
- c)** All fuel storage tanks are required to be securely anchored to prevent flotation or lateral movement (as needed to serve an existing building in the Special Flood Hazard Zone). Fill and vent pipes shall be elevated at least one foot above the base flood elevation; or storage tanks may be buried underground, if securely anchored as certified by a qualified professional.
- d)** New Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) are prohibited.
- e)** New Fully enclosed areas above grade, and below the Base Flood Elevation (such as crawlspaces) shall be:
- 1.** Solely used for parking of vehicles, storage, or building access, and are prohibited from future conversion to residential or commercial use; and
  - 2.** Wet flood proofed and designed to automatically equalize hydrostatic Flood forces on exterior walls by allowing for the entry and exit of Floodwaters. Such designs must be certified by a registered professional engineer or architect, and meet or exceed the following minimum criteria:
    - i.** A minimum of two openings on two walls having a total net area of not less than one square inch for every square foot of enclosed area subject to Flooding shall be provided.
    - ii.** The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of Floodwaters.
- f)** All existing Residential Structures to be substantially improved or replaced, and all additions to principal residential structures shall:
- 1.** Be reasonably safe from flooding;
  - 2.** Have the Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation. Dry flood proofing is prohibited for residential structures;

3. Have structural designs, specifications, and plans prepared and certified by registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.

**g)** All existing non-residential ~~Structures~~ buildings to be substantially improved or replaced, and all additions to nonresidential ~~structures~~ buildings shall:

1. Be reasonably safe from flooding;
2. Have either:
  - i. The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or
  - ii. Be dry flood proofed at least two feet above the Base Flood Elevation or
  - iii. If solely used for parking of vehicles, storage, be wet flood proofed as per 6.8.16 ~~(d)~~-(e) (2)

3. Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.

**h)** All new Accessory Structures shall:

1. Be reasonably safe from flooding;
2. Have either:
  - i. The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or
  - ii. Be dry flood proofed at least two feet above the Base Flood Elevation or
  - iii. If solely used for parking of vehicles, storage, be wet flood proofed as Per 6.8.16 ~~(d)~~-(e) (2)
3. Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.

~~All new Minor Accessory Structures smaller than 500 square feet as measured by the Gross Floor Area that represents a minimal investment need not be elevated to the Base Flood Elevation provided the Structure shall:~~

- ~~Be reasonably safe from flooding;~~
- ~~Be used only for parking or storage;~~
- ~~Be constructed and placed on the site so as to offer the minimum resistance to the flow of Floodwaters;~~

~~Be wet flood proofed as per 6.8.16 d) 2.~~

~~All new Minor Accessory Structure smaller than 150 square feet as measured by the Gross Floor Area that represents a minimal investment need not be elevated to the Base Flood Elevation provided the Structure shall:~~

- ~~Be reasonably safe from flooding;~~
- ~~Be used only for parking or storage.~~
- ~~Be constructed and placed on the site so as to offer the minimum resistance to the flow of Floodwaters.~~

~~Wet flood proofed and designed to automatically equalize hydrostatic Flood forces on exterior walls by allowing for the entry and exit of Floodwaters. Such designs meet or exceed the following minimum criteria:~~

~~-A minimum of two openings on two walls having a total net area of not less than one square inch for every square foot of enclosed area subject to Flooding shall be provided.~~

~~-The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of Floodwaters.~~

- i) Manufactured homes to be replaced or substantially improved shall be:
  - 1. Be reasonably safe from flooding;
  - 2. Elevated on a permanent foundation such that the Lowest Floor of the Manufactured home is elevated to at least one foot above the Base Flood Elevation;
  - 3. Securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement during the occurrence of the Base Flood.
  - 4. If a manufactured home is located in an existing Manufactured home park (created before the FIRM), where elevating a replacement home to or above Base Flood Elevation is *not possible*, the Lowest Floor shall be supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 48 inches in height above grade and be securely anchored to resist flotation, collapse, and lateral movement.
  
- j) Recreational Vehicles shall be:
  - 1. On the site for fewer than 180 consecutive days, or
  - 2. Fully licensed and ready for highway use.
  
- k) Replacement water supply systems shall be designed to minimize or eliminate infiltration of Flood waters into the system.
  
- l) Replacement on-site waste disposal systems shall be located to avoid impairment to them or contamination from them during Flooding.
  
- m) Replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of Flood waters into the system and discharges from the system into Flood waters.
  
- n) Altered or relocated portions of any watercourse shall maintain the Flood carrying capacity and sediment transport capacity, and any alteration or relocation shall not result in any decrease of stream stability.
  
- o) Bridges and culverts, which by their nature must be placed in or over the stream, must have a stream alteration permit from the Vermont Agency of Natural Resources.
  
- p) Parking areas and driveways built above grade shall be designed by a licensed engineer to minimize or eliminate the potential for Flooding and loss or damage associated with Flooding. (See subsection r) regarding Fill.)
  
- q) Roads and bridges shall be adequately anchored to prevent flotation, collapse, or lateral



movement of the Structure during the occurrence of the Base Flood. (See subsection r) regarding Fill.)

- r) Fill can be moved from one place to another within the Special Flood Hazard Area outside of the Floodway on a Lot or between adjoining Lots, if there is no net loss in the Floodwater holding capacity of the land.
1. Fill can only be moved in support of an exempt or allowed use as described in Section 6.8.10 , Section 6.8.11, and Section 6.8.12.
  2. Fill shall not be used to raise land elevations and remove land from the Flood Hazard Overlay District for Development not allowed in the Flood Hazard Overlay District, and the Town of Richmond shall not approve or consent to a Letter of Map Revision based on Fill (LOMR-F) for this purpose.
  3. Fill may only be used as needed for the sole purpose of elevating an existing principal structure, structural elevation designs must demonstrate the proposal shall reasonably minimizes impacts.
- s) New subdivision Developments, planned unit Developments, or Manufactured home parks of more than 5 acres or 50 lots, whichever is less, shall:
1. Include Base Flood Elevation data;
  2. Be designed to minimize Flood damage within the Flood-prone area;
  3. Have adequate drainage to reduce exposure to Flood hazards; and
  4. Have utilities and facilities, such as sewer, gas, electrical, and water systems, located and constructed so as to minimize or eliminate Flood damage.
- t) In Zones A and AE where base flood elevations and/or floodway limits have not been determined, development applications are required to demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated encroachment on the property, will not increase the base flood elevation more than 1.00 foot at any point within the municipality. The demonstration must be supported by technical data that conforms to standard hydraulic engineering principles and certified by a registered professional engineer.
- u) Within the Floodway development shall:
1. Not result in any increase in Flood levels (0.0 feet) during the occurrence of the Base Flood, this will be demonstrated by the submission of a No Rise Certification;
  2. Not increase any risk to surrounding properties, facilities, or Structures from erosion or Flooding.
  3. Allow for public utilities to be placed underground, and the No Rise analyses waived, where a registered professional engineer certifies that there will be no change in grade and the utilities will be adequately protected from scour.

**Illustrations of standards:**

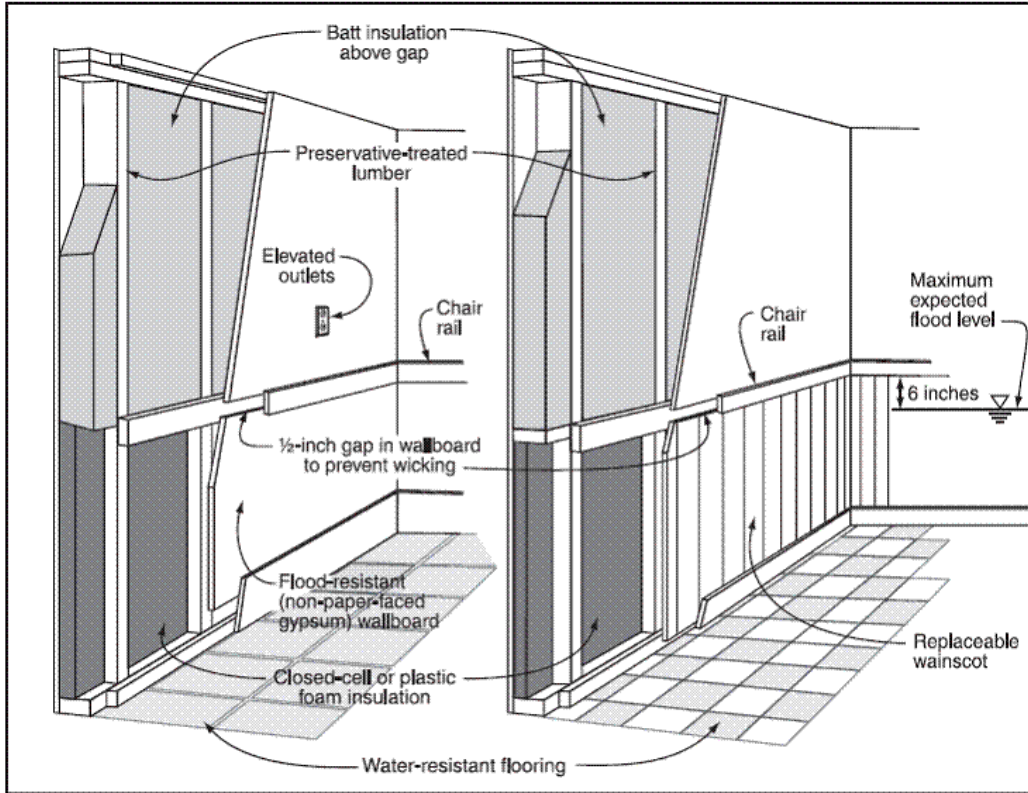


Figure 6.8.2  
 Example of Interior renovations which are reasonably safe from flooding.

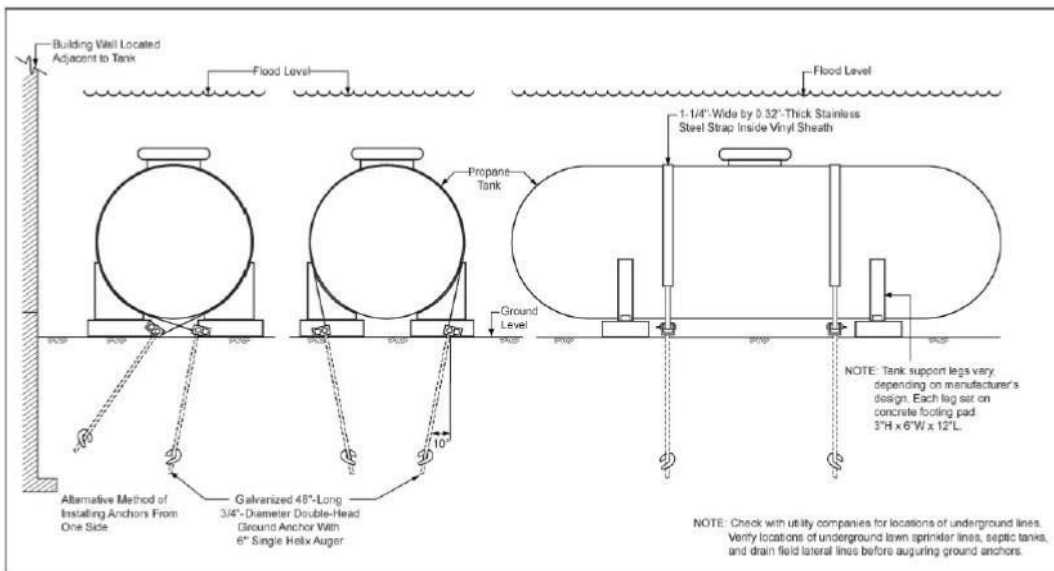


Figure 6.8.3  
 Example of an anchored above-ground propane tank.

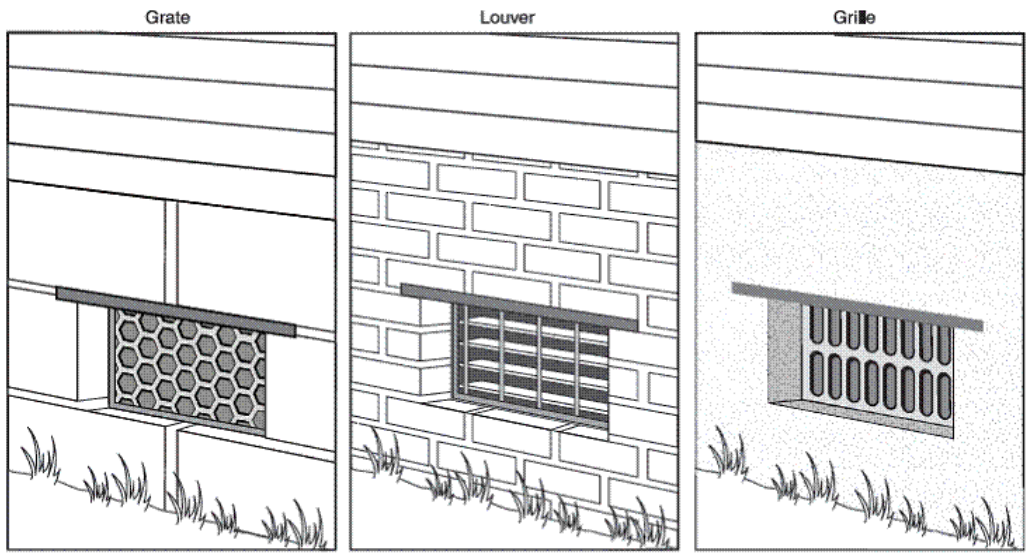


Figure 6.8.4  
 Example of an elevated structure on a wet flood proofed, at-grade crawl space with an opening which permits the automatic entry and exit of floodwaters.

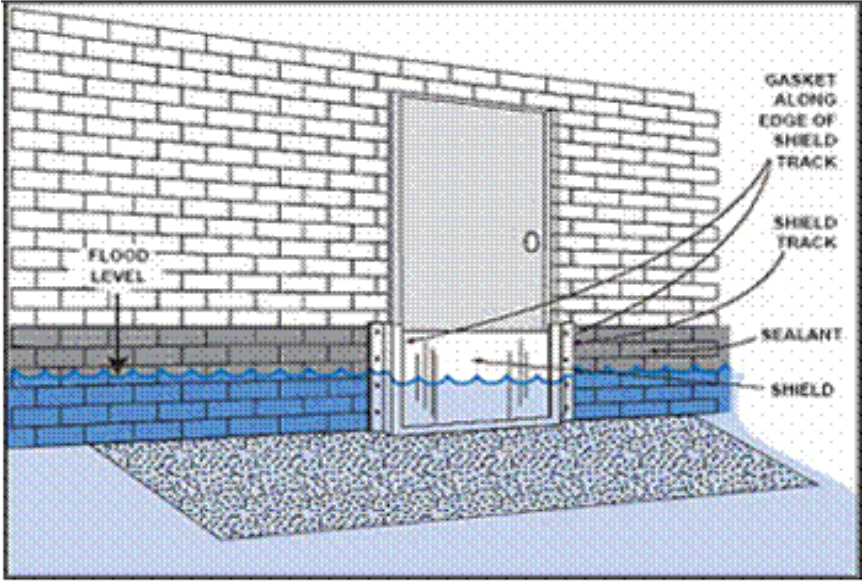


Figure 6.8.5  
 Example of a dry flood proofed commercial building.

6.8.16 Development Standards

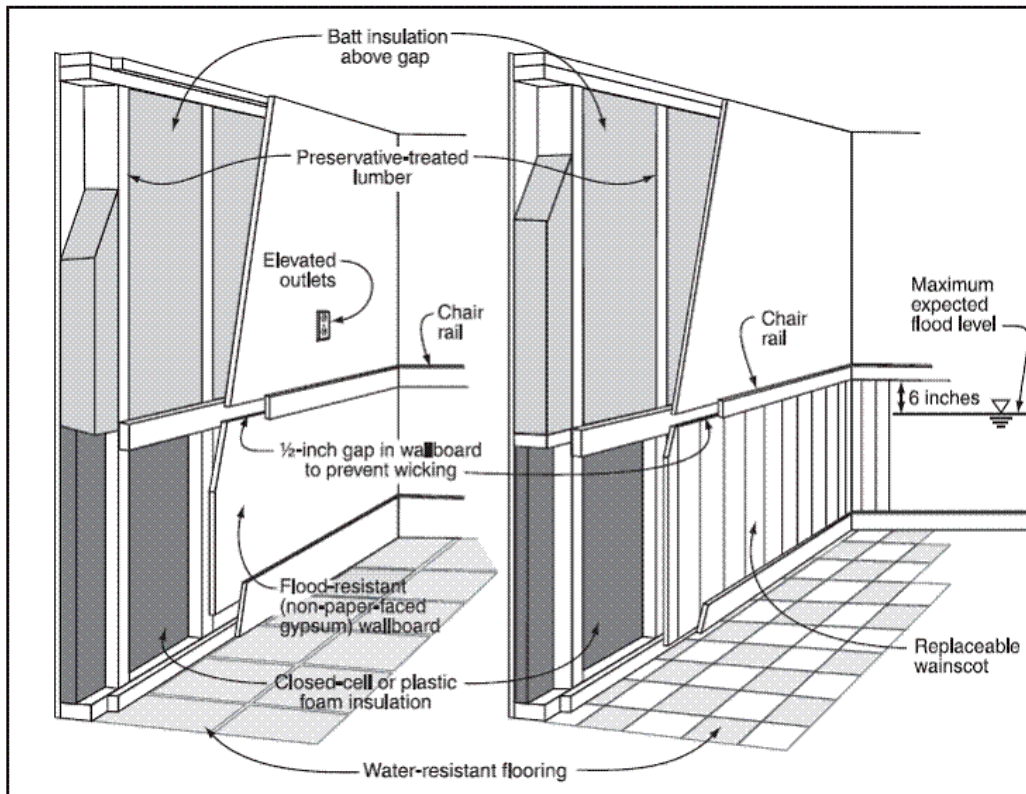


Figure 6.8-2. Example of interior renovations which are reasonably safe from flooding.

Where more than one area is involved (i.e., the Floodway, FEMA Special Flood Hazard Area) the more restrictive standard shall apply.

**a) All Development shall be reasonably safe from Flooding;**

1. Designed, operated, maintained, modified, and adequately anchored to prevent flotation, collapse, release, or lateral movement of the Structure during the occurrence of the Base Flood;
2. Constructed with materials resistant to Flood damage;
3. Constructed by methods and practices that minimizes Flood damage;
4. Constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of Flooding;
5. Adequately drained to reduce exposure to Flood hazards;
6. Located so as to minimize conflict with changes in Channel location over time and the need to intervene with such changes;

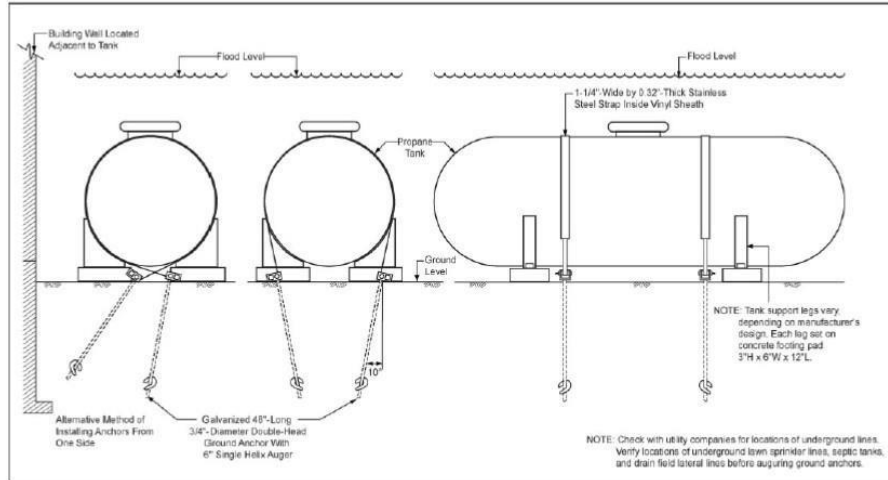


Figure 6.8-3. Example of an anchored above-ground propane tank.

- b) All fuel storage tanks are required to be securely anchored to prevent flotation or lateral movement (as needed to serve an existing building in the Special Flood Hazard Zone). Fill and vent pipes shall be elevated at least one foot above the base flood elevation; or storage tanks may be buried underground, if securely anchored as certified by a qualified professional.
- c) New Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) are prohibited.
- d) New Fully enclosed areas above grade, and below the Base Flood Elevation (such as crawlspaces) shall be:
  1. Solely used for parking of vehicles, storage, or building access, and are prohibited from future conversion to residential or commercial use; and

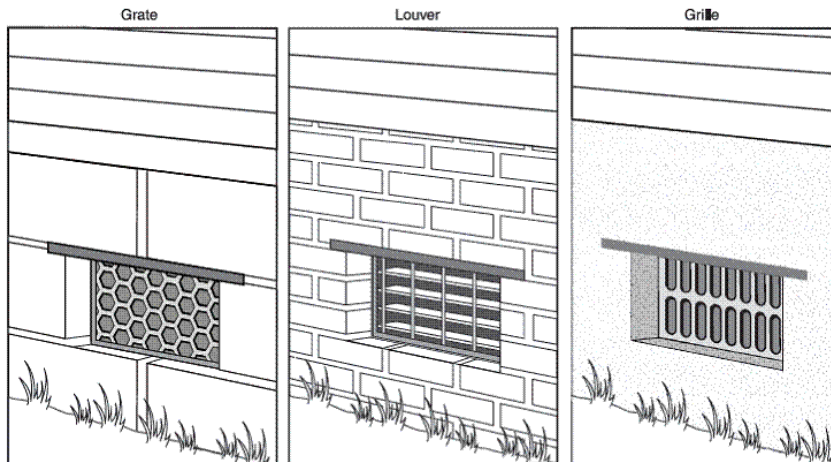


Figure 6.8-4. Examples of an elevated structure on a wet flood-proofed, at-grade crawl space with opening which permit the automatic entry and exit of floodwaters.

2. Wet flood proofed and designed to automatically equalize hydrostatic Flood forces on exterior walls by allowing for the entry and exit of Floodwaters. Such designs must be certified by a registered professional engineer or architect, and meet or exceed the following minimum criteria:



- iii. ~~A minimum of two openings on two walls having a total net area of not less than one square inch for every square foot of enclosed area subject to Flooding shall be provided.~~
- iv. ~~The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of Floodwaters.~~
- e) ~~All existing Residential Structures to be substantially improved or replaced, and all additions to principal residential structures shall:~~
  - 1. ~~Be reasonably safe from flooding;~~
  - 2. ~~Have the Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation. Dry flood proofing is prohibited for residential structures;~~
  - 3. ~~Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.~~

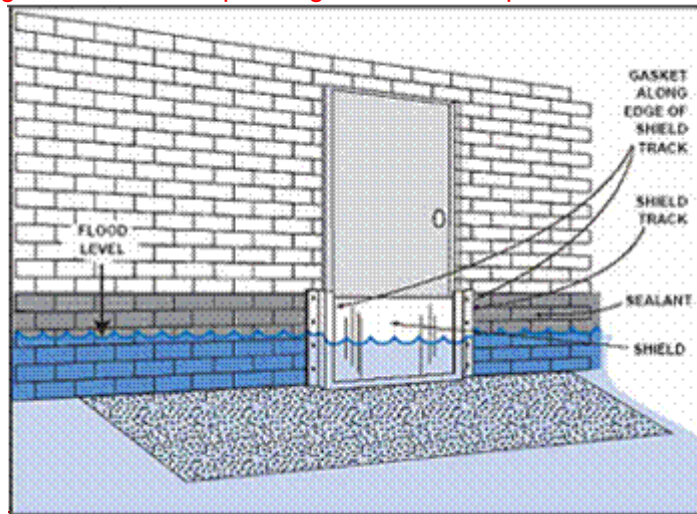


Figure 6.8-4. Example of a dry flood proofed commercial building.

- f) ~~All existing non-residential Structures to be substantially improved or replaced, and all additions to nonresidential structures shall:~~
  - 1. ~~Be reasonably safe from flooding;~~
  - 2. ~~Have either:~~
    - i. ~~The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or~~
    - ii. ~~Be dry flood proofed at least two feet above the Base Flood Elevation; or~~
    - iii. ~~If solely used for parking of vehicles, storage, be wet flood proofed as per 6.8.16 d) 2.~~
- 6. ~~Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.~~
- g) ~~All new Accessory Structures shall:~~
  - 1. ~~Be reasonably safe from flooding;~~
  - 2. ~~Have either:~~

- iv. ~~The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or~~
  - v. ~~Be dry flood proofed at least two feet above the Base Flood Elevation; or~~
  - vi. ~~If solely used for parking of vehicles, storage, be wet flood proofed as per 6.8.16 d) 2.~~
- ~~6. Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.~~
- ~~h) All new Minor Accessory Structure smaller than 500 square feet as measured by the Gross Floor Area that represents a minimal investment need not be elevated to the Base Flood Elevation provided the Structure shall:
 
    - 1. ~~Be reasonably safe from flooding;~~
    - 2. ~~Be used only for parking or storage;~~
    - 3. ~~Be constructed and placed on the site so as to offer the minimum resistance to the flow of Floodwaters;~~
    - 4. ~~Be wet flood proofed as per 6.8.16 d) 2.~~~~
  - ~~i) All new Minor Accessory Structure smaller than 150 square feet as measured by the Gross Floor Area that represents a minimal investment need not be elevated to the Base Flood Elevation provided the Structure shall:
 
    - 1. ~~Be reasonably safe from flooding;~~
    - 2. ~~Be used only for parking or storage.~~
    - 3. ~~Be constructed and placed on the site so as to offer the minimum resistance to the flow of Floodwaters.~~
    - 4. ~~Wet flood proofed and designed to automatically equalize hydrostatic Flood forces on exterior walls by allowing for the entry and exit of Floodwaters. Such designs meet or exceed the following minimum criteria:
 
      - i. ~~A minimum of two openings on two walls having a total net area of not less than one square inch for every square foot of enclosed area subject to Flooding shall be provided.~~
      - ii. ~~The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of Floodwaters.~~~~~~
  - ~~j) Manufactured homes to be replaced or substantially improved shall be:
 
    - 1. ~~Be reasonably safe from flooding;~~
    - 2. ~~Elevated on a permanent foundation such that the Lowest Floor of the Manufactured home is elevated to at least one foot above the Base Flood Elevation;~~
    - 3. ~~Securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement during the occurrence of the Base Flood.~~
    - 4. ~~If a manufactured home is located in an existing Manufactured home park (created before the FIRM), where elevating a replacement home to or above Base Flood Elevation is not possible, the Lowest Floor shall be supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 48 inches in height above grade and be securely anchored to resist flotation, collapse, and lateral movement.~~~~
  - ~~k) Recreational Vehicles shall be:
 
    - 1. ~~On the site for fewer than 180 consecutive days, or~~
    - 2. ~~Fully licensed and ready for highway use.~~~~



- ~~l) Replacement water supply systems shall be designed to minimize or eliminate infiltration of Flood waters into the systems.~~
- ~~m) Replacement on-site waste disposal systems shall be located to avoid impairment to them or contamination from them during Flooding.~~
- ~~n) Replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of Flood waters into the systems and discharges from the systems into Flood waters.~~
- ~~o) Altered or relocated portions of any watercourse shall maintain the Flood carrying capacity and sediment transport capacity, and any alteration or relocation shall not result in any decrease of stream stability.~~
- ~~p) Bridges and culverts, which by their nature must be placed in or over the stream, must have a stream alteration permit from the Vermont Agency of Natural Resources.~~
- ~~q) Parking areas and driveways built above grade shall be designed by a licensed engineer to minimize or eliminate the potential for Flooding and loss or damage associated with Flooding. (See subsection s) regarding Filling.)~~
- ~~r) Roads and bridges shall be adequately anchored to prevent flotation, collapse, or lateral movement of the Structure during the occurrence of the Base Flood. (See subsection s) regarding Filling.)~~
- ~~s) Fill, can be moved from one place to another within the Special Flood Hazard Area outside of the Floodway, on a Lot or between adjoining Lots, if there is no net loss in the Floodwater holding capacity of the land.
 
  - ~~1. Fill can only be moved in support of an exempt or allowed use as described in Section 6.8.10, Section 6.8.11, and Section 6.8.12.~~
  - ~~2. Fill shall not be used to raise land elevations and remove land from the Flood Hazard Overlay District for Development not allowed in the Flood Hazard Overlay District, and the Town of Richmond shall not approve or consent to a Letter of Map Revision based on Fill (LOMR-F) for this purpose.~~
  - ~~3. Fill may only be used as needed for the sole purpose of elevating an existing principal structure, structural elevation designs must demonstrate the proposal shall reasonably minimizes impacts.~~~~
- ~~t) New subdivision Developments, planned unit Developments, or Manufactured home parks of more than 5 acres or 50 lots, whichever is less, shall:
 
  - ~~1. Include Base Flood Elevation data;~~
  - ~~2. Be designed to minimize Flood damage within the Flood-prone area;~~
  - ~~3. Have adequate drainage to reduce exposure to Flood hazards; and~~
  - ~~4. Have utilities and facilities, such as sewer, gas, electrical, and water systems, located and constructed so as to minimize or eliminate Flood damage.~~~~
- ~~u) In Zones A and AE where base flood elevations and/or floodway limits have not been determined, development applications are required to demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated encroachment on the property, will not increase the base flood elevation more than 1.00 foot at any point within the municipality. The demonstration must be supported by technical data that conforms to standard hydraulic engineering principles and certified by a registered professional engineer.~~
- ~~v) Within the Floodway development shall:
 
  - ~~4. Not result in any increase in Flood levels (0.0 feet) during the occurrence of the Base Flood, this will be demonstrated by the submission of a No Rise Certification;~~
  - ~~5. Not increase any risk to surrounding properties, facilities, or Structures from erosion or Flooding.~~~~

6. ~~Allow for public utilities to be placed underground, and the No Rise analyses waived, where a registered professional engineer certifies that there will be no change in grade and the utilities will be adequately protected from scour.~~

#### 6.8.17 Administration

**a) Application Submission Process** – When an application for proposed Development is received:

- a) The Administrative Officer shall make a:
    - i. Flood Hazard Overlay District Jurisdictional Determination, per Section 6.8.6.; and
    - ii. Substantial Damage Determination, per Section 6.8.7.
  - b) No action shall be taken on a Development application by the Administrative Officer or DRB until a Flood Hazard Overlay District jurisdictional determination and Substantial Damage Determination has been completed.
  - c) Once the jurisdictional determination has been determined, per Section 6.8.6, and the proposed Development is determined to be under the jurisdiction of the Flood Hazard Overlay District, the Administrative Officer shall determine the type of review required:
    - i. Prohibited, development not allowed within the FHOD;
    - ii. Exempt, not subject to FHOD review;
    - iii. Permitted use, subject to FHOD review by Administrative Official; or
    - iv. Conditional Use, subject to FHOD review by Development Review Board.Applications for proposed Development seeking approval by the DRB submitted per Section 6.8.12 require at least one public hearing per RZR Section 8.2.3 and Section 8.2.4
  - d) For all proposed Development in the Flood Hazard Overlay District, the application for Development shall be in compliance with all requirements for “Permits and Approval” within Section 5 and with all provisions contained in Section 6.8 for the Flood Hazard Overlay District.
- 6) Application Submission Requirements** – Any application for Development within the Flood Hazard Overlay District requires:
- a) Site plans drawn to scale as specified in Section 5.5.2.c), with accurate measurements of survey quality or prepared by a Vermont licensed surveyor or engineer showing:
    - i. All proposed Development and existing structures, including locations of any existing and proposed driveways, road and parking areas;
    - ii. All water bodies, Special Flood Hazard Areas, Floodways;
    - iii. The Base Flood Elevations at the site;
    - iv. The shortest distance from the proposed Development to the top of bank of any stream;
    - v. Any existing and proposed drainage;
    - vi. Any pre- and post-Development grades;
    - vii. Any proposed areas and extent of dredging or grading;
    - viii. The elevation of the proposed Lowest Floor, as referenced to the same vertical datum as the elevation on the current Flood Insurance Rate Maps if applicable;
    - ix. Any storage locations showing materials proposed for outdoor storage, including types of materials;
  - b) Plan for meeting applicable provisions of Section 6.8.16a)
  - c) FEMA Elevation Certificate for Existing Structures depicting their Lowest Floor Elevation in relation to mean sea level (a FEMA Elevation Certificate) if applicable;

- d) A Vermont Agency of Natural Resources Project Review Sheet for the proposal identify all state and federal agency permits from which permit approval is required (this is not required for non-substantial improvements or minor accessory structures);
- e) Any proposed structural elevation or Flood Proofing measures as certified by a registered professional engineer or architect.
- f) No-Rise Certification for development within the floodway.
- g) A profile showing the slope of the bottom on the Channel of the flowline of the stream and the extent to which the Channel is to be relocated shall also be provided for channel relocation projects
- h) Information that demonstrates that the proposed Development meets the requirements for the underlying zoning district in effect, in addition to the requirements imposed within the Flood Hazard Overlay District. These requirements include but are not limited to permitted and conditional uses, Building setbacks, Lot coverage, Building Heights, etc. for the underlying zoning district.
- i) When applicable, the Applicant shall provide an additional set of all application materials, to comply with Section 6.8.15.b).
- j) Relevant information that the Administrative Officer deems necessary.
- k) If the request is an appeal for a variance, then the appeal application must include responses to the criteria set forth in 24 VSA §4469 and CFR 60.6.

**6) Referral to Agency of Natural Resources**

When an application for proposed new development or substantial improvement (but not necessarily for improvements) within the FEMA Special Flood Hazard Area or for any proposed development in the floodway is deemed complete, the Administrative Officer shall submit a copy of the application and supporting information to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources, in accordance with 24 V.S.A. § 4424. A DRB decision or Zoning Permit may be issued only following receipt of comments from the Agency, or the expiration of 30 days from the date the application was mailed to the Agency, whichever is sooner.

If the applicant is seeking a Zoning Permit for the alteration or relocation of a watercourse, copies of the application shall also be submitted to the adjacent communities, the Stream Alteration Engineer at the Vermont Agency of Natural Resources, and the Army Corps of Engineers. Copies of such notice shall be provided to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources, Department of Environmental Conservation. A Zoning Permit may be issued only following receipt of comments from the Vermont Agency of Natural Resources, or the expiration of 30 days from the date the application was mailed to the Vermont Agency of Natural Resources, whichever is sooner.

**D) Decisions**

The Administrative Officer and the DRB shall consider comments from the NFIP Coordinator at the Vermont Agency of Natural Resources. The DRB may recess the proceedings on any application pending submission of additional information.

Conditions such as non-conversion of storage areas to residential use and areas solely used for parking of vehicles, storage, or building access, shall clearly be stated on any Decisions and Zoning Permits.

**6) Administrative Officer Records**

The Administrative Officer shall properly file and maintain a record of:

- a) Zoning Permits issued in areas covered by these Zoning Regulations;
- b) An Elevation Certificate with the as-built elevation (consistent with the datum for the elevation on the current Flood Insurance Rate Maps for the community) of the Lowest Floor, including Basement, of all new accessory structures, substantially improved Structures, or Flood proofed Structures (not including accessory Structures), in the Flood Hazard Overlay District, including the FEMA Special Flood Hazard Area;
- c) All Flood proofing and other certifications required under this regulation; and
- d) All decisions of the Administrative Officer and the DRB (including variances and Violations) and all supporting findings of fact, conclusions, and conditions.

#### **6.8.18 Certificate of Occupancy**

In accordance with 24 V.S.A. §4449, it shall be unlawful to use or occupy, or permit the use or occupancy of any land or Structure, or part thereof, created, erected, changed, converted, or wholly or partly altered or enlarged in its use or Structure within Special Flood Hazard Area until a certificate of occupancy is issued by the Administrative Officer, stating that the proposed use of the Structure or land conforms to the requirements of these regulations.

The requirements for a Certificate of ~~Occupancy~~ Occupancy are set forth in Section 5.3.5. Within 14 days of the receipt of the application for a certificate of occupancy, the Administrative Officer shall inspect the premises to ensure that all required local, State, and federal permits have been acquired and all that all work has been completed in conformance with the Zoning Permit and associated approvals. If the Administrative Officer fails to grant or deny the certificate of occupancy within 14 days of the submission of the application, the certificate shall be deemed issued on the 15<sup>th</sup> day.

#### **6.8.19 Enforcement and Penalties**

- a) It shall be the duty of the Administrative Officer to enforce the provisions of Section 6.8 under 10 VSA §1974a, 24 VSA §4451 and §4452, including Section 8.3. Upon determination that a Violation exists, the Administrative Officer shall institute appropriate action in accordance with the provisions of 24 V.S.A. Chapter 117. A copy of any notice of Violation shall be mailed to the State NFIP Coordinator.
- b) If the Violation occurs in the areas within the FEMA Special Flood Hazard Area and remains after all appeals have been resolved, the Administrative Officer shall submit a declaration to the Administrator of the National Flood Insurance Program requesting a denial of Flood insurance for the property pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended.

Violations of the Accepted Agricultural Practices shall be enforced as Violations of these Zoning Regulations. Such Violations shall also be immediately reported to the Secretary of Agriculture for enforcement under 6 V.S.A. Section 481

## **7. DEFINITIONS**

(p. 107)

**Recreation Facility** - - An establishment ~~greater than 5,000 square feet in size~~ designed and equipped for the conduct of sports and leisure-time activities. Recreation facilities can be indoor or outdoor, as well as a facility or a park.

**Recreation Path** – a non-paved path of 4 feet or less in width that is designed for pedestrian use and has been improved only by the removal of vegetation. It may also be called a footpath or natural trail.

**Trail** – A trail is either:

1. A Natural Trail in which the only alteration to the landscape is the removal of vegetation in and around the pathway; which may also be called a footpath or recreation path; OR
2. An On-ground Improvement Trail where the alterations to the landscape of and around the pathway may involve addition or removal of fill; addition of gravel or pavement; addition of accessory structures such as, but not limited to, boardwalks and bridges; or widening of the traveled area beyond 4 feet. Trails that are on-ground improvements are prohibited on slopes that are greater than 35 %; and will require a professionally-prepared erosion and sedimentation plan on slopes between 20 and 35 %. On-ground improvement trails shall require a permit.