

## **ARTICLE VIII - ENVIRONMENTAL AND RELATED REGULATIONS**

### **SECTION 810. COASTAL AREA MANAGEMENT**

#### 811. Background and Purposes

The purpose of this Section is to achieve the goals, objectives and policies of the State-wide Coastal Area Management Program as set forth in Chapter 444 Section 22a-90 through 22a-112 of the General Statutes and known as "The Coastal Management Act", together with any amendments thereto.

#### 812. Coastal Boundary

The area subject to these regulations shall include all portions of the Town within the Coastal Boundary, as defined by and mapped in accordance with "The Coastal Management Act" as amended and shown on the Coastal Area Management Map on file in the offices of the Commission and the Town Clerk.

#### 813. Review Procedure

All buildings, uses and structures fully or partially within the Coastal Boundary shall be subject to the Coastal Site Plan Review requirements and procedures set forth in "The Coastal Management Act" and also with requirements of the Darien Zoning Regulations, with the exception of gardening, grazing and the harvesting of crops. The following activities beyond 100 feet of the mean high tide line shall be exempted from the coastal site plan review requirements of "The Coastal Management Act" in all such instances where no potential adverse impacts can be determined.

##### 813.1 Exempt Activities

- a. Additions to, or modifications of, existing buildings or detached accessory buildings, such as garages and utility sheds.
- b. Construction of new, or modification of existing on-premise fences, walls, pedestrian walks and terraces, underground utility connections, water and sewer service lines, landscaping or signs and such other minor structures as shall not substantially alter the natural character of coastal resources.
- c. Construction of an individual conforming single-family residential structure, except in or within 100 feet of the mean high tide line, or any of the following coastal resource areas as defined by "The Coastal Management Act": tidal wetlands, coastal bluffs and escarpments, beaches and dunes.
- d. Activities conducted for the specific purpose of conserving or preserving soil, vegetation, water, fish, shellfish, wildlife and other coastal land and water resources.

### 813.2 Administrative Review

All required permit requests for any of the exempted activities listed above shall be subject to an administrative review conducted by the Planning and Zoning Director and the ZEO as part of the application process for a Zoning Permit or Building Permit.

### 813.3 Non-exempt Activities

Except for those activities itemized under Section 813.1, all applications for approval under any of the municipal regulatory authorities enumerated in "The Coastal Management Act" shall incorporate all information normally contained in such applications in addition to the information required under the Act and these shall be known as applications for Coastal Site Plan Review. A combined application may be submitted in accordance with the specifications set forth on appropriate checklists available from the offices of the Commission and the Building Department.

In general, applications for Coastal Site Plan Review approval shall be submitted to the office of the Commission. The Commission, or ZBA, when exercising its authorities shall prepare findings that include written documentation of the reasons for its decision regarding the proposal in accordance with "The Coastal Management Act" and shall submit such documentation to the ZEO or Building Official, as appropriate for Certification of Project as per "The Coastal Management Act". All such Coastal Site Plan Reviews shall be conducted in addition to any reviews and actions required by these Regulations or other applicable local ordinances.

### 813.4 Filing Fee

Each application for a Coastal Site Plan Review shall include a payment of a filing fee. (See Appendix B.)

### 813.5 Procedure

The Commission shall reserve the right to schedule and hold a Public Hearing on any Coastal Site Plan Review.

Application deadlines, hearing schedules and decision periods shall correspond with the established procedures for the specific type of planning or zoning application, as set forth in the General Statutes or locally adopted schedules.

### 814. Performance Bond

As a condition to a Coastal Site Plan approval, the Commission or ZBA may require a bond, escrow account or other surety or financial security arrangement to secure compliance with any modifications, conditions and other terms stated in its approval of a Coastal Site Plan.

815. Expiration of Approval

The Commission may provide for the expiration date of any approval given under this Section on a case-by-case basis. Any expiration date established by the Commission shall be expressly set forth in its decision and may be conditioned upon the completion of certain work or fulfillment of certain conditions set out in the decision. Extensions of this period may be granted by the Commission, as applicable, on written application to it, adequately setting forth the justification for such extension.

## **SECTION 820. FLOOD DAMAGE PREVENTION**

### **821. Background and Purposes**

These regulations have been prepared by the Town pursuant to Title 44, Chapter 1, Sections 59-75 of the Federal Register and the National Flood Insurance Program as amended.

It is the finding of the Commission and the Environmental Protection Commission that the flood hazard areas are subject to periodic inundation which may result or might possibly result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of tax base, all of which adversely affect the public health, safety and general welfare.

These flood losses are caused by the cumulative effect of obstructions in flood plains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed or otherwise protected from flood damages.

It is, therefore, the purpose of these regulations to protect the citizens of Darien by making provisions for the preservation, protection, maintenance, or use of flood hazard and floodway areas.

Pursuant to the authority granted, the Commission shall grant, grant with modifications, or deny permits for all regulated activities associated with these regulations within the Town.

### **822. Inventory of Regulated Areas**

- a. Regulated areas are identified as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study (FIS) for Fairfield County, Connecticut, dated June 18, 2010, and accompanying Flood Insurance Rate Maps (FIRM), dated June 18, 2010, and other supporting data applicable to the Town of Darien, and any subsequent revisions thereto, are adopted by reference and declared to be a part of this regulation. Since mapping is legally adopted by reference into this regulation it must take precedence when more restrictive until such time as a map amendment or map revision is obtained from FEMA. The area of special flood hazard includes any area shown on the FIRM as Zones A, AE, and VE, including areas designated as a floodway on a FIRM. Zone VE is also identified as a Coastal High Hazard Area. The determination of flood hazard areas shall be based on the flood elevations shown on the FIRM maps in conjunction with an up-to-date and accurate topographical survey of the property. Areas of special flood hazard are determined utilizing the base flood elevations (BFE) provided on the flood profiles in the Flood Insurance Study (FIS) for a community. BFEs provided on a Flood Insurance Rate Map (FIRM) are only approximate (rounded up or down) and should be verified with the BFEs published in the FIS for a specific location.

*(Sec 822a) Replaced 5/30/2010*

- b. The Commission and/or its designated agent shall monitor and maintain general surveillance of the regulated areas within the Town to ensure that no unauthorized regulated activities occur.
- c. The Commission shall periodically, in conjunction with the Environmental Protection Commission and state or federal agencies, inventory flood-prone and flood-regulated erosion-prone areas and update the official map delineating said areas to be regulated.

823. Warning and Disclaimer of Liability

The degree of flood protection required by these Regulations is considered reasonable for regulatory purposes and is based on legal, scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flooding heights may be increased by man-made or natural causes. It is not implied that land outside the areas of special flood hazards, or uses within such areas, shall be free from flooding or flood damage. These Regulations shall not create liability on the part of the Town or by any official or employee thereof for any flood damage that results from reliance on these Regulations or any administrative decision lawfully made thereunder.

824. Permitted Operations and Uses

- a. The following operations and uses shall be permitted in flood-prone and flood-related erosion-prone areas, as of right:

Uses incidental to the enjoyment and maintenance of a residential property such as landscaping without substantial alteration of the real estate, but not including any form of structure.

- b. The following operations and uses shall be permitted as non-regulated uses in flood-prone and flood-related erosion-prone areas, provided they shall not disturb the natural and indigenous character of the land:

- (1) Conservation of soil and vegetation;
- (2) Outdoor recreation such as play and sporting areas, picnicking, field trails, nature study and horseback riding where otherwise legally permitted and regulated.

825. Permitting of Regulated Activities Within Regulated Areas

- a. No person shall henceforth conduct a regulated activity in a regulated area of the Town without first obtaining a permit for such activity from the Commission. Any regulated activity or use legally existing as of the effective date of these regulations shall be exempt therefrom and permitted to continue provided that no new or additional regulated activity, requiring a permit under these Regulations, shall be conducted after this same effective date without such a permit. Lands to which these Regulations apply are designated by the Federal Emergency Management Agency (FEMA).

- b. Any application to the Commission for a Zoning Permit, Site Plan Approval, Coastal Site Plan Review or subdivision approval shall be reviewed by the Planning and Zoning Director to determine if it involves any activity or work within a regulated area, and if so, shall incorporate the requirements of these Regulations in the application.
- c. Any application to the Building Department for a Building Permit or other permit shall be reviewed by the Building Official to determine if it involves any activity or work within a regulated area, and if so, the applicant shall be referred to the Commission for its approval prior to issuing said permit. All such action shall be properly recorded within the application file.
- d. In all areas of special flood hazard and Coastal High Hazard areas (for all unnumbered and numbered A and V zones and A, AE, and/or VE zones), the following provisions shall apply:
  - (1) Permits shall be required for all new construction, substantial improvements (including the placement of prefabricated buildings and manufactured homes) and other development and shall be designed (or modified) and adequately anchored to prevent floatation, collapse or lateral movement of the structure and be constructed with materials and utility equipment resistant to flood damage and shall be constructed by methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Such design shall be by a Connecticut Registered Professional Engineer and approved by the Building Official;
  - (2) Subdivision proposals shall be reviewed to assure that all such proposals shall be consistent with the need to minimize flood damage; all public utilities and facilities, such as sewer, gas, electrical and water systems shall be located and constructed to minimize and eliminate flood damage; and adequate drainage shall be provided to reduce exposure to flood hazards. Flood elevation data shall be included with all subdivision proposals. Where flood elevation data is not available, the applicant shall provide a hydrologic and hydraulic engineering analysis performed by a licensed professional engineer that generates base flood elevations for all subdivision proposals and other proposed development, including manufactured home parks and subdivisions;
  - (3) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
  - (4) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;

- (5) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
- (6) All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated to at least one foot above the base flood level. If the structure is substantially improved as defined by Section 210 (Substantial Improvement), then the entire structure must be made to conform with all requirements of Section 820;
- (7) All new construction and substantial improvements of non-residential structures shall have the lowest floor (including basement) elevated to at least one foot above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (8) Where floodproofing shall be utilized for a particular structure in accordance with Subsection 825, a Connecticut Registered Professional Engineer or Architect shall certify that the flood proofing methods shall be adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood, and a record of such certificate indicating the specific elevation (in relation to mean sea level) to which structures are floodproofed shall be maintained with the Commission.
- (9) For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are useable solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters.
- (10) Designs for meeting the requirement in (9) above must either be certified by a registered Professional Engineer or Architect and must meet or exceed the following minimum criteria. A minimum of two openings 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 flood waters.
- (11) Base flood elevation data shall be provided for subdivision proposals and other proposed developments.
- (12) Recreational vehicles (as defined in this section) placed on sites shall either (1) be on-site for fewer than 180 consecutive days, (2) be fully licensed and ready for highway use, (A recreational vehicle is ready for highway use if it

is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.), or meet all the general standards of 825 (d) and the elevation and anchoring requirements of 825 d. (13), (14) and (15) and 825 (f), the elevation and anchoring requirements. Storage of recreational vehicles must also comply with Section 403k of these Regulations.

- (13) In areas of special flood hazard (A and AE Zones), any manufactured home to be newly placed, undergoing a substantial improvement or repaired as a result of substantial damage, shall be elevated so that the bottom of the lowest floor is at least one foot above the base flood elevation (BFE). The manufactured home must also meet all the construction standards for Zones A and AE as per Section 825. This includes manufactured homes located outside a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an existing manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision, or on a site in an existing manufactured home park in which a manufactured home has incurred substantial damage as a result of a flood.
  - (14) In all coastal high hazard areas (VE Zone), any manufactured home to be newly placed, undergoing a substantial improvement or repaired as a result of sustained substantial damage, shall be elevated so that the bottom of the lowest horizontal structural member is at least one foot above the base flood elevation. The manufactured home must also meet all the construction standards for the VE Zone as per Section 825. This includes manufactured homes located outside a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an existing manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision, or on a site in an existing manufactured home park in which a manufactured home has incurred substantial damage as a result of a flood.
  - (15) All manufactured homes within areas of special flood hazard and coastal high hazard areas shall be placed on a permanent foundation which itself is securely anchored and to which the structure is securely anchored so that it will resist flotation, lateral movement and hydrostatic pressures. Anchoring may include, but not be limited to, the use of over-the-top or frame ties to ground anchors. All manufactured homes shall be installed using methods and practices that minimize flood damage. Adequate access and drainage should be provided. Elevation construction standards include piling foundations placed no more than ten (10) feet apart, and reinforcement is provided for piers more than six (6) feet above ground level.
- e. Within the regulatory floodway, delineated on the Flood Insurance Rate Map, encroachments, including fill, new construction, substantial improvements, repairs

*Sec. 825d(13),825d(14),825d(15) Added 5/30/2010 Sec. 825e Revised 5/30/2010*

to substantially damaged structures and other developments that would result in any (0.00 feet) increase in flood levels during the occurrence of the base flood discharge, shall be prohibited. The provision of proof that there shall be no (0.00 feet) increase in flood levels during occurrence of the base flood discharge due to the proposed construction or encroachment shall be the responsibility of the applicant and shall be based on hydrologic and hydraulic studies, performed in accordance with standard engineering practice, and certification, with supporting technical data, by a Connecticut Registered Professional Engineer.

f. In the coastal high hazard zones, VE zone, the following provisions shall additionally apply:

- (1) All new construction shall be located landward of the reach of the mean high water line and landward of the high tide line as defined by and regulated by the Connecticut Department of Environmental Protection;
- (2) All new construction and substantial improvements shall be elevated on adequately anchored pilings or columns, and securely anchored to such piles or columns so that the lowest portion of the structural members of the lowest floor (excluding the pilings or columns) shall be elevated to at least one foot above the base flood level;
- (3) A Connecticut Registered Professional Engineer or Architect shall certify that (1) the bottom of the lowest horizontal structural member of the lowest floor (excluding piling and columns) is elevated at least one foot above the base flood elevation; and (2) the pile or column foundation and structure attached thereto is anchored and resistant to floatation, collapse and lateral movement due to the affects of wind and water loads acting simultaneously on any building components;
- (4) All new construction and substantial improvements shall have the space below the lowest floor free of obstructions or be constructed with breakaway walls intended to collapse under stress without jeopardizing the structural support of the structure; such temporarily enclosed space shall not be used for human habitation. Such temporarily enclosed space shall be used solely for building access, parking of vehicles, and/or storage.
- (5) No use of fill for structural support of buildings shall be permitted.
- (6) Non-supporting breakaway walls, lattice work or mesh screening shall be allowed below the base flood elevation provided it is not part of the structural support of the building and is designed so as to breakaway under abnormally high tides or wave action, without damage to the structural integrity of the building on which it is to be used and provided the following design specifications are met: (1) Design safe loading resistance of each wall shall not be less than ten (10) pounds per square foot or more than twenty (20) pounds per square foot; or (2) If more than twenty (20)

pounds per square foot, a licensed professional engineer or architect shall certify that the design wall collapse would result from a water load less than that which would occur during the base flood event, and the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components prior to or during the collapse of such wall. Such enclosed space shall be used solely for building access, parking of vehicles, and/or storage.

(7) There shall be no alteration of sand dunes that would increase potential flood damage.

g. In all areas of special flood hazard and coastal high hazard areas as applicable, the following shall additionally apply:

(1) The Commission shall obtain, review and reasonably use any base flood elevation and floodway data available from Federal, State or other sources including the information provided by Federal Insurance Administrator, as criteria for requiring that the requirements of these regulations, including but not limited to, Subsections 825.d(6), 825.d(7), 825.f(2) and 825.f(4), 825.g(2), and 825.g(3) shall be met.

(2) Where base flood elevations have been determined, and whether or not a floodway is designated, no new construction, substantial improvement, or other development (including fill) shall be permitted which will increase base flood elevations. The Commission may authorize regulated activities provided there is a certification from a registered professional engineer that the proposed development, considered cumulatively with all anticipated development and likely activities along the watercourse, shall not increase base flood elevations more than one foot.

(3) Should data be requested or provided, a regulatory floodway shall be adopted based on the principal that the floodway must be able to convey the waters of the base flood without increasing the water surface elevation more than one (1) foot at any point along the watercourse. The provisions of Subsection 825.g(2) shall apply to newly adopted floodways.

(4) The applicant shall either obtain a written report indicating recommendations, preliminary approvals, final approvals or disapprovals from any State or Federal Department or Agency such as Connecticut Department of Environmental Protection, U.S. Army Corps of Engineers, Connecticut Department of Transportation, etc., having jurisdiction over the application or any aspect thereof; or otherwise provide sufficient written evidence that such State or Federal agency approval appears to have a reasonable probability of success. In the event that any State or

*Sec. 825f(7): New 5/30/2010  
Sec. 825g(4): Replaced 5/30/2010*

Federal agency has a policy that precludes the provision of such decision until after the Planning & Zoning Commission has rendered its decision, the Planning & Zoning Commission may waive this requirement. If the Commission determines that a State or Federal agency's approval has a material impact on the approved application, further review by the Commission may be required. Copies of any permits or approvals must be provided and maintained on file with the development permit.

- h. Alteration of watercourses: For an application to alter a watercourse the Commission shall consider the character and degree of injury to, or interference with, safety, health or the reasonable use of property which would be caused or threatened. This includes recognition of potential damage from erosion, turbidity or siltation; loss of fish and other beneficial aquatic organisms, wildlife and vegetation; the dangers of flooding and pollution; and destruction of the economic, aesthetic, recreational and other public or private uses, and values of wetlands and watercourses. Notification of any activity falling under this Section shall be sent to the State DEP and to adjoining towns, if applicable. Evidence of notification shall be sent to the FEMA. In all such cases, if a watercourse has been altered or a portion of the watercourse has been altered or a portion of the watercourse has been relocated, the flood-carrying capacity of the watercourse will be maintained and it will not be diminished. In addition, all requirements of the Town Environmental Protection Commission shall be met in full.
- i. Aboveground Storage Tanks - Above-ground storage tanks (oil, propane, etc.) which are located outside or inside of the structure must either be elevated above the base flood elevation (BFE) on a concrete pad, or be securely anchored with tie-down straps to prevent flotation or lateral movement, have the top of the fill pipe extended above the BFE, and have a screw fill cap that does not allow for the infiltration of flood water.
- j. Portion of Structure in Flood Zone - If any portion of a structure lies within the Special Flood Hazard Area (SFHA), the entire structure is considered to be in the SFHA. The entire structure must meet the construction requirements of the flood zone. The structure includes any attached additions, garages, decks, sunrooms, or any other structure attached to the main structure. Decks or porches that extend into a more restrictive flood zone will require the entire structure to meet the standards of the more restrictive zone.
- k. Structures in Two Flood Zones - If a structure lies within two or more flood zones, the construction standards of the most restrictive zone apply to the entire structure (i.e., V zone is more restrictive than A zone; structure must be built to the highest BFE). The structure includes any attached additions, garages, decks, sunrooms, or any other structure attached to the main structure. (Decks or porches that extend into a more restrictive zone will require the entire structure to meet the requirements of the more restrictive zone.)
- l. No Structures Entirely or Partially Over Water - New construction, substantial improvements and repair to structures that have sustained substantial damage

cannot be constructed or located entirely or partially over water unless it is a functionally dependent use or facility.

826. Application Procedures

- a. Prior to the submission of any application hereunder, the applicant should consult with the Commission staff for the purpose of seeking advice and guidance with respect to the proposed regulated activity and requirements of the applicant.
- b. Any person intending to carry out a regulated activity shall submit an application to the Commission in accordance with its regular procedures.

No application shall be deemed complete and ready for consideration by the Commission unless it shall be in such form and contain such information as is outlined in Subsection 826.d below.

- c. All information submitted in the application shall be considered factual, or in the case of anticipated activity, binding. A knowing failure on the part of the applicant, or any of his agents, to provide correct information or performance not specifically authorized in the permit shall be sufficient grounds for the revocation of any permit issued under these Regulations and/or for penalties to be imposed.
- d. All applications shall include the following information in writing and shall be on a form provided by the Commission:
  - (1) The applicant's name, home and business addresses and telephone numbers;
  - (2) The owner's name (if applicant is not the owner of the property), home and business addresses and telephone numbers and written consent to the proposed activity set forth in the application;
  - (3) The elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures as measured by a Licensed Surveyor or registered Professional Engineer. For structures located in the V Zones, the elevation of the bottom of the lowest structural member of the lowest floor (including piling and columns);
  - (4) The elevation in relation to mean sea level to which any structure has been floodproofed, and a certification by a registered Professional Engineer that the floodproofed structure meets the requirements of these Regulations;
  - (5) The geographical location of the property which shall be affected by the proposed activity, including a description of the land in sufficient detail to allow identification of the properties on the map;
  - (6) Purposes and descriptions of the proposed activity;

- (7) A statement certifying that all necessary permits have been obtained from federal, state and local governmental agencies from which prior approval is required;
- (8) A Site Plan for all proposals. Such map shall be prepared by a licensed surveyor, Professional Engineer, Architect or Landscape Architect and shall show the approval and seal of a registered Professional Engineer. The map shall be drawn in accordance with the Commission's regular procedures. Detailed information on this Site Plan shall include, but not be limited to:
  - (a) Property lines of the real property to be affected, the owners of record of that property and of adjoining properties and the structures existing on the affected property;
  - (b) Locations on or near the affected property of wetlands or watercourses, as delineated on the Town's official wetlands map;
  - (c) Existing and proposed drainage structures such as culverts, catch basins, drainage ditches and dams, including complete computations used in arriving at the drainage design;
  - (d) Locations of all existing and proposed waste treatment facilities;
  - (e) Areas where material shall be deposited, repositioned or removed;
  - (f) Significant vegetation and/or landscape plans;
  - (g) Proposed grading of any earth movement anticipated, by vertical contours as required by the Commission;
  - (h) The elevation of the 100 year flood boundary, the location of the 100 year flood plain, and the floodway/floodway fringe, where applicable.
- (9) In all areas of special flood hazard (A and AE Zones), the Commission will obtain, record and maintain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new construction, substantial improvement or repair to a structure that has sustained substantial damage and the elevation (in relation to mean sea level) to which all new construction, substantial improvement or repair to a structure that has sustained substantial damage has been flood-proofed. In all coastal high hazard areas (VE zones), the Commission will obtain, record and maintain the elevation of the bottom of the lowest horizontal structural member for all new construction, substantial improvement or repair to a structure that has sustained substantial damage.

827. Filing Fee

A filing fee shall be submitted for all applications which shall require a full review in accordance with these requirements. (See Appendix B.) No fee shall be required if the application shall be found to require only an administrative review per Subsection 828c.

828. Application Review

- a. A copy of all application materials shall be referred to the Director of Public Works, Environmental Protection Commission and other departments by the Commission as appropriate for their review. All comments received shall be entered into the record of the application. Any deviation from their recommendations which shall be approved by the Commission as part of any application approval shall be set forth in writing and shall include the reasons for deviating from the recommendation. In no case shall an approval be given which does not conform with the minimum requirements of these Regulations.
- b. Where interpretation shall be needed as to the exact location of the boundaries of the areas of special flood hazards, the Commission shall make the necessary interpretations based upon additional data submitted by a licensed Land Surveyor or registered Professional Engineer. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation.
- c. Where a regulated activity shall be proposed, which the applicant can reasonably demonstrate shall be likely to have no adverse effect on levels of flooding or erosion, the applicant may submit a preliminary plan for review by the Commission. The Commission will review all proposed regulated activity to determine whether the proposed development and building sites will be reasonably safe from flooding. The preliminary plan shall be accurately drawn to scale from a certified survey of the property and shall show all existing features, including buildings, roads and natural features and sufficient data to adequately describe the proposed work and activities to be carried out. The Commission may require additional data and mapping to be submitted by the applicant where it judges the submission inadequate and may exercise its option as to the need to have a registered Professional Engineer review a minor development.

The proposal shall then be informally reviewed by the Planning and Zoning Director, the Director of Public Works and a representative of the EPC. Where they find from the preliminary submission that the scope of the proposed work or activity shall be in fact so limited or insignificant that it shall present no adverse impact on levels of flooding or erosion, they may issue an Administrative Permit for the

activity or work. Prior to the issuance of an Administrative Permit, the applicant shall show upon the prescribed application form that adjoining property owners have been advised of the project and have concurred that the proposed activity shall have no adverse flooding or erosion impact.

Such Administrative Permit shall be signed by the Planning and Zoning Director.

*(Sec 828c) Revised 5/30/2010*

Where, in the opinion of the Planning and Zoning Director, any reasonable doubt exists pertaining to the insignificance of any such work or activity under this Section, the applicant shall be notified that a full application shall be required for further review of the proposed activity.

- d. Summary Ruling. If the Commission shall find that a proposed activity is a regulated activity in conformance with the requirements of these Regulations, it may allow the activity with or without conditions after initial review. In order to grant a permit at this stage, the Commission, after full review of all pertinent factors, shall issue an opinion presenting its reasons for granting the permit with or without conditions. Such decision shall be publicized in the usual manner.
- e. A Public Hearing may be held at the discretion of the Commission. If such Public Hearing is to be scheduled, then:
  - (1) All applications shall be submitted, notice published, heard and decided upon in accordance with established schedules per General Statutes;
  - (2) No filing fee shall be refunded after a notice of hearing is published;
  - (3) All applications, maps and documents relating to this hearing shall be open for inspection in the office of the Commission.

829. Permit

- a. The Commission shall issue a written opinion presenting reasons for its action at the time of granting a permit, granting a permit with conditions or limitations, granting an extension of time on an existing permit, or denying a permit.
- b. The Commission may deny a permit with or without prejudice. If a permit shall be denied with prejudice, the application shall not be resubmitted for a period of one year following the date of denial. If a permit shall be denied without prejudice, the applicant may modify, amend or correct his proposal and resubmit it to the Commission.
- c. If a permit shall be granted with conditions or limitations, and the applicant shall dispute such conditions or limitations, he may amend, modify or correct his proposal. Rejection of a modified, amended or corrected proposal shall be equivalent to the denial of an application for the purposes of Subsection 831.
- d. Any applicant may withdraw his application at any time prior to the Commission's final action thereupon for good cause stated in writing. Any filing fee paid by the applicant pursuant to these Regulations shall not be refunded.
- e. A certification from a registered Professional Architect or Professional Engineer that the construction and floodproofing has been completed in conformance with the

permit and these Regulations shall be submitted to the Commission prior to the issuance of a Certificate of Occupancy.

The Commission, with the written consent of the applicant, may extend the time prescribed in these Regulations for action by the Commission, in accordance with applicable General Statutes.

- f. No activity for which a permit or license has been issued pursuant to these Regulations shall be conducted upon the subject parcel prior to the effective date or after the expiration of the permit. Any permit issued by the Commission shall be subject to any expiration date the Commission may establish as part of its decision. This shall be determined on a case-by-case basis. Any expiration date established by the Commission shall be expressly set forth in its decision and may be conditioned upon the completion of certain work or fulfillment of certain conditions set out in the decision. Extensions of this period may be granted by the Commission, as applicable, on written application to it, adequately setting forth the justification for such extension.
- g. The Commission shall consider the following in making its final decision on all permit applications:
  - (1) All evidence offered at any Public Hearing on the character and extent of the proposed activity, on the land involved, and on possible effects of the activity on the subject parcel and on surrounding areas;
  - (2) Any reports from other local, state or federal agencies;
  - (3) Additional requested information;
    - (a) The character and degree of injury to, or interference with, safety, health, or the reasonable use of property which would be caused or threatened. This includes recognition of the danger that materials may be swept onto other lands to the injury of others, of potential damage from erosion or siltation, loss of wildlife and vegetation, the dangers of flooding and pollution, and destruction of the economic, aesthetic, recreational and other public and private uses and values of flood and erosion-prone areas;
    - (b) The suitability of such action to the area for which it is proposed;
    - (c) Measures which could mitigate the impact of the proposed activity and may be imposed as conditions of the permit. Such measures include the availability of further technical improvements or safeguards added to the plan to avoid a reduction in the natural function of the flood and erosion prone area;
    - (d) The necessity to the facility of a waterfront location, where applicable;

- (e) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (f) Any previous inundation of subject parcel.

830. Performance Bond

A performance bond, acceptable in form to the Commission, covering all costs of approved flood damage prevention improvements and any special floodproofing or structural requirements may be required prior to the issuance of any final approval given under these Regulations. Said bond shall be returned upon receipt of "As-built" drawings with certification by a Registered Professional Engineer that all construction conforms with the approved permit and these Regulations.

831. Appeal and Variance Procedures

- a. Variances from these Flood Damage Prevention Regulations shall be heard by the ZBA in accordance with the requirements of the General Statutes.
- b. Variances may be issued for the construction, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this Section.
- c. Any variance granted shall include notice to the applicant that the result of granting a variance from these Regulations may result in higher flood insurance rates.
- d. Variances shall be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, only in conformance with the following procedures:
  - (1) A showing of good and sufficient cause;
  - (2) A determination that failure to grant the variance would result in exceptional hardship to the applicant;
  - (3) A determination that the granting of a variance shall not result in increased flood heights, additional threats to public safety, extraordinary public expense, creation of nuisances, fraud or victimization of the public, or conflict with existing local laws or ordinances; and
  - (4) A determination that the variance shall be the minimum necessary, considering the flood hazard, to afford relief.
- e. The applicant shall be notified in writing over the signature of a community official that: (1) the issuance of a variance to construct a structure below the base flood level shall result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage; and (2) such construction below the base

flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required below.

- f. The ZBA shall: (1) maintain a record of all variance actions, including justification for their issuance, e.g. - that due consideration has been given to the following concerns: (i) the danger that materials may be swept onto other lands to the injury of others; (ii) the danger of life and property due to flooding or erosion damage; (iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner; (iv) the importance of the services provided by the proposed facility to the community; (v) the necessity to the facility of a waterfront location, where applicable; (vi) the availability of alternate locations, for the proposed use which are not subject to flooding or erosion damage; (vii) the compatibility of the proposed use with existing and anticipated development; (viii) the relationship of the proposed use to the comprehensive plan and flood plain management program of that area; (ix) the safety of access to the property in times of flood for ordinary and emergency vehicles; (x) the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and (xi) the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges; and (2) report such variances issued in its annual report submitted to the administrator.
- g. Variances shall not be issued within any designated floodway if any increase in flood level during the base flood discharge would result.

832. Other Permits and Licenses

Nothing in these Flood Damage Prevention Regulations shall supersede or take the place of any requirement for the applicant to obtain any assent, permit, license, authorization required by law or regulations of the United States, the State, or any political subdivision thereof. The obtaining of such assents, permits, licenses or authorizations shall be the sole responsibility of the applicant.

833. Conflict, Severance and Legal Construction

- a. Where there shall be a conflict between the provisions of these Regulations and those of any other federal, state or local act, charter provisions, ordinance or regulations, the provisions which impose the greatest restriction on use shall govern.
- b. The invalidity of any word, clause, sentence, section, part or provision of these Regulations shall not affect the validity of any other part which can be given effect without such invalid part or parts.

**SECTION 840. PRESERVATION OF SIGNIFICANT NATURAL, SPECIAL AND/OR MAN-MADE FEATURES AND RELATED OPEN SPACE AREAS IN THE SUBDIVISION OR RESUBDIVISION OF LAND**

841. Background and Purposes

Where the Commission shall determine that significant natural, man-made or special features exist on a site proposed for subdivision or resubdivision, the protection and preservation of which would promote the purposes of these Regulations, the specific area, width, depth, frontage, yard and coverage requirements established by Section 400 and the various Area and Bulk Requirements Schedules may be modified to achieve such protection or preservation. Such action may be taken provided that all plans, policies and other relevant regulations of the Town shall be adhered to and further that the terms of this Section are met in full. Applicable features shall include, but not be limited to, streams, water bodies, shorelines, wetlands, rock ledges, steep slopes, major trees, views, waterfalls, wildlife habitats, stone walls, historic sites, landmarks, or unusual natural features.

The intent of these Regulations shall be to provide reasonable flexibility in the division and subsequent development of land, when, in the judgment of the Commission, such flexibility shall insure the conservation or preservation of features or areas which contribute to or provide for the health, safety and general welfare of the Town and the particular neighborhood in which such features or areas shall be located.

The Commission may require modifications to subdivision or resubdivision plans when one or more of the following is to be accomplished:

- a. To preserve and protect the natural and cultural environment of the Town by encouraging the permanent preservation of specific features and lands which, in turn, contribute to the stabilization and enhancement of residential amenities and values and the maintenance of the Town's predominantly residential character.
- b. To conserve and protect areas having conservation value, particularly those areas and features having qualities of natural beauty, ecological significance, or historic interest.
- c. To preserve and protect wetlands, marshes, streams, rivers and ponds as natural resources and to avoid flooding, erosion and water pollution.
- d. To more fully protect the health and safety of the people by restricting the extent to which steep slopes, poor soils and similar areas shall be utilized for streets, drives, waste disposal systems and other problem development.
- e. To allow dedication for, or access by, the general public to land areas or cultural facilities when it shall be determined by the Commission that such shall be necessary to the general welfare of the neighborhood or Town and shall be consistent with established plans and policies.

842. Standards and Criteria

- a. Any subdivision or resubdivision plan modified under the terms of this Section shall in no way change the intensity of use as prescribed for the applicable zone and shall not adversely alter the visual character of the immediate neighborhood or otherwise, in the judgment of the Commission, have any detrimental effect on the surrounding area.
- b. The concept of single-family detached dwelling units shall be maintained in all cases. No exceptions shall be permitted in the R-2, R-1, R-1/2 or R-1/3 zones which would reduce the minimum standards below those established for the R-1/5 residential zone. Within the R-1/5 zone, the specified requirements may be reduced by not more than 25 percent. A maximum building coverage of 20 percent shall apply to all building lots.
- c. The features to be preserved and the precise extent of the area or areas within which such features are to be located shall be clearly and accurately delineated on the plan and their significance described in writing on the application or in attachments thereto.
- d. The area or areas so restricted by notation on the plan shall be preserved in a natural or undisturbed condition in perpetuity or may be used for specific purposes that the Commission determines to be desirable and necessary for the welfare, values and livability of the general area.
- e. A suitable instrument which sets forth the proposed easements and restrictive covenants shall be required to be incorporated within all deeds and conveyances of property within the subdivision; said easements and/or covenants shall establish, to the satisfaction of the Commission, adequate and proper arrangements governing the extent and conditions of use, ownership, tax liability with lien provision, and maintenance responsibility for all areas of open space and/or features to be preserved in accordance with the provisions of this Section.
- f. The extent of variation from the specific requirements of the Schedule shall be shown or noted on the plan and reference made to this Section by notation thereon.
- g. The Commission may impose additional requirements as conditions of approval for the modified subdivision plan including, but not limited to, the provision of buffer areas, site development limitations, landscaping, architectural controls, and similar stipulations. All such requirements shall be directed at fulfilling the purposes of this Section.
- h. In the event of any conflict in requirements as they may apply to a particular site, the more restrictive requirements shall be deemed to apply.

843. Procedure

The Commission shall pursue the following procedure in reviewing and acting upon any subdivision or resubdivision application submitted under the terms of this Section:

- a. Prior to developing any formal applications, a sketch plan shall first be submitted to the Commission's office for an informal determination by the Planning and Zoning Director that the proposal generally meets the intent and purposes of this Section.
- b. Upon receiving a positive determination in writing from the Commission's office, a preliminary application shall be developed and submitted for the Commission's consideration. Required materials shall include a specified number of copies of:
  - (1) A sketch plan which establishes a realistic indication of the number and location of lots and buildable areas which would be allowed under the basic regulations of the Town;
  - (2) A preliminary plan setting forth the proposed subdivision concept and clearly establishing the criteria under which an exception is being requested. Such preliminary plan shall generally comply with requirements established under Article III of the Subdivision Regulations;
  - (3) Any other documentation, legal instruments, photographs, plans or other materials required to support the application.
- c. Upon receipt of the required materials, copies of the application shall be referred to appropriate Town agencies for review and comment.
- d. All reviews of preliminary plans shall be designed to aid the applicant in the preparation of an acceptable final plan and shall not be construed as the application required for approval herein nor shall any preliminary planning recommendations made by the Commission be binding on the Commission in its action on any formal application to be made under this Section.
- e. Within 45 days of the receipt of the preliminary application, the Commission shall schedule an informal hearing on the proposal.
- f. Subsequent to receiving any Commission approval of the preliminary application, the applicant shall prepare final plans and documents incorporating all requirements established by the Commission. Such final plans shall be developed in compliance with the requirements set forth in the Town's Subdivision Regulations, Section 1000 of the Zoning Regulations and any additional standards prescribed by the Commission.
- g. The Commission shall schedule a Public Hearing on the application within 65 days of the receipt of all required materials. Such hearing shall be held under the terms of both the Special Permit provisions of the Zoning Regulations and those for a Subdivision Plan.

844. Approved Applications

- a. The Commission shall set forth its specific findings in all decisions on applications under this Section. Such findings shall reflect the purposes set forth in this Section

and, in addition, shall comply with applicable purposes set forth in Article I of these Regulations, and the findings described under Section 1000.

- b. Processing of approved plans shall comply with appropriate provisions of the Subdivision Regulations and Special Permit requirements.
- c. No change or amendment shall be made in the layout, location or design of features as provided on the approved subdivision plan, legal instruments or other approved documents unless the changes or amendments are first approved by the Commission. Application for such amendments or changes shall be made in the same manner as for a new application.
- d. Any approval granted pursuant to the provisions of this Section which shall not have been complied with in full within one year of the approval date shall become null and void. Such full compliance shall include the filing of any required legal instruments, incorporation of necessary deed covenants, posting of performance bonds, dedication of lands, and similar requirements but shall not necessarily include the completion of all required site improvements.

## **SECTION 850. LAND FILLING, EXCAVATION AND EARTH REMOVAL**

### **851. Special Permit Required**

No person shall regrade, fill or excavate any land, or remove earth from any premises, for any purpose, except as described below, without having first procured a Special Permit for such activity from the Commission in accordance with the provisions of Section 1000.

Earth regrading, filling, excavation and removal exempt from the provisions of this Section shall be limited to necessary excavation, filling and grading incidental to: a roadway or parking facility approved by the Commission; installation of essential septic systems, water lines, sewer pipe, storm drainage systems including dry wells, gas, electric and telephone services, and similar necessary utility features as part of a project approved by the Commission or its staff; and to home landscaping projects carried out by or for the owner which require less than 20 cubic yards of excavation, fill or regrading for completion, or in the alternative consist entirely of finish grading or topsoiling not altering the existing land contour by more than six inches, provided however, that the exemptions described above shall not apply to areas regulated by Sections 810 and 820.

In addition, the construction or alteration of a building or structure on the same premises for which a Zoning Permit has been issued may be exempt if such activities do not involve any area(s) beyond 25 feet of the perimeter of the construction or 50 cubic yards of material. Sufficient information to establish this clearly must be submitted together with the application for a Zoning Permit.

Commission staff may review and approve any project which requires less than 50 cubic yards of excavation, fill or regrading; or a project which consists entirely of finish grading or topsoiling not altering the existing land contour by more than eight inches, if in its determination, it will have no impact on adjoining properties.

### **852. Application**

Application for a Special Permit for land filling, excavation, regrading or earth removal shall satisfy all requirements of Section 1000. In addition, depending upon the precise nature of the Permit request, the Commission may require any or all of the following: A detailed map of the entire premises showing existing and proposed contour lines at two foot intervals, existing and proposed drainage, proposed exit and entrance roadways and stockpile areas, major trees, watercourses and wetlands, structures existing and proposed, proposed fencing, and all other relevant information. The Commission may also require that the seal of a registered Professional Engineer be included on any submitted map or maps based on a certified survey of the property.

### **853. General Requirements**

No application shall be approved until the Commission shall be satisfied that proper provision shall be made to control:

- a. Ground stability, including the prevention of soil erosion and earth slides.
- b. Storm water runoff, including protection of watercourses, streams, ponds and wetlands.

- c. Pollution, siltation and stream erosion.
- d. Flying dust and erosion by wind.
- e. Conservation of the fertility of existing topsoil.
- f. Preservation of significant trees, vegetation and other natural resources.
- g. Such other factors as may relate to the healthful, safe and harmonious development of the Town.

854. Limitations and Environmental Impact Statement

In addition to the findings required above, and by Section 1000, excavation, fill or grading shall not:

- a. Extend within 50 feet of a wetland, watercourse, stream, pond, river or tidal waterfront, unless specifically authorized by the EPC.
- b. Extend within 15 feet of the boundaries of the premises, unless it can be shown to have no negative impact on the adjacent properties, and is specifically authorized by the Planning and Zoning Commission.
- c. Establish lateral support or other finished slopes in excess of one foot of vertical rise in elevation per each two feet of horizontal distance, except where firm bedrock is permitted to be exposed.
- d. Be finished with less than six inches depth of arable topsoil, well planted and stabilized, over the entire disturbed area (except for permitted water, rock, structure and paved areas).
- e. Permit loose debris, such as rocks, stumps, brush, junk or other foreign material to remain exposed on the finished surface of the ground.
- f. Result in excessive flying dust, noise, hazard to children or pedestrians, or danger to adjacent properties or passing vehicles.
- g. Result in unreasonable disturbance to the safety, health and tranquility of the general neighborhood.
- h. Inflict any substantial detriment on the natural environment or on the irreplaceable natural resources of its environs, as judged by the Commission.
- i. Cause any negative effects on storm water drainage, especially as it may impact adjacent properties.

To secure the above conditions, the Commission, in granting a Special Permit, may attach reasonable limitations on hours of operation, extent of area disturbed at one time, locations

of stockpiling and other activity, signs and lights, vehicular patterns and activity, and noise, and may require fencing, screening, covering of stored or transported materials and such other measures as shall be necessary to protect the rights of the general public and meet the purposes of these Regulations.

855. Preservation of Arable Topsoil

Arable topsoil from the disturbed area shall be preserved by carefully controlled stockpiling and re-used to the maximum extent possible in establishing the minimum layer of six inches of fertile topsoil required by these Regulations to be spread over the entire disturbed area on completion of the excavation operation.

856. Prohibited Operations

No land fill, excavation, regrading or earth removal operation permitted by these Regulations shall at any time result in, leave, or permit to exist, during construction or afterward, any sharp declivities, pits or depressions, any loose banks or water-filled holes or other major hazards.

No land fill shall make use of decomposable or other unstable material likely to cause future land subsidence, nor of material likely to cause pollution of soil or groundwater.

No land fill, excavation, regrading or earth removal operation shall engage in or permit to be operated on the site any processing, sorting, crushing, grading, mixing, fabrication, or similar activities.

857. Performance Bond Required

Before any Special Permit for land fill, excavation, regrading or earth removal granted hereunder shall become effective, the owner or applicant may be required to file a bond with the Commission. If required, that bond shall be in form and with surety acceptable to the Commission, sufficient to guarantee timely and proper completion of all required work and site restoration. The said bond shall provide for forfeiture to the Town of such sums as shall be necessary to complete the work at the expiration of the allotted construction period, and a 15 percent retention for a period of one year after the allotted construction period to guarantee the proper condition of the work. No permittee shall be released from his bonded obligation to the Town until an "as-built" topography map and plan of the site, comparable in detail and certification to that required by Subsection 853 and showing the completed project, shall be submitted to the Commission, and the Commission shall determine that the required work has been satisfactorily completed.

858. Expiration

Any permit granted hereunder shall expire and be null and void one year from the date of its approval, provided however that an extension or extensions of 12 months each, may be granted by the Commission if it shall find substantial justification for such extension in that such extension shall not be inimical to the welfare and tranquility of the adjacent neighborhood.

## **SECTION 870. SOIL EROSION AND SEDIMENT CONTROL**

### 871. Background and Purposes

A Soil Erosion and Sediment Control Plan shall be submitted with any application for development when the disturbed area of such development is cumulatively more than one-half acre. In most cases the Soil Erosion and Sediment Control Plan shall be submitted as part of a more comprehensive Site Plan as required in Section 1020 or a subdivision plan.

### 872. Exemptions

A single-family dwelling that is not a part of a subdivision of land shall be exempt from these soil erosion and sediment control regulations.

### 873. Eligibility for Certification

To be eligible for certification, a Soil Erosion and Sediment Control Plan shall contain proper provisions to adequately control accelerated erosion and sedimentation and reduce the danger from storm water runoff on the proposed site based on the best available technology. Such principles, methods and practices necessary for certification shall be found in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. Alternative principles, methods and practices may be used with prior approval of the Commission.

### 874. Plan Requirements

Said plan shall contain, but not be limited to:

#### 874.1 Narrative

A narrative describing the development including:

- a. The schedule for grading and construction activities including: start and completion dates; sequence of grading and construction activities; sequence for installation and/or application of soil erosion and sediment control measures; and sequence for final stabilization of the project site;
- b. The design criteria for proposed soil erosion and sediment control measures and storm water management facilities;
- c. The construction details for proposed soil erosion and sediment control measures and storm water management facilities;
- d. The installation and/or application procedures for proposed soil erosion and sediment control measures and storm water management facilities;
- e. The operations and maintenance program for proposed soil erosion and sediment control measures and storm water management facilities.

#### 874.2 Plan Map

A plan map at a sufficient scale to show:

- a. The location of the proposed development and adjacent properties;
- b. The existing and proposed topography including soil types, wetlands, watercourses and water bodies;
- c. The existing structures on the project site, if any;
- d. The proposed area alterations including cleared, excavated, filled or graded areas and proposed structures, utilities, roads, and, if applicable, new property lines;
- e. The location of and design details for all proposed soil erosion and sediment control measures and storm water management facilities;
- f. The sequence of grading and construction activities;
- g. The sequence for installation and/or application of soil erosion and sediment control measures;
- h. The sequence for final stabilization of the development site.

#### 874.3 Other Information

Any other information deemed necessary and appropriate by the applicant or requested by the Commission or its designated agent.

#### 875. Minimum Acceptable Standards

- a. Plans for soil erosion and sediment control shall be developed in accordance with these Regulations using the principles as outlined in Chapters 3 and 4 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. Soil erosion and sediment control plans shall result in a development that: shall minimize erosion and sedimentation during construction; shall stabilize and be protected from erosion when completed; and shall not cause off-site erosion and/or sedimentation.
- b. The minimum standards for individual measures shall be those in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. The Commission may grant exceptions when requested by the applicant if technically sound reasons shall be presented.
- c. The appropriate method from Chapter 9 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended, shall be used in determining peak flow rates and volumes of runoff unless an alternative method shall be approved by the Commission.

876. Issuance or Denial of Certification

- a. The Commission shall either certify that the Soil Erosion and Sediment Control Plan, as filed, complies with the requirements and objectives of this Section or deny certification when the development proposal does not comply with this Section.
- b. Nothing in these Regulations shall be construed as extending the time limits for the approval of any application under Chapters 124, 124A or 126 of the General Statutes.
- c. Prior to certification, any plan submitted to the Town may be reviewed by the County Soil and Water Conservation District which may make recommendations concerning such plan, provided such review shall be completed within thirty days of the receipt of such plan.
- d. The Commission may forward a copy of the development proposal to the EPC or other review agency or consultant for review and comment.

877. Conditions of Approval

- a. The estimated costs of measures required to control soil erosion and sedimentation, as specified in the certified plan, that are a condition of certification of any modified site plan may be required to be covered in a performance bond or other assurance acceptable to the Commission in accordance with the provisions specified under Subsection 1027.
- b. Site development shall not begin unless the Soil Erosion and Sediment Control Plan shall be certified and those control measures and facilities in the plan scheduled for installation prior to site development shall be installed and functional.
- c. Planned soil erosion and sediment control measures and facilities shall be installed as scheduled according to the certified plan.
- d. All control measures and facilities shall be maintained in effective condition to ensure the compliance of the certified plan.

878. Inspection

Inspections shall be made by the Commission or its designated agent during development to ensure compliance with the certified plan and that control measures and facilities have been properly performed or installed and maintained. The Commission may require the permittee to verify through progress reports that soil erosion and sediment control measures and facilities have been performed or installed according to the certified plan and are being operated and maintained.

## **SECTION 880 – STORMWATER MANAGEMENT**

Stormwater management is the practice of controlling the runoff of stormwater from a site such that the quantity of stormwater flow does not result in a cumulative adverse impact on properties proximate to the site, or cause adverse cumulative impact downstream as a result of the proposed development, while managing the stormwater runoff in a manner that mitigates impacts to water quality. These regulations are intended to improve stormwater management and give reasonable consideration to the restoration and protection of the ecosystem and habitat of Long Island Sound as provided in Connecticut General Statutes 8-2(b), 8-23(a), and 8-35a.

- a. Conformance to Established Standards. Proposed stormwater management plans are to conform to the technical guidance and procedures in the Town of Darien Department of Public Works Stormwater Management and Drainage Manual, as may be amended and to the extent not inconsistent with these regulations.
- b. Applicability. Proposals for any site meeting one or more of the following criteria shall submit a stormwater management plan conforming to Section 882:
  - 1) Construction of 1,000 square feet or more of impervious surface; or
  - 2) Demolition and reconstruction or replacement of an existing residential dwelling; or
  - 3) Submission of any application subject to review and action by the Planning and Zoning Commission if the activity is within the jurisdiction of that Commission and/or by the Environmental Protection Commission (EPC) if the activity is within the jurisdiction of the EPC.

If the proposed activity does not require the approval of either the Planning and Zoning Commission or the Environmental Protection Commission, then any stormwater management plan shall be submitted to the Zoning Enforcement Officer (ZEO) with an application for a Zoning Permit or Certificate of Zoning Compliance. The ZEO has thirty days to act on the application.
- c. Impervious Surfaces. Impervious surface, for the purpose of this section is defined as Building Coverage plus the area covered by driveways, sidewalks, walkways, parking areas, terraces, patios, outside storage areas, loading and unloading areas, and equipment pads.
- d. Public Emergency. In order to help alleviate an emergency situation, the Public Works Director may waive the requirement for a drainage analysis in order to protect the health, safety, and welfare of the public, if a public emergency has been declared.
- e. Exception for Coastal Areas. If a site is within the Town's Coastal Boundary, and does not require formal review or action by the Planning & Zoning Commission or Environmental Protection Commission, the requirement for a comprehensive

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- f. Stormwater Management Plan is waived—the plan need only address water quality impacts and mitigation.

881. Basic Components of Stormwater Management Plans

Comparative hydrology shall document no increase in downstream flooding conditions for the 2, 10, 25, and 50 year storms on properties proximate to the site, or cause adverse cumulative impact downstream as a result of the proposed development.

- a. Upstream and Downstream Drainage Analysis. Stormwater management plans shall take into account the upstream tributary drainage area and include a downstream impact analysis for proposals which are likely to result in increased runoff, or alter the flow of an existing discharge into a storm drainage system or watercourse. The downstream impact analysis shall include analysis of a confluence point downstream of the site where the area of the site is 10% or less of the area of the upstream watershed and includes an assessment of potential adverse impacts arising from the runoff.
- b. Nonstructural Drainage Systems. Stormwater management plans shall include non-structural approaches to controlling runoff to the maximum extent practicable, promoting the infiltration of rainfall into the soil and preservation of existing drainage patterns.
- c. Stormwater Runoff Quality. Stormwater management plans shall include measures to minimize, to the extent practicable, discharge of pollutants including suspended sediment from the site through the use of measures that control both the sources and minimize to the extent practicable, transport of pollutants, including suspended sediment.
- d. Conveyance System. Conveyance systems for the proposed project must be analyzed, evaluated, designed, and constructed to accommodate existing upstream and off-site runoff onto a site in addition to the on-site runoff from the proposed development.
- e. Outlet Locations. The runoff from proposed development sites should utilize existing outlets to the maximum extent practicable, unless it is demonstrated that using the existing outlet would exacerbate downstream flooding or result in adverse impacts to downstream properties or properties proximate to the site. The location of the new outlets is critical to avoid adverse impacts to property(ies) proximate to the site. Such point sources shall be located such that they do not adversely affect nearby property or structures that may be proximate to the site and discharge to natural or manmade drainage systems with adequate capacity to handle the anticipated flow.
- f. Maintenance and Operation. Maintenance of drainage facilities and systems constructed or modified as part of a proposed development, is the responsibility of the property owner, unless otherwise dedicated to, or the acknowledged responsibility of, a government agency or other entity.

Stormwater management plans shall include an Operation and Maintenance (“O&M”) plan which shall identify the specific drainage facilities or systems subject to the plan, inspection methods and frequencies, and maintenance methods and frequencies. The plan shall provide for routine maintenance such as minor cleaning usually once or twice a year and insure that the drainage facility or system is unimpeded and operational.

- g. Licensed Professional Engineer. Stormwater management plans, reports, calculations, and O&M plans and schedules shall be prepared, signed, and sealed by a Professional Engineer licensed in the State of Connecticut.
- h. Exceedance of Minimum Standards. Applicants are encouraged to exceed the minimum drainage standards set forth in these regulations to increase positive impacts in flood prone areas.

882. Documentation Requirements

Stormwater management plans and reports where required in these Regulations, as defined in Section 880 shall include the following documentation:

- a. Separate topographic contour mapping showing the existing and proposed drainage areas at an appropriate scale.
- b. Floodplain boundaries and Stream Channel Encroachment Lines as defined by the National Flood Insurance Program and the Connecticut Department of Environmental Protection, respectively.
- c. Inventory and evaluation of on-site hydraulic structures and watercourses, within or related to areas of proposed impact, including brooks, channels, culverts, bridges, dams, weirs, and dikes, with information on their flow capacity and physical condition. The limiting capacity of existing structures may, at the option of the Director of Public Works, be used to establish the allowable post-development peak flow rate from the site.
- d. Inventory and evaluation of existing and proposed on-site stormwater storage areas, including impoundments, riverine corridors, swamps, ponds, wetlands, floodplains, and miscellaneous depressions.
- e. Identification of peak rate of runoff under pre-development and post-development conditions from the site at each design point including those included in the downstream impact analysis as applicable.
- f. Specific documentation in support of stormwater management design shall include, but is not limited to the following:
  - (1) Method used to calculate Stormwater runoff.
  - (2) Runoff characteristics of the property before and after development.

- (3) Watershed calculations used to develop NRCS Curve Number or Rational Method Calculations.
  - (4) Time of concentration calculations identifying length and slope of various components including overland, shallow concentrated and channel flow. Time of concentration paths shall be shown on the watershed maps.
  - (5) Hydrologic model input and output files for all storms evaluated.
  - (6) Subwatershed map delineating all contributing areas to each catch basin in a proposed storm sewer system.
  - (7) Hydraulic computations for all storm drainage systems. Computations shall show hydraulic grade line elevations and structure rim elevations.
  - (8) Pond and storage area stage-storage discharge calculations.
  - (9) Soils information, including depth to seasonally high groundwater and permeability testing and drawdown calculations for proposed infiltration systems.
- g. A complete set of construction plans. Where storm drains are proposed in roadways, the plans shall include storm sewer specifications and profiles.

883. Hydrologic Evaluation

Various methods are available for hydrologic modeling, with some methods more appropriate than others. Most methods are based upon land cover and time of concentration relationships. Hydrologic models should use methods established by the Soil Conservation Service (now Natural Resources Conservation Service) or the United States Army Corps of Engineers. In all cases, the 2, 10, 25, and 50 year storms shall be evaluated for existing and proposed conditions comparative hydrology, with the same modeling methodology used for both conditions. The Director of Public Works may waive the requirements herein if the applicant demonstrates, in writing, why a proposed alternate method of analysis is appropriate and adequate.

- a. Basis of Existing Conditions Analysis. Existing Conditions Analysis shall account for actual on-site conditions at the time of the proposal, accounting for all depressions, and types of land cover, except for applications involving the demolition of an existing residential dwelling or commercial building and replacement of the razed structure with a new structure.

Where an existing residential dwelling or commercial building is proposed to be razed and replaced with a new structure, the basis of existing conditions analysis shall be the site's undeveloped condition if there is no engineered detention system on the existing site. If there is an existing engineered detention system on

the existing site, then the actual existing conditions at the time of application shall be used as the basis of the existing conditions analysis. The local land use board or ZEO may require a comparison to undeveloped conditions where warranted.

- b. Detention Analysis. A complete runoff hydrograph evaluation is required for projects utilizing detention methods.

884. Peak Flow Attenuation

- a. The discharge of stormwater runoff from development sites shall not result in cumulative adverse impacts on properties proximate to the site and shall not exacerbate downstream flooding conditions.
- b. In all cases, the applicant shall perform a watershed study to document that the proposed development will not cause adverse impacts on properties proximate to or downstream from the site. The limit of this study will be the downstream point at which the site represents 10% or less of the total watershed area. This study shall be done for the 2, 10, 25, and 50 year storms.

885. Infiltration and Stormwater Quality

Infiltration shall be utilized where appropriate to reduce stormwater runoff rate and volume, to improve stormwater quality, and to recharge groundwater. Runoff from areas with high pollutant loadings, such as gasoline stations shall not be infiltrated. All infiltration practices shall be subject to pretreatment with another stormwater best management practice. The Town of Darien Department of Public Works Stormwater Management and Drainage Manual, as may be amended, shall be used as a guide.

886. Stormwater Detention Facilities

Stormwater detention facilities to temporarily store excess runoff may be used to control peak flow rate and duration of downstream flows when coordinated with the runoff characteristics of the watershed in which they are located and the local site conditions.

887. Certification and Maintenance Agreements

- a. Prior to obtaining a Zoning Permit and/or starting work on a project, an O&M plan or Notice of Drainage Maintenance Plan shall be recorded on the Darien Land Records. The O&M plan either filed in the Land Records or referred to by the Notice of Drainage Maintenance Plan shall stipulate the inspection frequency, maintenance requirements and intervals for all proposed stormwater management practices on the site.
- b. Prior to issuance by the Zoning Enforcement Officer of a Certificate of Zoning Compliance, a Certificate of Occupancy, or use of the site, the following shall be submitted:
  - (1) An improvement location survey prepared and submitted by a Connecticut licensed land surveyor, depicting: pipe inverts, diameters and sizes, structure

inverts and elevation, and other information to adequately describe the constructed stormwater management system. The survey shall also indicate the extent of impervious surfaces, and topography of the completed site where changes in grade exceed one foot.

(2) A certification by a professional engineer licensed in the State of Connecticut stating that the proposed drainage system was installed in conformance with the approved plans. If plans were not prepared by a professional engineer, a signed statement by the owner shall be submitted stating that the system was installed in substantial conformance with the approved design.

888. Waivers

a. The Planning and Zoning Commission and/or the Environmental Protection Commission may waive one or more of the provisions in Section 880 et. seq. under any of the following circumstances:

- (1) Based upon the size and/or location of the subject property;
- (2) Based upon any unique site characteristics of the subject property;
- (3) Due to the scope, nature, and/or amount of work proposed within the application;
- (4) Due to any prior applications for the subject property which have accounted for stormwater management, and those drainage structures or facilities are still in place.

The burden is upon the applicant to demonstrate why a waiver should be granted.