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ZONING BOARD CERTIFICATE

I, Thomas Mills, Chairman of the ZONING BOARD of the CITY OF STAMFORD, in compliance with Special Act No. 619 of the 1953 General Assembly, hereby certify that on July 8, 2013, a Public Hearing was held by the ZONING BOARD on the application of:

APPL. 213-18 – STAMFORD ZONING BOARD

Requesting approval to amend the Stamford Zoning Regulations, to consider amendments to Article III, Section 7.1, Flood Prone Area Regulations of the Zoning Regulations of the City of Stamford, CT. The proposed amendments will incorporate the recently updated Flood Insurance Study and Flood Insurance Rate Maps which generally show an increase in the extent of flood prone areas and an increase in the depth of flooding for properties already within a flood prone area. Other technical amendments include a definition of the Connecticut Coastal Jurisdiction Line and a change in the definition of "substantial damage" for properties with repetitive flood losses. The Zoning Board is proposing these amendments to comply with the minimum standards of the Federal Emergency Management Agency to maintain the City of Stamford's participation in good standing in the National Flood Insurance Program.

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and that the following is a statement of its findings: UNANIMOUSLY APPROVED on July 8, 2013, by passage of the following motion:

Article III, Section 7.1, Flood Prone Area Regulations to read as follows:

SECTION 7.1 - FLOOD PRONE AREA REGULATIONS (213-18)

A. PURPOSE

The purpose of this Section is to implement comprehensive flood prone area regulations that promote the health, safety and welfare of the general public, that limit public and private property losses and diminish expenditures of public money for costly flood protection projects and relief efforts, and that minimize prolonged governmental and business interruptions. This Section is specifically intended to:

1. Regulate those uses that are dangerous to the health, safety and welfare of the public;
2. Regulate those uses that are threatened by the action of flood waters, velocity or erosion hazards or increase the potential for damages caused by increased flood heights, velocities or erosion hazards;
3. Require that uses vulnerable to floods be protected against flood damage at the time of initial construction or when substantially improved;
4. Control the alteration of natural floodplains, stream channels and natural protective barriers that act to accommodate flood waters or moderate their potentially erosive actions;
5. Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or increase flood hazard to other lands.
6. Minimize dangers to public health by protecting water supplies and natural drainage

7. Insure that potential home buyers, property owners and other citizens are adequately notified that property is situated in a flood hazard area.

B. DEFINITIONS

The following special definitions apply only to this Section 7.1:

1. Base Flood means the flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the One Hundred (100) Year flood).
2. Base Flood Elevation (BFE) means the elevation of the crest of the base flood or 100-year flood. The height in relation to mean sea level expected to be reached by the waters of the base flood at pertinent points in the floodplains of coastal and riverine areas.
3. Basement means an area of a building having its floor sub-grade (below ground level) on all sides.
4. Breakaway Wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.
5. Building means see definition for "Structure."
6. Coastal Boundary means those areas defined by Section 22a-94 of the Connecticut General Statutes (CGS) entitled "The Coastal Management Act" and Article III, Section 7(T) of the Zoning Regulations of the City of Stamford and as shown on the "Official Coastal Boundary Map of the City of Stamford."
7. Coastal High Hazard Area means the area subject to high velocity waters, caused by, but not limited to hurricane wave wash, and is designated on a Flood Insurance Rate Map (FIRM) as Zone VE.
8. Connecticut Coastal Jurisdiction Line means the location of the topographical elevation of the highest predicted tide for the period beginning in 1983 and ending in 2001, referenced to the most recent National Tidal Datum Epoch as published by the National Oceanic and Atmospheric Administration and described in terms of feet of elevation above the North American Vertical Datum of 1988. In Stamford, the Coastal Jurisdiction lies at elevation 5.5 feet NAVD-88 (North American Vertical Datum of 1988).
9. Cost means, as related to substantial improvements, the cost of any reconstruction, rehabilitation, addition, alteration, repair or other improvement of a structure shall be established by a detailed written contractor's estimate. The estimate shall include, but not be limited to: the cost of materials (interior finishing elements, structural elements, utility and service equipment); sales tax on materials, building equipment and fixtures, including heating and air conditioning and utility meters; labor; built-in appliances; demolition and site preparation; repairs made to damaged parts of the building worked on at the same time; contractor's overhead; contractor's profit; and grand total. Items to be excluded include: cost of plans and specifications, survey costs, permit fees, outside improvements such as septic systems, water supply wells, landscaping, sidewalks, fences, yard lights, irrigation systems, and detached structures such as garages, sheds, and gazebos.
10. Critical Uses and Facilities mean any use or facility for which even a slightest chance of flooding would be too great. Such uses and facilities include, but are not limited to, schools, nursing homes, elderly housing, hospitals, jails, prisons, sites containing

essential and irreplaceable records, public utilities, and emergency service facilities such as fire, police and rescue.

11. Dangerous Material means any material or substance which may pose an unreasonable risk to the health and safety of individuals, property, water supplies and/or the environment if discharged or released. These materials or substances may be defined as explosive, blasting agent, flammable gas, nonflammable gas, combustible liquid, flammable liquid, flammable solid, organic peroxide, oxidizer, poison, irritating material, etiologic agent, radioactive material, corrosive material, other regulated material.
12. Development means any man-made change to improved or unimproved real estate, including but not limited to the construction of buildings or structures; the construction of additions, alterations or substantial improvements to buildings or structures; the placement of buildings or structures; mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment; the storage, deposition, or extraction of materials; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities.
13. Elevated Building means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts or piers), shear walls, or breakaway walls, as allowed under applicable standards.
14. Existing Manufactured Home Park or Subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured home are to be affixed (including, as a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date, June 22, 1982, of the floodplain management ordinance adopted by the community.
15. Expansion to an Existing Manufactured 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).
16. Federal Emergency Management Agency (FEMA) means the federal agency that administers the National Flood Insurance Program (NFIP).
17. Finished Living Space means, as related to fully enclosed areas below the base flood elevation (BFE), a space that is, but is not limited to, heated and/or cooled, contains finished floors (tile, linoleum, hardwood, etc.), has sheetrock walls that may or may not be painted or wallpapered, and other amenities such as furniture, appliances, bathrooms, fireplaces and other items that are easily damaged by floodwaters and expensive to clean, repair or replace.
18. Five Hundred Year Storm or 500 Year Flood means flooding having a 0.2 percent chance of being equaled or exceeded in a given year.
19. Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters or the unusual and rapid accumulation or runoff of surface waters from any source.
20. Flood Insurance Rate Map (FIRM) means the official map of the City of Stamford, effective July 8, 2013 (including any update, amendment or modification of said map approved by the Federal Emergency Management Agency) on which the Federal Emergency Management Agency has delineated special flood hazard areas and the

insurance risk premium zones applicable to the City of Stamford. FIRMs published after January 1990 may also show the boundaries of the floodway.

21. Flood Insurance Study is the official report by the Federal Emergency Management Agency entitled "Flood Insurance Study, City of Stamford, Connecticut, Fairfield County", effective July 8, 2013, as amended from time to time that establishes flood profiles and water surface elevations of the base flood and other flood data within the City of Stamford.
22. Floodplain or Flood Prone Area means any land area susceptible to being inundated by water from any source.
23. Floodproofing means any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved property, water and sanitary facilities, structures and their contents.
24. Functionally Dependent Facility means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities. The term does not include seafood processing facilities, long-term storage, manufacturing, sales or service facilities.
25. Historic Structure means 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 historic 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: (1) By an approved state program as determined by the Secretary of the Interior or (2) Directly by the Secretary of the Interior in states without approved programs.
26. Lowest Floor means the floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or limited storage in an area other than a basement area, is not considered a building's lowest floor, provided that such an area fully meets the requirements of Section 7.1-D-1-f(4) hereof.
27. Manufactured Home means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. Recreational vehicles and similar transportable structures placed on a site for 180 consecutive days or longer shall be considered to be manufactured homes for the purpose of this section.
28. Manufactured Home Park or Subdivision means a parcel, or contiguous parcels, of land divided into two or more manufactured home lots for rent or sale.
29. Market Value means the value of the structure shall be determined by an independent appraisal by a professional appraiser prior to the start of the initial repair or improvement, or in the case of damage, the value of the structure prior to the damage occurring.
30. Mean High Tide (also, Mean High Water) means the average height of the maximum

elevation reached by each rising tide observed over a specific 19 year period. Mean High Tide at Stamford is 4.37 feet NGVD (National Geodetic Vertical Datum of 1929) or 3.27 feet NAVD-88 (North American Vertical Datum of 1988).

31. Mean Sea Level means the average height of the sea for all stages of the tide as established by the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations provided in the Flood Insurance Study and shown on the Flood Insurance Rate Map (FIRM) are referenced.
32. Minimum Elevation Standard means the elevation of the base flood plus one (1) foot of freeboard (Example: Base Flood Elevation = 12.00 feet NAVD; Minimum Elevation Standard = 13.00 feet NAVD)
33. New Construction means structures for which the "start of construction" commenced on or after June 22, 1982 and includes any subsequent improvements to such structures.
34. New Manufactured Home Park or Subdivision 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 the effective date, June 22, 1982, of the floodplain management regulation adopted by the community.
35. New Underground Storage Facilities means an underground storage facility, the construction or installation of which began on or after the effective date of these regulations, including but not limited to facilities which replace existing facilities and facilities which are moved from one location to another.
36. Recreational Vehicle means a vehicle which is built on a single chassis, 400 square feet or less when measured at the largest horizontal projections, designed to be self-propelled or permanently towable by a light-duty truck and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
37. Regulatory Floodway (or "Floodway") means 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.
38. Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc...
39. Sand Dunes mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.
40. Special Flood Hazard Area means all land within the City of Stamford subject to a one percent or greater chance of flooding in any one year. Special flood hazard areas are determined utilizing the base flood elevations as provided in the Flood Insurance Study for the City of Stamford. Special flood hazard areas include, but are not necessarily limited to the land shown as Zones A, AE, and VE on the City of Stamford's Flood Insurance Rate Map.
41. Start of Construction, including substantial improvement, means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date, or within the time frame for start of construction specified in the permit. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any

work beyond the stage of excavation or 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 excavation for a basement, footings, 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 a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

42. Structure means a walled and/or roofed building that is principally above ground, a manufactured home, or a gas or liquid storage tank.
43. Substantial Damage means damage of any origin sustained by a structure, whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. "Substantial damage" also means flood-related damages sustained by a structure on two (2) separate occasions during a ten (10) year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds twenty-five (25) percent of the market value of the structure before the damage occurred.
44. Substantial Improvement means any combination of repairs, reconstruction, alteration, or improvements to a structure, taking place during a five (5) year period, the cumulative cost of which equals or exceeds fifty percent (50%) of the market value of the structure as determined at the beginning of such five (5) year period. The market value of the structure should be (1) the appraised market value of the structure prior to the "start of construction" of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. This term includes structures that have incurred "substantial damage", regardless of the actual repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any improvement project required to comply with existing health, sanitary or safety code specifications which are the minimum necessary to assure safe living conditions and which have been previously identified by the local code enforcement official.
45. Substantially Modified Underground Storage Facilities means the construction or installation of any addition to an underground storage facility or any restoration or renovation of an underground storage facility which: a) increases or decreases the on-site storage capacity of the facility; b) significantly alters the physical configuration of the facility; or c) impairs or improves the physical integrity of the facility or its monitoring systems.
46. Tidally Influenced Floodplain means those areas of flooding where flood waters from a 100-year coastal storm, without considering the extent of any riverine flooding, have a significant influence on the backwater height of the base flood. The area of tidally influenced floodplain extends from Long Island Sound to the West Broad Street bridge for the Rippowam River and extends to the East Main Street bridge for the Noroton River.
47. Underground Storage Facilities means a system of interconnected tanks, pipes, pumps,

vaults, fixed containers and appurtenant structures, singly or in any combination, which are used or designed to be used for the storage, transmission or dispensing of petroleum liquids or other materials.

48. Variance means a grant of relief by a community from the terms of the floodplain management regulation that allows construction in a manner otherwise prohibited and where specific enforcement would result in unnecessary hardship.
49. Violation means a failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without required permits, lowest floor elevation documentation, flood-proofing certificates or required floodway encroachment calculations is presumed to be in violation until such time as that documentation is provided.
50. Water surface elevation means the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

C. GENERAL REQUIREMENTS

1. Areas to Which This Section Applies. The standards of Section 7.1 shall apply to all areas of special flood hazard within the City of Stamford.

2. Basis for Establishing Special Flood Hazard Areas. Special flood hazard areas are identified utilizing the base flood elevation data developed by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study (FIS) for Fairfield County, Connecticut, dated July 8, 2013, and accompanying Flood Insurance Rate Maps (FIRM), dated July 8, 2013 (Panels 09001C0512G, 09001C0516G, 09001C0517G, 09001C0518G, 09001C0519G, 09001C0536G) and June 18, 2010 (Panels 09001C0344F, 09001C0363F, 09001C0364F, 09001C0365F, 09001C0366F, 09001C0368F, 09001C0369F, 09001C0501F, 09001C0502F, 09001C0503F, 09001C0504F, 09001C0506F, 09001C0507F, 09001C0508F, 09001C0509F) and other supporting data, and other supporting data applicable to the City of Stamford, and any subsequent revisions thereto, are adopted by reference and declared to be a part of this Section. 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. Special flood hazard areas 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. Special flood hazard areas include:

   a. **A and V Zones**. Any area shown on a Flood Insurance Rate Map as Zones A, AE or VE, including any areas designated as floodway; and
   b. **Additional Areas**. Areas of potential, demonstrable or historical flooding, including any area contiguous with but outside the zones cited in (C.2.a.) above, and where the land surface elevation is lower than the base flood elevations as shown in the Flood Insurance Study, and the area is not protected from flooding by a natural or man-made feature.

3. Flood Hazard Area Permit Required. A Flood Hazard Area Permit is required for all development within a special flood hazard area of the City of Stamford. A "Coastal Site Plan Approval" from the Zoning Board (for properties situated within the designated "Coastal

Boundary") or an "Inland Wetland and Watercourses Permit" from the Environmental Protection Board (for all other properties) shall constitute a Flood Hazard Area Permit.

4. Warning and Disclaimer of Liability. The degree of flood protection required by this Section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Section does not imply or guarantee that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Section shall not create liability on the part of the City of Stamford or on the part of any officer or employee thereof for any flood damages that result from reliance on this Section or any administrative decision lawfully made there under.

D. PROVISIONS FOR FLOOD HAZARD REDUCTION

1. Provisions Applicable to All Special Flood Hazard Areas.
   a. **Base Flood Elevation and Floodway Data**. The Zoning Board and Environmental Protection Board shall utilize the base flood elevation and floodway data provided by the Federal Emergency Management Agency as criteria in evaluating all permit applications.

   b. **Streams Without Established Base Flood Elevations, Floodways and/or Flood Mapping**.
      - The Zoning Board and the Environmental Protection Board shall obtain, review and reasonably utilize any base flood elevation and floodway data available from Federal, State or other sources, as criteria for requiring that new construction, substantial improvements or other development in any area of potential, demonstrable or historical flooding within the City of Stamford meets the standards of Section 7.1.
      - In A and AE zones where base flood elevations have been determined, but before a floodway is designated, no new construction, substantial improvement, or other development (including fill) shall be permitted which will result in any increase in base flood elevations at any point along the watercourse when all anticipated development is considered cumulatively with the proposed development.
      - Floodway data may be requested of an applicant for watercourses without FEMA-published floodways. When such data is provided by an applicant or whenever such data is available from any other source, the Zoning Board or Environmental Protection Board shall adopt a regulatory floodway 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.
   c. **Carrying Capacity Maintained**. In any portion of a watercourse which is altered or relocated, the flood carrying capacity shall be maintained.
   d. **Federal, State and Local Permits Required**. The applicant shall certify in writing that all necessary permits have been received from those governmental agencies from which approval is required by federal, state or local law, including Section 404 of the Federal Water Pollution Control Act, as amended.

e. **Structures Already in Compliance**. A structure already in compliance with the provisions of Section 7.1 FLOOD PRONE AREA REGULATIONS shall not be made non-compliant by any alteration, repair, reconstruction or improvement to the structure.

f. **New Construction and Substantial Improvements**.

(1) All structures. All new construction and substantial improvements (including the placement of prefabricated buildings) shall comply with the following requirements:

(a) be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(b) be constructed with materials resistant to flood damage;

(c) be constructed by methods and practices that minimize flood damage.

(d) be installed using methods and practices which minimize flood damage, including providing adequate access and drainage.

(e) 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.

(f) new and replacement potable water systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

(g) new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems to flood waters.

(h) on-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. In no case shall any component of a septic system be situated within the area subject to inundation by a 25-year frequency flood (four percent annual chance flood).

(i) 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.

(j) 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.)

(k) 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.

g. **No Increase in the Base Flood Elevation (Equal Conveyance)**. Within the floodplain as designated on the Flood Insurance Rate Map (FIRM), encroachments resulting from filling, new construction or substantial improvements involving an

increase in footprint of the structure, are prohibited unless the applicant provides certification by a licensed professional engineer registered in the State of Connecticut demonstrating, with supporting hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that such encroachments shall not result in any (0.00 feet) increase in the water surface elevation of the base flood, as defined in the Flood Insurance Study (FIS) for Fairfield County, Connecticut, dated July 8, 2013. Work within the floodplain and the land adjacent to the floodplain, including work to provide compensatory storage shall not be constructed in such a way so as to cause an increase in flood stage or flood velocity. The requirements of this paragraph shall not apply to encroachments within those areas of the floodplain which are tidally influenced.

h. Compensatory Storage. The water holding capacity of the floodplain, as designated on the Flood Insurance Rate Map (FIRM), shall not be reduced, based on the floodplain capacity in existence as of the date of the hydrologic and hydraulic analyses used to determine the applicable base flood elevation, as cited in the report entitled "Flood Insurance Study (FIS) for Fairfield County, Connecticut, dated July 8, 2013. Any reduction caused by filling, new construction or substantial improvements involving an increase in footprint to the structure, shall be compensated for by deepening and/or widening of the floodplain. Storage shall be provided on-site, unless easements have been gained from adjacent property owners; it shall be provided within the same hydraulic reach and a volume not previously used for flood storage; it shall be hydraulically comparable and incrementally equal or greater than to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Compensatory storage can be provided off-site if approved by the municipality. The requirements of this paragraph shall not apply within those areas of the floodplain which are tidally influenced.

(2) Residential structures. All new construction and substantial improvements of residential structures within a special flood hazard area shall have the lowest floor (including basement) elevated to or above the minimum elevation standard.

(3) Non-residential structures. All new construction and substantial improvements of non-residential structures within a special flood hazard area shall:

(a) have the lowest floor (including basement) elevated to or above the minimum elevation standard; or

(b) together with attendant utility and sanitary facilities, be designed so that below the minimum elevation standard, the structure is water tight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy.

(4) Enclosed Areas Below The Minimum Elevation Standard. New construction or substantial improvements of buildings with lowest floor elevated to or above the minimum elevation standard that include fully enclosed areas formed by foundation and other exterior walls below the minimum elevation standard are subject to the following additional standards:

(a) Use criteria. The enclosed space can only be used for the parking of cars or

other similar vehicles, building access or limited storage.

(b) Equalization of Hydrostatic Forces. Areas below the lowest floor that are fully enclosed areas and subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a Connecticut registered professional engineer or architect or meet or exceed the following minimum criteria:

i.) Provide 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;

ii.) The bottom of all openings shall be no higher than one foot above grade;

iii.) The openings may be equipped with screens, louvers, valves or other coverings or devices provided these devices permit the automatic and unobstructed flow of floodwaters in both directions.

iv.) The area below the minimum elevation standard shall not be a basement.

(c) Utilities above the minimum elevation standard. Machinery or equipment that service the structure such as furnaces, air conditioners, heat pumps, hot water heaters, ventilation, washers, dryers, electrical junction boxes, circuit breaker boxes and food freezers shall not be permitted below the minimum elevation standard.

(d) Unfinished/flood resistant materials. All interior wall, floor, and ceiling materials located below the minimum elevation standard shall be unfinished and resistant to flood damage.

(5) Floodproofing Design Certification. Where floodproofing is utilized for a particular structure, a Connecticut registered professional engineer or architect shall certify in writing that the floodproofing methods are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood.

(6) Manufactured Homes. All manufactured homes (including "mobile" homes to be placed or substantially improved within a special flood hazard area) and 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) shall meet the following requirements.

(a) Elevation above the minimum elevation standard. Be elevated so that the lowest floor is above the minimum elevation standard.

(b) Construction Standards. In the instance of elevation on pilings or columns, lots must be large enough to permit steps, piling and column foundations are to be placed in stable soil no more than ten feet apart, and reinforcement must be provided for pilings and columns more than six feet above ground level.

(c) Securely anchored to a permanent foundation. 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 and hydrodynamic pressures. Anchoring may include, but not be

limited to, the use of over-the-top or frame ties to ground anchors. If over-the-top or frame ties are used, specific requirements are that:

i.) over-the-top ties be provided at each of the four corners of the mobile home with two additional ties per side at intermediate locations, and mobile homes less than fifty feet long requiring one additional tie per side;

ii.) frame ties be provided at each corner of the home with five additional ties per side at intermediate points, and mobile homes less than fifty feet long requiring four additional ties per side;

iii.) all components of the anchoring system to be capable of carrying a force of 4,800 pounds; and

iv.) any additions to the mobile home be similarly anchored.

(7) Recreational vehicles placed on sites within Zones A or AE shall be on the site fewer than 180 consecutive days, be fully licensed and ready for highway use, or meet all the standards of SUBSECTION 7.1 D 1 and 2. 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.

2. Provisions Applicable to Designated Regulatory Floodways.

In all designated regulatory floodways the following special standards shall apply, in addition to the requirements of Subsection D.1 above:

a. Encroachments. Encroachments (including filling, new construction, substantial improvements and other development within the adopted regulatory floodway) that would result in any (0.00 ft) 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 ft) 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.

b. Prohibited Uses. Within any delineated Regulatory Floodway, the placement of manufactured homes, manufactured home parks, manufactured home subdivisions, recreational vehicles, new or substantially improved uses and facilities defined as critical uses and facilities, new or substantially improved structures and facilities used for the storage or production of dangerous materials and new or substantially modified underground storage facilities containing or proposed to contain "Dangerous Materials" shall be prohibited.

3. Provisions Applicable to Coastal High Hazard Areas.

Coastal High Hazard Areas have special flood hazards associated with wave wash and are subject to the following special standards, in addition to the requirements of Subsection D.1 above:

a. Location Landward of the Connecticut Coastal Jurisdiction Line. All new construction or substantial improvement shall be located landward of the reach of the Connecticut Coastal Jurisdiction Line as defined in CGS 22a-359 as amended by

Public Act 12-101;

b. **Elevation Above the Minimum Elevation Standard**. All new construction or substantial improvement shall be elevated on adequately anchored pilings and columns and securely anchored to such pilings and columns so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located above the minimum elevation standard, with all space below the lowest supporting member open so as not to impede the flow of water.

c. **Design for One-Percent Annual Chance Floods and Winds**. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. The anchoring and support system shall be designed with wind and water loading values which equal or exceed the base flood recurrence interval (one percent annual chance flood and winds).

d. **Certification by Professional Engineer or Architect**. A professional engineer or architect registered in the State of Connecticut shall review and/or develop structural design specifications and plans for the construction and shall certify that the design, specifications and plans for construction are in accordance with acceptable standards and are in compliance with the provisions contained in Subsections D.3.b. and D.3.c. above.

e. **Use of Fill for Structural Support Prohibited**. There shall be no fill used as structural support of buildings. Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge thereby rendering the building free of obstruction prior to generating excessive loading forces, ramping effects, or wave deflection. Such plans shall only be approved subject to an analysis by an engineer, architect, and/or soil scientist demonstrating that the following factors have been fully considered:

(1) particle composition of fill material does not have a tendency for excessive natural compaction;

(2) volume and distribution of fill will not cause wave deflection to adjacent properties; and

(3) slope of fill will not cause wave run-up or ramping.

f. **No Alteration of Sand Dunes**. There shall be no alteration of sand dunes.

g. **Construction Standards and Use of Areas Below the Minimum Elevation Standard.**

(1) Use of breakaway walls. Non-supporting breakaway walls, lattice work or mesh screening shall be allowed below the minimum elevation standard provided they are not part of the structural support of the building and are designed to break away under abnormally high tides or wave action without damage to the structural integrity of the building on which they are used, subject to the following standards:

(a) the design safe loading resistance of each wall shall not be less than ten (10) nor more than twenty (20) pounds per square foot; or

(b) if more than 20 pounds per square foot, a professional engineer or architect registered in the State of Connecticut 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 foundations 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 during the base flood event. Maximum wind and water loading values to be used in this determination shall each have a one percent (1%) chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

(2) Not for human habitation. If breakaway walls, lattice work or screening are utilized, the resulting enclosed space shall not be designed to be used for human habitation, but may be designed to be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises.

(3) Modifications to structures. Any alteration, repair, reconstruction, or improvement to a structure shall not enclose the space below the lowest floor except with breakaway walls, lattice work, or screening as provided for in items (1) and (2) above.

h. Prohibited Uses. Within any Coastal High Hazard Area, the establishment of manufactured homes, manufactured home parks, or manufactured home subdivisions, the placement of recreational vehicles, and the establishment or substantial improvement of critical uses and facilities, and the establishment or substantial improvement of structures used for the production or storage of dangerous materials, and the establishment or substantial modification of underground storage facilities containing or proposed to contain "Dangerous Materials" shall be prohibited.

4. Special Provisions Applicable to Subdivisions. All subdivision proposals shall be consistent with the need to minimize flood damage and reduce threats to public health and safety. The following requirements shall apply to all subdivision proposals:
   (a) public utilities and facilities such as sewer, gas, telephone, electrical and water systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.
   (b) adequate storm water drainage shall be provided to reduce exposure to flood hazards.
   (c) A subdivision shall be disapproved unless designed, located and constructed so that at any time during the occurrence of the base flood, all building sites can be safely accessed and evacuated.
   (d) All proposed subdivisions which contain any land within a special flood hazard area shall include the base flood data on the record plan.
   (e) Sanitary sewers within the flood prone areas shall be constructed with water tight manhole frame and covers, pipe joints, and manhole joints.
5. Special Provisions Applicable to Critical Uses and Facilities. All such uses and facilities including substantial improvements shall be prohibited in any Regulatory Floodway or any Coastal High Hazard Area. All such uses and facilities including substantial improvements shall be prohibited within any special flood hazard area unless elevated (residential structures) or elevated and/or dry floodproofed (non-residential structures) to or above the level of the 500-year flood and so located and constructed as to be safely accessed and evacuated at any time during the base flood.
6. Special Provisions Applicable to Dangerous Materials. All new or substantially improved structures and facilities including underground storage facilities, which will be used for the production or storage of any material or substance defined as a "Dangerous Material," shall be prohibited in any Regulatory Floodway or any Coastal High Hazard Area. All such structures and facilities including substantial improvements shall be prohibited

within any special flood hazard area unless those portions of the structure or facility used for the production or storage of a dangerous material or substance are elevated (residential structures) or elevated and/or dry flood-proofed (non-residential structures) to or above the level of the 500-year flood, and so designed as to prevent pollution from the structure or facility during the course of the 500-year flood. All new and substantially improved underground storage facilities shall be prohibited within any Special Flood Hazard Area unless designed and constructed to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 500-year flood, and to prevent the infiltration of floodwaters into the facilities and discharges from the facilities to floodwaters. Specifically exempt from this section is oil or petroleum liquids of a volume of not more than 550 gallons, stored in interior storage facilities and used solely for on-site heating or intermittent stationary power production.

E. ADMINISTRATION

1. Zoning Enforcement Officer (ZEO). The ZEO shall monitor and inspect construction and other development activities within the Coastal Boundary to ensure compliance with the standards of this Section and the conditions of any issued Flood Hazard Area Permit, shall enforce any violations in the same manner as other violations of the Zoning Regulations, and endorse issuance of a certificate of occupancy upon a determination that all conditions of the permit have been met. The ZEO shall maintain records pertaining to the provisions of this Section including:
   a. elevation of the lowest floor (including basement) and, in coastal high hazard areas (VE zones) elevation of the bottom of the lowest horizontal structural member of all new or substantially improved structures per Section E.3 below;
   b. elevation to which new or substantially improved non-residential structures have been flood-proofed per Section E.3 below;
   c. certifications that floodproofing, when utilized, meets the requirements of this Section per Section E.3 below;
   d. certifications that structures in coastal high hazard areas are designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash;
   e. fair market value/improvement cost assessments for projects situated within Special Flood Hazard Areas.
   f. variance actions.
2. Zoning Board. The Zoning Board of the City of Stamford shall approve, approve with conditions or disapprove all applications for Flood Hazard Area Permit within any special flood hazard area situated within Stamford's designated Coastal Boundary. The Zoning Board shall also provide notification to adjoining municipalities and to the Southwest Regional Planning Agency not less than thirty-five (35) days prior to any scheduled public hearing or final action on any change of regulations or use of a flood zone any portion of which is within five hundred (500) feet of any adjoining municipality. The Zoning Board shall also notify adjacent municipalities and the Connecticut Department of Energy and Environmental Protection (DEEP) - Water Resources Unit not less than 35 days prior to approval of any application to alter or relocate any watercourse, and shall submit evidence of such notification to the Federal Emergency Management Agency.

Any application filed with the Zoning Board which is in conformance with the applicable Flood Prone Area Regulation of the Zoning Regulations as of the date of the receipt of such application shall not be required thereafter to comply with any change in the Flood Prone Area Regulation taking effect on or after the date of such receipt.

3. Environmental Protection Board (EPB). The EPB of the City of Stamford shall approve, approve with conditions, or disapprove all applications for Flood Hazard Area Permit within any special flood hazard area situated outside of Stamford's designated Coastal Boundary, including any conditions it deems necessary in order for the proposed activity to meet the provisions of Section 7.1 FLOOD PRONE AREA REGULATIONS. The EPB shall provide notification to adjacent municipalities, boards, agencies and commissions as required under Section 5.9 of the "Inland Wetlands and Watercourses Regulations of the City of Stamford." Violations of any Flood Hazard Area Permit issued by the EPB shall be enforceable by the EPB by issuance of a cease and desist order in accordance with Section 10 of the Inland Wetlands and Watercourses Regulations, and all other remedies available by law. Such violations shall also be separately enforceable by the Zoning Enforcement Officer.

   Any application filed with the EPB which is in conformance with the applicable Flood Prone Area Regulation of the Zoning Regulations as of the date of the receipt of such application shall not be required thereafter to comply with any change in the Flood Prone Area Regulation taking effect on or after the date of such receipt.

4. Executive Director of the EPB. The Executive Director of the Environmental Protection Board shall:
   a. Review all proposed development activities to determine if the proposed activity is within a special flood hazard area in accordance with Sub-Section D.1.a above.
   b. Review proposed plans with applicants to explain the provisions of this Section, review all permit applications to determine whether proposed building sites will be reasonably safe from flooding, identify any aspects of the proposed activity that may not conform and suggest modifications that would bring a project into conformance with the standards of Section 7.1.
   c. Advise applicants of any additional federal, state or local permits that may be required, including but not limited to: Coastal Area Management, Water Diversion, Dam Safety, Corps of Engineers Section 404, and Inland Wetland and Watercourses permits.
   d. Issue written findings, recommendations and suggested conditions of approval to the Zoning Board, Zoning Board of Appeals and Planning Boards of the City of Stamford regarding any application for a variance from the standards of Section 7.1 or any applications submitted pursuant to or affected by the standards of Section 7.1.
   e. Provide advice and assistance to the ZEO to ensure that approved and permitted activities are completed in conformance with the provisions of this Section 7.1.
   f. Notify permit holders regarding any violation of the provisions of this Section 7.1 and petition the EPB to issue a cease and desist order and initiate other enforcement actions as necessary.
   g. Endorse the issuance of a Certificate of Compliance and Certificate of Occupancy upon a final inspection and determination that the conditions of the Flood Hazard Area Permit have been met.
   h. Maintain records pertaining to the provisions of this Section, including the same

information maintained by the ZEO.

5. Building Department. For any activity in a special flood hazard area subject to the provisions of this Section 7.1, the Chief Building Inspector or his/her designee shall not issue a Building Permit until a Flood Hazard Area Permit has been issued and shall not issue a final Certificate of Occupancy until written approval has been issued by the Zoning Enforcement Officer.
6. Permit Application Procedures. Prior to any development activity, an application for Flood Hazard Area Permit shall be submitted to the Zoning Board (Coastal Area) or to the EPB (outside Coastal Boundary), containing site plans and architectural plans conforming to the standards of Section 7.2,C of these Regulations and the following additional standards and requirements:
   a. all elevation data shall be referenced to the North American Vertical Datum (NAVD) of 1988.
   b. proposed finished floor elevation or the elevation to which structures, or facilities will be flood-proofed shall be shown.
   c. any changes to any flood boundary, floodway or coastal velocity zone resulting from the proposed construction shall be shown.
   d. preliminary plans and descriptions of proposed measures to mitigate identified impacts of the development and proposed floodproofing measures shall be provided.
   e. estimates of the cost of proposed alterations to an existing building and the appraised value of the building shall be provided, of sufficient detail and accuracy to determine if the proposed work meets the definition of a Substantial Improvement.
   f. where structural floodproofing measures are proposed, a written statement shall be provided by a Connecticut licensed professional engineer or architect certifying that any proposed floodproofing measures have been designed to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood and in accordance with the provisions of Section 7.1.
   g. where applicable, the boundary and elevation of the Base Flood, the Five Hundred Year Flood, the Regulatory Floodway, the Coastal High Hazard Area, the Connecticut Coastal Jurisdiction Line, Mean High Tide and any Stream Channel Encroachment Lines shall be surveyed and shown on the site plan.
   h. where applicable, a hydrologic analysis shall be submitted, prepared by a Connecticut registered Professional Engineer, evaluating the effects the proposed development will have on Base Flood elevations, the floodway, flood velocities, and erosion hazards to adjoining properties.
   i. where applicable, an evacuation plan shall be submitted which details a safe and practical method for notifying and evacuating the occupants of a building at any time during the occurrence of the Base Flood.
   j. where applicable, an impact assessment shall be provided evaluating the risk of pollution that could occur from the development during the Base Flood event including the potential release of loose or buoyant materials or debris on-site, and the potential impact to public health and flood flows.
7. Certification of Completed Development. Upon completion of the permitted development and prior to the issuance of a Certificate of Occupancy, necessary as-built surveys and engineering or architectural certifications shall be provided demonstrating compliance with the issued Flood Hazard Area Permit and the standards of Section 7.1,

including but not limited to the following:

a. Verification of Elevation. Completion of a National Flood Insurance Program Elevation Certificate, prepared by a Connecticut licensed land surveyor based on a Class A-2 as-built survey. For residential structures and manufactured homes, such survey shall show the elevation of the top of the lowest floor (including basement). For non-residential structures such survey shall show the elevation of the lowest floor (including basement) and/or the elevation to which such structures have been dry floodproofed. In Coastal High Hazard Areas such survey shall also show the lowest point of the lowest supporting horizontal member (excluding pilings or columns).
b. Verification of Floodproofing Measures. Where floodproofing is used to satisfy the standards of Section 7.1, a Connecticut registered professional engineer or architect shall submit a written statement, signed and sealed, certifying that he has inspected the completed construction and that the structure or facility has been constructed to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood, as specified in the issued Flood Hazard Area Permit and in accordance with the provisions of Section 7.1.
c. Flood Hazard Disclosure. For all Flood Hazard Area Permits, the owner of the property shall file a notice on the Stamford Land Records, on forms approved by the Zoning Board, declaring the property subject to flood hazard and referring to the issued flood hazard permit.

F. VARIANCES

1. An application for variances from the standards of Section 7.1 shall be submitted to the Zoning Board of Appeals (ZBA) and shall contain all the information required for an application for a Flood Hazard Area Permit as defined under Subsection D-6 of this Section.
2. Variances Prohibited:
   a. No variances shall be issued within any designated Regulatory Floodway if the proposal would result in any increase in flood levels during the Base Flood discharge.
   b. No variances shall be issued within any Special Flood Hazard Area if the proposal would result in any increase in flood levels during the Base Flood discharge.
3. Historic Structures. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the State or National Register of Historic Places provided they do not violate the prohibitions of Subsection F-2 above and subject to the following additional standards:
   a. The proposed reconstruction, rehabilitation, or restoration will not result in the structure losing its historical character; and
   b. No reconstruction, rehabilitation, renovation or alteration is made to an historical structure without due consideration and effort to incorporate design concepts which, while preserving the historical character of the building, will also serve to reduce the potential for future flood damage and threat to human life and property.
4. Pre-Existing, Small Lots. Variances may 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.
5. Functionally Dependent Facility. Variances may be issued for new construction and

substantial improvements and other development necessary for the conduct of a Functionally Dependent Facility provided the structure or other development is protected by methods that minimize flood damage and create no additional threat to public safety.

6. Considerations for Granting of Variances. When reviewing applications for a variance from the standards of Section 7.1, the Zoning Board of Appeals shall make a finding that all of the following standards are met in addition to the other standards of Section 19-2.2:
   a. Consider all technical evaluations, all relevant factors and all standards specified in other parts of this Section 7.1 including:
      (1) The danger that materials may be swept onto other lands to the injury of others;
      (2) The danger to life and property due to flooding or erosion damage;
      (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
      (4) The importance of the services provided by the proposed facility to the community;
      (5) The necessity of the facility to waterfront location, in the case of a functionally dependent facility;
      (6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
      (7) The compatibility of the proposed use with existing and anticipated development;
      (8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
      (9) The safety of access to the property in times of flood for ordinary and emergency vehicles;
      (10) 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
      (11) 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.
   b. The variance requested will not result in increased flood heights, additional threat to public safety, extraordinary public expense, creation of nuisances, or conflicts with existing local laws or ordinances.
   c. Any variance granted is the minimum necessary to afford a reasonable level of relief.
7. Referral to Other Agencies. In addition to the requirements of Section 19-2.3, each application for a variance under this section shall be referred to the EPB and to the Zoning Board for an advisory opinion at least thirty (30) days prior to the date assigned for a public hearing thereon.
8. Notification of Consequences of Variance. Any applicant to whom a variance is granted shall be notified in writing by the ZEO describing the consequences of the variance including increased risk to life and property resulting from construction below the Base Flood elevation and possible increase in flood insurance rates. The issuance of a variance to construct a structure below the base flood level may result in increased premium rates for flood insurance commensurate with the increased risk resulting from the reduced elevation of the lowest floor, up to premium rates as high as $25.00 for $100.00 of

insurance coverage.

Effective date of this decision, July 23, 2013.

THOMAS MILLS, CHAIRMAN

ZONING BOARD, CITY OF STAMFORD, CT

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