

**ENVIRONMENTAL PROTECTION BOARD  
AGENDA SUMMARY REPORT**

APPLICATION:	EPB #1007,	DATE:	May 14, 2010
LOCATION:	Washington Boulevard, North Street and Renwick Street		
OWNER:	1340 Washington Owner, LLC	ZONE:	R-H
WATERSHED:	Rippowam River	AREA:	1.7643 Ac. (Total-Six Parcels)
ACCEPTANCE:	April 15, 2010	DECISION DUE:	June 19, 2010

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**REFERENCES:**

- “Existing Conditions Topographic Survey,” “Zoning Location Survey,” “Phase I Development Plan,” “Phase II Site Grading and Layout Plan,” “Phase II Storm Drainage and Utility Plan,” “Sedimentation and Erosion Control Plan,” “Notes and Details,” and “Details,” 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, Sheets C-1.0, C-2.0, C-3.0, C-4.0, C-4.1, C-5.0, C-6.0, and C-6.1, by Rocco V. D’Andrea, Inc., revised April 30, 2010.
- “Site Plan: Planting,” “Site Plan: Lighting,” and “Planting and Site Details,” 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, Sheets SPL-1.0 through SPL-3.0, by Wesley Stout Associates, LLC., revised May 13, 2010.
- “Drainage Summary Report,” Prepared for 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, by Rocco V. D’Andrea, Inc., dated April 30, 2010.
- “Hydraulic Analysis Report,” Prepared for 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, by Rocco V. D’Andrea, Inc., dated April 30, 2010.
- “Flood Preparedness Plan,” Prepared for Residents of 1340 Washington Boulevard, Washington Boulevard and North Street, Stamford, Connecticut, by Rocco V. D’Andrea, Inc., dated May 3, 2010.
- Correspondence from Barry Callahan, Chief Fire Marshal, City of Stamford, dated July 14, 2005 and May 12, 2010.
- “Flood Boundary Plan – Existing Conditions,” and “Flood Boundary Plan – Proposed Conditions,” Prepared for 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, by Rocco V. D’Andrea, Inc., dated April 30, 2010.
- Correspondence from Leonard C. D’Andrea, P.E., Rocco V. D’Andrea, Inc., dated May 4, 2010.

- “Ground Floor Plan,” “Second Floor Plan,” “3<sup>rd</sup>-5<sup>th</sup> Floor Plans,” “Building and Site Section,” “Foundation Plan – North,” “Foundation Plan – South,” and “Foundation Details,” 1340 Washington Boulevard, Stamford, Connecticut, by Do H. Chung and Partners, revised April 27, 2010.
- “Street Level Building Elevations,” and “Elevations from Parking Lot,” 1340 Washington Boulevard, Stamford, Connecticut, by Do H. Chung and Partners, revised May 7, 2010.

### **REGULATED ACTIVITIES:**

Permission to construct a mixed use building of five (5) stories and consisting of 4,500-5,000 square feet of ground level retail space, 120 units of residential housing, above grade parking, drainage, walkways and other related improvements within the base floodplain of the Rippowam River.

### **APPLICATION HISTORY:**

On July 21, 2005, the Environmental Protection Board of the City of Stamford considered a proposal to construct a ten (10) story, mixed use building (approximately 100 unit condominiums and 5 retail spaces), above and below grade parking, walkways, walls, utilities, drainage, a pool and other related facilities within the base floodplain of the Rippowam River. Considering the findings and recommendations outlined in a Staff Agenda Summary Report dated July 15, 2005, and discussion with the applicant (Ernie Bello), his attorney (William J. Hennessey, Jr., Esq., Sandak, Hennessey, and Greco), civil engineer (Leonard C. D’Andrea, Rocco V. D’Andrea, Inc.) and other interested parties, the Board voted 4-1-0 (Levine - Yes, Stone – Yes, Heaphy – Yes, Conetta – Yes, Morris - No) to **APPROVE** Application No. 2522 with Eighteen (18) conditions. A copy of the permit is attached. Note that the permit was due to expire by limitation on July 27, 2008 unless otherwise extended by the EPB pursuant to Section 7.4 of the regulations.

On June 19, 2008, the EPB considered the applicant’s request for a one (1) year extension of EPB Permit No. 2522. The Board voted to approve the extension request until July 27, 2009, adding a Condition No. 19 which provided for the revocation of the permit, if determined that the site was further utilized, without proper authorization, for the stockpiling, transfer or storage of construction materials, fill or construction equipment or machinery (Emerson to City Place Realty Associates, 6/20/08).

On July 27, 2009, the permit expired by limitation. The site remained undeveloped.

On or about April 9, 2010, the Environmental Protection Board received a new permit application for the development of the site (North Street/Washington Boulevard/Renwick Street, 1340 Washington Owner, LLC, #1007, 4/10). Although remaining a mixed use development, the overall design (5 story wood frame building in lieu of a 10 story, concrete and steel building), unit count (120 units in lieu of 100 units) and parking arrangement (elevated parking supporting 162 spaces in lieu of structured, above and below grade parking having 237 spaces) varies considerably over that which had been previously approved by the Board.

On April 13, 2010, copies of the application and plans were transmitted to local libraries (Talamelli to Gong, 4/13/10 and Talamelli to Baldwin, 4/13/10) and the Town Clerk (Talamelli to Loglisci, 4/13/10) in accordance with the regulations.

On April 15, 2010, the EPB accepted the permit application (Talamelli to 1340 Washington Owner, LLC, 4/19/10, P 7001 0360 0002 8047 2433).

On April 20, 2010, Environmental Protection Board Staff initiated its review of the subject permit application, finding that the following items of additional information were warranted to ensure consistency with the provisions of Stamford's "Flood Prone Area," "Soil Erosion and Sediment Control," and "Inland Wetland" Regulations (Talamelli to D'Andrea, 4/20/10):

- Submission of a report (and pertinent support documents) by a Connecticut Engineer (signed/sealed), assessing the potential impacts the development may have on drainage, soils, streets, infrastructure and adjoining properties. Measures to mitigate potential adverse impacts shall be noted on the development plans. Please note that this office will forward copies of the reports, plans and other documents to the Stamford Engineering Bureau for review and comment - with the focus on study methodology/conclusions, and design details.
- Show existing/post construction flood zone boundaries for the various storms on the site plan.
- Submission of a report (and pertinent support documents) by a Connecticut Engineer (signed/sealed), assessing the potential impacts the development will have on the dynamics of the flood per Section 7.1 of the Stamford Zoning Regulations ("Flood Prone Area Regulations of the City of Stamford"). Please note that this office will forward copies of the reports and plans to the Stamford Engineering Bureau for review and comment - with the focus on study methodology/conclusions.
- Regarding the engineering/architectural plans pertinent to the floodproof structures, revisions by Connecticut Engineer/Architect (signed/sealed) to address the following:
  1. Elevation and section views of the building, carports and other related facilities.
  2. On all sections, elevation views, and detail plans, show the elevation of the both the base flood and minimum elevation standard.
  3. Revise all plans and reports (including the FPP) to reconfirm that the lowest floor of the building is minimally elevated to the stated minimum elevation standard of 25 feet NGVD.
  4. Fully enclosed areas below the minimum elevation standard of 25 feet NGVD (including parking, drive access, stair openings and door penetrations below the limits of the building) shall be floodproofed in accordance with Section 7.1D1g(4) of the Stamford Zoning Regulations pertaining to "minimum areas below the minimum elevation standard." - meaning that the details for these spaces shall amended to address the following:
    - a. The enclosed space can only be used for the parking of cars or other similar vehicles, building access or limited storage (Apply note).
    - b. 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 (Provide enclosed area calculations, proposed wall opening calculations, and wall opening locations – the last item

reflected on all plans); ii) the bottom of all openings shall be no higher than one foot above grade (Provide interior, exterior and sill elevations on all plans); 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 (Provide the opening cover details). iv) the area below the minimum elevation standard shall not be a basement as defined in the flood regulations (Apply note).

- c. 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 (Apply note).
  - 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 (Apply note and provide details describing the anticipated treatments proposed for the wall, floor and ceiling areas).
5. Anticipated floodproofing details/elevations for the watertight elevator pit. Design by other designation is not acceptable.
  6. Location of proposed gas line and other necessary underground services.
  7. Location and elevation of all utility meters/banks. Not that the bottom of these facilities shall be situated above the MES.
  8. Location and elevation of all building mechanicals, emergency energy generation, fire protection rooms, etc.
  9. Materials and structural details (connections) pertinent to the floodproof footing and post associated with the carports.
  10. Materials and structural details pertinent to the floodproof stone wall particularly along Renwick Street.
- Revisit the measures to address the flood preparedness requirements of the flood regulations. Given the prior concerns pertinent to flooding and flood evacuation, it seems appropriate that the project include the following provisions:
    1. Revisions to the flood preparedness plan to include detailed preparedness/evacuation procedures for the residential and commercial space. The plan should be further evaluated to expand the description of the various storms and floodproofing, reaffirm materials list and sources of information, etc.
    2. Evacuation signage at points of building egress, including the garage opening.
    3. Standard flood hazard notice filed on the Stamford Land Records.
    4. Presentation concerning the anticipated depth and velocity of flood waters over expected vehicular and pedestrian evacuation routes – tailored to address both accepted hazard test thresholds and statements from Stamford Emergency Services concerning the limitations of the current store of emergency equipment.
  - Revisit the erosion control/pollution control scheme to provide a detailed excavation/dewatering scheme, availability of any drainage/pollution controls along the driveway/parking entrance, confirm the presence of pollution controls on any interior drainage (coordinate with mechanicals), etc.
  - Confirm the streetscape (sidewalk) and lighting requirements expected to be applied to this development. Appropriate details shall be provided.

On May 4, 2010, plans and report were transmitted to the Stamford Engineering Bureau for review and comment (Talamelli to Gentile, 5/5/10).

On May 4, 2010 and May 7, 2010, additional information was submitted by the applicant.

### **SITE CHARACTERISTICS:**

Six (6) separate parcels comprise the “property” subject to this development. The properties lie along the west side of Washington Boulevard, south of North Street, east of Renwick Street and north of Vernon Place.

Prior to demolition (circa May 2005), the northern portions of the site supported five (5) residences, garages, sheds, drives, fences and other attendant facilities. The southern portions of the site supported a commercial structure, a dwelling, large parking area, and other related features. The property was characterized by its gently sloping urban lands, known floodplain areas, and a few small to moderately sized trees (Maple, Cherry, Zelkova, Apple, Hemlock, Ailanthus), shrubs (Rose of Sharon, Privet, Yews) and groundcovers (Lawn Grass, Perennials).

There are no wetland soils on the property. The general soil manual entitled “Soil Survey of Fairfield County Connecticut,” by the U.S. Department of Agriculture, Soil Conservation Service, 1981 describes the soils as “Urban Lands” (Ur). Urban Lands are those areas where urban structures such as roads, parking areas, and buildings cover more than 85 percent of the surface. Conditions are variable and necessitate on-site evaluation (“Soil Survey of Fairfield County, Connecticut,” by the USDA, Soil Conservation Service, 1984, Pp. 32).

The site lies within special flood hazard areas (Zone AE, Flood Insurance Rate Map - 090015-0007D, November 17, 1993). During a 100-year storm (22.25 – 23.96 feet NGVD), flood waters would be expected to impact the entire property with depths generally ranging from 3-6 feet. During the 50-year storm (20.65-22.45 feet NGVD), flood waters would be expected to impact about 50% of the site with depths generally ranging from 0-4 feet. During a 10-year storm, flood waters would be expected to impact about 25% of the site with depths generally ranging from 0-1.5 feet.

There is no dry access to the site during the peak of the 100-year storm. The closest dry pavement apparently lies 200-225 feet to the east on North Street (east of Washington Boulevard). Along Washington Boulevard, flood depths appear to range from approximately 0.16-1.96 feet. Along North Street, flooding appears to range from 0-6.06 feet.

The property lies within the non-drinking water supply watershed of the Rippowam River

### **ISSUES:**

#### **Impacts to the Existing Character of the Land:**

The applicant proposes to construct a five (5) story, mixed use building on the property. The facility will include approximately 120 residential condominiums, 4500-5000 square feet of ground level retail space, 162 “elevated” parking spaces, walkways, utilities, drainage, and other related facilities.

The development will result in the alteration of the entire “property” which constitutes approximately 76,852 square feet of floodplain (Application, Olschan-Kaufman, 4/9/10). Development of the parcel will necessitate substantial filling/excavation in order to accommodate the elevated building and parking spaces. Note that the few trees, shrubs and groundcovers that formerly occupied the site were removed as part of the prior demolition.

### **Impacts on Drainage:**

The project engineer has submitted a drainage report to analyze the anticipated impact the development will have on drainage, infrastructure and adjoining properties (“Drainage Summary Report,” D’Andrea, 4/30/10).

The engineer has noted that the project area (1.7643 Acres) is comprised of six (6) parcels – five (5) that formerly support residences and their attendant facilities and one (1) that supported a commercial building, parking and other related facilities. The parcel was cleared of structures under the previously approved application. It is noted that two (2) separate drainage areas effect the project area – the first (Area 1 - 1.44 Acres) flows in a southwesterly direction to the gutter line and drainage system in Vernon Place, and the second (Area 2- 0.32 Acres) flows to the north to the gutter line and drainage system in North Street. Ultimately, both systems discharge to the Rippowam River.

Given the scope of the building, parking and other facilities associated with this development, an increase in imperviousness, and therefore, an increase in the amount of storm water runoff leaving the site is expected to occur. Accordingly, the engineer determined to mitigate impacts by adding a structured drainage system and creating/managing manage post construction watersheds. Five (5) post construction watersheds shall be created as follows:

- Area 1 (0.15 acres) – consisting of a narrow strip of lawn along the southern and western property lines to flow overland to the southwest to the gutter line and structured drainage system in Vernon Place.
- Area 2 (1.15 acres) – consisting of a portion of the proposed building, parking areas and carports shall be collected by a new, structured drainage system routed to the existing storm drain system in Vernon Place.
- Area 3 (0.09 acres) – consisting of a narrow strip of lawn and sidewalk along the northern perimeter of the site to flow overland to the north to the gutter line and structured system in North Street.
- Area 4 (0.29 acres) – consisting of other portions of the building intercepted by catch basins, the flow of which shall be routed to the structured drainage system in North Street.
- Area 5 (0.09 acres) – consisting of hardscape and landscape features along the eastern property boundary flows overland to the gutter line and structured drainage system in Washington Boulevard.

Three (3) points of concern (POC) were established, and the impacts of the development were evaluated at each location. The engineer claims that development of the site will result in a 0.03 cfs increase (4.77 to 4.80 cfs) at Point of Concern A (Vernon Place), a 0.35 increase (1.03 to 1.38 cfs) at Point of Concern B (North Street), and 0.26 cfs increase at Point of Concern C (Washington Boulevard). The engineer has studied the drainage systems in Washington Boulevard, North Street and Vernon Place, finding that the receiving structures at each location maintain sufficient capacity to accommodate the additional flows. In view of the above, the engineer has certified that the overall design strategy will result in a project that controls runoff throughout the

development so that there will be no adverse impacts to local drainage patterns, adjoining properties or existing storm drainage systems.

**Plans and reports were transmitted to the Engineering Bureau for review (Talamelli to Gentile, 5/5/10). A response confirming the conclusions, study methodology and design have yet to be received.**

**Impacts on Flood Heights:**

The engineer has provided a hydraulic analysis to assess potential impacts on flood heights (“Hydraulic Analysis Report,” D’Andrea, 4/30/10). The engineer has concluded the project is situated within the river’s ineffective flow area and will therefore, not produce any increase in the water surface elevation during flood conditions. The standard for floodplain rise in Stamford is 0.1 feet. In addition, the analysis showed that the floodwaters within this ineffective flow area will have negligible flow velocities, particularly in the vicinity of the projected route of evacuation. The following impacts across relevant cross sections may be summarized as follows:

<b>Section Number</b>	<b>Pre-Development Water Surface (NGVD)</b>	<b>Post Development Water Surface (NGVD)</b>
5065	22.37	22.37
5300	22.76	22.76
5610	22.23	22.23
5900	23.16	23.14
6170	23.95	23.95
6425	24.61	24.62
6470	25.86	25.86
6520	25.67	25.67

**Plans and reports were transmitted to the Engineering Bureau for review and comment (Talamelli to Gentile, 5/5/10). A response confirming the conclusions, study methodology and design have yet to be received.**

**Impacts on Water Quality:**

To assist in the attenuation of possible water quality impacts, the applicant has provided for the following:

- Submission of a sediment and erosion control plan consisting of silt fence along the site’s perimeter, the application of anti-tracking materials to site accessways, installation of a temporary curtain drain, designation of stockpile areas, basin protection, street sweeping and final stabilization measures for disturbed earth surfaces (“Sediment and Erosion Control,” D’Andrea, 4/30/10).
- If dewatering becomes necessary, a dewatering scheme has been proposed consisting of sump pits with the discharge directed to crushed stone sediment traps (“Sediment and Erosion Control Plan,” D’Andrea, 4/30/10).
- New catch basins shall maintain minimum 2-foot deep sumps and bell traps/elbows to assist in the collection of silt/debris (“Notes and Details” D’Andrea, 4/30/10).

- Parking to the exterior of the building shall be directed to standard catch basins and a structured stormwater treatment system (V2B1, Model 4, oil/grit separator) to assist in the collection of sands, silts, oils and other materials before discharging to the City drainage system and receiving watercourses (“Phase II Storm Drainage and Utility Plan,” and “Notes and Details” D’Andrea, 4/30/10).
- Covered parking areas (less those proximate to the carports) shall be directed to standard catch basins, oil separators and the sanitary sewer per the mechanical code (“Phase II Storm Drainage and Utility Plan,” and “Notes and Details” D’Andrea, 4/30/10). **Note that the exception lies along the “parked” ramp, where spaces drain directly to the public walk and roadway without pre-treatment.**
- The structure shall be served by natural gas (“Phase II Storm Drainage and Utility Plan,” D’Andrea, 4/30/10).

### **Structural Floodproofing:**

**Conceptual** architectural plans have been submitted to address the requirements Stamford’s Flood Prone Area Regulations. Measures incorporated into the design include the following:

- The lowest floor of the building (commercial/professional office space and access the residential space above) has been set at an elevation of 25.0 feet NGVD, which is 1.04 feet above the limits of the base flood and 0.04 feet above the minimum elevation standard (“Phase II, Site Grading and Layout,” D’Andrea, 4/30/10 and “Ground Floor Plan,” Chung, 4/27/10).
- Covered parking areas (identified as Parking Areas 1 and 2) lie both to the north and south of the commercial/professional office space. The floor of this space has been set at the level of the base flood at an elevation of 24.0 feet NGVD. Because this space lies below the Minimum Elevation Standard of 25 feet NGVD, additional requirements apply. Details and notes have been added to confirm the following:
  - The enclosed space shall be used for the parking of cars or other similar vehicles, building access or limited storage (“Ground Floor Plan,” Chung, 4/27/10).
  - The 16-20 foot wide openings to the enclosed space shall not be equipped with doors and, where necessary, the door openings shall be accompanied by “Smart Vents” to meet the flood relief requirements of the flood regulations (“Phase II, Site Grading and Layout Plan,” D’Andrea, 4/30/10).
  - All interior wall, floor, and ceiling materials located below the minimum elevation standard shall be unfinished and resistant to flood damage (“Ground floor Plan,” Chung, 4/27/10).
  - Electric and mechanical rooms shall be situated at the first floor level at an elevation of no less than 25 feet NGVD (“Ground Floor Plan,” Chung, 4/27/10).
- The bottom of exterior meters shall be set above elevation 25 feet NGVD (“Phase II, Storm Drainage and Utility Plan,” D’Andrea, 4/30/10).

- Underground utilities shall be installed in floodproof trenches as designed by the engineer (“Notes and Details,” D’Andrea, 4/30/10).
- Floodproof retaining walls and carport post details have been supplied (“Foundation Details,” Chung, 4/27/10).
- A floodproof elevator pit design has been provided (“Foundation Details,” Chung, 4/27/10).
- The engineer and architect has certified that the building and attendant facilities comply with Section 7.1 of the Stamford Zoning Regulations (“Flood Prone Area Regulations”) and have been designed to withstand the flood depth, pressures, velocities, impact and uplift forces associated with the base flood (“Foundation Plans,” Chung, 4/27/10 and “Notes and Details,” D’Andrea, 4/30/10).

### **Flood Preparedness:**

The project engineer has cited a commonly used formula, prepared for the U.S. Soil Conservation Service, to evaluate the viability of a pedestrian flood evacuation route. Flood threats are deemed “acceptable” if the floodwaters are expected to be less than three (3) feet in depth, the velocities are less than five (5) feet per second and the product of the projected depth and velocity totals less than seven (7). In addition, past consultations with Stamford Fire/Rescue confirmed that most of Stamford’s response vehicles are capable of traversing flood waters of about two (2) feet. Above two (2) feet, less commonly available, alternative vehicles may be required to rescue tenants, respond to medical emergencies, combat fires, etc.

The applicant has established the dynamics of the flood in the vicinity of the evacuation route (“Hydraulic Analysis Report, D’Andrea, 4/30/10). In this instance, the engineer found that during the 100-year event, the chosen evacuation route from the front entrance doors along Washington Boulevard to dry pavement areas on North Street (approximately 225 feet east of Washington Boulevard) supports flood depths of 2.0 feet or less with velocities near 0.0 feet per second. Accordingly, the route, based on the parameters cited above, may be acceptable for pedestrian evacuation and building access by fire/rescue vehicle. **It is noted, however, that given the projected depths of flooding (5+ feet) in the general location of the parking ramp (North Street), a vehicular evacuation from the tenant’s lot to high ground during the peak of the base flood is unlikely.**

A flood preparedness plan has been provided to describe the nature of flooding over and about the property, identify the floodproofing measures incorporated into the building, describing general flood preparedness measures, and outlining possible vehicular and pedestrian evacuation routes/procedures (“Draft Flood Preparedness Plan,” D’Andrea, 5/3/10). It is noted that the plan outlines a building exiting plan, in which commercial and residential tenants are expected to gather in the elevated lobby and, if necessary, leave the building via the lobby doors at Washington Boulevard where the floodwaters are most shallow and calm. The applicant intends to post building exits with directional evacuation signage (“Phase II Site Grading and Layout Plan” D’Andrea, 4/30/10 and D’Andrea, 5/4/10), file an informative notice on the land records (“Draft Flood Preparedness Plan,” D’Andrea, 5/3/10 and D’Andrea, 5/4/10), and provide copies of the evacuation plan to all owners/tenants upon occupancy or include a copy of the evacuation plan in any residential/commercial lease and/or any condominium public offering statement (“Draft Flood Preparedness Plan,” D’Andrea, 5/3/10).

The Stamford Fire Marshal had reviewed the development plan and evacuation scenario, noting that given the projected depth and velocity of floodwaters along Washington Boulevard that the conditions would not prevent Stamford Fire/Rescue from responding to emergencies (Callahan, 7/14/05 and 5/12/10).

### **Mitigation:**

To enhance the streetscape and the overall aesthetics of the neighborhood, the applicant has provided for the following:

- Provision of a preliminary landscape plan to enhance the aesthetics of the parcel and redevelop the streetscape (“Site Plan: Planting,” Stoudt, 5/13/10). The plan consists of numerous trees (Shadblow – 3, Sugar Maple – 16, Red Bud – 8, Black Tupelo – 6, Japanese Stewardia – 8, American Elm – 11), shrubs (Korean Boxwood – 170, Pee Gee Hydrangea – 6, Oakleaf Hydrangea – 17, Snowmound Spirea – 51 and Koreanspice Viburnum – 47) and groundcovers (Dwarf Fountain Grass- 73, Black Eyed Susan – 50).

### **DISCUSSION:**

In these generally resource-free, floodprone, urban spaces of the downtown, development impacts may include excessive rises in flood heights caused by floodplain encroachments, drainage impacts caused by altered flow patterns or substantial increases in overall site imperviousness, water quality impacts caused by discharges of oils, chemicals, sediment, and other materials both during and post construction, and/or the creation of conditions that may compromise the integrity of the structures or increase hazards to persons or property.

The applicant has sought to address these concerns by confirming an acceptable level of hydraulic and drainage impact, providing an array of erosion/construction controls, adding pollution controls, committing to the use of natural gas, and providing a planting schedule to enhance the streetscape and improve both the aesthetics and conservation values of the site.

In regards to pertinent flood safety concerns, it appears that the development passes the minimum standards for evacuation and accessibility based on the site’s proximity to dry lands, the elevation of the chosen evacuation route, and the dynamics of the flood. The building can be reasonably accessed by emergency services during the peak of the 100-year storm, and persons wishing to leave the premises can navigate the shallow, slow moving floodwaters expected to occupy Washington Boulevard - east to the dry pavement on North Street (east of Washington Boulevard). A myriad of notice and preparedness measures have been proposed, yet the details must be refined as the project wends its way through the final design and approval process. The preparedness plan should be reorganized/revised to more clearly describe the impact of the various storms, define safe pedestrian exit points, reconfirm the absence of vehicular egress during the peak of the base flood, etc. The placement of flood evacuation signage shall be expanded to all points of egress, including those associated with the opening to the parking areas.

Again it is recognized that the overall building design remains in its infancy. Although representative floodproofing details and design certifications have been provided, further details are warranted to both ensure full compliance with Stamford’s flood protection regulations/policies and to increase the level of consistency between the architectural and civil drawings. **A matter of importance concerns the location and elevation of many of the designated parking spaces and the potential impacts a base flood event may have on owner/tenant vehicles and perhaps, water quality. It is recommended that: a) open parking areas to the south be raised to an elevation of no less than 24 feet NGVD to lessen the potential for damaging floodwaters emerging from the drainage system to impact vehicles, and b) the twelve (12) spaces proposed for the garage ramp should be**

**relocated or eliminated due to their exposure to potentially deep and damaging floodwaters (up to 4+ feet in depth during the 100 year flood, lesser depths in the more frequent storms). It is noted that the development previously approved for this site (both elevated and subsurface parking of water tight construction) may have presented safer conditions for vehicles parked in the building and provided some additional level of protection for the quality of waters leaving the site prior to and during a flood. Recently, the ability of a project to reduce flood impacts on vehicles and other personal property, particularly through passive means like elevation, has been the subject of considerable discussion.**

### **OPTIONS/RECOMMENDATIONS:**

**Pending the receipt of positive comments from the Engineering Bureau**, and if the Board finds that the development will not result in a significant environmental impact, impacts on adjoining properties or irreversible commitment important resources, that no reasonable alternatives for development exist, that appropriate mitigation has been provided, and that the project is consistent with the structural and preparedness standards outlined in the "Flood Prone Area Regulations of the City of Stamford," the Board may act to **APPROVE** EPB Permit Application No. 1007 with the following conditions:

- 1) Work shall conform to following:
  - “Existing Conditions Topographic Survey,” “Zoning Location Survey,” “Phase I Development Plan,” “Phase II Site Grading and Layout Plan,” “Phase II Storm Drainage and Utility Plan,” “Sedimentation and Erosion Control Plan,” “Notes and Details,” and “Details,” 1340 Washington Boulevard, Stamford, Connecticut, Prepared for 1340 Washington Owner, LLC, Sheets C-1.0, C-2.0, C-3.0, C-4.0, C-4.1, C-5.0, C-6.0, and C-6.1, by Rocco V. D’Andrea, Inc., revised April 30, 2010.
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  - “Street Level Building Elevations,” and “Elevations from Parking Lot,” 1340 Washington Boulevard, Stamford, Connecticut, by Do H. Chung and Partners, revised May 7, 2010.
- 2) Submission of a permit filing fee in the estimated amount of Sixty-three and 00/100 Dollars (\$63.00) within fifteen (15) days of the decision’s publication (on or about June 9, 2010).
  - 3) "Permit Compliance Fee" in the amount of Four Thousand Six Hundred and Eleven and 00/100 Dollars (\$4,611.00) shall be filed with the Environmental Protection Board. The initial fee shall be submitted to the EPB prior to the start of any site activity and issuance of a building permit. Subsequent fees shall be submitted on an annual basis on or before the anniversary of the permit's effective date until the project is satisfactorily completed. Said fee is required pursuant to Section 5.10b of the "Inland Wetland and Watercourse Regulations."
  - 4) Submission of a performance bond, certified check or other approved surety to secure the timely and proper performance of: a) temporary and permanent sediment and erosion controls, b) drainage structures/pollution controls, c) landscaping/mitigation, d) professional supervision of engineered elements, floodproofing and landscaping, e) final improvement location survey and certifications, and f) 15% contingency of the total. A detailed estimate of these costs must be supplied to EPB Staff for approval prior to the submission of the performance surety. The performance surety is to be submitted to EPB Staff prior to the start of any site activity and issuance of a building permit.
  - 5) Submission of a completed "Contractor's Compliance Statement" prior to the start of any site activity and issuance of a building permit.
  - 6) Final architectural, engineering, landscaping and flood preparedness plans shall be subject to the review and approval of EPB Staff prior to the start of any site activity and issuance of a building permit. **Reference is made to the building design, floodproofing, preparedness and water quality issued identified in the “Discussion” section of this report.**
  - 7) A Connecticut licensed surveyor, prior to the start of any site activity, shall rough stake proposed work areas in the field.
  - 8) Sediment and erosion controls shall be installed in the manner and location shown on the permit plans prior to the start of any site activity and issuance of a building permit and shall be approved in writing by EPB Staff.
  - 9) Prohibition of in-ground storage tanks considering the known flood hazards and the site’s proximity to the Rippowam River.
  - 10) All disturbed areas shall be stabilized in accordance with the plans prior to the receipt of a certificate of occupancy/completion and release of the performance surety.

- 11) All engineered elements, including but not limited to utilities, drainage, walls, grading, final stabilization measures, etc., shall be completed under the supervision of a Connecticut Registered Professional Engineer with written certifications and an improvement location survey (“as-built plans”) submitted to the EPB prior to the issuance of a certificate of occupancy/completion and release of the performance surety.
- 12) All structural floodproofing shall be completed under the supervision of a Connecticut registered professional engineer/architect. Upon the completion of the construction, and prior to EPB authorization for a final certificate of occupancy/completion and return of any required performance surety, a professional engineer or architect, registered in the State of Connecticut, must certify (signed and sealed correspondence) that the proposed development has been constructed in accordance with Section 7.1 of Stamford’s Flood Prone Area Regulations and is capable of withstanding the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood. Specific reference to the proposed floodproofing measures must be made.
- 13) Prior to the issuance of a final certificate of occupancy/completion and return of surety, the supervising landscaping professional shall certify, in writing, that all approved landscaping/mitigation measures have been completed in accordance with the design plans.
- 14) Upon the completion of the construction and prior to the issuance of a certificate of occupancy/completion, a Connecticut registered professional surveyor shall:
  - Submit an improvement location survey (“as-built plan”) certifying the location and final elevation of: a) floor levels, b) parking levels,, c) levels of all mechanicals and utilities, and d) other features as determined by EPB Staff, etc.
  - Submit a complete, standard National Flood Insurance Program Elevation Certificate/Floodproofing Certificate.
- 15) Upon the completion of construction and prior to the receipt of a final certificate of occupancy/completion and return of surety, the applicant shall file a standard notice on the Stamford Land Records disclosing the following information.
  - The subject property lies, within a known flood hazard area described as Zone AE, with a projected base flood elevation of 22.25-23.96 feet NGVD as depicted on Flood Insurance Rate Map 090015-0007D dated November 17, 1993.
  - A permit (Washington Boulevard/North Street/Renwick Street, 1340 Washington Owner, LLC., EPB No. 1007, 5/10) has been issued by the Environmental Protection Board of the City of Stamford to allow construction of a mixed use building, parking, drainage, utilities, and other related facilities within the base floodplain of the Rippowam River.
  - References the final flood preparedness plan.

- Standard enforcement provisions.

- 16) A standard drainage facilities maintenance agreement shall be executed to ensure the full and proper care/repair of all drainage facilities prior to the issuance of a certificate of occupancy/completion and return of surety.
- 17) A standard landscape maintenance agreement shall be executed to ensure the full and proper maintenance of all final landscaping features, prior to the issuance of a certificate of occupancy/completion and return of surety.
- 18) Posting of flood evacuation signage, subject to EPB Staff review, at all primary points of ingress/egress (including the vehicular access to the parking) prior the issuance of a final certificate of occupancy/completion and return of surety.
- 19) Access to the covered parking areas shall not be equipped with doors unless an equivalent area of flood “opening” is provided.

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Richard H. Talamelli  
Environmental Planner