Permit Application for Programs Administered by the Inland Water Resources Division

Please complete this application form in accordance with the instructions (DEP-IWRD-INST-100) in order to ensure the proper handling of your application. Print or type unless otherwise noted. You must submit the *Permit Application Transmittal Form* (DEP-APP-001) and the initial fee along with this form.

DEP USE ONLY

Part I: Application Type

Check the appropriate box identifying the application type.

This application is for (check one):	Please identify any previous or existing permit/authorization/registration number in the space provided.
☒ A *new* application	Existing permit/authorization/registration number:
☐ A *renewal* of an existing permit	
☐ A *modification* of an existing permit	Expiration Date:

Part II: Permit Type and Fee Information

Please note: effective August 21, 2003, the application fees for the programs administered by the Inland Water Resources Division have increased as listed in the following table. The fee for municipalities is 50% of the listed rates.

Type of Permit (check *all* that apply):	Fee to submit with application:
☐ **Inland Wetlands & Watercourses** CGS Sec. 22a-36 et seq.	none
☐ **Dam Construction** *CGS Sec. 22a-403*	none
☐ **401 Water Quality Certificate** *33 U.S.C. 1341*	none
☒ **Flood Management Certification** *CGS Sec. 25-68(b) - (h)*	none
Stream Channel Encroachment *CGS Sec. 22a-342*	
☐ No change in grade and no construction of above-ground structures	$470.00
☐ A change in grade and no construction of above-ground structures	$940.00
☐ A change in grade and above-ground structures or buildings	$4,000.00
Water Diversion: Consumptive Use *CGS Sec. 22a-372(e)*	
☐ Withdrawal > 0.05 and < 0.5 mgd	$2,050.00
☐ Withdrawal ≥ 0.5 and < 2.0 mgd	$4,000.00
☐ Withdrawal ≥ 2.0 mgd	$6,250.00
Water Diversion: Nonconsumptive Use *CGS Sec. 22a-372(e)*	
☐ Watershed < 0.5 sq mi	$2,050.00
☐ Watershed ≥ 0.5 sq mi and < 2.0 sq mi	$4,000.00
☐ Watershed ≥ 2.0 sq mi	$6,250.00

Part III: Applicant Information

1. Fill in the name of the applicant(s) as indicated on the *Permit Application Transmittal Form* (DEP-APP-001):

   Applicant: **State of Connecticut, Department of Housing**

   Phone: **860-270-8149** ext. Fax:

   ☐ Check here if there are co-applicants. If so, label and attach additional sheet(s) with the required information to this sheet.

2. Applicant's interest in property at which the proposed activity is to be located:

   ☐ site owner ☐ option holder ☐ lessee

   ☐ easement holder ☐ operator ☒ other (specify): **Grantor**

3. List primary contact for departmental correspondence and inquiries, if different than the applicant.

   Name:

   Mailing Address:

   City/Town: State: Zip Code:

   Business Phone: ext. Fax:

   Contact Person: Title:

4. List attorney or other representative, if applicable:

   Firm Name:

   Mailing Address:

   City/Town: State: Zip Code:

   Business Phone: ext. Fax:

   Attorney:

5. Facility or Property Owner, if different than the applicant:

   Name: **City of Norwalk Housing Authority**

   Mailing Address: **24-1/2 Monroe Street**

   City/Town: **Norwalk** State: **CT** Zip Code: **06854**

   Business Phone: **203-838-8471** ext. Fax: **203-838-6535**

   Contact Person: **Gregory Lickwola** Title: **Construction Manager**

   Home address of owner (for Inland Wetlands applications only):

   Mailing Address:

   City/Town: State: Zip Code:

   Home Phone:

Part III: Applicant Information (continued)

6. List any engineer(s) or other consultant(s) employed or retained to assist in preparing the application or in designing or constructing the activity. ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Name: **Tighe & Bond**

Mailing Address: **1000 Bridgeport Avenue**

City/Town: **Shelton** State: **CT** Zip Code: **06484**

Business Phone: **203-712-1100** ext. Fax: **203-925-8942**

Contact Person: **Joseph Canas, PE, LEED AP, CFM** Title: **Project Manager**

Service Provided: **Site Engineering, Floodplain Management**

Part IV: Site Information

1. **Site Location:**

a. Name of facility, if applicable: **Washington Village**

Street Address or Description of Location: **Bounded by Hanford Place, Concord Street, Water Street, and South Main Street.**

City/Town: **Norwalk** State: **CT** Zip Code: **06851**

Project No., if applicable:

b. Tax Assessor's Reference: Map **16NE** Block **61** Lot **4**

(Assessor's reference is not required if requester is an agency of the State of Connecticut.)

c. Latitude and Longitude of the approximate "center of the site" in *degrees, minutes, and seconds*:

Latitude: **41° 05' 42.9 "N** Longitude: **-73° 25' 00.8" W**

Method of determination (check one):

☐ GPS ☐ USGS Map ☒ Other (please specify): **Google Maps**

If a USGS Map was used, provide the quadrangle name:

d. Drainage Basin number(s) wherein the proposed activity will take place: **7000**

e. Flood Insurance Rate Map Panel Number: **09001C0531G**

Date of the map referenced: **July 8, 2013**

f. If applying for a SCEL permit, identify the property wherein the proposed activity will take place by indicating the following:

SCEL Map number(s):

Property Identifier:

Date of the map referenced:

2. **COASTAL BOUNDARY:** Is the activity which is the subject of this application located within the coastal boundary as delineated on DEP approved coastal boundary maps? ☒ Yes ☐ No

If yes, and this application is for a new permit or for a modification of an existing permit, you must submit a *Coastal Consistency Review Form* (DEP-APP-004) with your application as Attachment P.

Information on the coastal boundary is available at the local town hall or on the "Coastal Boundary Map" available at DEP Maps and Publications (860-424-3555).

Part IV: Site Information (continued)

3. **ENDANGERED OR THREATENED SPECIES:** Is the project site located within an area identified as a habitat for endangered, threatened or special concern species as identified on the "State and Federal Listed Species and Natural Communities Map"? ☐ Yes ☒ No Date of Map: **June 2013**

   If yes, complete and submit a *Connecticut Natural Diversity Data Base* (CT NDDB) *Review Request Form* (DEP-APP-007) to the address specified on the form. **Please note NDDB review generally takes 4 to 6 weeks and may require additional documentation from the applicant. DEP strongly recommends that applicants complete this process before submitting the subject application.**

   When submitting this application form, include copies of any correspondence to and from the NDDB, including copies of the completed *CT NDDB Review Request Form*, as Attachment K (Environmental Report) or in Attachment Q if no environmental report is required.

   For more information visit the DEP website at www.ct.gov/dep/endangeredspecies (Review/Data Requests) or call the NDDB at 860-424-3011.

4. **AQUIFER PROTECTION AREAS:** Is the site located within a town required to establish Aquifer Protection Areas, as defined in section 22a-354a through 354bb of the General Statutes (CGS)?

   ☐ Yes ☒ No

   If yes, is the site within an area identified on a Level A or Level B map? ☐ Yes ☐ No

   To view the applicable list of towns and maps visit the DEP website at www.ct.gov/dep/aquiferprotection

   To speak with someone about the Aquifer Protection Areas, call 860-424-3020.

5. **CONSERVATION OR PRESERVATION RESTRICTION:** Is the property subject to a conservation or preservation restriction? ☐ Yes ☒ No

   If Yes, proof of written notice of this application to the holder of such restriction or a letter from the holder of such restriction verifying that this application is in compliance with the terms of the restriction, must be submitted as Attachment Q.

6. **Other Permits:** List any previous federal, state or local permits or certificates that have already been issued for the site or for the proposed activity:

Type or Nature of Permit	Permit No. Issuing Authority	Date Issued	Expiration Date	Permittee Name

Part V: Supporting Documents

Please check the attachments submitted as verification that *all* applicable attachments have been submitted with this application form. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the applicant's name as indicated on the *Permit Application Transmittal Form*. The specific information required in each attachment is described in the *Instructions for Completing A Permit Application for Inland Water Resources Division Activities* (DEP-IWRD-INST-100).

☒	Attachment A:	Executive Summary
☒	Attachment B:	An 8 1/2" x 11" copy of a United States Geological Survey (USGS) Topographic Quadrangle Map (scale: 1:24,000) with the regulated activity or project site outlined or pinpointed, as appropriate.
☐	Attachment C:	*Documentation Form for: Inland Wetlands and Watercourses Permit, Stream Channel Encroachment Line Permit, and 401 Water Quality Certification* (DEP-IWRD-APP-101)

Part V: Supporting Documents (continued)

☐ Attachment D: *Documentation Form for Water Diversion Permit* (DEP-IWRD-APP-102)

☐ Attachment E: *Documentation Form for a Dam Construction Permit* (DEP-IWRD-APP-103)

☒ Attachment F: *Documentation Form for Flood Management Certification* (DEP-IWRD-APP-104) (State Agencies Only)

☒ Attachment G: Plan Sheets and Drawings

☒ Attachment H: Engineering Documentation

Part 1: *Engineering Report Checklist* (DEP-IWRD-APP-105A) and an Engineering Report

Part 2: *Hydrologic and Hydraulic Consistency Worksheet* (DEP-IWRD-APP-105B)

Section I: Floodplain Management

Section II: Stormwater Management

For state agencies only:

Section III: State Grants and Loans

Section IV: Disposal of State Land

☒ Attachment I: Flood Contingency Plan

☐ Attachment J: Soil Scientist Report (not required for Flood Management Certification)

☐ Attachment K: Environmental Report (not required for Flood Management Certification)

☐ Attachment L: Mitigation Report - wetlands and watercourses, fish and wildlife (not required for Flood Management Certification)

☐ Attachment M: Alternatives Assessment (not required for Flood Management Certification)

☐ Attachment N: *Applicant Compliance Information Form* (DEP-APP-002) (not required for Flood Management Certification or 401 Water Quality Certification Approvals)

☐ Attachment O: *Applicant Background Information Form* (DEP-APP-008) (not required for Flood Management Certification)

☒ Attachment P: *Coastal Consistency Review Form* (DEP-APP-004) (if applicable)

☒ Attachment Q: Other Information: any other information the applicant deems relevant or is required by DEP.

Number of Copies of Application:

Submit one original of all application forms, certifications, reports and supporting documents and the number of photocopies of all such materials as noted on the *Permit Application Transmittal Form.* When applying for more than one permit, you should submit the original and no more than six copies.

Part VI: Application Certification

The applicant *and* **all** individuals responsible for actually preparing the application or supporting documentation must sign this part. An application will be considered insufficient unless **all** required signatures are provided. You must include signatures of any person preparing any report or parts thereof filed in support of this application (i.e., professional engineers, surveyors, soil scientists, biologists, environmental and other consultants, etc.).

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I certify that this application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that I will comply with all notice requirements as listed in Section 22a-6g of the General Statutes."

Signature of Applicant	Date
Name of Applicant (print or type)	Title (if applicable)
Signature of Preparer (if different than above)	09/18/13 Date
Joseph Canas, PE, LEED AP, CFM Name of Preparer (print or type)	**Project Manager** Title (if applicable)

☐ Check here if additional signatures are required.

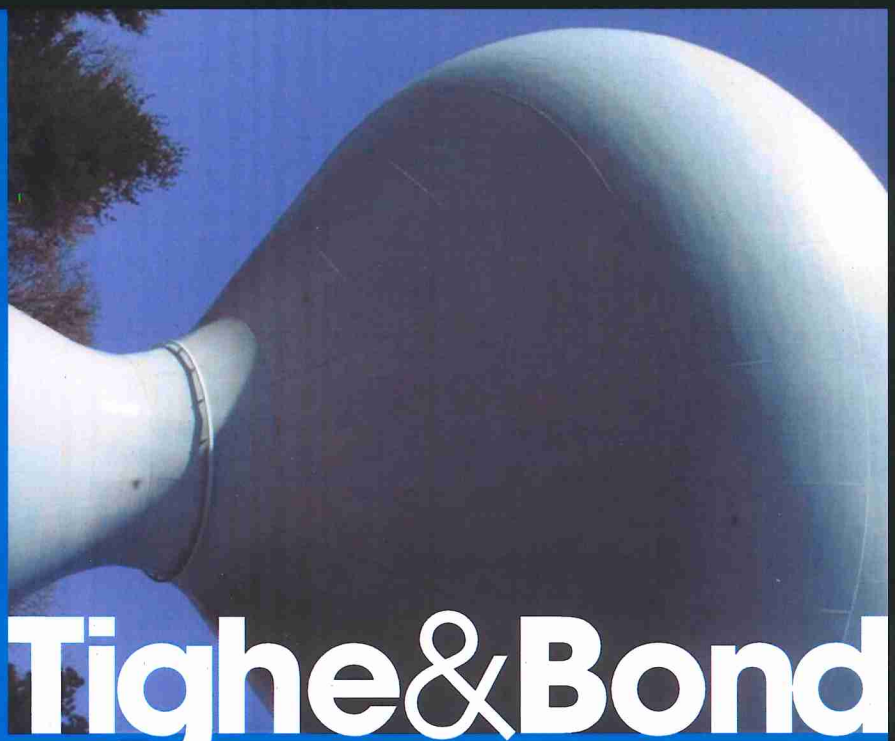
If so, please reproduce this sheet and attach signed copies to this sheet.

Reminder: After submitting this application to DEP, except in the case of a Flood Management Certification, you must publish a notice of the application immediately and submit a certified copy of this published notice to DEP. See "Notice of Permit Application" section in the instructions (DEP-IWRD-INST-100).

List the name of the newspaper the Notice of Permit Application will be published in:

Note: Please submit the *Permit Application Transmittal Form*, Application Form, Fee, and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127



Tighe&Bond

APPENDIX A

Washington Village Redevelopment
Norwalk, Connecticut

EXECUTIVE SUMMARY

Attachment A

The Washington Village site in Norwalk consists of three parcels totaling 6.55 acres. All parcels once had housing units, however, only the southernmost parcel current contains housing units. Existing development on this parcel consists of 136 housing units in 14 buildings and a community center. The remaining two parcels are currently vacant. All three parcels are within or partially in the 100-year floodplain

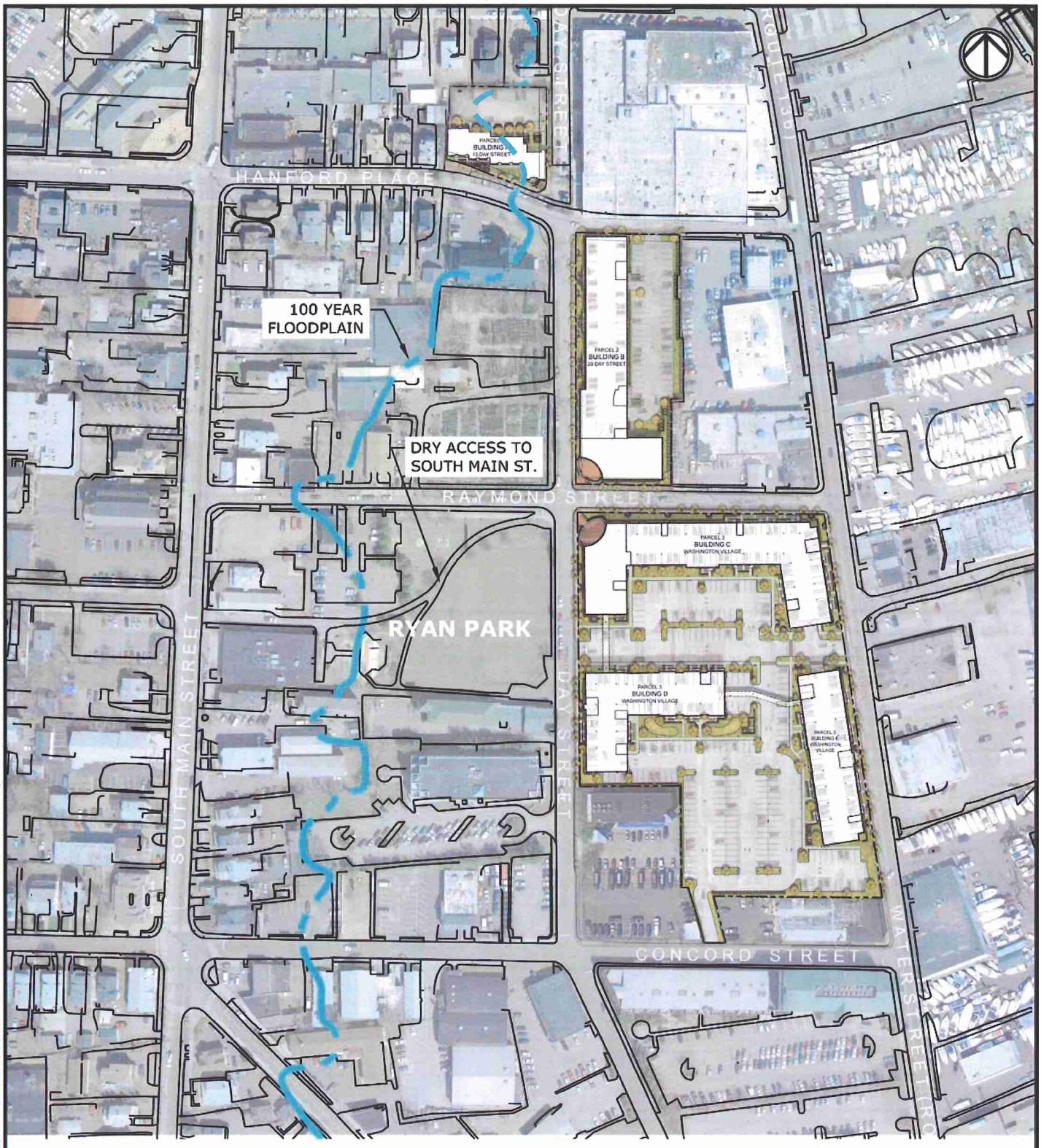
The Norwalk Housing Authority and its developer, Trinity Washington Village Limited Partnership, will construct one higher income unit for each of the existing public housing units for a total of 273 units. The units will be a mixture of one to four bedroom units in multi- story buildings. 500 parking spaces are proposed, with 198 to be at-grade beneath the proposed buildings, and 302 at-grade in surface lots.

The buildings will be constructed such that the first floor residential units are constructed at elevation a minimum elevation of 14.6, which is one foot above the 500-year flood elevation plus wave setup of 13.6. Parking will be located at-grade below the first floor units. Floodproofed elevators and stairwells will provide access from the elevated units to street level. All mechanical units for the units will be placed above the 500-year flood elevation, and utilities below this elevation would be floodproofed to minimize infiltration or discharge.

In conjunction with the project, infrastructure improvements are proposed in the area. This includes raising the profile of Raymond and Day Streets such that the elevation of the intersection is 12.0, which is above the base flood elevation. Ryan Park, at the southwestern quadrant of the Day and Raymond intersection will also be redeveloped. The City of Norwalk is expected to issue an RFQ for the Master Plan of the park shortly, and it is anticipated that it will include provisions for a pathway supporting dry access to the intersection and the project buildings. Please refer to the attached overall site plan.

This project complies with all of the State standards for floodplain management, except for the provision regarding non-intensive floodplain uses. The State Department of Housing is seeking an exemption from the non-intensive floodplain use provision because the project is in the public interest, will not cause injury or property damage, and complies with National Flood Insurance Program (NFIP) regulations.

Since all the proposed units will be above the 500-year flood elevation, the proposed project will reduce flood risk in comparison with the existing project, where all of the units are below the 100 year floodplain elevation. This project will also incorporate stormwater treatment practices that will improve the quality of the stormwater discharged from the site in comparison with the untreated stormwater that is currently discharged.



LEGEND:

100 YEAR FLOOD

WASHINGTON VILLAGE NORWALK, CONNECTICUT	
OVERALL SITE PLAN	
DATE: 11/11/2013	Tighe&Bond
SCALE: 1"=200'	
FIGURE 01	

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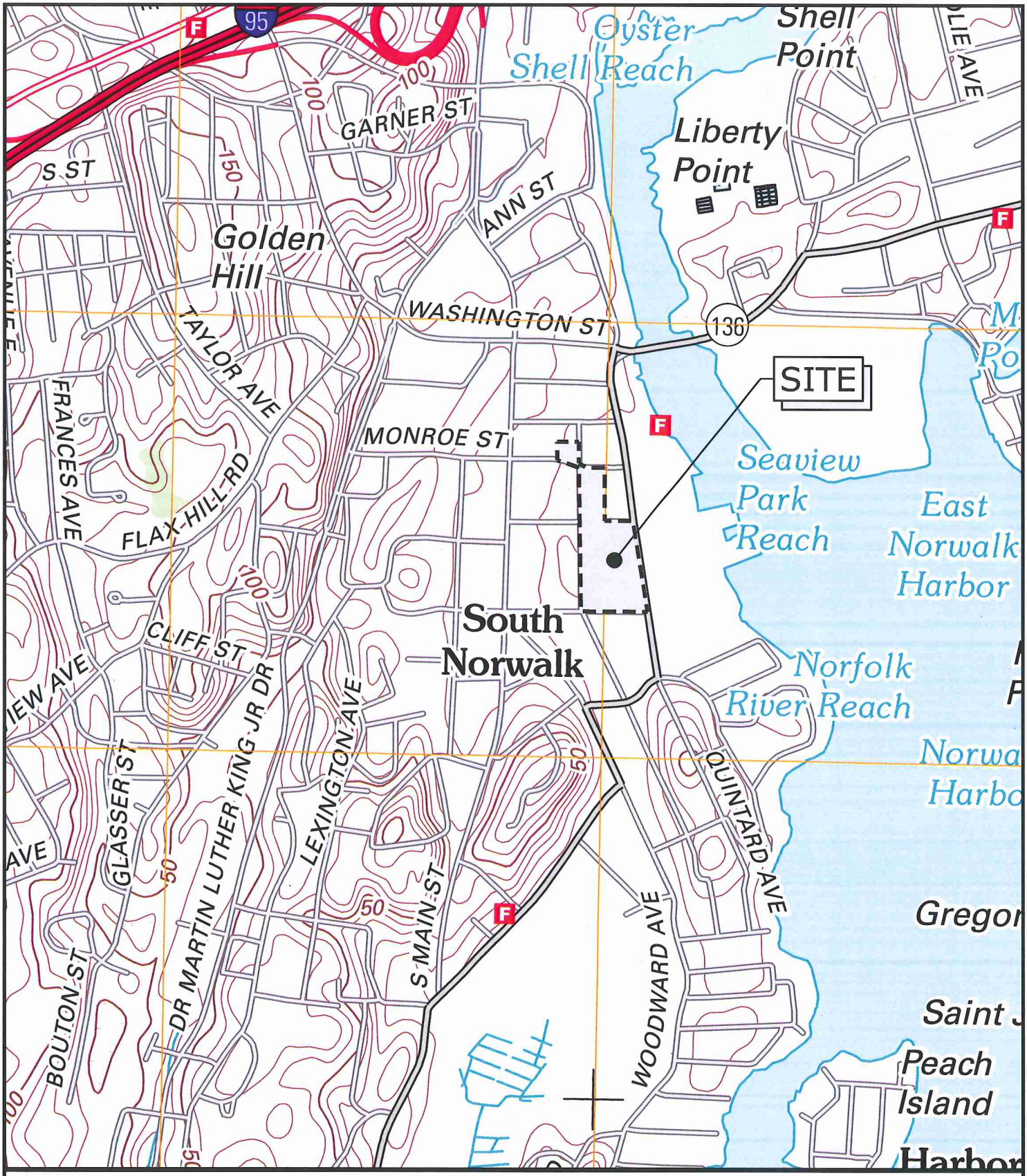
11/11/2013

Tighe&Bond

APPENDIX B



WASHINGTON VILLAGE FLOODPLAIN MANAGEMENT

NORWALK, CONNECTICUT

SITE LOCATION MAP

NORWALK SOUTH QUADRANGLE
CONNECTICUT-NEW YORK
7.5 MINUTE SERIES

NORTH

SCALE: 1:24,000
1" = 1000'

ATTACHMENT B

Tighe&Bond
www.tighebond.com

09/16/2013

Sep 16, 2013-12:15pm Plotted By: SansoneM
Tighe & Bond, Inc. J:\N\N1020 Washington Village FPM Services\Administration\Permits\QUAD MAP.dwg

Tighe&Bond

APPENDIX F

Attachment F: Documentation Form for Flood Management Certification

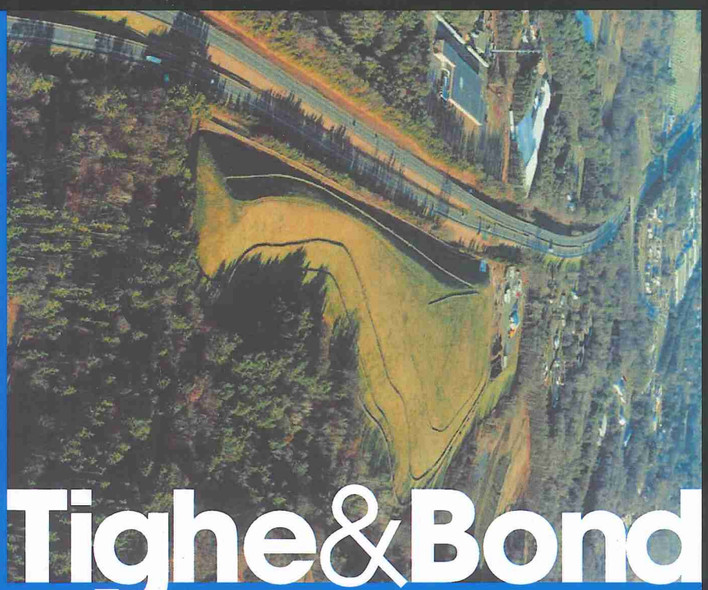
1. Applicant Name: **State of Connecticut Department of Housing**
   (as indicated on the *Permit Application Transmittal Form*)

2. Name of Subject Facility or Project/Project Number:
   Washington Village Redevelopment

3. Name of floodplain and watercourse:
   Norwalk Harbor

4. This Certification is submitted for the Commissioner's approval pursuant to Section 25-68d of the General Statutes. I hereby certify that based on my reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature of the head of the certifying State agency or his/her designated agent	Date
Name of the head of the certifying State agency or his/her designated agent (print or type)	Title (if applicable)



Tighe&Bond

APPENDIX G

PROJECT TEAM:

OWNER/DEVELOPER:
TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP
75 FEDERAL STREET, 4TH FLOOR, BOSTON, MA, 02115
(617) 720-8400
&
THE NORWALK HOUSING AUTHORITY
24 1/2 MONROE STREET, NORWALK, CT, 06854
(203) 838-8471

ARCHITECT:
ICON ARCHITECTURE, INC
38 CHAUNCY STREET, BOSTON, MA 02111
(617) 451-3333

CIVIL ENGINEER:
TIGHE & BOND
100 BRIDGEPORT AVENUE SUITE 320
SHELTON, CT, 06484
(203) 712-1100

MECHANICAL / FIRE PROTECTION, ELECTRICAL / TEL/DATA ENGINEER:
CENTEK ENGINEERING, INC
63-2 NORTH BRANFORD ROAD, BRANFORD, CT 06405
(203) 488-0580

STRUCTURAL ENGINEER:
GNCB CONSULTING ENGINEERS
130 ELM STREET, OLD SAYBROOK, CT, 06475
(860) 388-1224

LANDSCAPE ARCHITECT:
ERIC RAINS LANDSCAPE ARCHITECTURE
33 NORTH WATER STREET, SOUTH NORWALK, CT, 06854
(203) 853-7600

Day Street

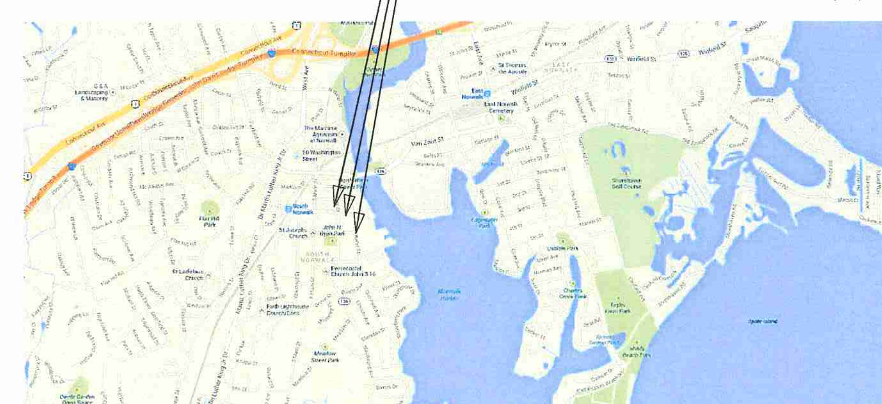
Building B

South Norwalk, CT

CITY SUBMISSION
September 19, 2013

CIVIL DRAWINGS

HANFORD PLACE - BUILDING A
DAY STREET - BUILDING B
WASHINGTON VILLAGE - BUILDINGS, C,D & E



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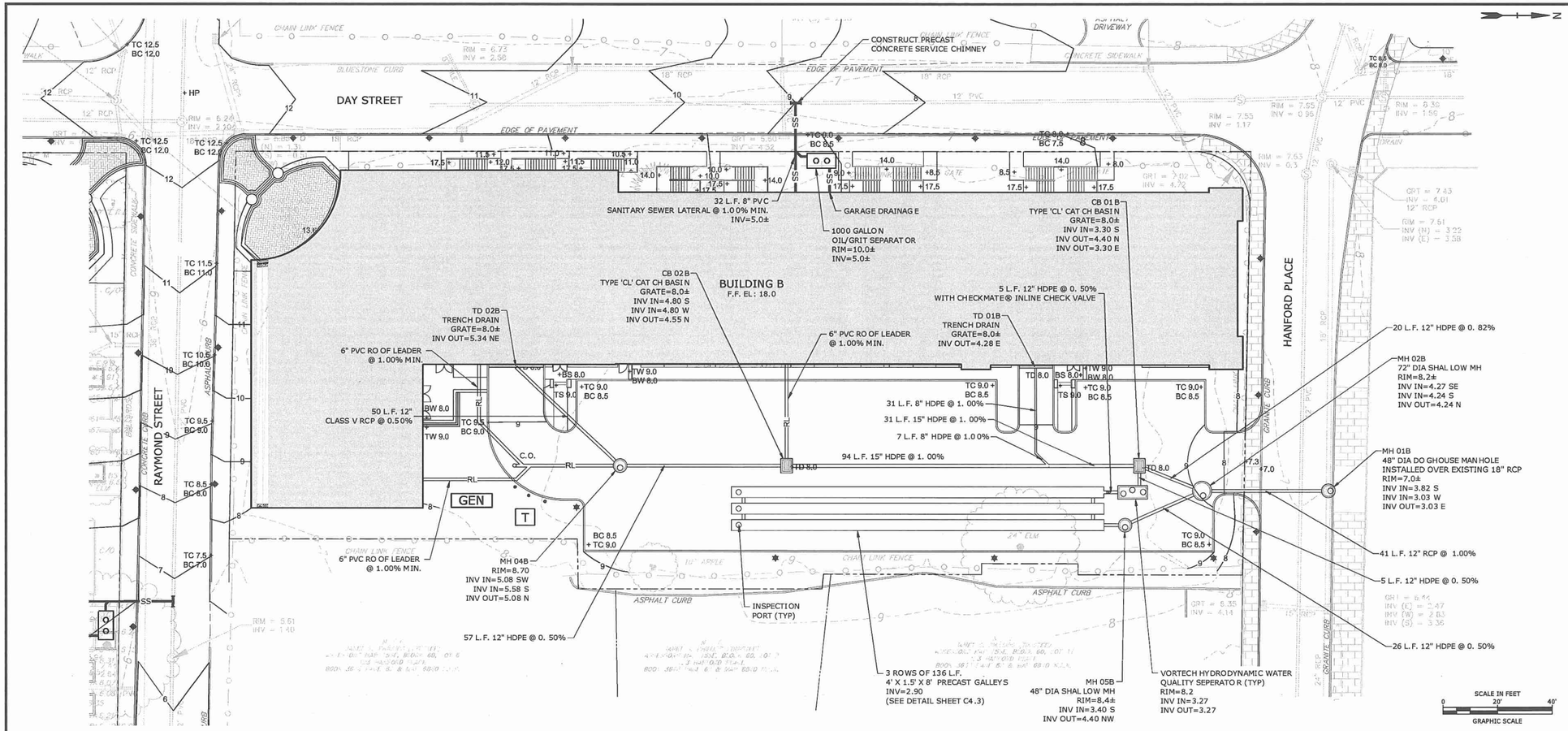


SITE STORM AND SANITARY SEWER PLAN NOTES

1. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
2. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY , TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES P.C., DATED SEPTEMBER 4, 2013.
3. THE CONTRACTOR SHALL OBTAIN A CITY OF NORWALK EXCAVATION PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN CITY RIGHT-OF-WAY.
4. ANY AND ALL WORK PERFORMED ON THE CITY OF NORWALK RIGHT-OF-WAY SHALL BE REQUIRED TO MEET THE CITY STANDARDS.
5. THE GENERAL CONTRACTOR SHALL PROVIDE FIELD ENGINEERING SERVICES TO ESTABLISH AND RECORD GRADES, LINES, AND ELEVATIONS.
6. THE CONTRACTOR SHALL ADJUST THE TOP OF FRAME/GRATE ELEVATIONS OF ALL EXISTING AND PROPOSED SANITARY/STORM/WATER MANHOLES, CATCH BASINS, AREA DRAINS, VALVE COVERS AND APPURTENANCES, WITHIN THE PROJECT LIMIT LINE TO MEET THE PROPOSED GRADES.
7. THE CONTRACTOR SHALL COORDINATE/VERIFY THE EXACT SIZES, LOCATIONS, ELEVATIONS, OF ALL PROPOSED BUILDING'S UTILITY SERVICES WITH THE PROJECT MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS PRIOR TO ANY CONSTRUCTION OPERATIONS.
8. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR ANY DAMAGED INCURRED DURING EXCAVATION OPERATIONS. ALL EXCAVATION SHALL BE IN CONFORMANCE WITH THE LATEST OSHA REQUIREMENTS.
9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK DONE BY THE RESPECTIVE UTILITY COMPANIES.
10. ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND IS NOT PROVIDED WITH A SPECIFIC SITE IMPROVEMENT (PAVING, SIDEWALK, LANDSCAPING, ETC.) SHALL HAVE 4" TOPSOIL AND TURF ESTABLISHMENT IN ACCORDANCE WITH THE PROJECT LANDSCAPE SPECIFICATIONS.
11. THE LOCATIONS OF ITEMS NOT DIMENSIONED ON THE DRAWINGS SHALL BE FIELD STAKED BY THE CONTRACTOR AND THEIR LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
12. INSTALL CLEANOUT TO GRADE 5' OFF FACE OF BUILDING ON ALL SANITARY LATERALS.
13. THE MANHOLE FRAME AND COVER SHALL BE CENTERED ON THE PRECAST OPENING. UNDER NO CIRCUMSTANCES WILL AN OFFSET FRAME AND COVER BE ACCEPTABLE. PRIOR TO FINAL PAVING, THE CONTRACTOR SHALL CHECK ALL MANHOLE STRUCTURES TO ASSURE THE FRAME AND COVER IS CENTERED ON THE PRECAST OPENING. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL WORK REQUIRED TO CENTER FRAME AND COVER.
14. INSTALL "FERNCO" STYLE FLEXIBLE COUPLINGS AT ALL LOCATIONS WHERE JOINING PIPES OF DIFFERENT MATERIALS AND/OR SIZES PER MANUFACTURER'S RECOMANDATIONS.
15. ALL PIPES AND FITTINGS SPECIFIED AS HDPE SHALL BE ADS N-12 WT (WATERTIGHT) PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, HILLIARD, OHIO.
16. THE CONTRACTOR SHALL MAINTAIN EXISTING STORM SEWER FLOWS BY PUMPING OR OTHER MEANS APPROVED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION OF THE PROPOSED STORM SEWER IN LOCATIONS WHERE STORM SEWER ARE BEING INSTALLED, REPLACED OR RELOCATED.
17. THE CONTRACTOR SHALL MAINTAIN SANITARY SEWER FLOWS BY PUMPING OR OTHER MEANS APPROVED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION OF THE PROPOSED SANITARY SEWER IN LOCATIONS WHERE SEWERS ARE BEING INSTALLED, REPLACED OR RELOCATED.

SITE STORM AND SANITARY SEWER PLAN LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MINOR CONTOUR	115	115
MAJOR CONTOUR	120	120
SPOT ELEVATION	× 118	× 120.12
EDGE OF PAVEMENT		
CURB LINE		
CONCRETE WALK		
BUILDING		
TEST PIT		TP
STORM SEWER	12" RCP	
STORM MANHOLE	S	S
CATCH BASIN		
SANITARY SEWER	12" PVC	
SANITARY LATERAL	6" PVC	SS
SANITARY MANHOLE	S	S
ROOF LEADER		RL
LIGHT POLE		

Day Street Building B

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

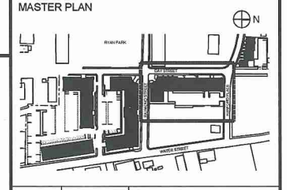
ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: APW
CHECKED BY: EWL

SHEET TITLE

SITE STORM AND SANITARY SEWER PLAN

C1.1

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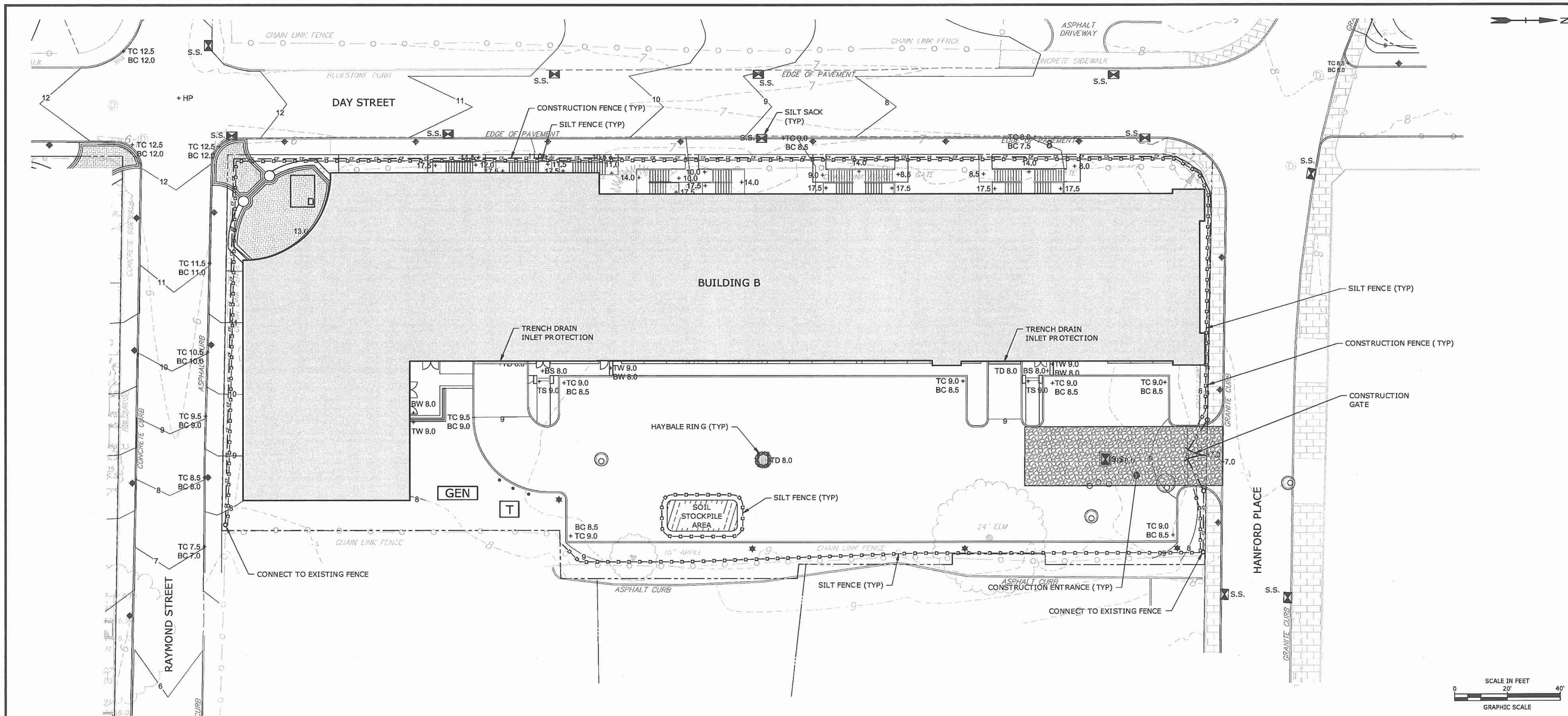


SITE SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES

1. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY , TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES P.C., DATED SEPTEMBER 4, 2013.
2. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATION.
3. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH IS UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
4. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" DEEP BULLETIN NO 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.
5. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND ELSEWHERE AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
7. ALL CATCH BASINS SHALL BE PROTECTED WITH SILT SACKS, HAYBALE RING, SILT FENCE OR BLOCK AND STONE INLET PROTECTION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
8. WHEREVER POSSIBLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
9. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING CONSTRUCTION PERIOD AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
10. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
11. SEDIMENT REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
13. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE/HAYBALES AND ANTI-TRACKING CRUSHED STONE ON-SITE FOR EMERGENCY REPAIRS.
14. THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
15. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND CLEANED TO PREVENT THE BUILD-UP OF SILT.
16. KEEP ALL PAVED ROADWAYS CLEAN. SWEEP BEFORE FORECASTED STORMS OR WEEKLY AS NECESSARY.
17. TREAT ALL UNPAVED SURFACES WITH 4" MINIMUM OF TOPSOIL AND SEEDING PRIOR TO FINAL STABILIZATION.
18. HAYBALE BARRIERS AND SILT FENCING SHALL BE INSTALLED ALONG THE TOE OF CRITICAL CUT AND FILL SLOPES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR THE CITY OF NORWALK.
19. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
20. DISTURBED SLOPES SHALL BE TREATED WITH AN EROSION CONTROL SLURRY CONSISTING OF A MIXTURE OF WOOD FIBER MULCH, PLANT SEED AND 3 GALLONS/ACRE OF SILT STOP 640 LIQUID FLOCCULENT. THE FLOCCULENT IS PROVIDED BY HYDROGRASS TECHNOLOGIES, OXFORD MASSACHUSETTS.
21. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE CHECKED WEEKLY AND AFTER EACH RAINFALL EVENT. NECESSARY REPAIRS SHALL BE MADE WITHOUT DELAY.
22. PRIOR TO ANY FORECASTED RAINFALL, EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED AND REPAIRED AS NECESSARY.
23. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED; EROSION CONTROLS MAY BE REMOVED ONCE AUTHORIZATION TO DO SO HAS BEEN SECURED FROM THE CITY OF NORWALK. DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
24. CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.

SITE SOIL EROSION AND SEDIMENTATION CONTROL PLAN LEGEND

PROPERTY LINE
SILT SACK — S.S.
HAYBALE
CONSTRUCTION ENTRANCE
SILT FENCE
CONSTRUCTION FENCE
CONSTRUCTION GATE
HAYBALE BARRIER
TEMPORARY SOIL STOCKPILE AREA

Day Street Building B

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

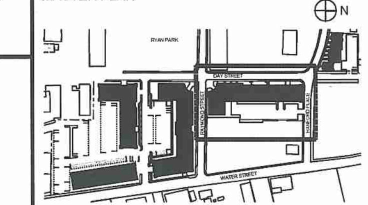
ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: APW
CHECKED BY: EWL

SHEET TITLE

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN

C3.1

Sep 19, 2013-1:21pm Plotted By: apw
Tighe & Bond, Inc. J:\I\I0071 Washington Village\Drawing\Sheet\Building B\SESC-B-I0071-01.dwg

SOIL EROSION AND SEDIMENTATION CONTROL NARRATIVE

THE PROJECT PROPOSES TO CONSTRUCT A 71 UNIT RESIDENTIAL BUILDING IN NORWALK, CT. THE PROJECT SITE IS BOUNDED BY RAYMOND STREET TO THE SOUTH, DAY STREET TO THE WEST, TOLLES STREET TO THE NORTH, AND PRIVATE PROPERTIES OFF OF WATER STREET TO THE EAST.

THE PROPOSED PROJECT WILL INCLUDE THE CONSTRUCTION OF THE RESIDENTIAL BUILDING, A 98 CAR PARKING LOT, RETAINING WALLS, CURBING, SIDEWALKS, LANDSCAPE AND LIGHTING. PROPOSED BUILDING UTILITIES SUCH AS DOMESTIC WATER, FIRE PROTECTION, TELECOMMUNICATIONS, ELECTRICAL, NATURAL GAS, AND SANITARY SEWER WILL BE PROVIDED FROM EXISTING MAINS LOCATED IN DAY STREET AND RAYMOND STREET.

STORMWATER MANAGEMENT WILL BE ACCOMMODATED ON-SITE. SURFACE RUNOFF WILL BE COLLECTED AND CONVEYED INTO A WATER QUALITY STRUCTURE AND AN UNDERGROUND INFILTRATION SYSTEM THAT WILL TREAT THE WATER QUALITY VOLUME AND PROVIDE POLLUTANT REMOVAL IN ACCORDANCE WITH THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL.

THE PROJECT IS PROPOSED TO BE CONSTRUCTED IN A SINGLE PHASE; APPROXIMATELY 1.386 ACRES WILL BE DISTURBED.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE STANDARDS OUTLINED IN THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CTDEEP), "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", LATEST REVISION.

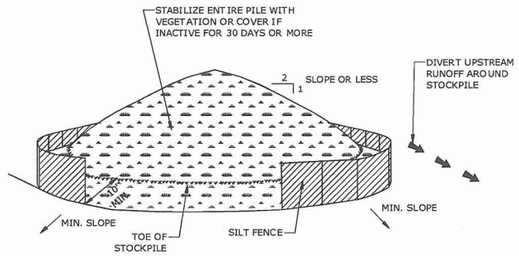
CONSTRUCTION SEQUENCE

GENERAL

1. THE PROPOSED DEVELOPMENT IS ENTITLED "DAY STREET - BUILDING B"
2. ESTIMATED PROJECT TIMELINE:
   - PROJECT START: SPRING 2014
   - PROJECT COMPLETION: SPRING 2015
3. THE SITE IS LOCATED AT 20 DAY STREET IN NORWALK, CONNECTICUT.

CONSTRUCTION SEQUENCE

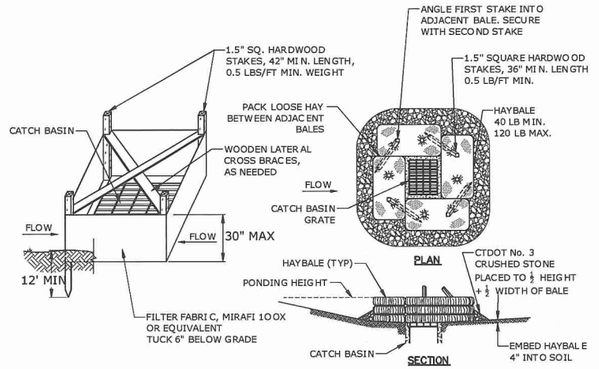
1. FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING.
2. HOLD PRECONSTRUCTION MEETING WITH THE CITY, THE OWNERS REPRESENTATIVE AND THE ENGINEER. (REMEMBER TO CALL BEFORE YOU DIG 1-800-922-4455).
3. FLAG REMAINDER OF THE LIMITS OF CONSTRUCTION AND TREE PROTECTION ZONES.
4. INSTALL THE CONSTRUCTION ENTRANCE.
5. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION DEVICES IN ACCORDANCE WITH THE SESC PLAN.
6. CUT ANY TREES WITHIN THE DEFINED CLEARING LIMITS AND REMOVE CUT WOOD. CHIP BRUSH AND SLASH, STOCKPILE CHIPS FOR FUTURE USE OR REMOVE OFF SITE.
7. CONSTRUCT SETTLING BASINS AND/OR SUMP PITS, AS REQUIRED.
8. STRIP AND STOCKPILE ALL TOPSOIL THAT IS WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE AND REFERENCE STOCKPILE MANAGEMENT FOR EROSION AND SEDIMENT CONTROLS. (SEE 2002 CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL CHAPTER 4, PART II ON STOCKPILE MANAGEMENT). EITHER REMOVE TREE STUMPS TO AN APPROVED DISPOSAL SITE OR CHIP IN PLACE AS INDICATED ON THE PLANS.
9. MAKE ALL CUTS AND FILLS REQUIRED. ESTABLISH THE SUBGRADE FOR THE TOPSOIL AREAS, AND PARKING AS REQUIRED AND BENCH THE BUILDING TO A SUBGRADE. ALLOW A REASONABLE AMOUNT OF AREA AROUND THE FOOTPRINT OF THE BUILDING FOR THE CONSTRUCTION ACTIVITIES.
10. BEGIN CONSTRUCTION OF THE BUILDING.
11. PRIOR TO INSTALLING SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.
12. INSTALL ALL SANITARY SEWERS, DRAINAGE SYSTEMS AND UTILITIES TO WITHIN 5 FEET OF THE BUILDING OR AS OTHERWISE MODIFIED BY THE DESIGN ENGINEER TO ADJUST FOR UNFORESEEN SITE CONDITIONS.
13. PREPARE SUB-BASE, SLOPES, PARKING AREAS AND ANY OTHER AREA OF DISTURBANCE FOR FINAL GRADING.
14. INSTALL PROCESS AGGREGATE IN PARKING AREAS.
15. PLACE TOPSOIL WHERE REQUIRED. COMPLETE THE PERIMETER LANDSCAPE PLANTINGS.
16. FINE GRADE, RAKE, SEED AND MULCH TO WITHIN 2 FEET OF THE CURBING.
17. UPON SUBSTANTIAL COMPLETION OF THE BUILDING, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS. INSTALL FIRST COURSE OF PAVING.
18. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE FINAL COURSE OF PAVING. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
19. INSTALL FINAL COURSE OF PAVEMENT.
20. AFTER SITE IS STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS (E.G. GEOTEXTILE SILT FENCES).



INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H :1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAYBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

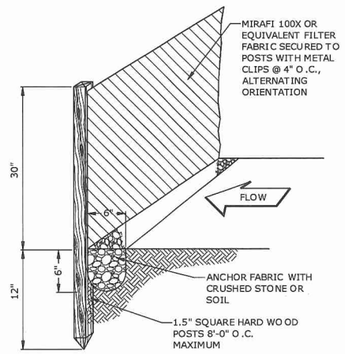
SOIL STOCKPILE DETAIL
NO SCALE



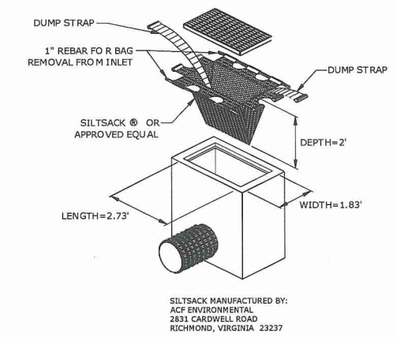
SILT FENCE INSTALLATION AT CATCH BASIN AT LOW POINTS

HAYBALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS

CATCH BASIN EROSION CONTROL
NO SCALE

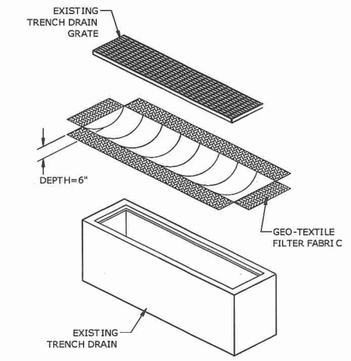


SILT FENCE
NO SCALE

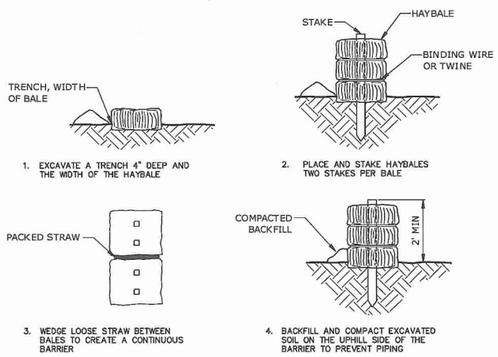


SILTSACK MANUFACTURED BY:
ACF ENVIRONMENTAL
2831 CARDWELL ROAD
RICHMOND, VIRGINIA 23237

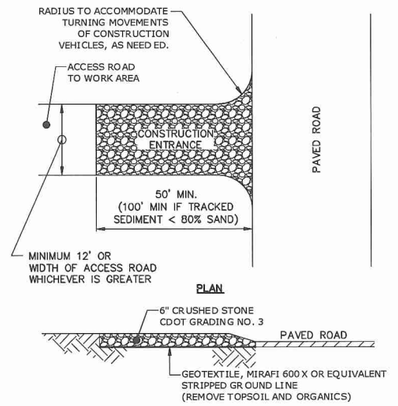
SILTSACK ®
NO SCALE



TRENCH DRAIN INLET PROTECTION
NO SCALE



PLACEMENT AND CONSTRUCTION OF HAYBALE BARRIER
NO SCALE



CONSTRUCTION ENTRANCE
NO SCALE

Day Street Building B

Norwalk, CT

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ICON architecture
38 Chauncy Street
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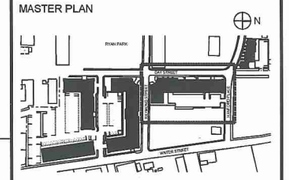
STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: 10071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS

C3.2

09/19/2013

Sep 19, 2013-1:21pm Plotted By: ajpw
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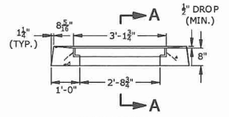
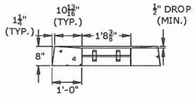
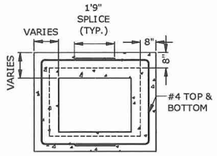


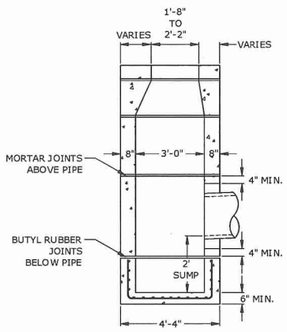
CROSS SECTION

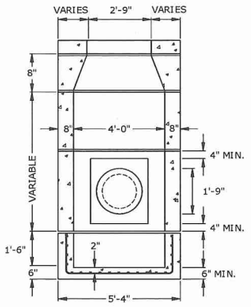


SECTION A–A

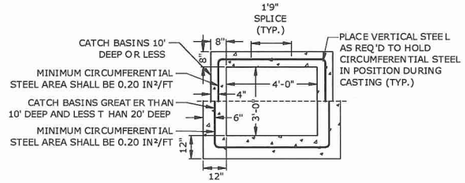


REDUCER SECTION (TYP.)

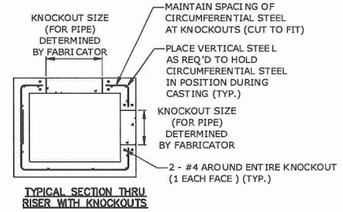




TYPE "C-L" CATCH BASIN
NO SCALE



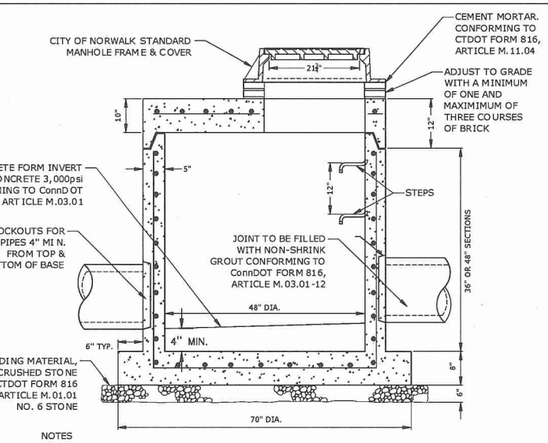
RISER SECTION (TYP.)



TYPICAL SECTION THRU RISER WITH KNOCKOUTS

NOTES:

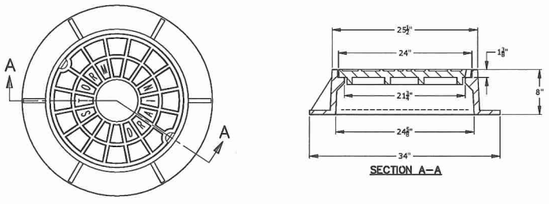
1. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
2. DETAILS ON THIS SHEET SHOW STANDARD REINFORCEMENT. WELDED WIRE FABRIC WITH AN AREA EQUAL TO OR GREATER THAN THE REINFORCING SHOWN MAY BE SUBSTITUTED.
3. ALL LAP SPLICES, DEVELOPMENT LENGTHS, BENDS FOR REINFORCEMENT, AND WELDED WIRE FABRIC SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
4. ALL REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 2", EXCEPT FOR BENEATH BOTTOM REINFORCEMENT IN TOP SLABS, WHERE THE MINIMUM MAY BE 1½"
5. MINIMUM CONCRETE COMPRESSIVE STRENGTH FC'=4,000PSI SHALL BE OBTAINED BEFORE SHIPPING.
6. BASES AND RISERS AT A DEPTH OF 20' AND GREATER SHALL BE DESIGNED BY THE CONTRACTOR AND WORKING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
7. SEE STANDARD DRAWING 507-K FOR CATCH BASIN FRAMES AND GRATES.
8. FOR DOT MAINTENANCE PERSONNEL, RISERS MAY BE PREFABRICATED WITH PIPE OPENINGS IN ALL FOUR WALLS. ADEQUATE REINFORCING AROUND PIPE OPENINGS TO CONFORMING TO THESE PLANS SHALL BE PROVIDED. ANY RISERS USED WHERE A PIPE OPENING IS TO REMAIN IN PLACE MUST BE FORMED UP WITH BRICK AS DIRECTED BY THE ENGINEER.
9. RISERS SHALL NEVER HAVE CORNER PIPE ENTRIES. WHERE THE ALIGNMENT OF THE PIPE WITH RESPECT TO THE CORNER OF THE CATCH BASIN CANNOT BE CHANGED, A ROUND STRUCTURE CONFORMING TO ASTM C478 SHALL BE USED. REINFORCING FOR THE ROUND TOP SLAB WITH A RECTANGULAR OPENING SHALL CONFORM TO DETAILS SHOWN HERE.
10. ALL PIPE OPENINGS SHALL BE CLOSED USING MATERIALS WHICH CONFORM TO STATE OF CONNECTICUT STANDARD SPECIFICATIONS SECTION M.08.02. IF THE ENGINEER DETERMINES THAT THE CLOSURE OF ANY PIPE OPENING IS UNSATISFACTORY, THE CONTRACTOR SHALL RECLOSE SAID OPENING AT NO ADDITIONAL COST TO THE STATE. KNOCKOUTS FOR PIPE OPENINGS SHALL NOT RESULT IN A REDUCED WALL THICKNESS.
11. THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS AND SUPPLEMENTALS SHALL GOVERN.
12. FOR ADDITIONAL DETAILS, SEE OTHER CATCH BASIN SHEETS.
13. WALL THICKNESS OF ALL CB'S OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. (THE 12" THICKNESS SHALL START AFTER THE FIRST 10")
14. BUTYL RUBBER JOINT SEAL SHALL CONFORM TO AASHTO M-198 AND MORTAR SHALL CONFORM TO THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS MATERIAL SECTION M11.04.
15. SHRINKAGE AND TEMPERATURE REINFORCEMENT SHALL BE PROVIDED IN THE TOPS OF SLABS. THE TOTAL AREA OF REINFORCEMENT PROVIDED SHALL BE AT LEAST 0.125 IN²/FT IN EACH DIRECTION. THE MAXIMUM SPACING OF THIS REINFORCEMENT SHALL NOT EXCEED 18 INCHES.
16. THE DETAILS SHOWN IN THE PLAN VIEW FOR THE PRECAST CONCRETE ROUND STRUCTURES SHALL ALSO BE USED FOR CONVERTING MANHOLES TO CATCH BASINS.
17. ANY CATCH BASINS CONSTRUCTED, MODIFIED OR DISTURBED IN ANY FASHION SHALL HAVE "NO DUMPING" CURB MARKER APPLIED TO CATCH BASIN TOP OR CURB NEXT TO GRATE.USING ADHESIVE PROVIDED BY THE CITY FOLLOWING INSTALLATION DIRECTIONS PROVIDED BY THE MANUFACTURER.



NOTES

1. REINFORCING ASTM A185 AREA 48 " DIA. 0.12 SQ. IN./V.F., AREA 60" DIA. 0. 17 SQ. IN./V.F. REINFORCE BELL & SPIGOT.
2. CONCRETE COMPRESSIVE STRENGTH: 5,000 psi - 28 DAYS
3. MANHOLE STEP TO CONFORM TO OSHA AND ASTM SPECIFICATIONS.
4. MONOLITHIC BASE SECTION.

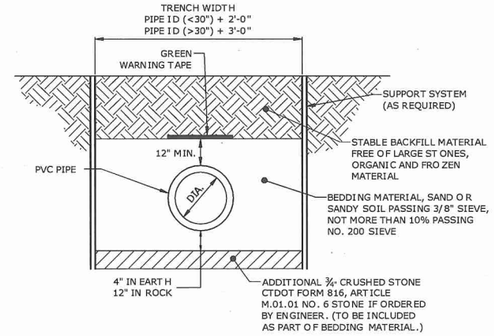
48" DIA. SHALLOW MANHOLE
NO SCALE



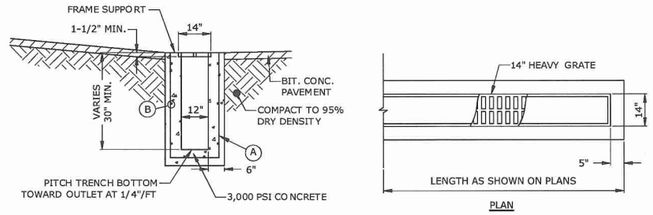
SECTION A–A

NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D AS MANUFACTURED BY THE CAMPBELL FOUNDRY COMPANY OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

CITY OF NORWALK
MANHOLE FRAME AND COVER
NO SCALE



P.V.C. TRENCH BEDDING
NO SCALE



PLAN

REINFORCEMENT TO BE:

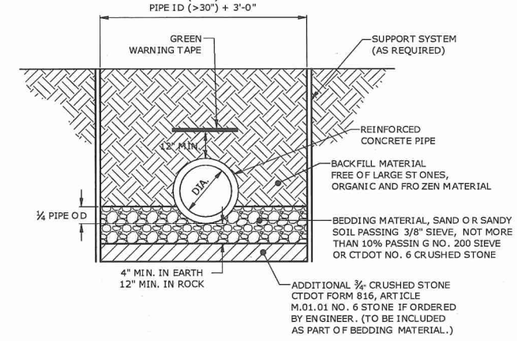
A 'L' BARS #4 T 12" BOTTOM LEG TO BE 12" VERTICAL LEG

B LONGITUDINAL BARS #4 AT 9" WITH 20" LAP

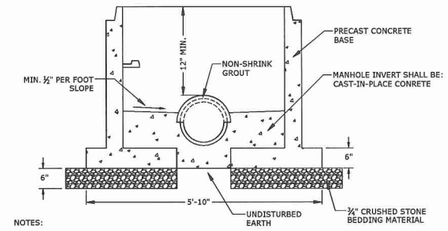
GAP TO REINFORCEMENT 2" MIN. TO ANY FACE

NOTES:
USE NEENAH TYPE A FRAME SECTION WITH TRENCH DRAIN COVER AND CAST INTO CONCRETE AT VEHICULAR CROSSINGS IN ASSOCATION WITH COVER TYPE NEENAH R-4990-DX

TRENCH DRAIN
NO SCALE



CIRCULAR R.C.P. TRENCH BEDDING
NO SCALE



NOTES:

1. MINIMUM 4' DIAMETER MANHOLE.
2. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE EXISTING PIPE.
4. TOP HALF OF EXISTING PIPE TO BE REMOVED FOR FULL LENGTH EXPOSED INSIDE MANHOLE. EXISTING MAIN TO BE NEATLY CUT ALONG THE SPRING LINE OF THE PIPE.
5. SEE STORM MANHOLE DETAIL FOR ADDITIONAL INFORMATION.

STORM DRAINAGE
DOGHOUSE MANHOLE BASE
NO SCALE

Day Street Building B

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

ICON architecture
38 Chauncy Street
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617-451-3333
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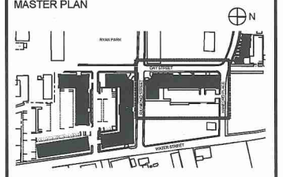
CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

STORM DRAINAGE DETAILS

C4.1

09/19/2013

Sep 19, 2013 - 1:22pm Plotted By: aew
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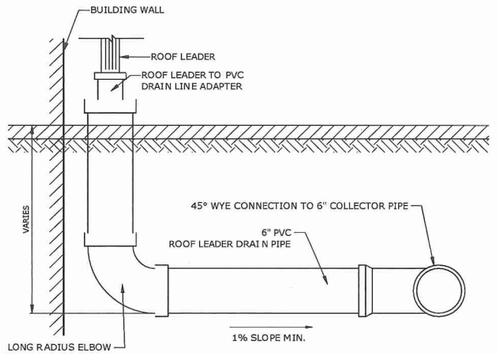

ROOF LEADER DRAIN LINE
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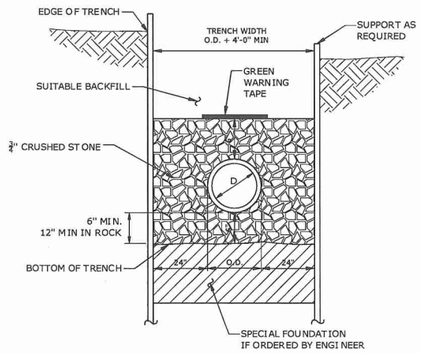

TYPICAL SANITARY SEWER TRENCH SECTION
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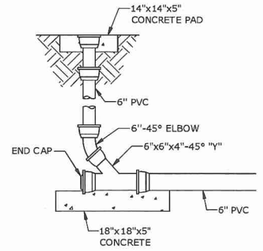

CLEAN-OUT DETAIL
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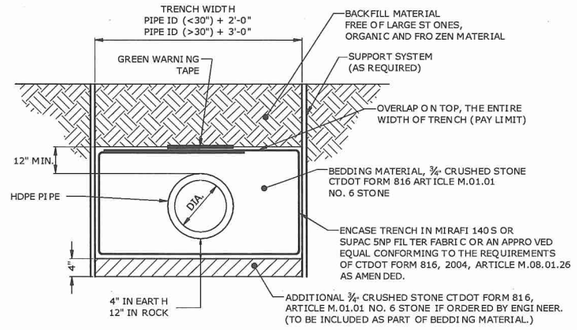

HDPE TRENCH BEDDING
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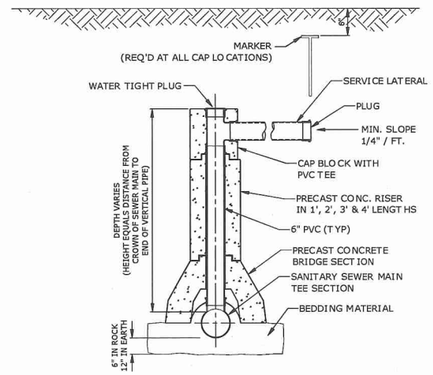

CHIMNEY DETAIL
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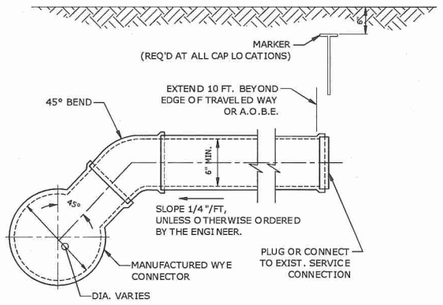
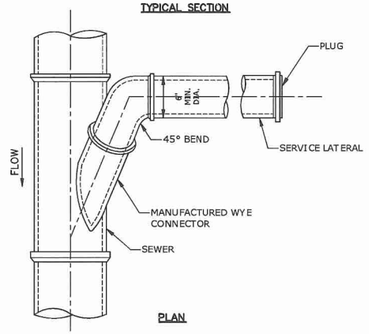


TYPICAL SECTION



PLAN

STANDARD SERVICE LATERAL CONNECTION
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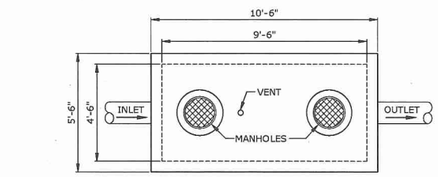
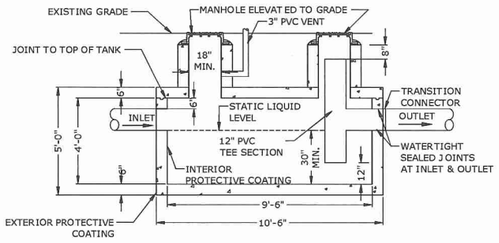


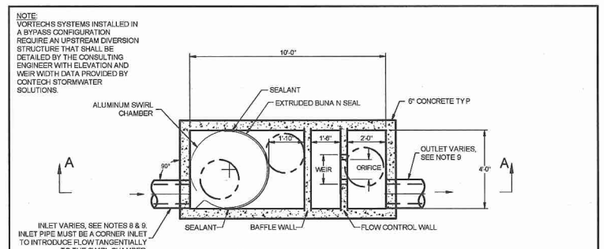
PLAN



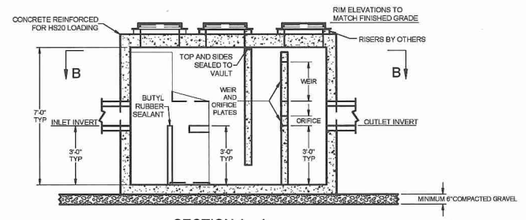
ELEVATION

NOTES:
1. CLEANOUT MANHOLES SHOULD BE ELEVATED TO GRADE WITH WATERTIGHT ACCESS COVERS.
2. HORIZONTAL JOINT SHALL BE ABOVE WATER LINE AT TOP OF TANK.
3. INTERIOR OF TANK SHALL BE COATED WITH AN EPOXY PETROLEUM RESISTANT SEALANT. EXTERIOR OF TANK SHALL BE COATED WITH A WATER PROOF SEALANT.
4. VOIDS BETWEEN INLET AND/OR OUTLET PIPING AND CONCRETE WALLS MUST BE FILLED WITH AN APPROVED WATERTIGHT, NON-SHRINKABLE GROUT MATERIAL, AND COATED WITH WATER GROUT SEALANT.
5. TANK MUST BE VENTED WITH A 3" PVC VENT ATTACHED TO BUILDING WALL TO EXTEND 8'-0" ABOVE FINISHED GRADE. INSTALL MUSHROOM CAP.
6. TANK SHALL BE DESIGNED FOR H20 LOADING.

1000 GALLON OIL/GRIT SEPARATOR
NO SCALE



PLAN VIEW B - B



SECTION A - A

NOTES:
1. STORMWATER TREATMENT SYSTEM (SWTS) SHALL HAVE: PEAK TREATMENT CAPACITY: 2.8 CFS SEDIMENT STORAGE: 1.2 CU YD SEDIMENT CHAMBER DIA: 4' MIN
2. SWTS SHALL BE CONTAINED IN ONE RECTANGULAR STRUCTURE
3. SWTS REMOVAL EFFICIENCY SHALL BE DOCUMENTED BASED ON PARTICLE SIZE
4. SWTS SHALL RETAIN FLOATABLES AND TRAPPED SEDIMENT UP TO AND INCLUDING PEAK TREATMENT CAPACITY
5. SWTS INVERTS IN AND OUT ARE TYPICALLY AT THE SAME ELEVATION
6. SWTS SHALL NOT BE COMPROMISED BY EFFECTS OF DOWNSTREAM TAILWATER
7. SWTS SHALL HAVE NO INTERNAL COMPONENTS THAT OBSTRUCT MAINTENANCE ACCESS
8. INLET PIPE MUST BE PERPENDICULAR TO THE STRUCTURE
9. PIPE ORIENTATION MAY VARY; SEE SITE PLAN FOR SIZE AND LOCATION
10. PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF UNIT
11. MANHOLE FRAMES AND PERFORATED COVERS SUPPLIED WITH SYSTEM, NOT INSTALLED
12. PURCHASER TO PREPARE EXCAVATION AND PROVIDE CRANE FOR OFF-LOADING AND SETTING AT TIME OF DELIVERY
13. VORTECHS SYSTEMS BY CONTECH STORMWATER SOLUTIONS, PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; LINTHICUM, MD (888) 740-3318.

CONTECH STORMWATER SOLUTIONS
contechstormwater.com

STANDARD DETAIL
STORMWATER TREATMENT SYSTEM
VORTECHS® MODEL 2000
U.S. PATENT No.5,759,415

DATE: 10/4/06	SCALE: NONE	FILE NAME: STD2K	DRAWN: JBS	CHECKED: NDG

Sep 19, 2013-1:22pm Plotted By: apw
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Day Street Building B

Norwalk, CT

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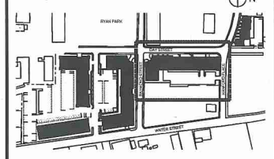
MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

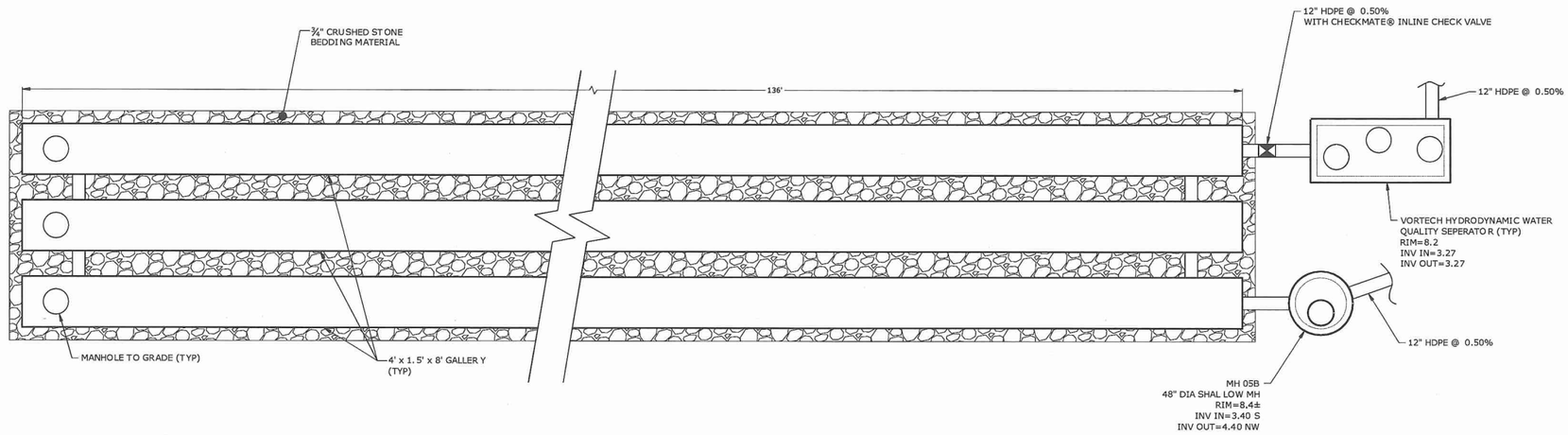
PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

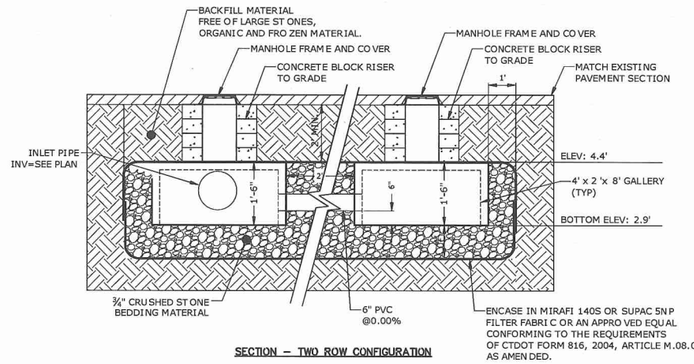
STORM AND SANITARY DETAILS

C4.2

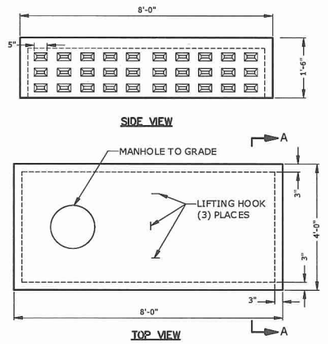
09/19/2013



INFILTRATION SYSTEM DETAIL
SCALE: 1" = 5'



SECTION – TWO ROW CONFIGURATION



SPECIFICATIONS:
1. GALLERY TO BE 4'x4'x8' GALLERY BY CONNECTICUT PRECAST CORP., MONROE, CONNECTICUT, OR APPROVED EQUAL.
2. CONCRETE 4000 PSI MINIMUM STRENGTH AT 28 DAYS.
3. STEEL REINFORCEMENT ASTM A-615, GRADE 60.
4. DESIGN LOADING MUST MEET AASHTO HS20-44.

4 'x 2' x 8' PRECAST GALLEY
NO SCALE

Day Street Building B

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

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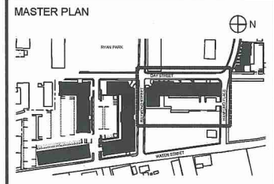
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



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PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

INFILTRATION SYSTEM DETAILS

C4.3

09/19/2013

PROJECT TEAM:

OWNER/DEVELOPER:
TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP
75 FEDERAL STREET, 4TH FLOOR, BOSTON, MA, 02115
(617) 720-8400
&
THE NORWALK HOUSING AUTHORITY
24 1/2 MONROE STREET, NORWALK, CT, 06854
(203) 838-8471

ARCHITECT:
ICON ARCHITECTURE, INC
38 CHAUNCY STREET, BOSTON, MA 02111
(617) 451-3333

CIVIL ENGINEER:
TIGHE & BOND
100 BRIDGEPORT AVENUE SUITE 320
SHELTON, CT, 06484
(203) 712-1100

MECHANICAL / FIRE PROTECTION, ELECTRICAL / TEL/DATA ENGINEER:
CENTEK ENGINEERING, INC
63-2 NORTH BRANFORD ROAD, BRANFORD, CT 06405
(203) 488-0580

STRUCTURAL ENGINEER:
GNCB CONSULTING ENGINEERS
130 ELM STREET, OLD SAYBROOK, CT, 06475
(860) 388-1224

LANDSCAPE ARCHITECT:
ERIC RAINS LANDSCAPE ARCHITECTURE
33 NORTH WATER STREET, SOUTH NORWALK, CT, 06854
(203) 853-7600

Hanford Place

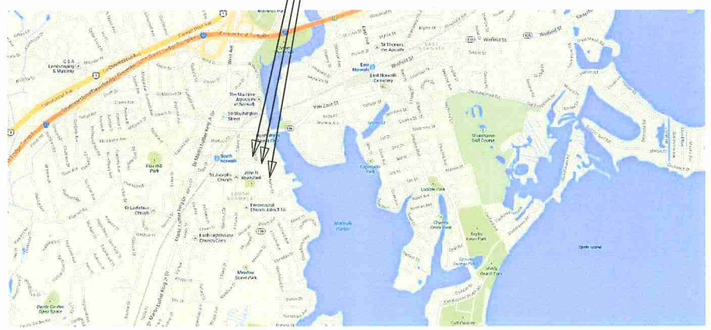
Building A

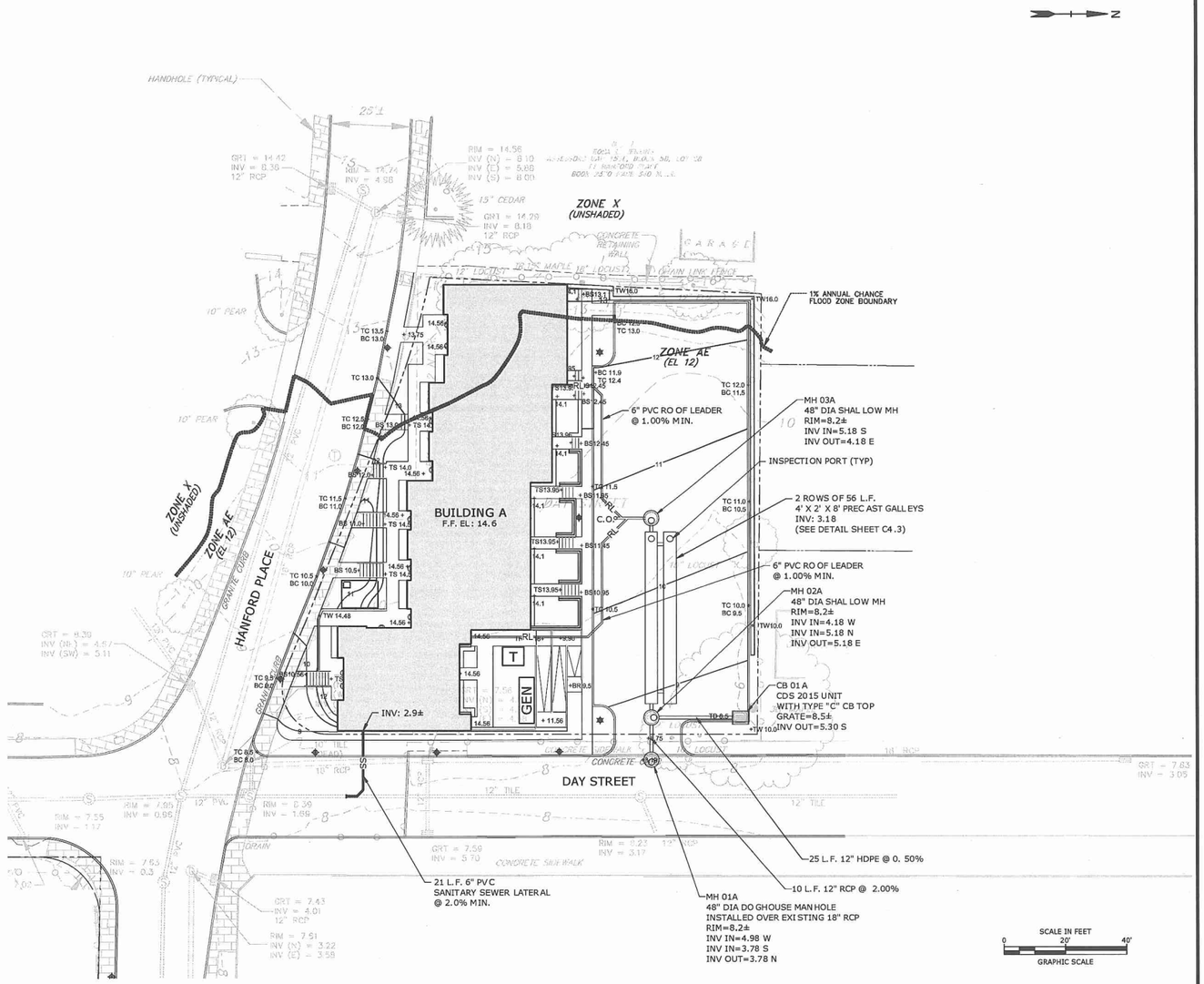
South Norwalk, CT

CITY SUBMISSION
September 19, 2013

CIVIL DRAWINGS

HANFORD PLACE - BUILDING A
DAY STREET - BUILDING B
WASHINGTON VILLAGE - BUILDINGS, C,D & E





SITE STORM AND SANITARY SEWER PLAN NOTES

1. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
2. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY , TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES P.C., DATED SEPTEMBER 4, 2013.
3. THE CONTRACTOR SHALL OBTAIN A CITY OF NORWALK EXCAVATION PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN CITY RIGHT-OF-WAY.
4. ANY AND ALL WORK PERFORMED ON THE CITY OF NORWALK RIGHT-OF-WAY SHALL BE REQUIRED TO MEET THE CITY STANDARDS.
5. THE GENERAL CONTRACTOR SHALL PROVIDE FIELD ENGINEERING SERVICES TO ESTABLISH AND RECORD GRADES, LINES, AND ELEVATIONS.
6. THE CONTRACTOR SHALL ADJUST THE TOP OF FRAME/GRATE ELEVATIONS OF ALL EXISTING AND PROPOSED SANITARY/STORM/WATER MANHOLES, CATCH BASINS, AREA DRAINS, VALVE COVERS AND APPURTENANCES, WITHIN THE PROJECT LIMIT LINE TO MEET THE PROPOSED GRADES.
7. THE CONTRACTOR SHALL COORIDINATE/VERIFY THE EXACT SIZES, LOCATIONS, ELEVATIONS, OF ALL PROPOSED BUILDING'S UTILITY SERVICES WITH THE PROJECT MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS PRIOR TO ANY CONSTRUCTION OPERATIONS.
8. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR ANY DAMAGED INCURRED DURING EXCAVATION OPERATIONS. ALL EXCAVATION SHALL BE IN CONFORMANCE WITH THE LATEST OSHA REQUIREMENTS.
9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK DONE BY THE RESPECTIVE UTILITY COMPANIES.
10. ALL DRIVEWAYS, ROADS, STAIRS, AND SIDEWALKS DISTURBED BY THE CONSTRUCTION IN OR OUTSIDE THE PROJECT LIMIT LINE SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET THE PROPOSED CONSTRUCTION AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
11. ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND IS NOT PROVIDED WITH A SPECIFIC SITE IMPROVEMENT (PAVING, SIDEWALK, LANDSCAPING, ETC.) SHALL HAVE 4" TOPSOIL AND TURF ESTABLISHMENT IN ACCORDANCE WITH THE PROJECT LANDSCAPE SPECIFICATIONS.
12. THE LOCATIONS OF ITEMS NOT DIMENSIONED ON THE DRAWINGS SHALL BE FIELD STAKED BY THE CONTRACTOR AND THEIR LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
13. INSTALL CLEANOUT TO GRADE 5' OFF FACE OF BUILDING ON ALL SANITARY LATERALS.
14. THE MANHOLE FRAME AND COVER SHALL BE CENTERED ON THE PRECAST OPENING. UNDER NO CIRCUMSTANCES WILL AN OFFSET FRAME AND COVER BE ACCEPTABLE. PRIOR TO FINAL PAVING, THE CONTRACTOR SHALL CHECK ALL MANHOLE STRUCTURES TO ASSURE THE FRAME AND COVER IS CENTERED ON THE PRECAST OPENING. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL WORK REQUIRED TO CENTER FRAME AND COVER.
15. INSTALL "FERNCO" STYLE FLEXIBLE COUPLINGS AT ALL LOCATIONS WHERE JOINING PIPES OF DIFFERENT MATERIALS AND/OR SIZES PER MANUFACTURER'S RECOMANDATIONS.
16. ALL PIPES AND FITTINGS SPECIFIED AS HDPE SHALL BE ADS N-12 WT (WATERTIGHT) PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, HILLIARD, OHIO.

SITE STORM AND SANITARY SEWER PLAN LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
100 YEAR FLOOD LINE		
MINOR CONTOUR	115	115
MAJOR CONTOUR	120	120
SPOT ELEVATION	x 12.4	x 120.12
EDGE OF PAVEMENT		
CURB LINE		
RETAINING WALL		
CONCRETE WALK		
BUILDING		
TEST PIT		TP
STORM SEWER	12" RCP	
STORM MANHOLE	D	
CATCH BASIN		
SANITARY SEWER	12" PVC	
SANITARY LATERAL	8" VCP	
SANITARY MANHOLE	S	S
LIGHT POLE		

Hanford Place Building A

Norwalk, CT

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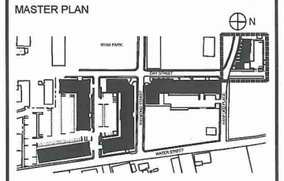
MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: APW
CHECKED BY: EWL

SHEET TITLE

SITE STORM AND SANITARY SEWER PLAN

C1.1

Sep 19, 2013-1:05pm Plotted By: apw
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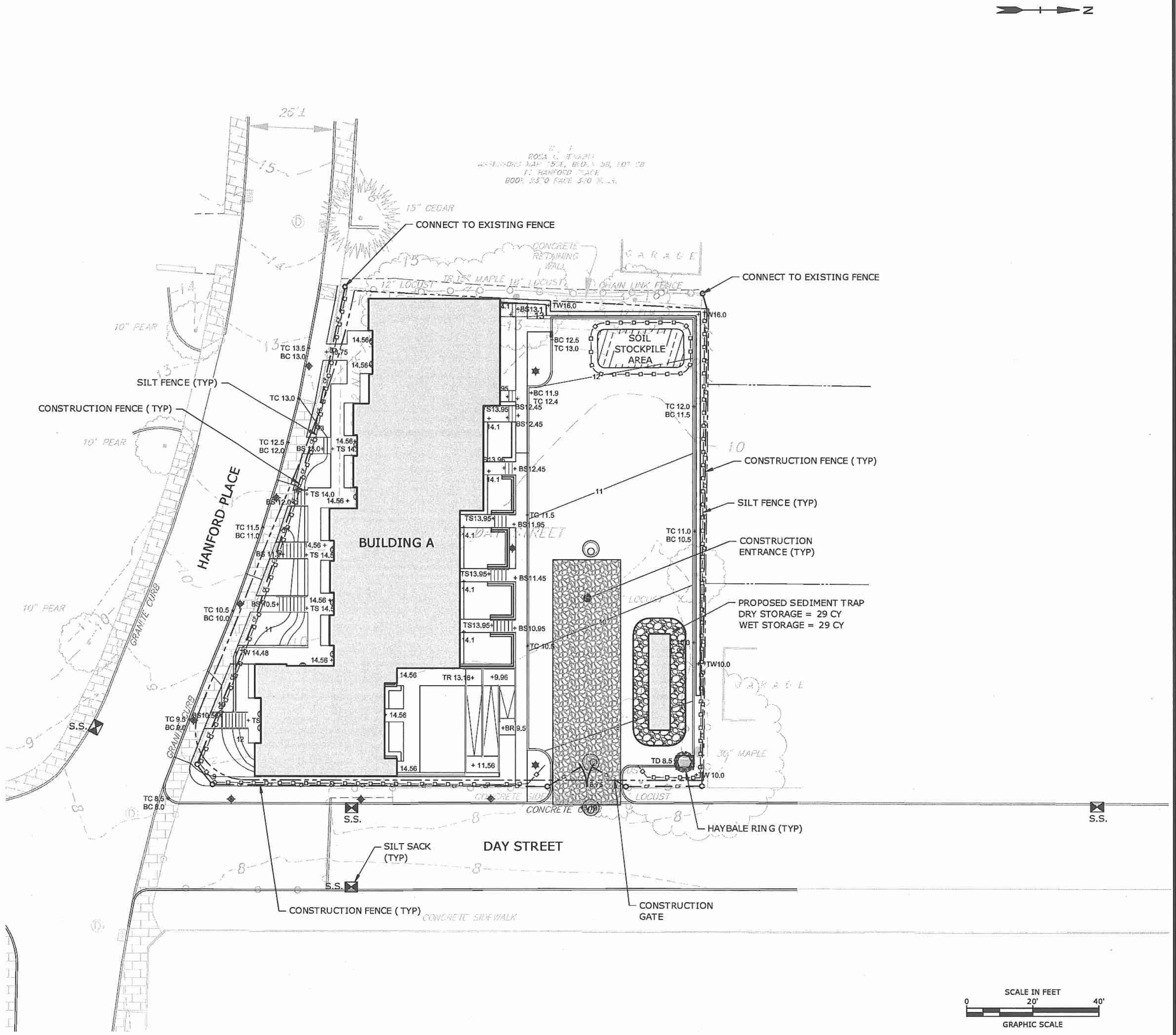

SITE SOIL EROSION AND SEDIMENTATION CONTROL PLAN NOTES

1. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY , TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES P.C., DATED SEPTEMBER 4, 2013.
2. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATION.
3. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
4. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" DEP BULLETIN NO 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION.
5. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND ELSEWHERE AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
7. ALL CATCH BASINS SHALL BE PROTECTED WITH SILT SACKS, HAYBALE RING, SILT FENCE OR BLOCK AND STONE INLET PROTECTION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
8. WHEREVER POSSIBLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
9. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING CONSTRUCTION PERIOD AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
10. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
11. SEDIMENT REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
13. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE/HAYBALES AND ANTI-TRACKING CRUSHED STONE ON-SITE FOR EMERGENCY REPAIRS.
14. THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
15. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND CLEANED TO PREVENT THE BUILD-UP OF SILT.
16. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE PLACEMENT OF EROSION CONTROL MEASURES WITH THE PHASING OF CONSTRUCTION.
17. KEEP ALL PAVED ROADWAYS CLEAN. SWEEP BEFORE FORECASTED STORMS OR WEEKLY AS NECESSARY.
18. TREAT ALL UNPAVED SURFACES WITH 4" MINIMUM OF TOPSOIL AND SEEDING PRIOR TO FINAL STABILIZATION.
19. HAYBALE BARRIERS AND SILT FENCING SHALL BE INSTALLED ALONG THE TOE OF CRITICAL CUT AND FILL SLOPES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR THE CITY OF NORWALK.
20. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
21. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE CHECKED WEEKLY AND AFTER EACH RAINFALL EVENT. NECESSARY REPAIRS SHALL BE MADE WITHOUT DELAY.
22. PRIOR TO ANY FORECASTED RAINFALL, EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY A QUALIFIED INSPECTOR AND REPAIRED AS NECESSARY.
23. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, EROSION CONTROLS MAY BE REMOVED ONCE AUTHORIZATION TO DO SO HAS BEEN SECURED FROM THE CITY OF NORWALK. DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
24. CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.
25. SEE DRAWING C3.2 FOR SOIL EROSION CONTROL NARRATIVE AND DETAILS.

SITE SOIL EROSION AND SEDIMENTATION CONTROL PLAN LEGEND

- PROPERTY LINE
- SILT SACK (S.S.)
- HAYBALE
- CONSTRUCTION ENTRANCE
- SILT FENCE
- CONSTRUCTION FENCE
- CONSTRUCTION GATE
- HAYBALE BARRIER
- TEMPORARY SOIL STOCKPILE AREA

Hanford Place Building A

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

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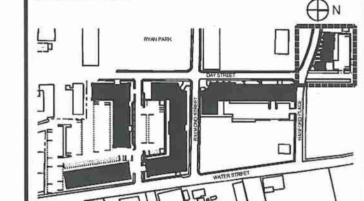
CONSULTANT
Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: APW
CHECKED BY: EWL

SHEET TITLE

SITE SOIL EROSION AND SEDIMENT CONTROL PLAN

C3.1

Sep 19, 2013-1:06pm Plotted By: apw
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SOIL EROSION AND SEDIMENTATION CONTROL NARRATIVE

THE PROJECT PROPOSES TO CONSTRUCT A 10 UNIT RESIDENTIAL BUILDING IN NORWALK, CT. THE PROJECT SITE IS BOUNDED BY HANFORD PLACE TO THE SOUTH, DAY STREET TO THE EAST, # 11 HANFORD PLACE TO THE WEST, #10, #12 AND # 14 ELIZABETH STREET TO THE NORTH.

THE PROPOSED PROJECT WILL INCLUDE THE CONSTRUCTION OF THE RESIDENTIAL BUILDING, A 20 CAR PARKING LOT, RETAINING WALLS, CURBING, SIDEWALKS, LANDSCAPE AND LIGHTING. PROPOSED BUILDING UTILITIES SUCH AS DOMESTIC WATER, FIRE PROTECTION, TELECOMMUNICATIONS, ELECTRICAL, NATURAL GAS, AND SANITARY SEWER WILL BE PROVIDED FROM EXISTING MAINS LOCATED IN DAY STREET AND HANFORD PLACE.

STORMWATER MANAGEMENT WILL BE ACCOMMODATED ON-SITE. SURFACE RUNOFF WILL BE COLLECTED AND CONVEYED INTO A WATER QUALITY STRUCTURE AND AN UNDERGROUND INFILTRATION SYSTEM THAT WILL TREAT THE WATER QUALITY VOLUME AND PROVIDE POLLUTANT REMOVAL IN ACCORDANCE WITH THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL.

THE PROJECT IS PROPOSED TO BE CONSTRUCTED IN A SINGLE PHASE. APPROXIMATELY 0.49 ACRES WILL BE DISTURBED.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE STANDARDS OUTLINED IN THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CTDEEP), "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", LATEST REVISION.

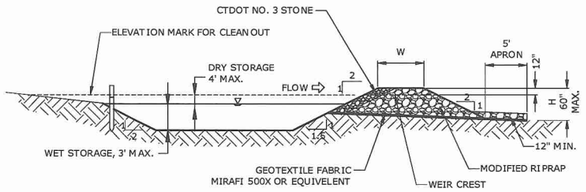
CONSTRUCTION SEQUENCE

GENERAL

1. THE PROPOSED DEVELOPMENT IS ENTITLED "HANFORD PLACE BUILDING A"
2. ESTIMATED PROJECT TIMELINE:
   - PROJECT START: SPRING 2014
   - PROJECT COMPLETION: SPRING 2015
3. THE SITE IS LOCATED AT 13 DAY STREET NORWALK, CONNECTICUT.

CONSTRUCTION SEQUENCE

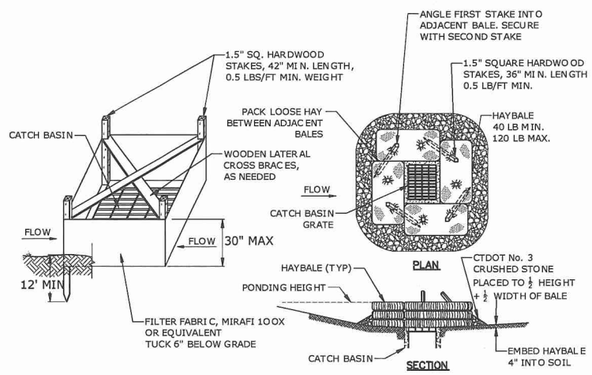
1. FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING.
2. HOLD PRECONSTRUCTION MEETING WITH THE CITY, THE OWNERS REPRESENTATIVE AND THE ENGINEER. (REMEMBER TO CALL BEFORE YOU DIG 1-800-922-4455).
3. FLAG REMAINDER OF THE LIMITS OF CONSTRUCTION AND TREE PROTECTION ZONES.
4. INSTALL THE CONSTRUCTION ENTRANCE.
5. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION DEVICES IN ACCORDANCE WITH THE SESC PLAN.
6. CUT ANY TREES WITHIN THE DEFINED CLEARING LIMITS AND REMOVE CUT WOOD. CHIP BRUSH AND SLASH, STOCKPILE CHIPS FOR FUTURE USE OR REMOVE OFF SITE.
7. CONSTRUCT SETTLING BASINS AND/OR SUMP PITS, AS REQUIRED.
8. STRIP AND STOCKPILE ALL TOPSOIL THAT IS WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE AND REFERENCE STOCKPILE MANAGEMENT FOR EROSION AND SEDIMENT CONTROLS. (SEE 2002 CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL CHAPTER 4, PART II ON STOCKPILE MANAGEMENT). EITHER REMOVE TREE STUMPS TO AN APPROVED DISPOSAL SITE OR CHIP IN PLACE AS INDICATED ON THE PLANS.
9. MAKE ALL CUTS AND FILLS REQUIRED. ESTABLISH THE SUBGRADE FOR THE TOPSOIL AREAS, AND PARKING AS REQUIRED AND BENCH THE BUILDING TO A SUBGRADE. ALLOW A REASONABLE AMOUNT OF AREA AROUND THE FOOTPRINT OF THE BUILDING FOR THE CONSTRUCTION ACTIVITIES.
10. BEGIN CONSTRUCTION OF THE BUILDING.
11. PRIOR TO INSTALLING SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.
12. INSTALL ALL SANITARY SEWERS, DRAINAGE SYSTEMS AND UTILITIES TO WITHIN 5 FEET OF THE BUILDING OR AS OTHERWISE MODIFIED BY THE DESIGN ENGINEER TO ADJUST FOR UNFORESEEN SITE CONDITIONS.
13. PREPARE SUB-BASE, SLOPES, PARKING AREAS AND ANY OTHER AREA OF DISTURBANCE FOR FINAL GRADING.
14. INSTALL PROCESS AGGREGATE IN PARKING AREAS.
15. PLACE TOPSOIL WHERE REQUIRED. COMPLETE THE PERIMETER LANDSCAPE PLANTINGS.
16. FINE GRADE, RAKE, SEED AND MULCH TO WITHIN 2 FEET OF THE CURBING.
17. UPON SUBSTANTIAL COMPLETION OF THE BUILDING, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS. INSTALL FIRST COURSE OF PAVING.
18. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE FINAL COURSE OF PAVING. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
19. INSTALL FINAL COURSE OF PAVEMENT.
20. AFTER SITE IS STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS (E.G. GEOTEXTILE SILT FENCES).



NOTE: NON-OVERFLOW PORTIONS AND ABUTMENTS MAYBE CONSTRUCTED OF COMPACTED EARTH FILL.

TEMPORARY SEDIMENT TRAP
NO SCALE

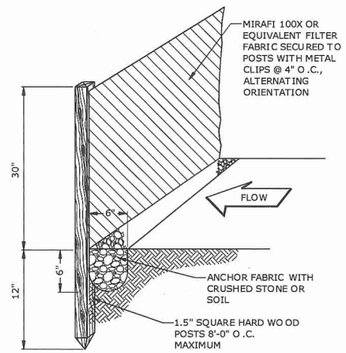
TOP WIDTH VS. HEIGHT	
H(ft)	W(ft)
1.5	2.0
2.0	2.0
2.5	2.5
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5



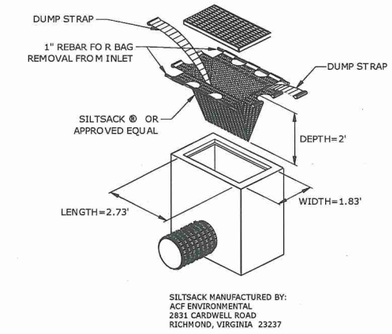
SILT FENCE INSTALLATION AT CATCH BASIN AT LOW POINTS

HAYBALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS

CATCH BASIN EROSION CONTROL
NO SCALE

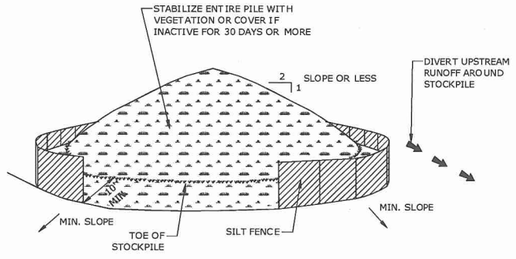


SILT FENCE
NO SCALE



SILTSACK MANUFACTURED BY:
ACF ENVIRONMENTAL
2831 CARDWELL ROAD
RICHMOND, VIRGINIA 23237

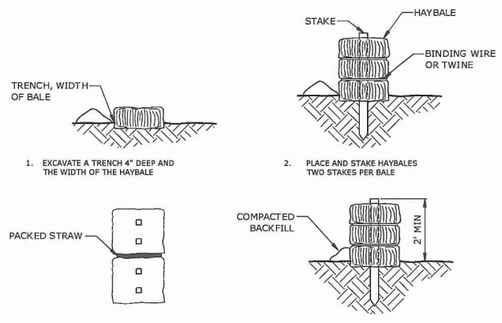
SILTSACK ®
NO SCALE



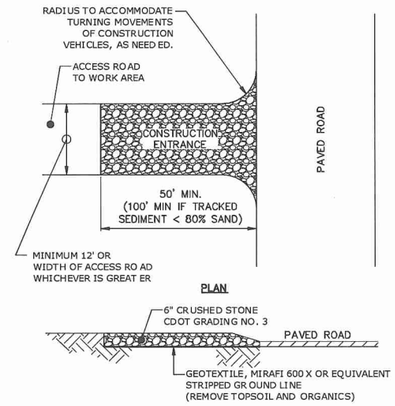
INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H :1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAYBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

SOIL STOCKPILE DETAIL
NO SCALE



PLACEMENT AND CONSTRUCTION
OF HAYBALE BARRIER
NO SCALE



ELEVATION
CONSTRUCTION ENTRANCE
NO SCALE

Hanford Place Building A

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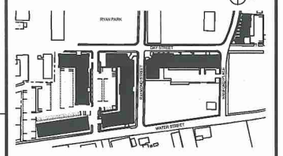
MASTER PLAN



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1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS

C3.2

09/19/2013

Sep 19, 2013 - 1:07pm Plotted By: pjw
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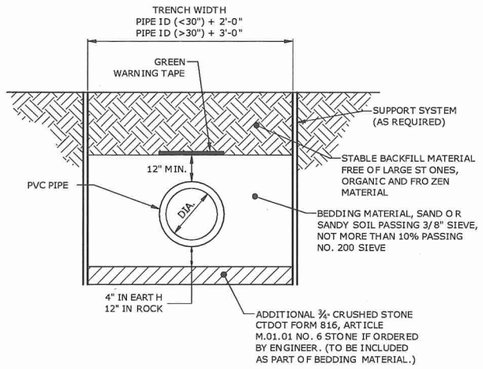
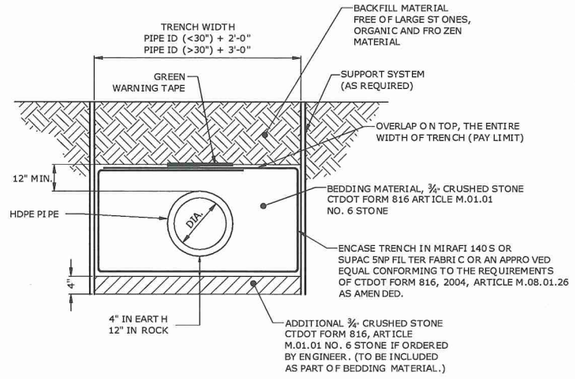


P.V.C. TRENCH BEDDING
NO SCALE



HDPE TRENCH BEDDING
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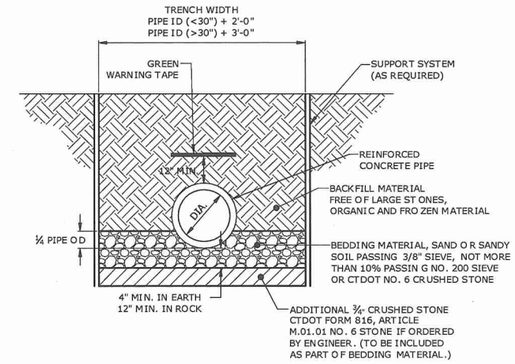
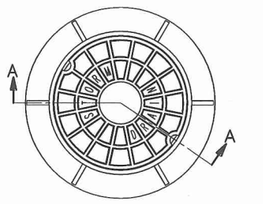


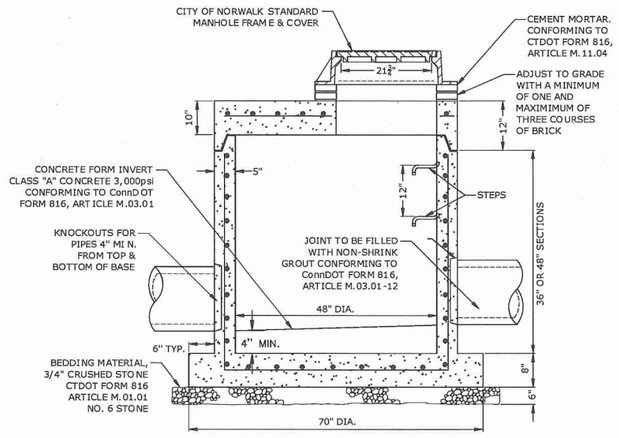
CIRCULAR R.C.P. TRENCH BEDDING
NO SCALE



SECTION A–A

NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATTERN # 1007D AS MANUFACTURED BY THE CAMPBELL FOUNDRY COMPANY OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

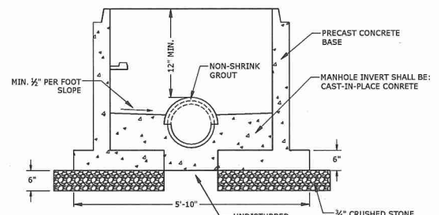
CITY OF NORWALK
MANHOLE FRAME AND COVER
NO SCALE



NOTES

1. REINFORCING ASTM A185 AREA 48 " DIA. 0.12 SQ. IN./V.F., AREA 60" DIA. 0. 17 SQ. IN./V.F. REINFORCE BELL & SPIGOT.
2. CONCRETE COMPRESSIVE STRENGTH: 5,000 psi - 28 DAYS
3. MANHOLE STEP TO CONFORM TO OSHA AND ASTM SPECIFICATIONS.
4. MONOLITHIC BASE SECTION.

48" DIA. SHALLOW MANHOLE
NO SCALE



NOTES:

1. MINIMUM 4' DIAMETER MANHOLE.
2. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE EXISTING PIPE.
4. TOP HALF OF EXISTING PIPE TO BE REMOVED FOR FULL LENGTH EXPOSED INSIDE MANHOLE. EXISTING MAIN TO BE NEATLY CUT ALONG THE SPRING LINE OF THE PIPE.
5. SEE STORM MANHOLE DETAIL FOR ADDITIONAL INFORMATION.

STORM DRAINAGE
DOGHOUSE MANHOLE BASE
NO SCALE

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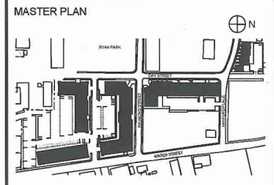

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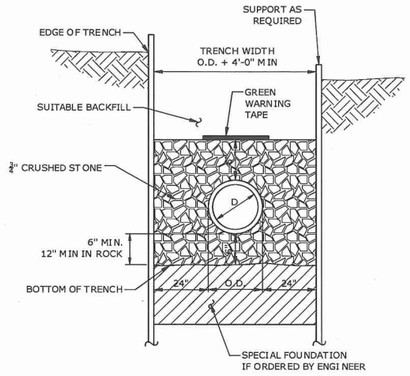
CHECKED BY: EWL

SHEET TITLE

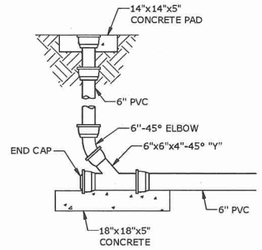
STORM DRAINAGE DETAILS

C4.1

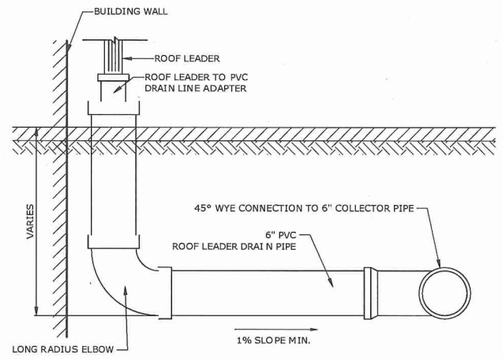
09/19/2013



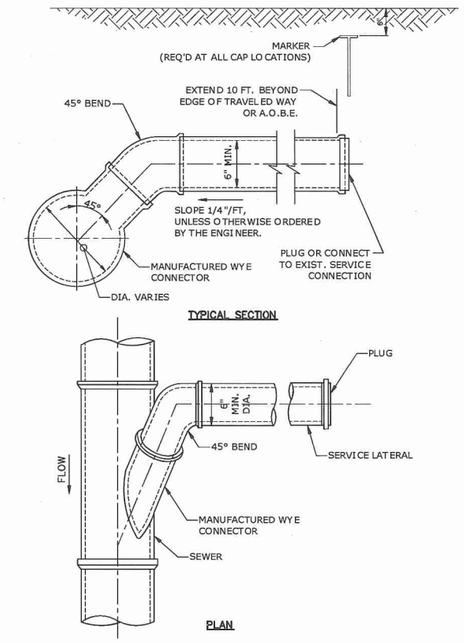
TYPICAL SANITARY SEWER TRENCH SECTION
NO SCALE



CLEAN-OUT DETAIL
NO SCALE



ROOF LEADER DRAIN LINE
NO SCALE



STANDARD SERVICE LATERAL CONNECTION
NO SCALE

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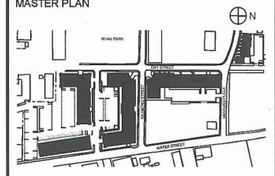

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SHEET TITLE

STORM AND SANITARY DETAILS

C4.2

09/19/2013

Sep 19, 2013-1:07pm Plotted By: apw
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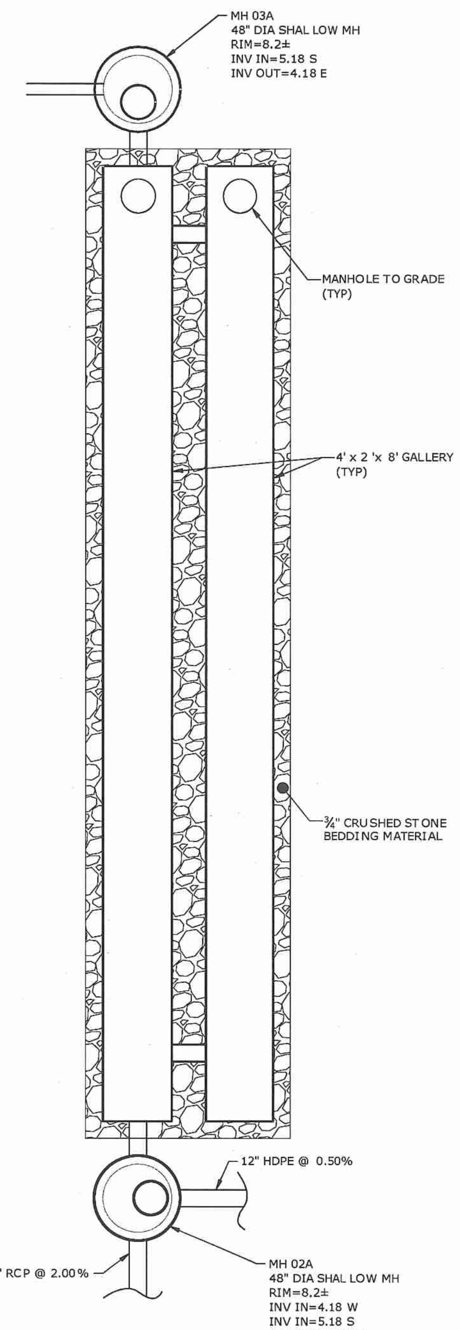
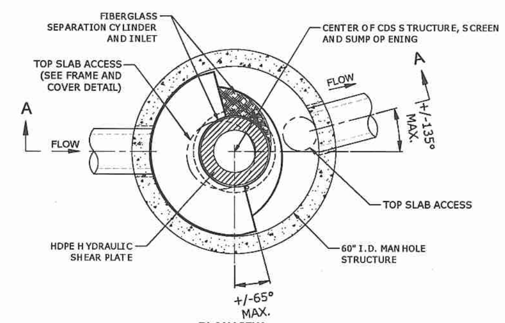
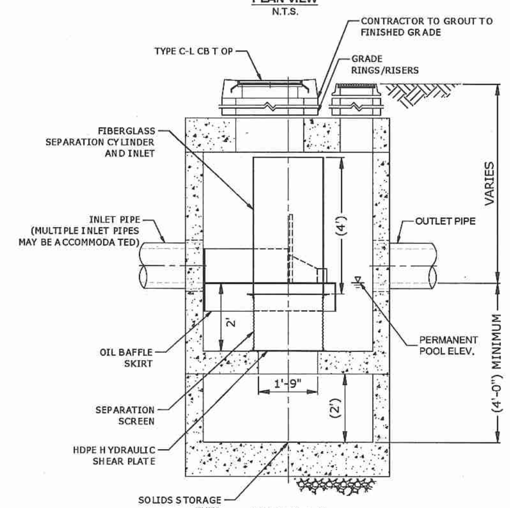


INFILTRATION SYSTEM DETAIL
SCALE: 1" = 5'



PLAN VIEW
N.T.S.



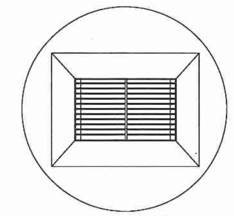
SECTION A-A
N.T.S.

CDS2015 DESIGN NOTES

CDS2015 RATED TREATMENT CAPACITY IS 0.7 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS. IF THE SITE CONDITIONS EXCEED 14.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2015 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION
G	GRATED INLET ONLY (NO INLET PIPE)
GP	GRATED INLET WITH INLET PIPE OR PIPES
K	CURB INLET ONLY (NO INLET PIPE)
KP	CURB INLET WITH INLET PIPE OR PIPES
B	SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			CB 01A
WATER QUALITY FLOW RATE (CFS)			0.395
PEAK FLOW RATE (CFS)			1.34 CFS
RETURN PERIOD OF PEAK FLOW (YRS)			25
SCREEN APERTURE (2400 OR 4700)			2400
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	N/A	N/A	N/A
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	5.30	HDPE	12"
RIM ELEVATION			8.5'±
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	N/A	N/A	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

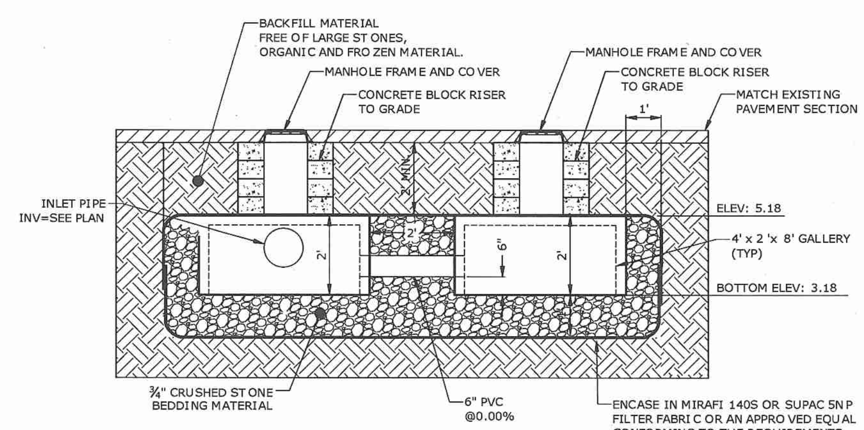
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. www.contechstormwater.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.
6. HDPE HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
7. ANY CATCH BASINS CONSTRUCTED, MODIFIED OR DISTURBED IN ANY FASHION SHALL HAVE "NO DUMPING" CURB MARKER APPLIED TO CATCH BASIN TOP OR CURB NEXT TO GRATE.USING ADHESIVE PROVIDED BY THE CITY FOLLOWING INSTALLATION DIRECTIONS PROVIDED BY THE MANUFACTURER.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

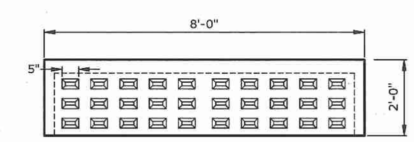
CONTECH STORMWATER SOLUTIONS contechstormwater.com

CDS2015
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL

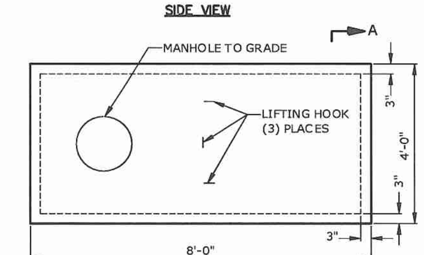
WATER QUALITY STRUCTURE (CB 01A)
SCALE: NTS



SECTION – TWO ROW CONFIGURATION



SIDE VIEW



TOP VIEW

SPECIFICATIONS:
1. GALLERY TO BE 4'x4'x8' GALLERY BY CONNECTICUT PRECAST CORP., MONROE, CONNECTICUT, OR APPROVED EQUAL.
2. CONCRETE 4000 PSI MINIMUM STRENGTH AT 28 DAYS.
3. STEEL REINFORCEMENT ASTM A-615, GRADE 60.
4. DESIGN LOADING MUST MEET AASHTO HS20-44.

4 'x 2' x 8' PRECAST GALLEY
NO SCALE

Hanford Place Building A

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

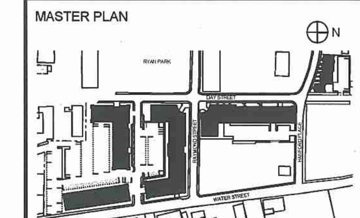
ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION
1	9-19-2013	SPECIAL PERMIT/CAM SUBMISSION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

INFILTRATION SYSTEM DETAILS

C4.3

09/19/2013

PROJECT TEAM:

OWNER/DEVELOPER:
TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP
75 FEDERAL STREET, 4TH FLOOR, BOSTON, MA, 02115
(617) 720-8400
&
THE NORWALK HOUSING AUTHORITY
24 1/2 MONROE STREET, NORWALK, CT, 06854
(203) 838-8471

ARCHITECT:
ICON ARCHITECTURE, INC
38 CHAUNCY STREET, BOSTON, MA 02111
(617) 451-3333

CIVIL ENGINEER:
TIGHE & BOND
100 BRIDGEPORT AVENUE SUITE 320
SHELTON, CT, 06484
(203) 712-1100

MECHANICAL / FIRE PROTECTION, ELECTRICAL / TEL/DATA ENGINEER:
CENTEK ENGINEERING, INC
63-2 NORTH BRANFORD ROAD, BRANFORD, CT 06405
(203) 488-0580

STRUCTURAL ENGINEER:
GNCB CONSULTING ENGINEERS
130 ELM STREET, OLD SAYBROOK, CT, 06475
(860) 388-1224

LANDSCAPE ARCHITECT:
ERIC RAINS LANDSCAPE ARCHITECTURE
33 NORTH WATER STREET, SOUTH NORWALK, CT, 06854
(203) 853-7600

Washington Village

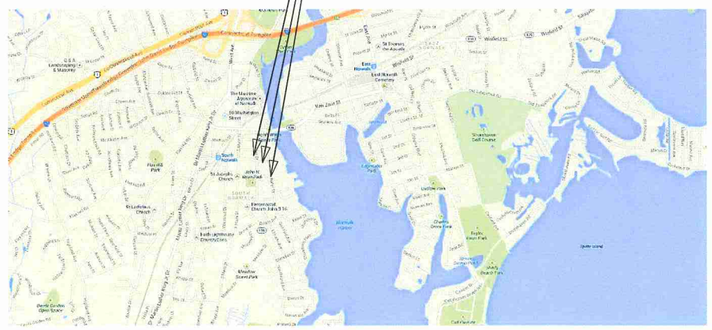
Building C, D & E

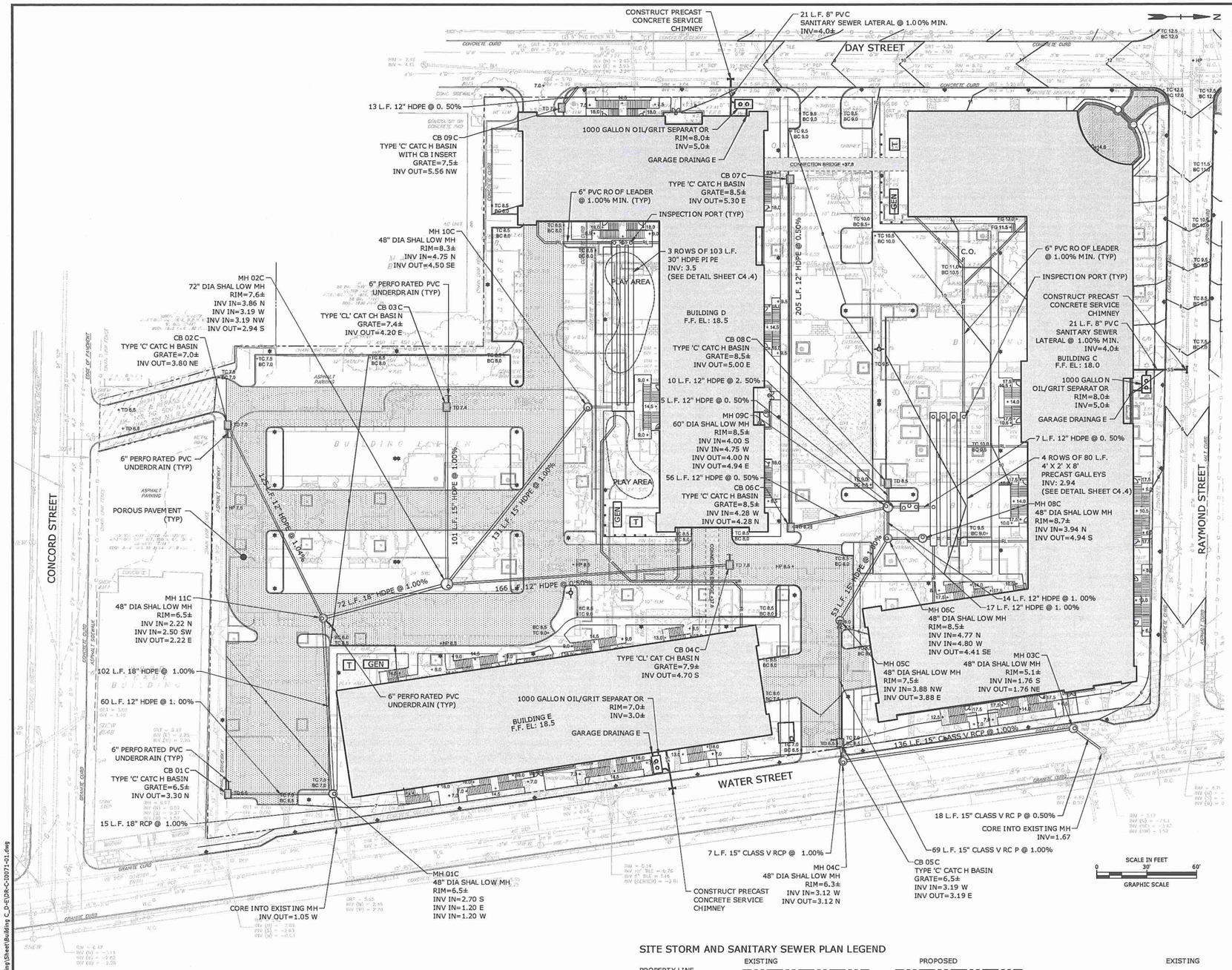
South Norwalk, CT

CITY SUBMISSION
September 19, 2013

CIVIL DRAWINGS

HANFORD PLACE - BUILDING A
DAY STREET - BUILDING B
WASHINGTON VILLAGE - BUILDINGS, C,D & E





SITE STORM AND SANITARY SEWER PLAN NOTES

1. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
2. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY , TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES P.C., DATED SEPTEMBER 4, 2013.
3. THE CONTRACTOR SHALL OBTAIN A CITY OF NORWALK EXCAVATION PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN CITY RIGHT-OF-WAY.
4. ANY AND ALL WORK PERFORMED ON THE CITY OF NORWALK RIGHT-OF-WAY SHALL BE REQUIRED TO MEET THE CITY STANDARDS.
5. THE GENERAL CONTRACTOR SHALL PROVIDE FIELD ENGINEERING SERVICES TO ESTABLISH AND RECORD GRADES, LINES, AND ELEVATIONS.
6. THE CONTRACTOR SHALL ADJUST THE TOP OF FRAME/GRATE ELEVATIONS OF ALL EXISTING AND PROPOSED SANITARY/STORM/WATER MANHOLES, CATCH BASINS, AREA DRAINS, VALVE COVERS AND APPURTENANCES, WITHIN THE PROJECT LIMIT LINE TO MEET THE PROPOSED GRADES.
7. THE CONTRACTOR SHALL COORDINATE/VERIFY THE EXACT SIZES, LOCATIONS, ELEVATIONS, OF ALL PROPOSED BUILDING'S UTILITY SERVICES WITH THE PROJECT MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS PRIOR TO ANY CONSTRUCTION OPERATIONS.
8. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR ANY DAMAGED INCURRED DURING EXCAVATION OPERATIONS. ALL EXCAVATION SHALL BE IN CONFORMANCE WITH THE LATEST OSHA REQUIREMENTS.
9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK DONE BY THE RESPECTIVE UTILITY COMPANIES.
10. ALL DRIVEWAYS, ROADS, STAIRS, AND SIDEWALKS DISTURBED BY THE CONSTRUCTION IN OR OUTSIDE THE PROJECT LIMIT LINE SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET THE PROPOSED CONSTRUCTION AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
11. ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND IS NOT PROVIDED WITH A SPECIFIC SITE IMPROVEMENT (PAVING, SIDEWALK, LANDSCAPING, ETC.) SHALL HAVE 4" TOPSOIL AND TURF ESTABLISHMENT IN ACCORDANCE WITH THE PROJECT LANDSCAPE SPECIFICATIONS.
12. THE LOCATIONS OF ITEMS NOT DIMENSIONED ON THE DRAWINGS SHALL BE FIELD STAKED BY THE CONTRACTOR AND THEIR LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
13. INSTALL CLEANOUT TO GRADE 5' OFF FACE OF BUILDING ON ALL SANITARY LATERALS.
14. THE MANHOLE FRAME AND COVER SHALL BE CENTERED ON THE PRECAST OPENING. UNDER NO CIRCUMSTANCES WILL AN OFFSET FRAME AND COVER BE ACCEPTABLE. PRIOR TO FINAL PAVING, THE CONTRACTOR SHALL CHECK ALL MANHOLE STRUCTURES TO ASSURE THE FRAME AND COVER IS CENTERED ON THE PRECAST OPENING. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL WORK REQUIRED TO CENTER FRAME AND COVER.
15. INSTALL "FERNCO" STYLE FLEXIBLE COUPLINGS AT ALL LOCATIONS WHERE JOINING PIPES OF DIFFERENT MATERIALS AND/OR SIZES PER MANUFACTURER'S RECOMANDATIONS.
16. ALL PIPES AND FITTINGS SPECIFIED AS HDPE SHALL BE ADS N-12 WT (WATERTIGHT) PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, HILLIARD, OHIO.
17. THE CONTRACTOR SHALL MAINTAIN EXISTING STORM SEWER FLOWS BY PUMPING OR OTHER MEANS APPROVED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION OF THE PROPOSED STORM SEWER IN LOCATIONS WHERE STORM SEWER ARE BEING INSTALLED, REPLACED OR RELOCATED.
18. THE CONTRACTOR SHALL MAINTAIN SANITARY SEWER FLOWS BY PUMPING OR OTHER MEANS APPROVED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION OF THE PROPOSED SANITARY SEWER IN LOCATIONS WHERE SEWERS ARE BEING INSTALLED, REPLACED OR RELOCATED.

SITE STORM AND SANITARY SEWER PLAN LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MINOR CONTOUR	115	115
MAJOR CONTOUR	120	120
SPOT ELEVATION	× 115	× 120.12
EDGE OF PAVEMENT		
CURB LINE		CONC. CURB / BIT. CURB
RETAINING WALL		
CONCRETE WALK		

	EXISTING	PROPOSED
BUILDING		
STORM SEWER	12" STORM	
STORM MANHOLE		
CATCH BASIN		
SANITARY SEWER	10" SANITARY	
SANITARY LATERAL	6" SANI	
SANITARY MANHOLE		
LIGHT POLES		
POROUS PAVEMENT		

Washington Village Buildings C, D, E

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

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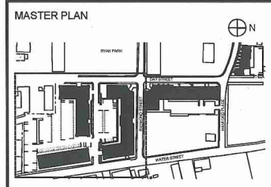
STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

PROJECT NO.: I0071
DRAWN BY: APW
CHECKED BY: EWL

SHEET TITLE

SITE STORM AND SANITARY SEWER PLAN

C1.1

Sep 19, 2013-1:32pm Plotted By: apw
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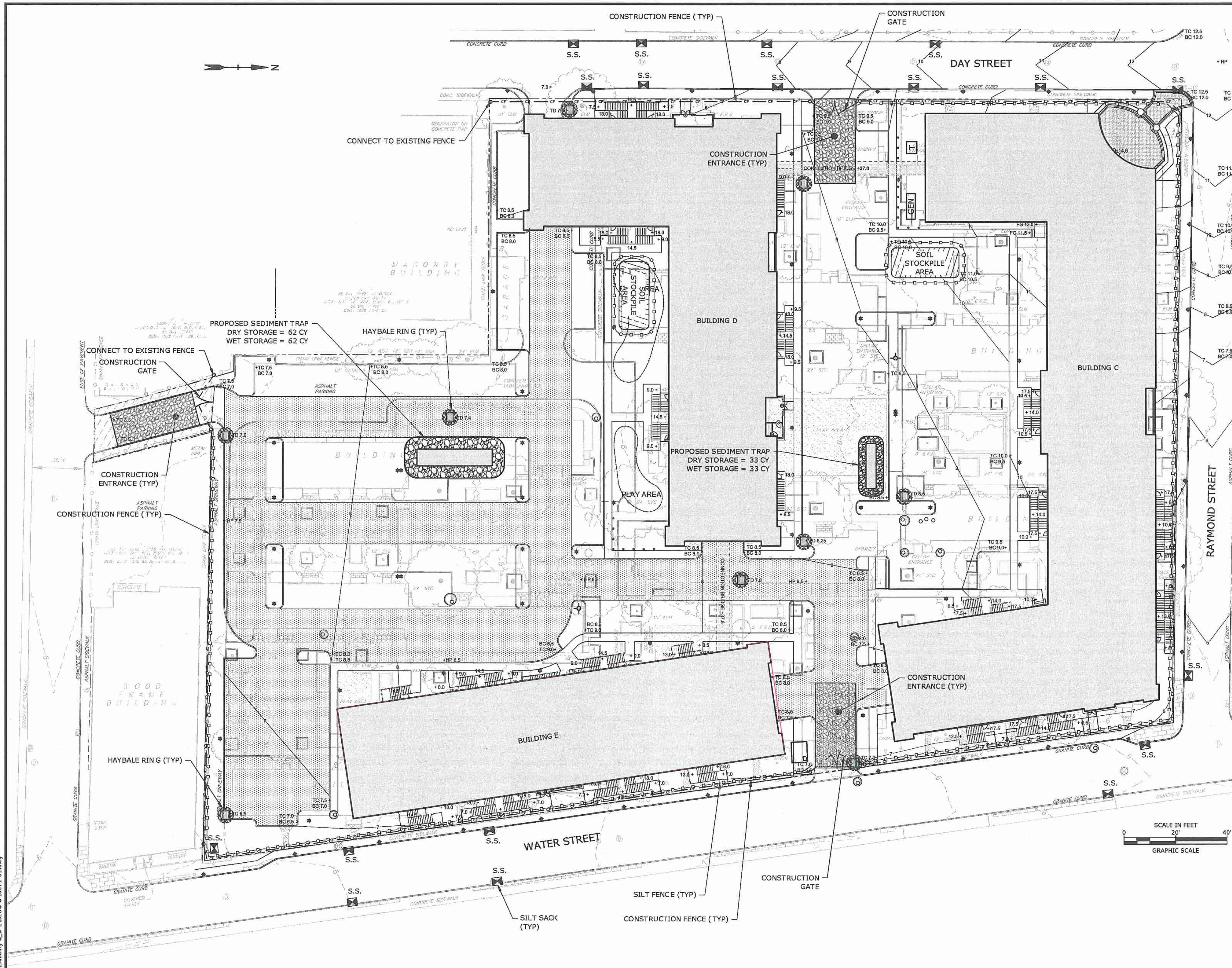
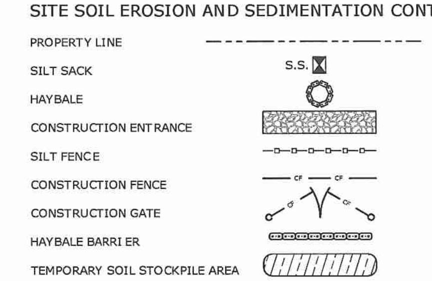


SITE SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES

1. REFERENCE IS MADE TO PLAN ENTITLED "PROPERTY, TOPOGRAPHIC & ALTA/ACSM LAND TITLE SURVEY SHEET 1 OF 3 SHEETS DEPICTING WASHINGTON VILLAGE, 13 & 20 DAY STREET" PREPARED FOR TRINITY WASHINGTON VILLAGE LIMITED PARTNERSHIP AND THE NORWALK HOUSING AUTHORITY, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES DATED SEPTEMBER 4, 2013.
2. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATION.
3. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH IS UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
4. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" DEEP BULLETIN NO 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.
5. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND ELSEWHERE AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
7. ALL CATCH BASINS SHALL BE PROTECTED WITH SILT SACKS, HAYBALE RING, SILT FENCE OR BLOCK AND STONE INLET PROTECTION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
8. WHEREVER POSSIBLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
9. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING CONSTRUCTION PERIOD AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF NORWALK.
10. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
11. SEDIMENT REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
13. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE/HAYBALES AND ANTI-TRACKING CRUSHED STONE ON-SITE FOR EMERGENCY REPAIRS.
14. THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
15. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND CLEANED TO PREVENT THE BUILD-UP OF SILT.
16. KEEP ALL PAVED ROADWAYS CLEAN. SWEEP BEFORE FORECASTED STORMS OR WEEKLY AS NECESSARY.
17. TREAT ALL UNPAVED SURFACES WITH 4" MINIMUM OF TOPSOIL AND SEEDING PRIOR TO FINAL STABILIZATION.
18. HAYBALE BARRIERS AND SILT FENCING SHALL BE INSTALLED ALONG THE TOE OF CRITICAL CUT AND FILL SLOPES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR THE CITY OF NORWALK.
19. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
20. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE CHECKED WEEKLY AND AFTER EACH RAINFALL EVENT BY A QUALIFIED INSPECTOR. NECESSARY REPAIRS SHALL BE MADE WITHOUT DELAY.
21. PRIOR TO ANY FORECASTED RAINFALL, EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED AS NECESSARY .
22. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED; EROSION CONTROLS MAY BE REMOVED ONCE AUTHORIZATION TO DO SO HAS BEEN SECURED FROM THE CITY OF NORWALK. DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
23. CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.
25. SEE DRAWING C3.2 FOR SOIL EROSION CONTROL NARRATIVE AND DETAILS.

SITE SOIL EROSION AND SEDIMENTATION CONTROL PLAN LEGEND



Washington Village Buildings C, D, E

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
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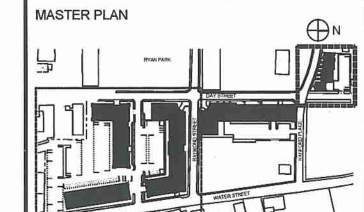
CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

SITE SOIL EROSION AND SEDIMENTATION CONTROL PLAN

C3.1

Sep 19, 2013-1:34pm Plotted By: apw
Tighe & Bond, Inc. J:\I\I0071 Washington Village\Drawing\Sheet\Building C_D-E\ESC-C-I0071-01.dwg

SOIL EROSION AND SEDIMENT CONTROL NARRATIVE

THE PROJECT PROPOSES TO CONSTRUCT 192 UNITS WITHIN THREE RESIDENTIAL BUILDINGS IN NORWALK, CT. THE PROJECT SITE IS BOUNDED BY RAYMOND STREET TO THE NORTH, DAY STREET TO THE WEST, CONCORD STREET TO THE SOUTH, AND WATER STREET TO THE EAST.

THE PROPOSED PROJECT WILL INCLUDE THE CONSTRUCTION OF THE THREE RESIDENTIAL BUILDINGS, 382 PARKING SPACES, RETAINING WALLS, CURBING, SIDEWALKS, LANDSCAPE AND LIGHTING. PROPOSED BUILDING UTILITIES SUCH AS DOMESTIC WATER, FIRE PROTECTION, TELECOMMUNICATIONS, ELECTRICAL, NATURAL GAS, AND SANITARY SEWER WILL BE PROVIDED FROM EXISTING MAINS LOCATED IN DAY STREET, RAYMOND STREET, AND WATER STREET.

STORMWATER MANAGEMENT WILL BE ACCOMMODATED ON-SITE. SURFACE RUNOFF WILL BE COLLECTED AND CONVEYED THROUGH POROUS PAVEMENT OR AN UNDERGROUND INFILTRATION SYSTEM THAT WILL TREAT THE WATER QUALITY VOLUME AND PROVIDE POLLUTANT REMOVAL IN ACCORDANCE WITH THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE STANDARDS OUTLINED IN THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CTDEEP), "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", LATEST REVISION.

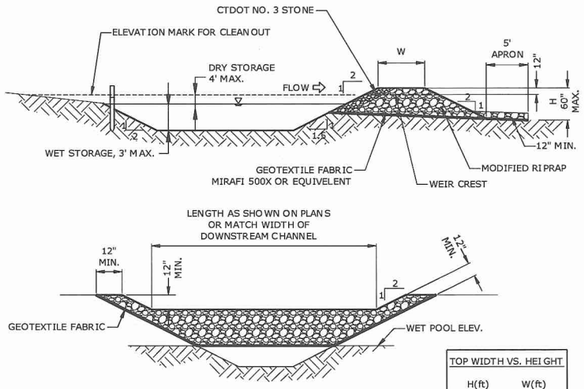
CONSTRUCTION SEQUENCE

GENERAL

1. THE PROPOSED DEVELOPMENT IS ENTITLED "WASHINGTON VILLAGE"
2. ESTIMATED PROJECT TIMELINE:
   - PROJECT START: SPRING 2015
   - PROJECT COMPLETION: SPRING 2017
3. THE SITE IS LOCATED AT THE WASHINGTON VILLAGE IN NORWALK, CONNECTICUT.

CONSTRUCTION SEQUENCE

1. FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING.
2. HOLD PRECONSTRUCTION MEETING. (REMEMBER TO CALL BEFORE YOU DIG 1-800-922-4455).
3. FLAG REMAINDER OF THE LIMITS OF CONSTRUCTION AND TREE PROTECTION ZONES.
4. INSTALL THE CONSTRUCTION ENTRANCE.
5. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION DEVICES IN ACCORDANCE WITH THE SESC PLAN.
6. CUT ANY TREES WITHIN THE DEFINED CLEARING LIMITS AND REMOVE CUT WOOD. CHIP BRUSH AND SLASH, STOCKPILE CHIPS FOR FUTURE USE OR REMOVE OFF SITE.
7. CONSTRUCT SETTLING BASINS AND/OR SUMP PITS, AS REQUIRED.
8. STRIP AND STOCKPILE ALL TOPSOIL THAT IS WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE AND REFERENCE STOCKPILE MANAGEMENT FOR EROSION AND SEDIMENT CONTROLS. (SEE 2002 CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL CHAPTER 4, PART II ON STOCKPILE MANAGEMENT). EITHER REMOVE TREE STUMPS TO AN APPROVED DISPOSAL SITE OR CHIP IN PLACE AS INDICATED ON THE PLANS.
9. MAKE ALL CUTS AND FILLS REQUIRED. ESTABLISH THE SUBGRADE FOR THE TOPSOIL AREAS, AND PARKING AS REQUIRED AND BENCH THE BUILDING TO A SUBGRADE. ALLOW A REASONABLE AMOUNT OF AREA AROUND THE FOOTPRINT OF THE BUILDING FOR THE CONSTRUCTION ACTIVITIES.
10. BEGIN CONSTRUCTION OF THE BUILDING.
11. PRIOR TO INSTALLING SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.
12. INSTALL ALL SANITARY SEWERS, DRAINAGE SYSTEMS AND UTILITIES TO WITHIN 5 FEET OF THE BUILDING OR AS OTHERWISE MODIFIED BY THE DESIGN ENGINEER TO ADJUST FOR UNFORESEEN SITE CONDITIONS.
13. PREPARE SUB-BASE, SLOPES, PARKING AREAS AND ANY OTHER AREA OF DISTURBANCE FOR FINAL GRADING.
14. INSTALL PROCESS AGGREGATE IN PARKING AREAS.
15. PLACE TOPSOIL WHERE REQUIRED. COMPLETE THE PERIMETER LANDSCAPE PLANTINGS.
16. FINE GRADE, RAKE, SEED AND MULCH TO WITHIN 2 FEET OF THE CURBING.
17. UPON SUBSTANTIAL COMPLETION OF THE BUILDINGS, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS. INSTALL FIRST COURSE OF PAVING FOR BITUMINOUS ASPHALT AREAS.
18. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE FINAL COURSE OF PAVING. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
19. INSTALL POROUS PAVEMENT AND FINAL COURSE OF BITUMINOUS ASPHALT PAVEMENT IN REMAINING AREAS.
20. AFTER SITE IS STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS (E.G. GEOTEXTILE SILT FENCES).

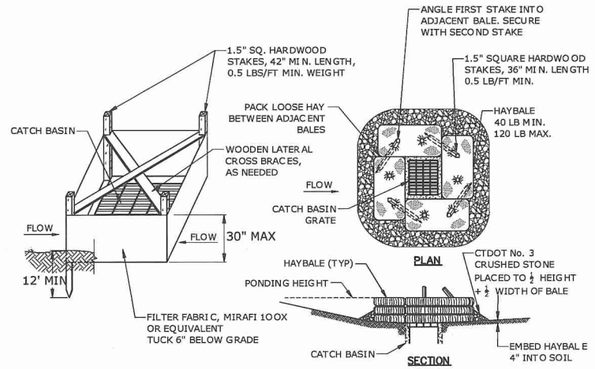


NOTE: NON-OVERFLOW PORTIONS AND ABUTMENTS MAYBE CONSTRUCTED OF COMPACTED EARTH FILL.

TOP WIDTH VS. HEIGHT

H(ft)	W(ft)
1.5	2.0
2.0	2.0
2.5	2.5
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5

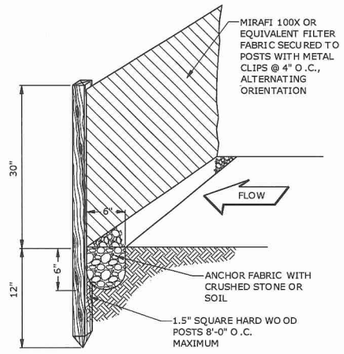
TEMPORARY SEDIMENT TRAP
NO SCALE



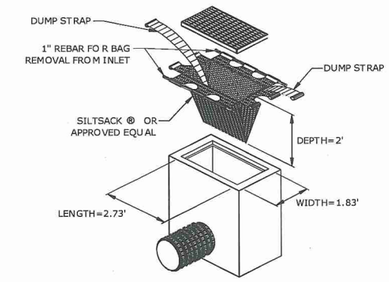
SILT FENCE INSTALLATION AT CATCH BASIN AT LOW POINTS

HAYBALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS

CATCH BASIN EROSION CONTROL
NO SCALE

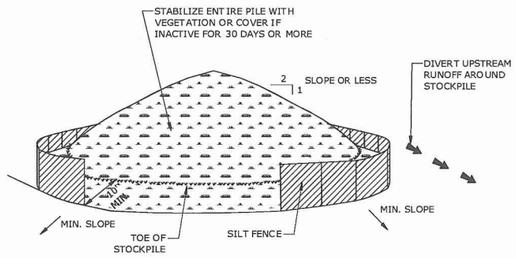


SILT FENCE
NO SCALE



SILTSACK MANUFACTURED BY:
ACF ENVIRONMENTAL, 2831 CARDWELL ROAD
RICHMOND, VIRGINIA 23237

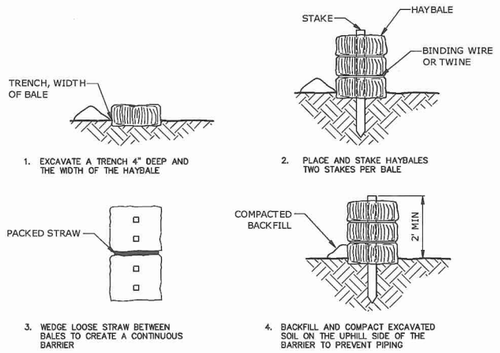
SILTSACK ®
NO SCALE



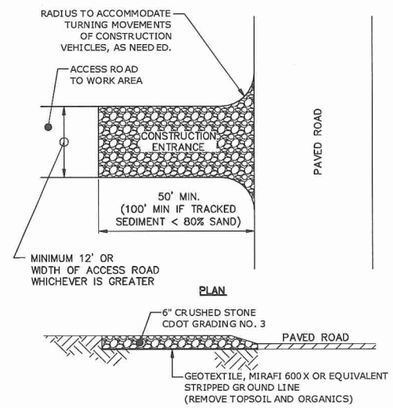
INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H :1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAYBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

SOIL STOCKPILE DETAIL
NO SCALE



PLACEMENT AND CONSTRUCTION OF HAYBALE BARRIER
NO SCALE



CONSTRUCTION ENTRANCE
NO SCALE

Washington Village Buildings C, D, E

Norwalk, CT

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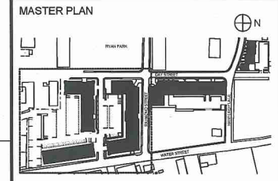
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

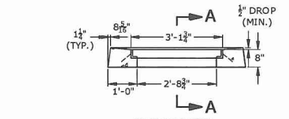
PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

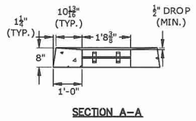
SOIL EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS

C3.2

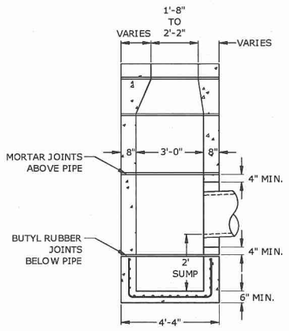
09/19/2013

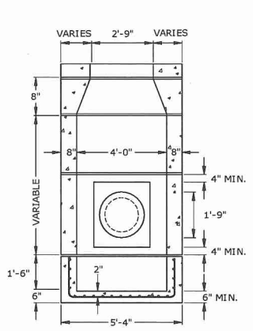


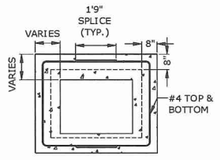
CROSS SECTION



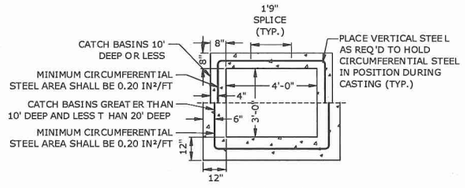
SECTION A–A



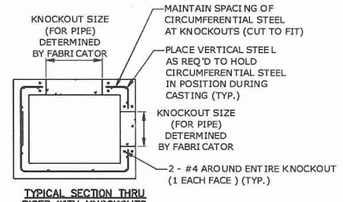




REDUCER SECTION (TYP.)



RISER SECTION (TYP.)

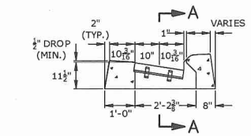


TYPICAL SECTION THRU RISER WITH KNOCKOUTS

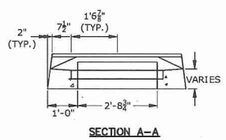
TYPE "C-L" CATCH BASIN
NO SCALE

NOTES:

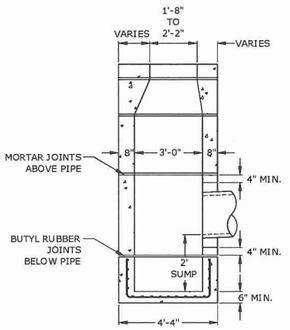
1. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
2. DETAILS ON THIS SHEET SHOW STANDARD REINFORCEMENT. WELDED WIRE FABRIC WITH AN AREA EQUAL TO OR GREATER THAN THE REINFORCING SHOWN MAY BE SUBSTITUTED.
3. ALL LAP SPLICES, DEVELOPMENT LENGTHS, BENDS FOR REINFORCEMENT, AND WELDED WIRE FABRIC SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
4. ALL REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 2", EXCEPT FOR BENEATH BOTTOM REINFORCEMENT IN TOP SLABS, WHERE THE MINIMUM MAY BE 1½"
5. MINIMUM CONCRETE COMPRESSIVE STRENGTH FC'=4,000PSI SHALL BE OBTAINED BEFORE SHIPPING.
6. BASES AND RISERS AT A DEPTH OF 20' AND GREATER SHALL BE DESIGNED BY THE CONTRACTOR AND WORKING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
7. SEE STANDARD DRAWING 507-K FOR CATCH BASIN FRAMES AND GRATES.
8. FOR DOT MAINTENANCE PERSONNEL, RISERS MAY BE PREFABRICATED WITH PIPE OPENINGS IN ALL FOUR WALLS. ADEQUATE REINFORCING AROUND PIPE OPENINGS TO CONFORMING TO THESE PLANS SHALL BE PROVIDED. ANY RISERS USED WHERE A PIPE OPENING IS TO REMAIN IN PLACE MUST BE FORMED UP WITH BRICK AS DIRECTED BY THE ENGINEER.
9. RISERS SHALL NEVER HAVE CORNER PIPE ENTRIES. WHERE THE ALIGNMENT OF THE PIPE WITH RESPECT TO THE CORNER OF THE CATCH BASIN CANNOT BE CHANGED, A ROUND STRUCTURE CONFORMING TO ASTM C478 SHALL BE USED. REINFORCING FOR THE ROUND TOP SLAB WITH A RECTANGULAR OPENING SHALL CONFORM TO DETAILS SHOWN HERE.
10. ALL PIPE OPENINGS SHALL BE CLOSED USING MATERIALS WHICH CONFORM TO STATE OF CONNECTICUT STANDARD SPECIFICATIONS SECTION M.08.02. IF THE ENGINEER DETERMINES THAT THE CLOSURE OF ANY PIPE OPENING IS UNSATISFACTORY, THE CONTRACTOR SHALL RECLOSE SAID OPENING AT NO ADDITIONAL COST TO THE STATE. KNOCKOUTS FOR PIPE OPENINGS SHALL NOT RESULT IN A REDUCED WALL THICKNESS.
11. THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS AND SUPPLEMENTALS SHALL GOVERN.
12. FOR ADDITIONAL DETAILS, SEE OTHER CATCH BASIN SHEETS.
13. WALL THICKNESS OF ALL CB'S OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. (THE 12" THICKNESS SHALL START AFTER THE FIRST 10")
14. BUTYL RUBBER JOINT SEAL SHALL CONFORM TO AASHTO M-198 AND MORTAR SHALL CONFORM TO THE LATEST STATE OF CONNECTICUT STANDARD SPECIFICATIONS MATERIAL SECTION M11.04.
15. SHRINKAGE AND TEMPERATURE REINFORCEMENT SHALL BE PROVIDED IN THE TOPS OF SLABS. THE TOTAL AREA OF REINFORCEMENT PROVIDED SHALL BE AT LEAST 0.125 IN²/FT IN EACH DIRECTION. THE MAXIMUM SPACING OF THIS REINFORCEMENT SHALL NOT EXCEED 18 INCHES.
16. THE DETAILS SHOWN IN THE PLAN VIEW FOR THE PRECAST CONCRETE ROUND STRUCTURES SHALL ALSO BE USED FOR CONVERTING MANHOLES TO CATCH BASINS.
17. ANY CATCH BASINS CONSTRUCTED, MODIFIED OR DISTURBED IN ANY FASHION SHALL HAVE "NO DUMPING" CURB MARKER APPLIED TO CATCH BASIN TOP OR CURB NEXT TO GRATE USING ADHESIVE PROVIDED BY THE CITY FOLLOWING INSTALLATION DIRECTIONS PROVIDED BY THE MANUFACTURER.

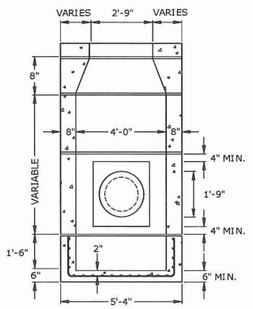


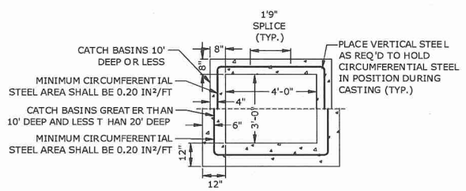
CROSS SECTION



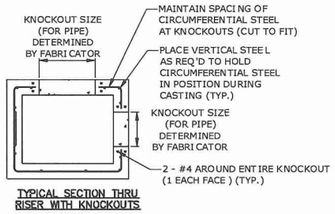
SECTION A–A



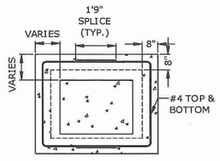




RISER SECTION (TYP.)



TYPICAL SECTION THRU RISER WITH KNOCKOUTS



REDUCER SECTION (TYP.)

TYPE "C" CATCH BASIN
NO SCALE

NOTES:

1. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
2. DETAILS ON THIS SHEET SHOW STANDARD REINFORCEMENT. WELDED WIRE FABRIC WITH AN AREA EQUAL TO OR GREATER THAN THE REINFORCING SHOWN MAY BE SUBSTITUTED.
3. ALL LAP SPLICES, DEVELOPMENT LENGTHS, BENDS FOR REINFORCEMENT, AND WELDED WIRE FABRIC SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
4. ALL REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 2", EXCEPT FOR BENEATH BOTTOM REINFORCEMENT IN TOP SLABS, WHERE THE MINIMUM MAY BE 1½"
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6. BASES AND RISERS AT A DEPTH OF 20' AND GREATER SHALL BE DESIGNED BY THE CONTRACTOR AND WORKING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
7. SEE STANDARD DRAWING 507-K FOR CATCH BASIN FRAMES AND GRATES.
8. FOR DOT MAINTENANCE PERSONNEL, RISERS MAY BE PREFABRICATED WITH PIPE OPENINGS IN ALL FOUR WALLS. ADEQUATE REINFORCING AROUND PIPE OPENINGS TO CONFORMING TO THESE PLANS SHALL BE PROVIDED. ANY RISERS USED WHERE A PIPE OPENING IS TO REMAIN IN PLACE MUST BE FORMED UP WITH BRICK AS DIRECTED BY THE ENGINEER.
9. RISERS SHALL NEVER HAVE CORNER PIPE ENTRIES. WHERE THE ALIGNMENT OF THE PIPE WITH RESPECT TO THE CORNER OF THE CATCH BASIN CANNOT BE CHANGED, A ROUND STRUCTURE CONFORMING TO ASTM C478 SHALL BE USED. REINFORCING FOR THE ROUND TOP SLAB WITH A RECTANGULAR OPENING SHALL CONFORM TO DETAILS SHOWN HERE.
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12. FOR ADDITIONAL DETAILS, SEE OTHER CATCH BASIN SHEETS.
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Washington Village Buildings C, D, E

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

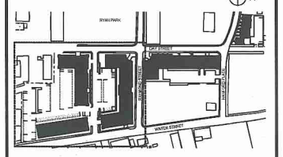
ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

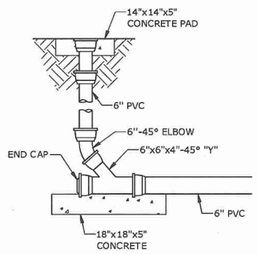
PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

STORM DRAINAGE DETAILS

C4.1

09/19/2013



CLEAN-OUT DETAIL
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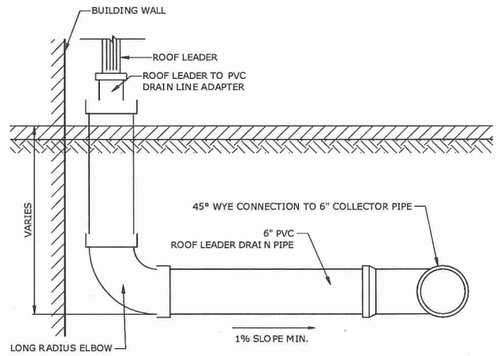
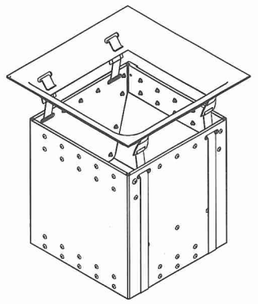
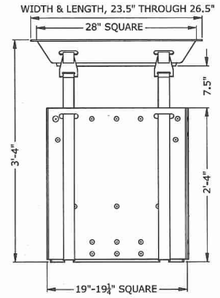


ROOF LEADER DRAIN LINE
NO SCALE





CATCH BASIN INSERT
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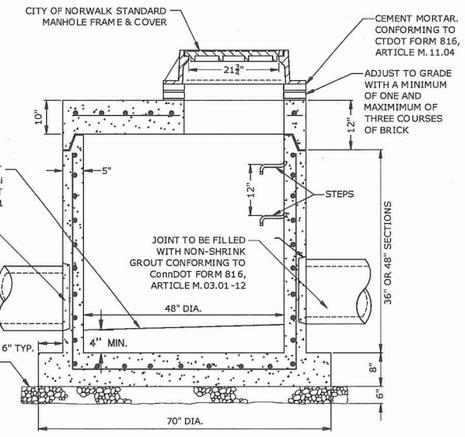
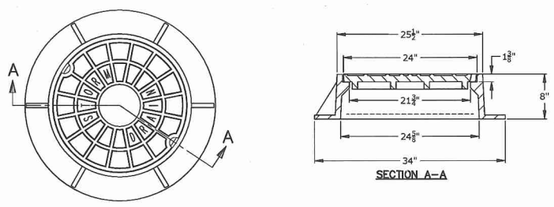


NOTES

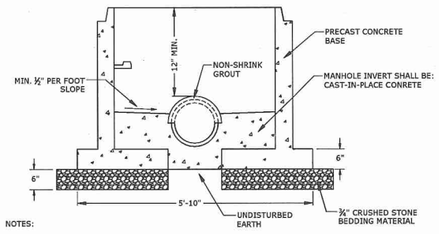
1. REINFORCING ASTM A185 AREA 48 " DIA. 0.12 SQ. IN./V.F., AREA 60" DIA. 0. 17 SQ. IN./V.F. REINFORCE BELL & SPIG OT.
2. CONCRETE COMPRESSIVE STREN GTH: 5,000 psi - 28 DAYS
3. MANHOLE STEP TO CONFORM TO OSHA AND ASTM SPECIFICATIONS.
4. MONOLITHIC BASE SECTION.

48" DIA. SHALLOW MANHOLE
NO SCALE



NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATT ERN # 1007D AS MANUFACTURED BY THE CAMPBELL FOUNDRY COMPANY OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

CITY OF NORWALK
MANHOLE FRAME AND COVER
NO SCALE



NOTES:

1. MINIMUM 4' DIAMETER MANHOLE.
2. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE EXISTING PIPE.
4. TOP HALF OF EXISTING PIPE TO BE REMOVED FOR FULL LENGTH EXPOSED INSIDE MANHOLE. EXISTING MAIN TO BE NEATLY CUT ALONG THE SPRING LINE OF THE PIPE.
5. SEE STORM MANHOLE DETAIL FOR ADDITIONAL INFORMATION.

STORM DRAINAGE
DOGHOUSE MANHOLE BASE
NO SCALE

Washington Village Buildings C, D, E

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

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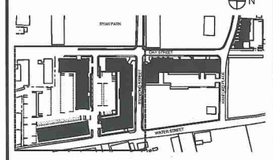
STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

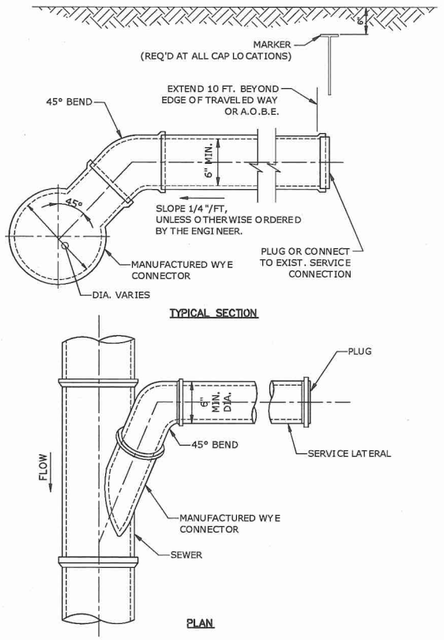
SHEET TITLE

STORM AND SANITARY DETAILS

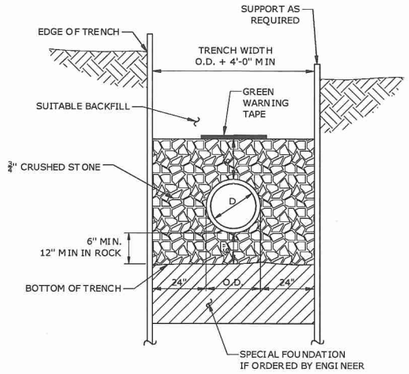
C4.2

09/19/2013

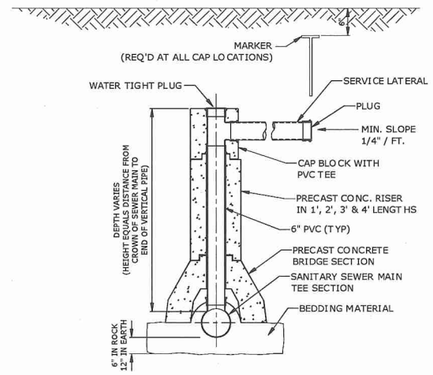
Sep 19, 2013-1:42pm Plotted By: apw
Tighe & Bond, Inc. J:\I0071 Washington Village\Drawing\Sheet\Building C_D-EDS-C-I0071-01.dwg



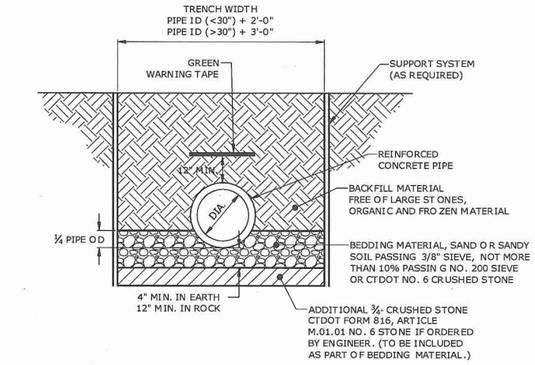
STANDARD SERVICE LATERAL CONNECTION
NO SCALE



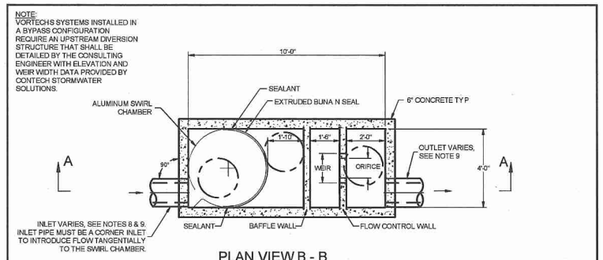
TYPICAL SANITARY SEWER TRENCH SECTION
NO SCALE



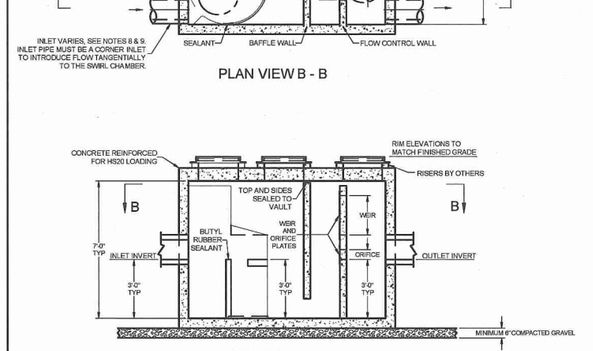
CHIMNEY DETAIL
NO SCALE



CIRCULAR R.C.P. TRENCH BEDDING
NO SCALE



PLAN VIEW B - B



SECTION A - A

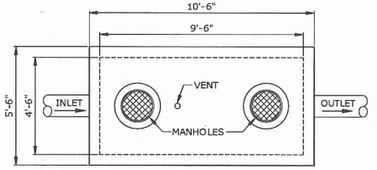
NOTES:
1. STORMWATER TREATMENT SYSTEM (SWTS) SHALL HAVE:
   PEAK TREATMENT CAPACITY: 2.8 CFS
   SEDIMENT STORAGE: 1.2 CU YD
   SEDIMENT CHAMBER DIA: 4' MIN
2. SWTS SHALL BE CONTAINED IN ONE RECTANGULAR STRUCTURE
3. SWTS REMOVAL EFFICIENCY SHALL BE DOCUMENTED BASED ON PARTICLE SIZE
4. SWTS SHALL RETAIN FLOATABLES AND TRAPPED SEDIMENT UP TO AND
   INCLUDING PEAK TREATMENT CAPACITY
5. SWTS INVERTS IN AND OUT ARE TYPICALLY AT THE SAME ELEVATION
6. SWTS SHALL NOT BE COMPROMISED BY EFFECTS OF DOWNSTREAM TAILWATER
7. SWTS SHALL HAVE NO INTERNAL COMPONENTS THAT OBSTRUCT MAINTENANCE ACCESS
8. INLET PIPE MUST BE PERPENDICULAR TO THE STRUCTURE
9. PIPE ORIENTATION MAY VARY; SEE SITE PLAN FOR SIZE AND LOCATION
10. PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF UNIT
11. MANHOLE FRAMES AND PERFORATED COVERS SUPPLIED WITH SYSTEM, NOT INSTALLED
12. PURCHASER TO PREPARE EXCAVATION AND PROVIDE CRANE FOR OFF-LOADING AND SETTING AT TIME OF DELIVERY
13. VORTECHS SYSTEMS BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8876; LINTHICUM, MD (888) 740-3318.

CONTECH STORMWATER SOLUTIONS
contechstormwater.com

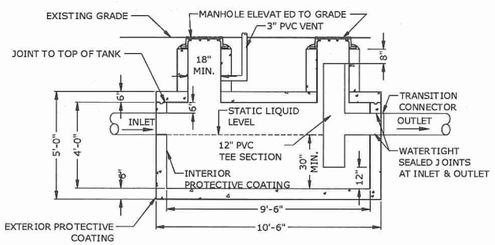
STANDARD DETAIL
STORMWATER TREATMENT SYSTEM
VORTECHS® MODEL 2000

U.S. PATENT No.5,759,415

DATE: 10/4/06	SCALE: NONE	FILE NAME: STD2K	DRAWN: JBS	CHECKED: NDG



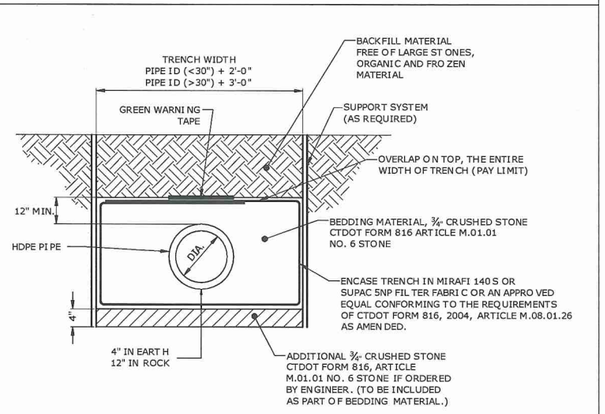
PLAN



ELEVATION

NOTES:
1. CLEANOUT MANHOLES SHOULD BE ELEVATED TO GRADE WITH WATERTIGHT ACCESS COVERS.
2. HORIZONTAL JOINT SHALL BE ABOVE WATER LINE AT TOP OF TANK.
3. INTERIOR OF TANK SHALL BE COATED WITH AN EPOXY PETROLEUM RESISTANT SEALANT. EXTERIOR OF TANK SHALL BE COATED WITH A WATERPROOF SEALANT.
4. VOIDS BETWEEN INLET AND/OR OUTLET PIPING AND CONCRETE WALLS MUST BE FILLED WITH AN APPROVED WATERTIGHT, NON-SHRINKABLE GROUT MATERIAL, AND COATED WITH WATER GROUT SEALANT.
5. TANK MUST BE VENTED WITH A 3" PVC VENT ATTACHED TO BUILDING WALL TO EXTEND 8'-0" ABOVE FINISHED GRADE. INSTALL MUSHROOM CAP.
6. TANK SHALL BE DESIGNED FOR H20 LOADING.

1000 GALLON OIL/GRIT SEPARATOR
NO SCALE



HDPE TRENCH BEDDING
NO SCALE

Washington Village Buildings C, D, E

Norwalk, CT

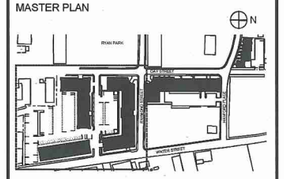
Trinity Washington Village
Limited Partnership &
the Norwalk Housing Authority

ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT
Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

STORM DRAINAGE DETAILS

C4.3

09/19/2013

Sep 19, 2013-1:42pm Plotted By: spw
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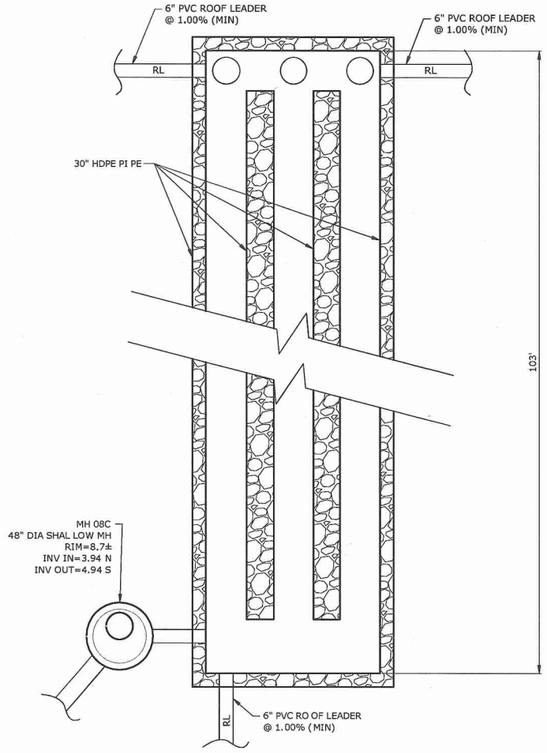
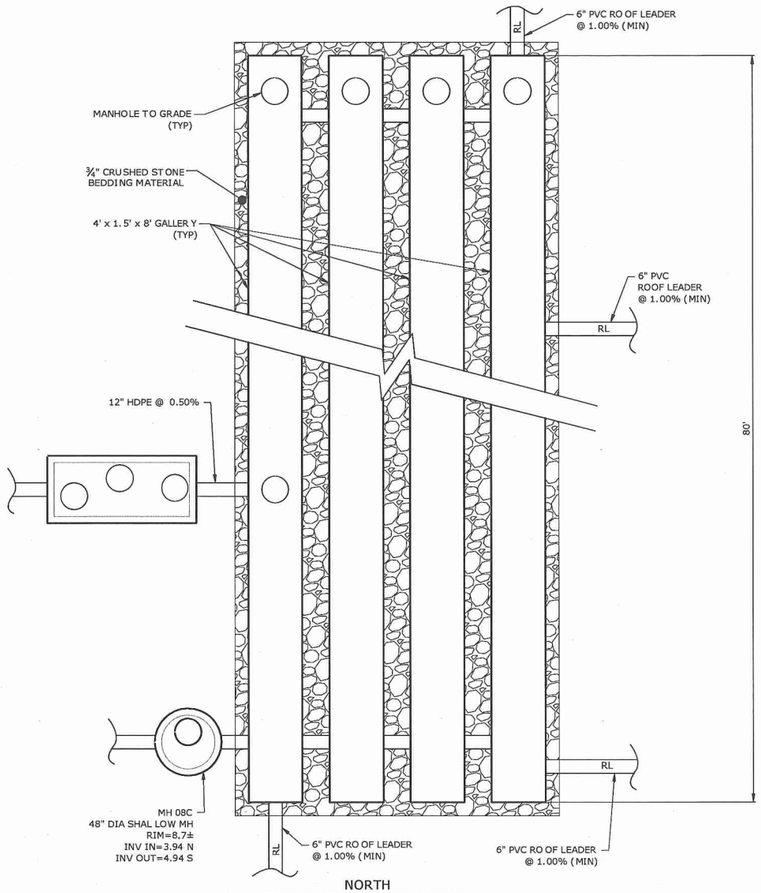
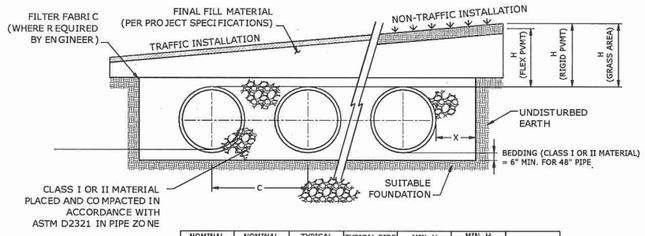


SOUTH
INFILTRATION SYSTEM DETAIL
SCALE: 1" = 5'



NORTH
INFILTRATION SYSTEM DETAIL
SCALE: 1" = 5'



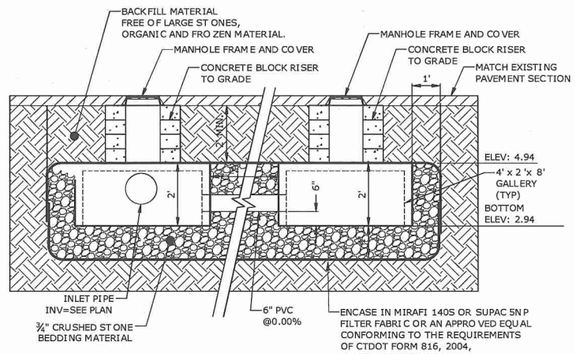
NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H NON-TRAFFIC	MIN. H (TRAFFIC)	MAX. H*
48" (1200 MM)	54" (1372 MM)	78.5" (1994 MM)	18" (457 MM)	12" (292 MM)	24" (610 MM)	8' (2.4 M)

* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8-FT.

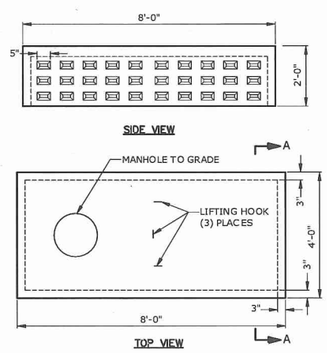
HDPE DETENTION SYSTEM DETAIL
NO SCALE

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION.
9. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8-FT OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8-FT FOR INSTALLATION CONSIDERATIONS.



SECTION – TWO ROW CONFIGURATION



SPECIFICATIONS:
1. GALLERY TO BE 4'x4'x8' GALLERY BY CONNECTICUT PRECAST CORP., MONROE, CONNECTICUT, OR APPROVED EQUAL.
2. CONCRETE 4000 PSI MINIMUM STRENGTH AT 28 DAYS.
3. STEEL REINFORCEMENT ASTM A-615, GRADE 60.
4. DESIGN LOADING MUST MEET AASHTO HS20-44.

4 'x 2' x 8' PRECAST GALLEY
NO SCALE

Washington Village Buildings C, D, E

Norwalk, CT

Trinity Washington Village Limited Partnership & the Norwalk Housing Authority

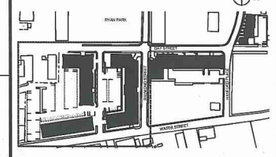
ICON architecture
38 Chauncy Street
Boston, MA 02111
617-451-3333
www.iconarch.com

CONSULTANT

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STAMP

MASTER PLAN



MARK	DATE	DESCRIPTION

PROJECT NO.: I0071
DRAWN BY: MDS
CHECKED BY: EWL

SHEET TITLE

INFILTRATION SYSTEM DETAILS

C4.4

09/19/2013

Sep 19, 2013-1:42pm Plotted By: apw
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Tighe&Bond

APPENDIX H

Attachment H—Part 1
Building A

Attachment H: Engineering Documentation

Part 1: Engineering Report Checklist

The following is a checklist of requirements that need to be completed, included and submitted as part of the Engineering Report. Please complete this checklist by identifying where each requirement listed is addressed in the Engineering Report (report title and page numbers). If an item is not applicable, place "NA" in the box. Attach the completed checklist as the cover sheet to engineering reports, as applicable, which fully describe the design of the proposed facilities or other actions and the hydraulic and hydrologic effects thereof. The application instructions (DEP-IWRD-INST-100) should be consulted for a complete description of each item listed. This checklist is required to be signed and sealed by a professional engineer licensed in the State of Connecticut.

Stormwater Management - (Building A)

Location of Item	Item Description
Section 2.1	Description of the design storm frequency intensity, volume and duration
Appendix A	Watershed maps, existing and proposed
Appendix A	Computations for Tc
Appendix A	Imperviousness calculations
Appendix A	NRCS runoff curve numbers, volumetric runoff coefficients
Appendix B	Computations used to determine peak runoff rates, and velocities for each watershed area (24-hour storm): • Stream Channel Protection: 2-year frequency ("over-control" of 2-year storm) • Conveyance Protection: 10-year frequency • Peak Runoff Attenuation: 2-year, 10-year, and 100-year frequency • Emergency Outlet Sizing: safely pass the 100-year frequency or larger storm
Appendix B	Hydrograph routing calculations
Sec 2.2 & App C	Description, schematics, and calculations for drainage and stormwater management systems, bridges and culverts
Appendix B	Infiltration rates
Section 2	Documentation of sources
FM Cert App. Q	Computer disk containing input and output data and the associated program for all computer models used in the analyses
Appendix B	Hard copy of input and output data including input/output tables
Appendix B	Detention basin analysis including timing and duration of expected outflow, stream stability analysis and hydrograph summation

Flood Plain Assessment

Location of Item	Item Description
Section 1	Description or simulation of existing and proposed conditions upstream and downstream of the proposed activity
NA	(For SCEL applications only) A determination of the effect of the proposed activity on flooding and flood hazards together with an equivalent encroachment on the opposite bank for the flood event establishing the encroachment lines
NA	For any bridge or culvert placement or replacement with a drainage area of 100 acres or more, plan sheets showing the existing and proposed inundation area for the 2, 10, 25, 50, and 100 year discharges, carried to convergence
NA	A description and analysis of the floodplain modifications required to restore any flood conveyance and flood storage capacity
NA	Demonstration that backwater from the proposed activity will not impact an existing dam, dike, or similar structure
NA	Backup data and complete hydraulic analysis for proposed modifications to the floodplain including location plan and plot for sections, profile sheet, summary sheet

Dams, Dikes, Diversion Channels, Similar Structures

Location of Item	Item Description
NA	Primary and emergency spillway and outlet structure erosion protection
NA	Dam breach analysis
NA	Geotechnical evaluation
NA	Construction Specifications for foundation preparation, embankment material, outlet structure, and construction inspection

Soil Erosion and Sediment Control Plan

Location of Item	Item Description
Section 2.8	Narrative
Dwg C3.1 & C3.2	Drawings
Dwg C4.1 - C4.5	Details
Dwg C3.1	Calculations for Engineered Measures

Professional Certification

For any Engineering Report submitted as part of the IWRD permit application, the following certification must be signed and sealed by a professional engineer licensed to practice in Connecticut and submitted with the Engineering Report Checklist and Report.

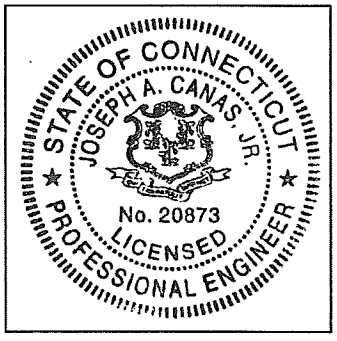
"I certify that in my professional judgement, each requirement listed in the Engineering Report Checklist has been addressed in the Engineering Report submitted as part of the IWRD permit application as Attachment H, Part 1 and that the information is true, accurate and complete to the best of my knowledge and belief.

This certification is based on my review of the Engineering Report.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes."

Signature of Applicant	Date
Name of Applicant (print or type)	Title (if applicable)
Signature of Professional Engineer	09/18/13 Date
Joseph Canas, PE, LEED AP, CFM Name of Professional Engineer (print or type)	**20873** P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)



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Signature of Applicant	Date
Name of Applicant (print or type)	Title (if applicable)
Signature of Professional Engineer	Date
John W. Block, PE Name of Professional Engineer (print or type)	**8448** P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)

Attachment H—Part 1
Building B

Attachment H: Engineering Documentation

Part 1: Engineering Report Checklist

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Stormwater Management (Building B)

Location of Item	Item Description
Section 2.1	Description of the design storm frequency intensity, volume and duration
Appendix A	Watershed maps, existing and proposed
Appendix A	Computations for Tc
Appendix A	Imperviousness calculations
Appendix A	NRCS runoff curve numbers, volumetric runoff coefficients
Appendix B	Computations used to determine peak runoff rates, and velocities for each watershed area (24-hour storm): • Stream Channel Protection: 2-year frequency ("over-control" of 2-year storm) • Conveyance Protection: 10-year frequency • Peak Runoff Attenuation: 2-year, 10-year, and 100-year frequency • Emergency Outlet Sizing: safely pass the 100-year frequency or larger storm
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Sec 2.2 & App C	Description, schematics, and calculations for drainage and stormwater management systems, bridges and culverts
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Flood Plain Assessment

Location of Item	Item Description
Section 1	Description or simulation of existing and proposed conditions upstream and downstream of the proposed activity
NA	(For SCEL applications only) A determination of the effect of the proposed activity on flooding and flood hazards together with an equivalent encroachment on the opposite bank for the flood event establishing the encroachment lines
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Dams, Dikes, Diversion Channels, Similar Structures

Location of Item	Item Description
NA	Primary and emergency spillway and outlet structure erosion protection
NA	Dam breach analysis
NA	Geotechnical evaluation
NA	Construction Specifications for foundation preparation, embankment material, outlet structure, and construction inspection

Soil Erosion and Sediment Control Plan

Location of Item	Item Description
Section 2.8	Narrative
Dwg C3.1 & C3.2	Drawings
Dwg C4.1 - C4.5	Details
Dwg C3.1	Calculations for Engineered Measures

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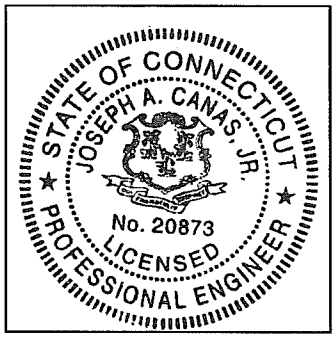
Name of Applicant (print or type)	Title (if applicable)
Signature of Professional Engineer	Date
Joseph Canas, PE, LEED AP, CFM	**20873**
Name of Professional Engineer (print or type)	P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)



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Signature of Professional Engineer	Date
John W. Block, PE Name of Professional Engineer (print or type)	**8448** P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)

Attachment H—Part 1
Buildings C, D & E

Attachment H: Engineering Documentation

Part 1: Engineering Report Checklist

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Stormwater Management (Building C-D-E)

Location of Item	Item Description
Section 2.1	Description of the design storm frequency intensity, volume and duration
Appendix A	Watershed maps, existing and proposed
Appendix A	Computations for Tc
Appendix A	Imperviousness calculations
Appendix A	NRCS runoff curve numbers, volumetric runoff coefficients
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Joseph Canas, PE, LEED AP, CFM Name of Professional Engineer (print or type)	**20873** P.E. Number (if applicable)

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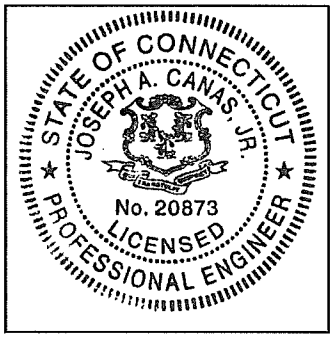

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Signature of Applicant	Date
Name of Applicant (print or type)	Title (if applicable)
Signature of Professional Engineer	Date
John W. Block, PE Name of Professional Engineer (print or type)	**8448** P.E. Number (if applicable)

Affix P.E. Stamp Here
(if applicable)

Attachment H—Part 2

Attachment H: Engineering Documentation

Part 2: Hydrologic and Hydraulic Consistency Worksheet

Inland Water Resources Division Permit Activities

This worksheet has four sections; only complete the section(s) applicable to the proposed project. Where a question requires a "Yes" or "No" answer, select the appropriate response and explain your response, if required, in the space provided.

Section I: **Floodplain Management** *(if the proposed project involves a structure, obstruction, encroachment or work in a watercourse, floodplain, or coastal high hazard area)*

Section II: **Stormwater Management** *(if the proposed project involves stormwater drainage or stormwater runoff)*

Sections III: **State Grants and Loans** and **Section IV: Disposal of State Land** *(only if the applicant is a state agency seeking flood management certification approval for state grants and loans or disposal of state land)*

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   b. *Floodway Encroachments* 7
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2. ***Stormwater Detention Facilities*** ***14***

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   f. *Vegetated Filter Strips* 16
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Definitions of terms used in these worksheets are found in Section 25-68b of the Connecticut General Statutes and Section 25-68h-1 of the Regulations of Connecticut State Agencies and in the National Flood Insurance Program Regulations (44 CFR, Chapter 1, Subchapter B, Part 59.1).

Section I: Floodplain Management

Section I: Floodplain Management

Name of Applicant: **State of Connecticut Department of Housing**

Name of Proposed Project: **Washington Village Redevelopment**

1. General Criteria

a. *Critical Activity* - Does the proposed project involve the treatment, storage and disposal of hazardous waste or the siting of hospitals, housing for the elderly, schools or residences, in the 0.2 per cent [500 year] floodplain? ☒ Yes ☐ No

If yes, the base flood for the critical activity shall have a recurrence interval equal to the 500 year flood event; if no, the base flood for the activity shall have a recurrence interval equal to the 100 year flood event.

b. *Nonintensive Floodplain Uses* - Will the proposed project promote development in floodplains or will utilities servicing the project be located so as to enable floodplain development?

☒ Yes ☐ No

Explain:

An exemption from this requirement is proposed. Please refer to Attachment Q for a copy of the request. The site currently contains 136 residential housing units in the floodplain. These existing units are below the 100-year flood evelation. The proposed project will consist of 273 units, but all of these units will be constructed above the 500-year flood elevation, providing more protection from flooding than what exists today.

c. *National Flood Insurance Program* (NFIP) - Will the proposed project be located within an area of special flood hazard designated by the Federal Emergency Management Agency (FEMA)?

☒ Yes ☐ No If yes, list the FEMA flood zone(s):

Zone AE

Does the proposed project meet the NFIP minimum standards established in 44 CFR, Chapter 1, Subchapter B, Part 60.3, floodplain management criteria for flood-prone areas?

☒ Yes ☐ No

d. *Municipal Regulations* - Has the municipality in which the proposed project is to be located adopted floodplain regulations containing requirements that are more restrictive than the NFIP floodplain management criteria for flood-prone areas? ☐ Yes ☒ No

If yes, describe the more restrictive requirements:

Does the proposed project comply with the more restrictive standards of the municipality?

☐ Yes ☐ No

Section I: Floodplain Management (continued)

2. *Flooding and Flood Hazards*

a. *Flooding* - Will the proposed project pose any hazard to human life, health or property in the event of a base flood? ☐ Yes ☒ No

If yes, explain:

b. *Flood Velocities* - Will the proposed project cause an increase in flow velocity or depth during the base flood discharge? ☐ Yes ☒ No

If yes, the increase in velocity is: fps
and/or the increase in depth is: ft.

Will such increase in velocity or depth cause channel erosion or pose any hazard to human life, health or property? ☐ Yes ☐ No

Explain:

c. *Flood Storage* - Will the proposed project affect the flood storage capacity or flood control value of the floodplain? ☐ Yes ☒ No

If yes, describe the effects:

d. *Degrading or Aggrading Stream Beds* - Is the streambed currently degrading or aggrading?

☐ Degrading ☐ Aggrading ☒ Neither

Has the project design addressed degrading or aggrading streambed conditions?

☐ Yes ☒ No

e. *Ice Jams* - Is the watercourse prone to ice jams or floods due to ice? ☐ Yes ☒ No

Has the project design considered ice jams or floods due to ice? ☐ Yes ☒ No

Section I: Floodplain Management (continued)

f. *Storage of Materials & Equipment* - Will the construction or use of the proposed project involve the storage of materials below the 500 year flood elevation that are buoyant, hazardous, flammable, explosive, soluble, expansive or radioactive, or the storage of any other materials which could be injurious to human, animal or plant life in the event of a flood?

☒ Yes ☐ No

If yes, describe the materials and how such materials will be protected from flood damage, secured or removed from the floodplain to prevent pollution and hazards to life and property.

Bouyant materials such as wood and piping will be stored below the 500-year floodplain only in reasonable quantities necessary to facilitate work. Hazardous, flammable and explosive materials will be temporary stored at the site during daily operations, wnd will then be hauled off-site for storage at the end of the day.

Storage of materials that could be injurious to human health or the environment in the event of flooding is prohibited below the elevation of the 500 year flood. Other material or equipment may be stored below the 500 year flood elevation provided that such material or equipment is not subject to major damage by floods, and provided that such material or equipment is firmly anchored, restrained or enclosed to prevent it from floating away or that such material or equipment can be removed prior to flooding.

g. *Floodwater Loads* - Will structures, facilities and stored materials be anchored or otherwise designed to prevent floatation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy? ☒ Yes ☐ No

3. *Standards for Structures in Floodplains or Coastal High Hazard Areas*

Does the proposed project involve a new or substantially improved structure or facility located within a floodplain or coastal high hazard area? ☒ Yes ☐ No

If yes, complete this subsection; if no, skip to subsection 4 (***Topography Changes within Floodplain)***.

a. *Structures in Coastal High Hazard Areas* - Will the structure or facility be located within an NFIP coastal high hazard area? ☐ Yes ☒ No

If no, skip to paragraph 3(b); if yes:

1. Will the structure or facility be located landward of the reach of mean high tide?

   ☐ Yes ☐ No

2. Will a new structure or facility be located on an undeveloped coastal barrier beach designated by FEMA? ☐ Yes ☐ No

3. If the structure or facility is/will be located within a coastal high hazard area, the structure or facility must be elevated on pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to at least one foot above the base flood level and the pile or column foundation and structure attached thereto must be anchored to resist floatation, collapse and lateral movement due to the effects of wind, velocity waters, hurricane wave wash, and base flood water loads acting simultaneously on all building components.

   Does the proposed structure or facility meet these standards? ☐ Yes ☐ No

   The base flood elevation is: ft. (Datum:)

   The elevation of the lowest horizontal structural member is: ft. (Datum:)

Section I: Floodplain Management (continued)

4. Will the space below the lowest floor be either free of obstruction or constructed with non-supporting breakaway walls? ☐ Yes ☐ No

5. Will fill be used for structural support of any buildings within coastal high hazard areas?

☐ Yes ☐ No

b. *Structures in Floodplain Areas* - Are the structures residential or nonresidential?

☒ Residential ☐ Nonresidential If *nonresidential*, skip to paragraph 3(d) below.

c. *Residential Structures* - If the structure or facility is for human habitation will the lowest floor of such structure or facility, including its basement, be elevated one foot above the level of the 500 year flood?

☐ Yes ☒ No

The 500 year flood elevation is: **13.6** ft. (Datum: **NVD88**)

The elevation of the lowest floor, including basement, is: **14.6** ft. (Datum: **NVD88**)

d. Non-residential Structures - If the structure or facility is not intended for residential uses, will the lowest floor of such structure or facility, including its basement, be elevated to or above the 100 year flood height or be floodproofed to that height, or in the case of a critical activity, the 500 year flood height?

☐ Yes ☐ No

If yes, the structure will be: ☐ Elevated ☐ Floodproofed

The base flood elevation is: ft. (Datum:)

The elevation of the lowest floor, including basement, is: ft. (Datum:)

The structure is floodproofed to: ft. (Datum:)

Note: for insurance purposes nonresidential structures must be floodproofed to at least one foot above the base flood elevation. DEP strongly encourages that the height of floodproofing incorporate one foot of freeboard.

e. *Utilities* - Will service facilities such as electrical, heating, ventilation, plumbing, and air conditioning equipment be constructed at or above the elevation of the base flood or floodproofed with a passive system? ☒ Yes ☐ No

f. *Water Supply Systems* - Does the proposed project include a new or replacement water supply system?
☒ Yes ☐ No

If yes, is the water supply system designed to prevent floodwaters from entering and contaminating the system during the base flood? ☒ Yes ☐ No

g. *Sanitary Sewage Systems* - Does the proposed project include a new or replacement sanitary sewage or collection system? ☒ Yes ☐ No

If yes, is the sanitary sewage system designed to minimize or eliminate the infiltration of flood waters into the systems and discharges from the systems into flood waters during the base flood?

☒ Yes ☐ No

h. *Foundation Drains* - Are foundation drains of buildings designed to prevent backflow from the 100 year frequency flood into the building?

☒ Yes ☐ No ☐ No foundation drains

Section I: Floodplain Management (continued)

4. *Activity within Floodplain*

Does the proposed project involve activity in a floodplain including but not limited to filling, dumping, construction, excavating, or grading?

☒ Yes ☐ No If no, skip to subsection 5 ***(Alterations of Watercourses)***.

If yes, does the proposed project include encroachments, including fill, new construction, substantial improvements, or other development within a NFIP adopted regulatory floodway?

☐ Yes ☒ No If yes, skip to paragraph 4(b) below.

a. *No Regulatory Floodway* - The NFIP requires that until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point. (If no regulatory floodway has been adopted, project impacts may be evaluated by considering an equivalent conveyance loss on the opposite side of the river from the proposed project.)

Is the proposed project consistent with this requirement? ☒ Yes ☐ No

b. *Floodway Encroachments* - Will the proposed encroachment into the floodway result in any increase in flood levels during either the 100 year or 10 year discharges?

100 year: ☐ Yes; the increase is: (in 1/100ths of a foot) ☐ No

If yes, has the applicant received approval of such increase in accordance with 44 CFR, Chapter 1, Subchapter B, Part 65.12? ☐ Yes ☐ No

10 year: ☐ Yes; the increase is: (in 1/100ths of a foot) ☐ No

c. *Coastal Areas* - Flood hazard potential in coastal areas shall be evaluated considering surface profiles of the combined occurrence of tides, storm surges, and peak runoff. The starting water surface elevation for the base flood in watersheds with time of concentrations of over 6 hours shall be the 10 year frequency tidal surge level.

If the proposed project is in a coastal area, have the hydraulic analyses incorporated these criteria?

☐ Yes ☒ No ☐ Not in Coastal Area

5. *Alterations of Watercourses*

Does the proposed project include the construction or alteration to a natural perennial watercourse or man-made channel?

☐ Yes ☒ No If no, skip to subsection 6 ***(Culverts and Bridges)***; if yes, complete the following subsection:

a. *Topography Change* - Is the watercourse or channel located within a regulatory floodway or Zone A1-30 or AE as designated by the NFIP? ☐ Yes ☐ No

b. *Hydraulic Capacity* - Does the channel have a minimum flow capacity of a flood equal to at least the 25 year frequency flood? ☐ Yes ☐ No

The channel capacity is designed for the: year flood.

Does the channel have an inner channel with a capacity of a 2 year frequency flood? ☐ Yes ☐ No

Section I: Floodplain Management (continued)

c. *Aquatic Habitat* - Channel alterations should be designed to create aquatic habitats suitable for fisheries, including suitable habitat for maintaining fish populations and to enable fish passage, and to maintain or improve water quality, aesthetics, and recreation.

Has the applicant had any pre-application meetings or correspondence with DEP Fisheries?

☐ Yes ☐ No

Check each of the following criteria that have been incorporated into the project design:

☐ 1. artificial channel linings have been avoided;

☐ 2. the channel will encourage ecological productivity and diversity;

☐ 3. the channel and its banks will be compatible with their surroundings;

☐ 4. the channel will vary in its width, depth, invert elevations, and side slopes to provide diverse aquatic habitat;

☐ 5. straightening existing channels and thereby decreasing their length has been avoided;

☐ 6. the channel will not create barriers to upstream and downstream fish passage;

☐ 7. the channel will contain pools and riffles and a low flow channel to concentrate seasonal low water flows;

☐ 8. the channel will contain flow deflectors, boulders and low check dams to enhance aquatic habitat;

☐ 9. stream bank vegetation will be preserved where feasible and disturbed stream bank areas will be replanted with suitable vegetation;

☐ 10. clean natural stream bed materials of a suitable size will be incorporated in the new channel; and

☐ 11. construction of the proposed project will be scheduled to minimize conflicts with spawning, stocking, and recreational fishing seasons.

Describe how the above aquatic habitat design criteria have been incorporated into the project design:

Section I: Floodplain Management (continued)

6. *Culverts and Bridges*

Does the proposed project involve the repair or new construction of a culvert or bridge?

☐ Yes ☒ No If no, go to subsection 7 ***(Temporary Hydraulic Facilities)***.

If yes, complete this subsection:

a. *Fish Passage* - Does the culvert design allow for the passage of fish? ☐ Yes ☐ No

If yes, describe the specific design provisions for fish passage:

b. *Depressed Structural Floors* - Is the rigid structural floor of the culvert or bridge depressed below the normal stream bed to allow a natural stream bed to form over the floor?

☐ Yes ☐ No ☐ No rigid structural floor

c. *Multiple Openings* - The use of a single large culvert or bridge opening is preferred over the use of multiple small openings. Has the design minimized the use of multiple small openings?

☐ Yes ☐ No

If no, explain:

d. *Sag Vertical Curves* - Does the design utilize solid parapet walls in the sag part of a vertical curve?

☐ Yes ☐ No ☐ Not located in a sag vertical curve

e. *Debris Blockage* - Is the culvert or bridge prone to blockage by debris? ☐ Yes ☐ No

If yes, has the project design incorporated measures to minimize the potential for debris blockage?

☐ Yes ☐ No

f. *Topography Change* - Is the culvert or bridge located within a regulatory floodway or Zone A1-30 or AE as designated by the NFIP? ☐ Yes ☐ No

Section I: Floodplain Management (continued)

g. *State Highways* - Does the watercourse pass under a state roadway?

☐ Yes ☐ No If no, skip to paragraph 6(g)(2).

If yes, culverts and bridges for state highways shall be designed in accordance with the Connecticut Department of Transportation (DOT) Drainage Manual and all applicants should refer to it for specific design criteria. In general, however, the Drainage Manual requires the following:

(Place a check mark for all applicable criteria utilized)

☐ *Minor Structures* - Minor structures have a drainage area of less than one square mile in which there is no established watercourse. They shall be designed to pass the 25 year frequency discharge.

☐ *Small Structures* - Small structures have a drainage area of less than one square mile in which there is an established watercourse. *They* shall be designed to pass the 50 year frequency discharge.

☐ *Intermediate Structures* - Intermediate structures have a drainage area greater than one square mile and less than 10 square miles. They *shall* be designed to pass the 100 year frequency discharge with reasonable underclearance.

☐ *Large Structures* - Large structures have a drainage area greater than 10 square miles and less than 1000 square miles. They shall be designed to pass the 100 year frequency discharge with an underclearance not less than two feet.

☐ *Monumental Structures* - Monumental structures *have* a drainage area greater than 1000 square miles. They shall be designed to meet the requirements of the Connecticut Department of Environmental Protection, U.S. Army Corps of Engineers, and the U.S. Coast Guard.

☐ *Tidal Structures* - Tidal structures are subject to tidal action and shall be classified as minor, small, intermediate, etc. depending on their drainage area. These structures shall be designed in accordance with the previously listed *classifications*. However if the highway is subject to frequent tidal flooding, the design storm may be made consistent with the frequency of flooding by tidal action. The proposed culvert or bridge is classified as:

☐ Tidal, minor

☐ Tidal, small

☐ Tidal, intermediate

☐ Tidal, large

☐ Tidal, monumental

1. Has the structure been designed in accordance with the criteria established in the DOT Drainage Manual? ☐ Yes ☐ No

   If no, describe the lower design standards and the reasons for not complying with the DOT Drainage Manual:

Section I: Floodplain Management (continued)

2. Will the proposed culvert or bridge increase upstream water surface elevations in the event of a base flood above that which would have been obtained in the natural channel if the highway embankment were not constructed? ☐ Yes ☐ No

   If yes, is the increase in elevation more than one foot? Describe:

3. Will the proposed culvert or bridge be designed so that flooding during the design discharge does not endanger the roadway or cause damage to upstream developed property? (NOTE: The design discharge for culverts and bridges on state highways should be that which was determined by FEMA. If the applicant judges that the FEMA discharge is inappropriate, the project should be analyzed for both the applicant's computed flow and the FEMA discharge. The project, however, must still meet the standards of the NFIP.) ☐ Yes ☐ No

   Explain:

h. *Local Roads & Driveways* - Local roads (not state highways) and driveways may be designed for flood frequencies and underclearances less stringent than those specified in the DOT Drainage Manual when (check all that have been incorporated into the project design):

- ☐ 1. the road is at or close to the floodplain grade
- ☐ 2. water surface elevations are not increased by more than one foot nor cause damage to upstream properties
- ☐ 3. provisions are made to barricade the road when overtopped
- ☐ 4. the road or driveway is posted as being subject to flooding
- ☐ 5. the road or driveway has low traffic volume
- ☐ 6. alternate routes are available

The culvert or bridge has been designed to pass the: year frequency discharge with an underclearance of: feet.

Utilizing the DOT Drainage Manual classifications listed under paragraph 6(g) above, the culvert or bridge is classified as a: structure.

Section I: Floodplain Management (continued)

h. If the culvert or bridge is designed to standards lower than which is stipulated in the DOT Drainage Manual, list such standards and the reasons for the lower design standards:

i. *Downstream Peak Flows* - Will the proposed culvert or bridge increase downstream peak flows by decreasing existing headwater depths during flooding events? ☐ Yes ☐ No

If yes, describe the selected design criteria and the impacts to downstream properties:

7. *Temporary Hydraulic Facilities*

Temporary hydraulic facilities include all channels, culverts or bridges which are required for haul roads, channel relocations, culvert installations, bridge construction, temporary roads, or detours. They are to be designed with the same care which is used for the primary facility.

If the proposed activity involves a temporary hydraulic facility(s), has such facility been designed in accordance with Chapter 6, Appendix F, "Temporary Hydraulic Facilities," of the DOT Drainage Manual?

☐ Yes ☐ No ☒ No temporary hydraulic facilities

If yes, the design flood frequency is the: year flood.

Describe the temporary facilities:

Section II: Stormwater Management

Name of Applicant: **State of Connecticut Department of Housing**

Name of Proposed Project: **Washington Village Redevelopment**

1. *Stormwater Runoff*

The proposed project will (check all that apply):

- ☒ Increase the area of impervious surfaces
- ☒ Increase runoff coefficients
- ☐ Alter existing drainage patterns
- ☒ Alter time of concentrations
- ☒ Change the timing of runoff in relation to adjacent watersheds

Will the proposed project impact downstream areas by increasing peak flow rates, the timing of runoff, or the volume of runoff? ☐ Yes ☒ No

If yes, describe the downstream impacts for the 2, 10 and 100 year frequency discharges:

The pre and post development peak flow rates at the downstream design point are as follows:

Return Frequency (Year)	Peak Discharges (CFS) *	
	Pre-Development	Post-Development
2	1.30	0.34
10	2.11	1.82
100	3.11	3.00

The above peak discharges were computed utilizing the: **24** hour duration storm. This duration storm was selected because:

24 hours is the City's standard design storm duration.

* Building A

Washington Village Redevelopment
Norwalk, Connecticut

Section II, Question 1: Stormwater Runoff

Building B

Return Frequency (Year)	Peak Discharges (cfs)	
	Pre-Development	Post-Development
2	2.74	1.34
10	4.62	3.62
100	6.93	6.72

Buildings C, D and E

Return Frequency (Year)	Peak Discharges (cfs)	
	Pre-Development	Post-Development
2	12.12	6.09
10	19.11	12.56
100	27.64	19.04

Section II: Stormwater Management (continued)

Describe the location of the design point and why this location was chosen:

The design point was chosen because it is the lowest point on the site.

2. *Stormwater Detention Facilities*

Does the proposed project include the construction of any stormwater detention facilities?

☒ Yes ☐ No If no, skip to subsection 3 ***(Storm Drainage Systems)***.

If yes, has the DEP determined whether a dam construction permit is required? ☐ Yes ☒ No

The pre and post development peak flow rates at the downstream design point are as follows:

Return Frequency (Year)	Peak Discharges (CFS) *		
	Pre-Development	Post-Development (without detention)	Post-Development (with detention)
2	1.30	1.44	0.34
10	2.11	2.23	1.82
100	3.11	3.20	3.00

The above peak discharges were computed utilizing the: **24** hour duration storm. This duration storm was selected because:

24 hours is the City's standard design storm duration.

Describe the location of the design point and why this location was chosen:

The design point was chosen because it is the lowest point on the site.

* Building A

Washington Village Redevelopment
Norwalk, Connecticut

Section II, Question 2: Stormwater Runoff

Building B

Return Frequency (Year)	Peak Discharges (cfs)		
	Pre-Development	Post-Development (without detention)	Post-Development (with detention)
2	2.74	4.07	1.34
10	4.62	6.35	3.62
100	6.93	9.14	6.72

Buildings C, D and E

Return Frequency (Year)	Peak Discharges (cfs)		
	Pre-Development	Post-Development (without detention)	Post-Development (with detention)
2	12.12	14.14	6.09
10	19.11	22.11	12.56
100	27.64	31.87	19.04

Section II: Stormwater Management (continued)

If the proposed project increases peak flow rates for the 2, 10 or 100 year frequency discharges, describe the impacts to downstream areas:

The project reduces peak flow rates for these storm events.

Will the detention facility aggravate erosion along the downstream channel? ☐ Yes ☒ No

In certain situations, detention of stormwater aggravates downstream flooding. This occurs when the discharge from a subwatershed is delayed by a detention facility so that it adds to the peak discharge from another subwatershed. Adding the hydrographs of the two subwatersheds results in a higher peak discharge over that which would occur if detention were not present.

Is the location of the detention facility within the watershed suitable for detention? ☒ Yes ☐ No

Explain:

The detention facility also incorporates an infiltration component which reduces stormwater discharges from the proposed facility.

3. *Storm Drainage Systems*

Does the proposed project include the construction of subsurface storm drainage systems?

☒ Yes ☐ No If no, you have completed Section II of the worksheets.

If yes, complete this subsection:

a. *DOT Standards* - Is the proposed storm drainage system designed in accordance with the Connecticut Department of Transportation's (DOT) Drainage Manual? ☒ Yes ☐ No

If no, describe the lower design standards and the reasons for not complying with the Drainage Manual:

b. *Design Storm* - Is the storm drainage system designed for a ten year frequency storm without closing the use of the facility? ☒ Yes ☐ No

c. *Future Development* - Has the design of the system considered future development of adjacent properties? ☒ Yes ☐ No

Section II: Stormwater Management (continued)

d. *Outlet Protection* - Have the outlets from the system been designed to minimize the potential for downstream erosion? ☒ Yes ☐ No

e. *Overland Flow* - Has the use of curbing been minimized to encourage overland dispersed flow through stable vegetated areas? ☐ Yes ☒ No

f. *Vegetated Filter Strips* - Has the design incorporated the use of vegetated filter strips or grass swales to improve the quality of water outletting from the storm drainage system? ☐ Yes ☒ No

g. *Stormwater Treatment* - Describe features of the stormwater collection system intended to improve the quality of stormwater runoff prior to its discharge to surface waters.

The stormwater treatment train includes catch basins with deep sumps, a gross particle separator, permeable pavement, and underground infiltation trenches.

h. *E & S Control Plan* - Has the design and installation of the storm drainage system been coordinated with the soil erosion and sediment control plan prepared in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control? ☒ Yes ☐ No

Explain:

The proposed controls have been sized and placed in accordance with the guideance in the manual, including the necessary sizing for engineered measures, such as sediment traps.

Section III: State Grants and Loans

Name of Applicant: **City of Norwalk,Connecticut**

Name of Proposed Project: **Washington Village Redevelopment**

1. This Flood Management Certification concerns a: ☒ grant ☐ loan

2. Total amount of grant or loan: $

3. The recipient of the grant or loan will be:

   Name: **City of Norwalk Housing Authority**

   Mailing Address: **24-1/2 Monroe Street**

   City/Town: **Norwalk** State: **CT** Zip Code: **06854**

   Phone: **203-838-8471** ext. Fax: **203-838-6535**

   Recipient Contact person:

   Name: **Greg Lickwola**

   Mailing Address: **24-1/2 Monroe Street**

   City/Town: **Norwalk** State: **CT** Zip Code: **06854**

   Phone: **203-838-8471** ext. Fax: **203-838-6535**

4. The recipient will use the grant or loan to (check all that apply):

   ☒ construct a structure, obstruction or encroachment or conduct other work within a floodplain or coastal high hazard area.

   ☒ construct a facility or develop a site affecting drainage and stormwater runoff.

   ☐ conduct a study or prepare a report concerning land use or land use planning affecting a floodplain, drainage or stormwater runoff.

5. If the grant or loan is for a study or report, describe the anticipated effects on floodplains, drainage or stormwater runoff if the recommendations are implemented:

6. Will the proposed project promote development in floodplains or will utilities servicing the project be located so as to enable floodplain development? ☒ Yes ☐ No

   Explain:

   An exemption has been requested for this requirment. The existing site contains 136 housing units all below the 100-year flood elevation. The proposed project will consist of 273 units, all above the 500-year floodplain. Therefore residnets will be afforded more protection from flooding events as a result of the new project.

   If the grant or loan is for construction of a structure, obstruction or encroachment or other work within a floodplain, or if it is for construction of a facility or development of a site that will affect drainage and stormwater runoff, Sections I and/or II of this Worksheet must be completed and the engineering report (Attachment H) and plans (Attachment G) must be provided as part of this application.

Section IV: Disposal of State Land

Name of Applicant:

Name of Proposed Project:

1. The grantee will be:

   Name:

   Mailing Address:

   City/Town: State: Zip Code:

   Phone: ext. Fax:

   Contact Person: Phone:

2. Describe the current state of development and use of the land to be disposed.

3. Why is the agency disposing of the land?

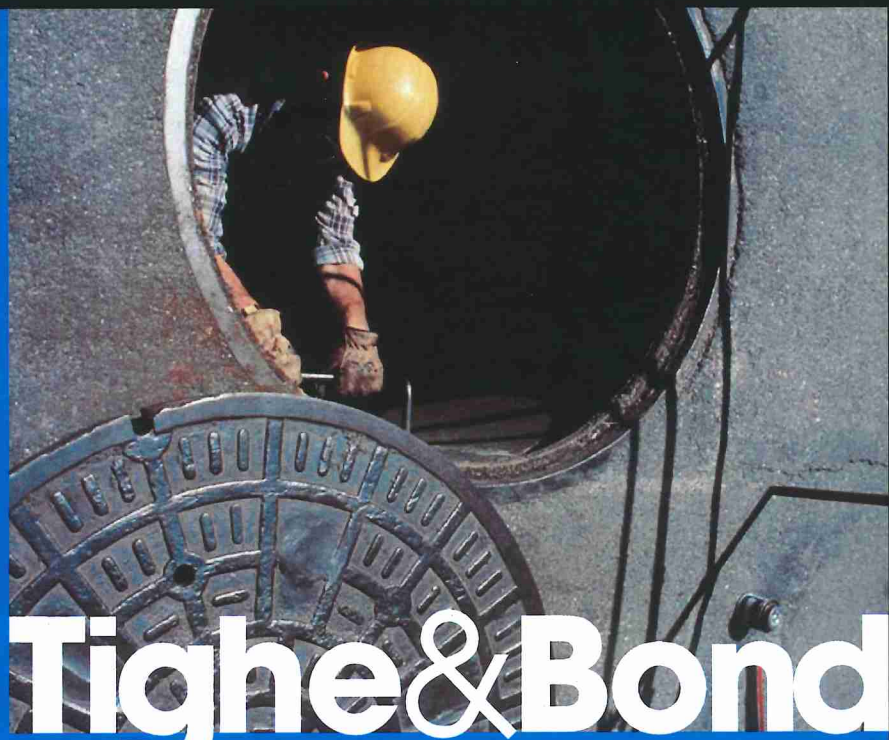
4. Describe the grantee's intended use of the land.

5. Will the disposal of the land promote development in floodplains? ☐ Yes ☐ No

   Explain:

6. Will the grantee's use of the land be consistent with the state's flood management statutes and regulations?

   ☐ Yes ☐ No Explain:



Tighe&Bond

APPENDIX I

Washington Village Redevelopment
Norwalk, Connecticut

FLOOD CONTINGENCY PLAN

Attachment I

The purpose of the flood contingency plan is to describe measures to be taken to protect life and property and to prevent pollution during significant precipitation events. The plan consists of two parts, dealing with contingency plans during and after construction.

Flooding Source

The site is located approximately 800 – 1000 feet from Norwalk Harbor. Norwalk Harbor is subject to coastal flooding as a result of coastal storms, particularly winter nor'easters, tropical storms and hurricanes. The site is located landward of the limit of moderate wave action, and therefore is not within the coastal high hazard area. Based upon FEMA mapping, the area will flood up to elevation 12 NAVD88 in a 100-year event, and elevation 13.6 NAVD88 in a 500-year event. Existing ground elevations at the site range between 6.5 and 12 NAVD88. The lowest elevations are at Water Street, and general increase moving landward. Therefore, during a 500-year event, the portions of the site along Water Street could potentially be inundated to a depth of 7 feet. West of the site, FEMA mapping shows that South Main Street would not be flooded during a 500-year event.

Typically, the National Weather Service issues hurricane warnings 36 hours in advance, and tropical storm warnings 48 hours in advance. It is expected that floodwaters would recede within 48 to 72 hours, but this could vary depending upon the direction of the prevailing wind after the storm. Under the completed project, all of the residential units and utilities will be above the 500-year flood elevation, but dry access from the building will be limited because of flooding in surrounding streets. The intersection of Raymond and Day Streets will be above the 100-year flood elevation, but below the 500-year elevation.

Construction Flood Contingency Operation Plan

The objective of the construction flood contingency plan is to minimize the impact of flooding on adjoining properties and the environment by limiting the amount of material that would be transported off-site by floodwaters. The principal controls to meet this objective will be to manage construction such that on-site material stockpiles are minimized. Therefore, the Construction Manager will have the primary responsibility for implementing the construction flood contingency plan outlined below.

All activities are to be carried out in accordance with the City's sedimentation and erosion control regulations, and control measures shall conform to the 2002 Connecticut Erosion and Sedimentation Control Guidelines.

Materials that are hazardous, flammable, explosive, soluble, or expansive, or otherwise injurious to human, animal or plant life are to be stored off-site, outside of the floodplain at the end of a day's work. These materials will need to be transported to the site on a daily basis from off-site storage as needed.

Other construction materials, such as wood and piping will be stored below the floodplain elevation, but only in reasonable quantities necessary to complete small, discrete tasks. Such materials shall be stored as close to the floodplain boundary as possible, and shall be adequate anchored with strapping and block to prevent flotation in advance of forecast storm events.

Post-Construction Flood Contingency Operation Plan

The objective of the post-construction contingency plan is to reduce damages and prepare residents for downtime and compromised access during flooding events to the maximum extent practicable. The goal of this plan is to prepare residents and give them sufficient warning in advance of a storm event so they can prepare and have sufficient provisions to withstand a 72-hour inundation period where access to and from the site would be limited. It is anticipated that there would be 48 to 72 hours of warning in advance of a flooding event.

The person primarily responsible for the plan is the Building Manager to be designated by the Owner. The Owner shall also designate a secondary person responsible for implementing the post-construction flood contingency plan in the event that the Building Manager is not available. The Building Manager shall also monitor weather reports and notify the City of Norwalk Housing Authority once the plan is implemented.

Persons Responsible

The following is a list of phone numbers of Flood Contingency Operation Plan (FCOP) leaders and emergency agencies:

Leader	Home Telephone	Cell Phone
(Building Manager Contact)	xxx-xxxx	xxx-xxxx
(Alternate Contact)	xxx-xxxx	xxx-xxxx
(Housing Authority Contact)	xxx-xxxx	xxx-xxxx
(Housing Authority Alternate Contact)	xxx-xxxx	xxx-xxxx
Emergency Agencies		
Norwalk Police		203-854-3000
Norwalk Fire / Emergency Management		203-854-0238
CTDEMHS, Region 1		203-696-2640

Maintaining the Plan

The plan should be reviewed annually to ensure that staff are familiar with the contents and are aware of how it shall be implemented.

Please refer to the following table.

Timing	Person	Action
September of Every Year	Building Manager Housing Authority	Review the plan and update as needed.
October of Every Year	Building Manager	Conduct training for staff members who will need to help implement the Plan, assure that staff members have access to the Plan.
October of Every Year	Building Manager	Ensure electric and gas utility shutoff procedures are current and posted.
Year-Round	Building Manager	Monitor weather reports

Implementing the Plan

There may be times when a storm or series of storms in excess of the 100-year event may require individuals to take appropriate emergency actions above and beyond any floodproofing procedures that will be used. These actions may range from the careful monitoring of the progress of a storm to the evacuation of the property. The State of Connecticut Department of Energy and Environmental Protection and National Weather Service maintain a series of rain gauges, water level sensors and other technological resources throughout the area to monitor the progress of severe storm and flood events. As conditions dictate, flood watches, warnings, evacuation notices and/or other important information may be broadcast on local radio and television stations. During the days and hours preceding a major storm event, building management should carefully monitor local radio and television reports for relevant weather and flood hazard information.

Local news and information may be obtained on the following stations:

RADIO		TELEVISION	
WTSC	1400 AM	WTNH Channel 8	New Haven
WQQQ	96.7 FM	Cablevision 12	Norwalk
WRKI	95.1 FM		
WEFX	95.5 FM		
WEZN	99.9 FM		
WNLK	1350 AM		

As weather conditions worsen, occupants may be asked to consider the following:

1. Monitor the level of the Norwalk River and the surrounding area from within the building or from a safe distance. Never enter or approach flooded riverine areas.

2. Monitor local radio and television broadcasts for up to date weather and flood hazard information.

3. Assess the availability and condition of available modes of transportation.

4. Ensure that telephone capacity is available to allow for important phone messages or emergency calls.

5. Provide for any persons having special needs (the elderly, ill or physically handicapped) - individuals that would be unable rapidly evacuate the building in an emergency situation. Arrange for any special transportation needs as required.

Additionally, those responsible for building maintenance should initiate action to reduce potential damages caused by adverse weather conditions and flood. Appropriate action may include the following:

1. Store, elevate or make provisions for safe, dry storage of important documents, and other readily damaged items.

2. Bring outdoor possessions inside the building to prevent them from floating or blowing away. These items include unsecured outdoor furnishings, benches, trash receptacles, tools, signs, building supplies and other moveable objects.

3. Tape windows to prevent shattering if it is anticipated that the storm will be accompanied by strong winds.

The following table will assist in the implementation of the plan from the time a flood warning is issued:

Timing	Action
0 hours	Notify Housing Authority contact of flood warning. • If Housing Authority contact is not present, call cell phone • If Housing Authority contact is not available, call Housing Authority alternate contact.
Every 2 hours	Monitor progress of implementation and flood warnings. Communicate changes in the warning to other staff members implementing the plan.
0 hours	Activate flood contingency plan.
0 hours	Bring outdoor possessions inside the building to prevent them floating or blowing away.
0 hours	Notify building residents of the flood hazard and urge precautions to stock up on food and medicine.
0 hours	Tape windows to prevent shattering.
0 hours	Confirm backup power systems are functional.
3 hours	Relocate valuable equipment and files in common rooms and administrate areas to higher shelving or storage locations to the maximum extent practicable.

3 hours	Apply rust preventative compounds to equipment subject to flooding that cannot be easily moved or relocated.
6 hours	Deploy sandbags as an additional measure near lobby door locations as an additional backup measure.
72 hours	Turn off the electric and natural gas supply when water is within 1 foot of entering the building. Engage backup power supply.

Tighe&Bond

SECTION 4

Connecticut Department of
Energy & Environmental Protection
Bureau of Water Protection & Land Reuse
Office of Long Island Sound Programs

Coastal Consistency Review Form

DEEP USE ONLY
Application No.:
Analyst Assigned:
Date Received (OLISP):

Please complete this form in accordance with the instructions (DEP-INST-004). Print or type unless otherwise noted.

Part I: Project Information

1. **Applicant Name: State of Connecticut, Department of Housing**

   Mailing Address: **505 Hudson Street**

   City/Town: **Norwalk** State: **CT** Zip Code: **06106**

   Business Phone: **203-270-8149** ext.: Fax:

   Contact Person: **Hermia Delaire** Phone: **203-270-8149** ext.

   E-mail: **hermia.delaire@ct.gov**

2. **Preparer Name: Tighe & Bond**

   Mailing Address: **1000 Bridgeport Avenue**

   City/Town: **Shelton** State: **CT** Zip Code: **06484**

   Business Phone: **203-712-1100** ext.: Fax: **203-925-8942**

   Contact Person: **Joseph Canas, PE, LEED AP, CFM** Phone: **203-712-1109** ext.

   E-mail: **jacanas@tighebond.com**

3. **Street Address or Description of Location of the Project Site:**

   Bounded by Hanford Place, Concord Street, Water Street, and South Main Street

   City or Town: **Norwalk**

4. **Brief Project Description:**

   Redevelopment of Washington Village to include 273 housing units above the 500-year floodplain elevation.

5. **Is the project located within the coastal boundary as defined in CGS Section 22a-94(b)?**

   ☒ Yes ☐ No

   If you answered **Yes** to this question, complete the entire form.

   If you answered **No** to this question, and your project is located in a coastal area, skip Parts II through V and complete Parts VI, VII and VIII.

Part II: Identification of Applicable Coastal Use and Activity Policies and Standards

Identify all statutory goals and policies in or referenced by Section 22a-92 of the Coastal Management Act applicable to the proposed activities by checking the applicable boxes in the following table.

- ☒ General Development* - CGS Sections 22a-92(a)(1), 22a-92(a)(2), 22a-92(a)(9), 22a-92(a)(9)
- ☐ Water-Dependent Uses - CGS Sections 22a-92(a)(3), 22a-92(b)(1)(A)
- ☐ Ports and Harbors - CGS Section 22a-92(b)(1)(C)
- ☐ Coastal Structures and Filling - CGS Section 22a-92(b)(1)(D)
- ☐ Dredging and Navigation - CGS Sections 22a-92(c)(1)(C), 22a-92(c)(1)(D)
- ☐ Boating - CGS Section 22a-92(b)(1)(G)
- ☐ Fisheries - CGS Section 22a-92(c)(1)(I)
- ☐ Coastal Recreation And Access - CGS Sections 22a-92(a)(6), 22a-92(C)(1)(j), 22a-92(c)(1)(K)
- ☐ Sewer and Water Lines - CGS Section 22a-92(b)(1)(B)
- ☐ Fuel, Chemicals And Hazardous Materials - CGS Sections 22a-92(b)(1)(C), 22a-92(b)(1)(E), 22a-92(c)(1)(A)
- ☐ Transportation - CGS Sections 22a-92(b)(10)(F), 22a-92(c)(1)(F), 22a-92(c)(1)(G), 22a-92(c)(1)(H)
- ☐ Solid Waste - CGS Section 22a-92(a)(2)
- ☐ Dams, Dikes and Reservoirs - CGS Section 22a-92(a)(2)
- ☐ Cultural Resources - CGS Section 22a-92(b)(1)(J)
- ☐ Open Space and Agricultural Lands - CGS Section 22a-92(a)(2)

* applicable to all proposed activities

Part III: Consistency With Applicable Statutory Coastal Use and Activity Goals and Policies

Explain how the proposed activity is consistent with the applicable coastal activities goals and policies identified in Part II and describe any mitigation necessary to offset adverse impacts.

See attached Coastal Site pLan Review narratives, Section 3.3

Part IV: Identification of Applicable Coastal Resources and Coastal Resource Policies

Identify the coastal resources and associated statutory policies that apply to your project by checking the applicable boxes in the following table.

Coastal Resources	on-site	adjacent to work site	off-site but potentially affected by the project
General Resources* - CGS Sections 22a-93(7), 22a-92(a)(2)	X	X	X
Beaches & Dunes - CGS Sections 22a-93(7)(C), 22a-92-(b)(2)(C), 22a-92(c)(1)(K)	☐	☐	☐
Bluffs & Escarpments - CGS Sections 22a-93(7)(A), 22a-92(b)(2)(A)	☐	☐	☐
Coastal Hazard Area - CGS Sections 22a-93(7)(H), 22a-92(a)(2), 22a-92(b)(2)(F), 22a-92(b)(2)(J), 22a-92(c)(2)(B), 22a-92(a)(5)	☒	☐	☐
Coastal Waters & Estuarine Embayments - CGS Sections 22a-93(5), 22a-93(7)(K), 22a-93(7)(L), 22a-93(7)(G), 22a-92(a)(2), 22a-92(c)(2)(A)	☐	☐	☐
Developed Shorefront - CGS Sections 22a-93(7)(I), 22a-92(b)(2)(G)	☐	☐	☐
Freshwater Wetlands and Watercourses - CGS Sections 22a-93(7)(F), 22a-92(a)(2)	☐	☐	☐
Intertidal Flats - CGS Sections 22a-93(7)(D), 22a-92(b)(2)(D), 22a-92(c)(1)(K)	☐	☐	☐
Islands - CGS Sections 22a-93(7)(J), 22a-92(b)(2)(H)	☐	☐	☐
Rocky Shorefront - CGS Sections 22a-93(7)(B), 22a-92(b)(2)(B)	☐	☐	☐
Shellfish Concentration Areas - CGS Sections 22a-93(7)(N), 22a-92(c)(1)(I)	☐	☐	☐
Shorelands - CGS Sections 22a-93(7)(M), 22a-92(b)(2)(I)	☐	☐	☐
Tidal Wetlands - CGS Sections 22a-93(7)(E), 22a-92(a)(2), 22a-92(b)(2)(E), 22a-92(c)(1)(B)	☐	☐	☐

* applicable to all proposed activities

Part V: Consistency with Applicable Statutory Coastal Resource Goals and Policies

Explain how the proposed activity is consistent with the applicable statutory coastal resource goals and policies identified in Part IV and describe any mitigation necessary to offset adverse impacts.

See attached Coast Site Plan Review Narratives, Sections 3.1 and 3.2

Part VI: Identification of Potential Adverse Impacts

Identify the adverse impact categories that apply to the proposed activity. Check the applicable box if the proposed activity has the potential to generate any adverse impacts defined in the Coastal Management Act and referred to in the following table. If the category is applicable to the proposed activity, you may describe in Part VII project design features which may eliminate or minimize the potential for identified adverse impacts.

Potential Resource Impacts	Applicable	Not Applicable
Characteristics & Functions of Resources - CGS Section 22a-93(15)(H)	☐	☒
Coastal Flooding - CGS Section 22a-93(15)(E)	☐	☒
Coastal Waters Circulation Patterns - CGS Section 22a-93(15)(B)	☐	☒
Drainage Patterns - CGS Section 22a-93(15)(D)	☐	☒
Patterns of Shoreline Erosion and Accretion - CGS Section 22a-93(15)(C)	☐	☒
Visual Quality - CGS Section 22a-93(15)(F)	☐	☒
Water Quality - CGS Section 22a-93(15)(A)	☐	☒
Wildlife, Finfish, Shellfish Habitat - CGS Section 22a-93(15)(G)	☐	☒

Potential Impacts on Water Dependent Uses	Applicable	Not Applicable
Locating a non-water-dependent use on a site suited to or planned for a water-dependent use - CGS Section 22a-93(17)	☐	☒
Replacing an existing water-dependent use with a non-water-dependent use - CGS Section 22a-93(17)	☐	☒
Siting a non-water-dependent use which reduces or eliminates public access to marine or tidal waters - CGS Section 22a-93(17)	☐	☒

Part VII: Consistency with Statutory Adverse Impact Policies

Explain how all potential adverse impacts identified, as applicable, in Part VI have been avoided, eliminated or minimized.

See attached Coastal Site Plan Review narrative, Section 3.4

Part VIII: Remaining Adverse Impacts

Identify any adverse impacts which remain after incorporating all measures to eliminate or minimize such adverse impacts, and explain why no feasible and prudent alternatives exist that would further avoid or reduce such impacts.

Not applicable

Coastal Site Plan Review

Hanford Place
Building A

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Prepared for:

City of Norwalk
Zoning Commission

September 2013

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Tighe&Bond

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Appendix A – Figures

Appendix B – FEMA Firmette

Appendix C – CTDEEP Coastal Resources Map

Site Plans & Architectural Drawings Attached Separately

Section 1 Executive Summary

The Applicants, Trinity Washington Village Limited Partnership and the Norwalk Housing Authority, are proposing to construct a housing development on an approximate 0.449-acre property located at 13 Day Street in Norwalk, Connecticut ("Property"). The Property is located within the Coastal Boundary and thus is subject to compliance with coastal site plan review requirements as detailed in Sections 22a-105 through 22a-109 of the Coastal Management Act and Article 111 of the Building Zone Regulations of the City of Norwalk.

The proposed development ("Project") will be a portion of a larger overall Washington Village development which will include two additional properties to the south. The 10 residential units proposed in Building A will be a mixture of two to four bedroom units in a multi-story building. The proposed housing complex will front Hanford Place with pedestrian access from the City sidewalk. A 20-space parking lot will be located immediately to the north of the housing complex with vehicular access off of Day Street.

Coastal resources within or in proximity to the Property include Coastal 'Flood' Hazard Area and Developed Shorefront. The proposed Project meets the requirements of the Connecticut Coastal Management Act and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

Section 2 Project Narrative

2.1 Site Description

The approximate 0.449-acre Property is located northwest of the intersection of Day Street and Hanford Place, with access from Day Street and Hanford Place. Please refer to *Appendix A, Figure 1 - Site Location Map and Figure 2 - Aerial Site & Coastal Resources Map* for reference. The Property, owned by the City of Norwalk, is described by the City of Norwalk Tax Assessor as; 13 Day Street, Map 15SE District 2 Block 58 Lot 46. The parcel is zoned as Industrial No. 1 (I1).

The Property is located within the 100-year flood elevation (Zone AE) as show on Flood Insurance Rate (FIRM) Map Number 09001C0531G, dated July 8, 2013. Please refer to *Appendix B, FEMA Firmette* for reference.

The Property is currently void of building structures and is characterized by a gravel parking lot, the periphery of which is lightly vegetated. A review of aerial photography from 1970 indicates the Property had previously included a large primary structure, a smaller accessory structure, and associated driveways. Land use proximate to the Property is characterized by dense residential and commercial development.

2.2 Proposed Project

The proposed redevelopment will be a portion of a larger overall Washington Village development which will include two additional properties to the south. The Norwalk Housing Authority and its developer, Trinity Washington Village Limited Partnership, will construct one higher income unit for each of the existing public housing units in Washington Village for a total of 273 units. The 10 residential units proposed in Building A will be a mixture of two to four bedroom units in a multi-story building. The proposed housing complex will front Hanford Place with pedestrian access from the City sidewalk. A 20-space paved parking lot will be located immediately to the north of the housing complex with vehicular access off of Day Street.

The proposed building will be constructed such that the first floor residential units are constructed 1-foot above the 500-year flood elevation plus wave setup, which is 14.6. Parking will be located immediately to the north of the residential units in a 20-space paved parking lot. All mechanical units for the units will be placed above the base flood elevation, and utilities below this elevation would be floodproofed to minimize infiltration or discharge.

Section 3 Coastal Site Plan Review

The following narrative is intended to demonstrate that the proposed Project meets the requirements of the Coastal Management Act (CGS Section 22a-90 through 22a-112) and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

3.1 Coastal Resources

Tighe & Bond conducted a review of publically available coastal resource mapping (Norwalk South Quadrangle, dated 1979) to determine the location of coastal resources in proximity to the property. Please refer to *Appendix A, Figure 2 – Aerial Site & Coastal Resources Map* and *Appendix C – Coastal Resources Map (Norwalk South Quadrangle)* for reference. The Property is located within a Coastal 'Flood' Hazard Area and approximately 650 feet west of Developed Shorefront located along the west side of Norwalk Harbor. The following are definitions of these resource areas as provided in CGS Sections 22a-93(7)(H) and 22a-93(7)(G) respectively:

Coastal 'Flood' Hazard Areas are statutorily defined as those land areas inundated during coastal storm events or subject to erosion induced by such events, including flood hazard areas as defined and determined by the National Flood Insurance Act and all erosion hazard areas as determined by the Commissioner. In general, coastal flood hazard areas include all areas designated as within A-zone and V-zones by the Federal Emergency Management Agency (FEMA). A-zones are subject to still-water flooding during so called "100-year" flood events. During 100-year flood events, V-zones are subject to direct action by waves three feet or more in height.

Developed Shorefront means those harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems.

3.2 Coastal Resource Policies and Project Compliance

Coastal resource policies for the above-referenced resources and documentation of Project compliance with these policies is detailed below:

3.2.1 Coastal Resource Policies

Applicable policies regarding Coastal 'Flood' Hazard Areas as defined in CGS Section 22a-92(b)(2)(F) include the following:

1. *To manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized.*

2. *To promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water-dependent uses.*

3. *To minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures.*

4. *Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, or existing inhabited structures, and where there is no feasible, less environmentally damaging alternative and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.*

5. *To maintain, enhance, or, where feasible, restore natural patterns of water circulation and fresh and saltwater exchange in the placement or replacement of culverts, tide gates or other drainage or flood control structures.*

6. *It is hereby found and declared that, because of the occurrence of severe storms accompanied by winds up to hurricane force, abnormal high tides and tide flooding, the lives and property of residents and other persons within areas exposed to such hazards are endangered, and that, in the interest of public health, safety and general welfare, it is necessary to minimize, and as far as possible to prevent, loss of life, property and revenue to municipalities and the state from taxation by the construction of protective works on or near shores and beaches within such areas.*

Policies regarding Developed Shorefront are defined in CGS Section 22a-92(b)(2)(G) as follows:

1. *To promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shorefront areas for marine-related uses, including but not limited to commercial and recreational fishing, boating and other water-dependent commercial, industrial and recreational uses.*

3.2.2 Project Compliance

Coastal resource policies associated with Coastal 'Flood' Hazard Areas are generally related to minimizing hazards to life and property associated with flooding events. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone Regulations (Article 110). Furthermore, the Project is subject to Flood Management Certification from the Connecticut Department of Energy and Environmental Protection. Therefore, the Project will comply with coastal resource policies associated with this resource area.

Coastal resource policies regarding Developed Shorefront are related to water-dependent uses. The Property is located approximately 650 feet from Norwalk Harbor; therefore, compliance is not applicable.

3.3 Coastal Use Policies and Project Compliance

The proposed Project activities are consistent with General Development as referenced in CGS Section 22a-92. Applicable use policies associated with General Development include the following:

1. *To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth.*

The proposed Project is consistent with the use policies noted above. The proposed Project is located within a densely developed area lacking significant land and water

resources. The proposed Project will not disrupt the natural environment and is intended to promote economic growth.

3.4 Adverse Impacts

The proposed Project will not result in adverse impacts to coastal resources as defined in the Coastal Management Act. The Coastal Management Act identifies eight potential adverse impacts to coastal resources. This section provides a definition of the potential adverse impacts associated with each resource area and why the proposed Project would not adversely affect the resources.

1. *Degrading **water quality** of coastal waters by introducing significant amounts of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity.*

The proposed Project will not affect water quality within Norwalk Harbor or other nearby coastal resources. The proposed development will utilize a series of low impact development strategies and best management practices (BMP's) to improve water quality and reduce the quantity of runoff from the site. These BMP measures will be part of an overall treatment train designed to mitigate development impacts on stormwater discharge from the site. These measures have been designed in compliance with Connecticut Department of Energy and Environmental Protection's guidance and recommendations contained in the *2004 Connecticut Stormwater Quality Manual* and *2002 State of Connecticut Guidelines for Soil Erosion and Sediment Control*.

2. *Degrading **existing circulation patterns of coastal waters** by impacting tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours.*

The proposed Project is located outside of tidally influenced coastal water areas and as such will not impact current drainage or circulation patterns to tidally influenced areas.

3. *Degrading **natural erosion patterns** by significantly altering littoral transport of sediments in terms of deposition or source reduction.*

The proposed Project would not affect littoral transport of sediments since the Property is not located on a shoreline.

4. *Degrading **natural or existing drainage patterns** by significantly altering groundwater flow and recharge and volume of runoff.*

Stormwater runoff patterns for the proposed development will follow approximately the same patterns as at present. No alterations are proposed that would adversely affect the volume or quality of stormwater runoff from the Property.

5. *Increasing the hazard of **coastal flooding** by significantly altering shoreline configurations or bathymetry, particularly within high velocity flood zones.*

Based on the most recent available digital FIRM mapping, as well as publically available coastal resource mapping, the Property is located within the 100-year flood hazard zone and Coastal 'Flood' Hazard Area. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone Regulations (Article 110). Additionally, the proposed

Project is located 650 feet inland from Norwalk Harbor. Therefore, the Project will not alter shoreline configurations or bathymetry and will not increase coastal flooding.

6. *Degrading **visual quality** by significantly altering the natural features of vistas and viewpoints.*

The Project includes development of a previously developed parcel within a densely developed area of South Norwalk located approximately 650 feet west of Norwalk Harbor. Views of the Property from coastal waters are currently obstructed by a large building located immediately to the east. Therefore, the Project will not degrade visual quality by significantly altering the natural features of vistas and viewpoints.

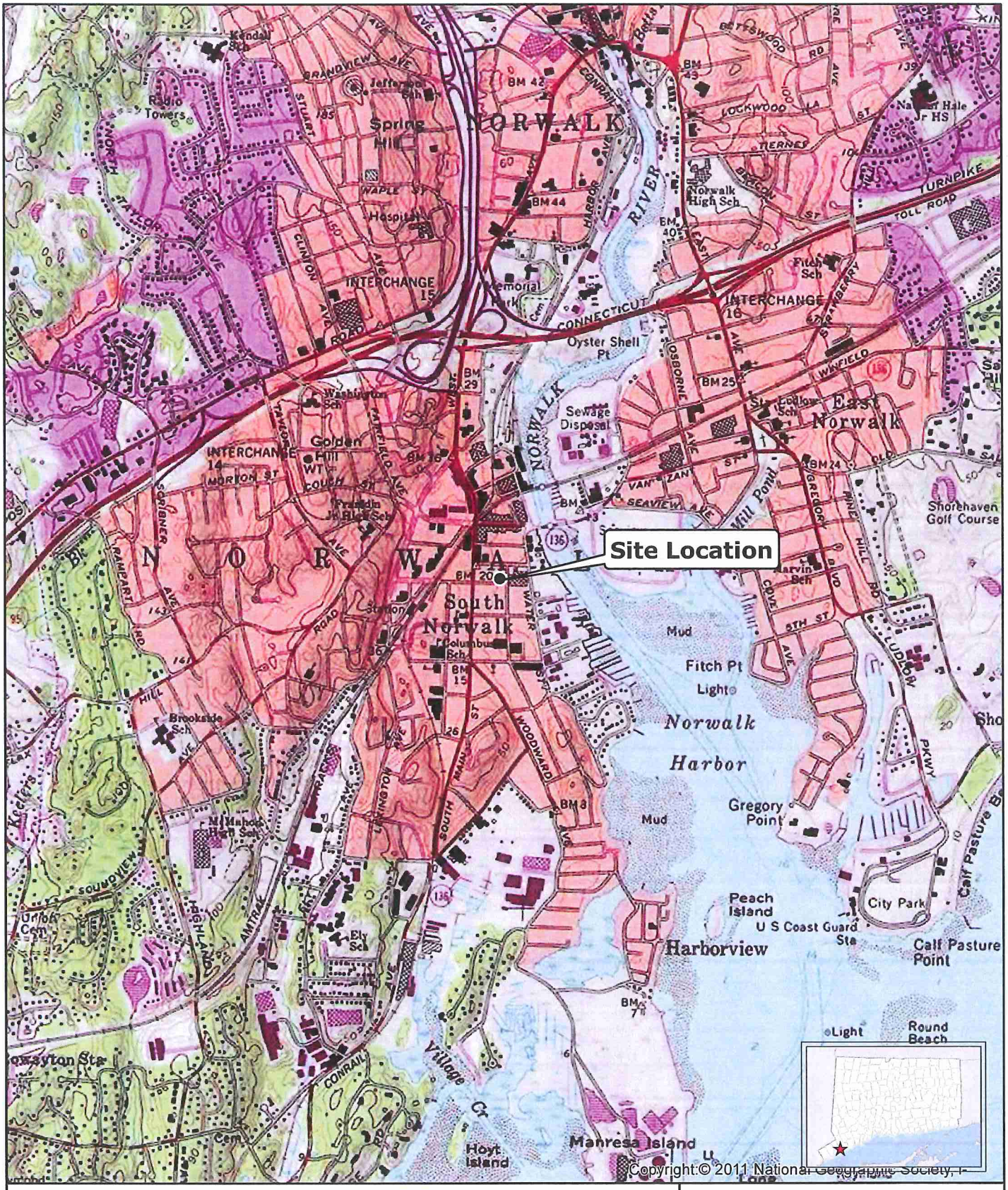
7. *Degrading or destroying **essential wildlife, finfish or shellfish habitat** by significantly altering the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significantly altering the natural components of the habitat.*

The proposed Project is located within a densely developed area of Norwalk, 650 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade or destroy essential coastal wildlife, finfish or shellfish habitat.

8. *Degrading **tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments** by significantly altering their natural characteristics or function.*

The proposed Project is located within a densely developed area of Norwalk, 650 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments.

Appendix A
Figures



LEGEND

- Site Location

September 2013

Source: U.S Geological Survey, in cooperation with CTDEEP, Office of Information Management

Based on USGS Topographic Map for Norwalk South, CT, Rev. 1985, 1:24,000

Map Date: September 2013

1:24,000

0 1,000 2,000

Feet

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FIGURE 1
SITE LOCATION MAP

Hanford Place, Building A

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

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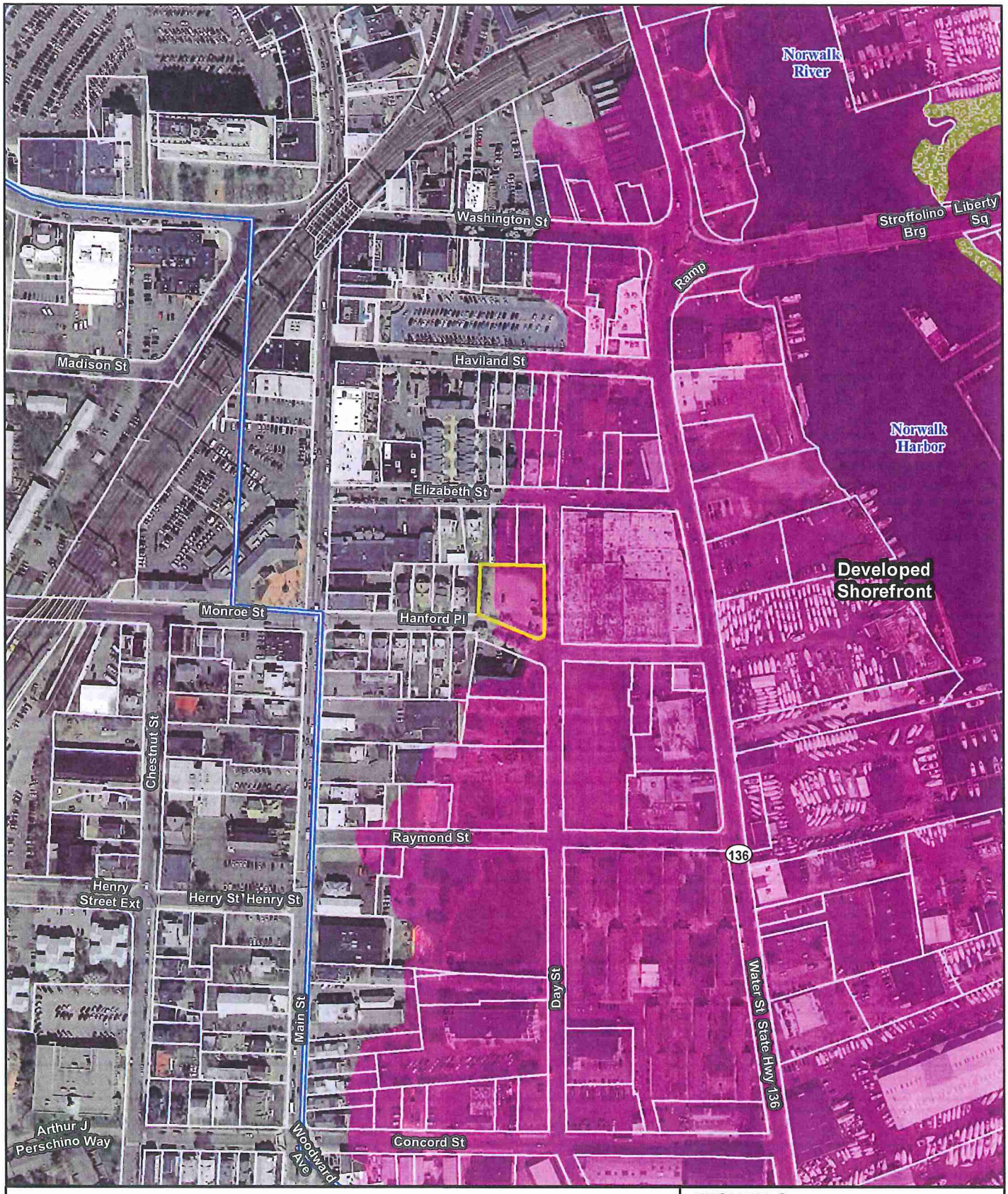
I-0071



LEGEND

- Approximate Site Boundary
- Approximate Parcel Boundary
- Coastal Boundary Line
- Tidal Wetlands (1990)
- Coastal Resource Area
- 100-Year Flood Zone / Coastal 'Flood' Hazard Area
- Developed Shorefront

Source:
Connecticut DEEP, Office of Information Management GIS Data
FEMA Flood Zones are maintained by FEMA.
The data layers shown are the most recent publications.
Ortho Base Map: State of Connecticut 2012 aerial imagery with 1-ft ground resolution provided by CTECO

1:3,600
0 150 300
Feet

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FIGURE 2
AERIAL SITE AND COASTAL RESOURCES MAP

Hanford Place, Building A

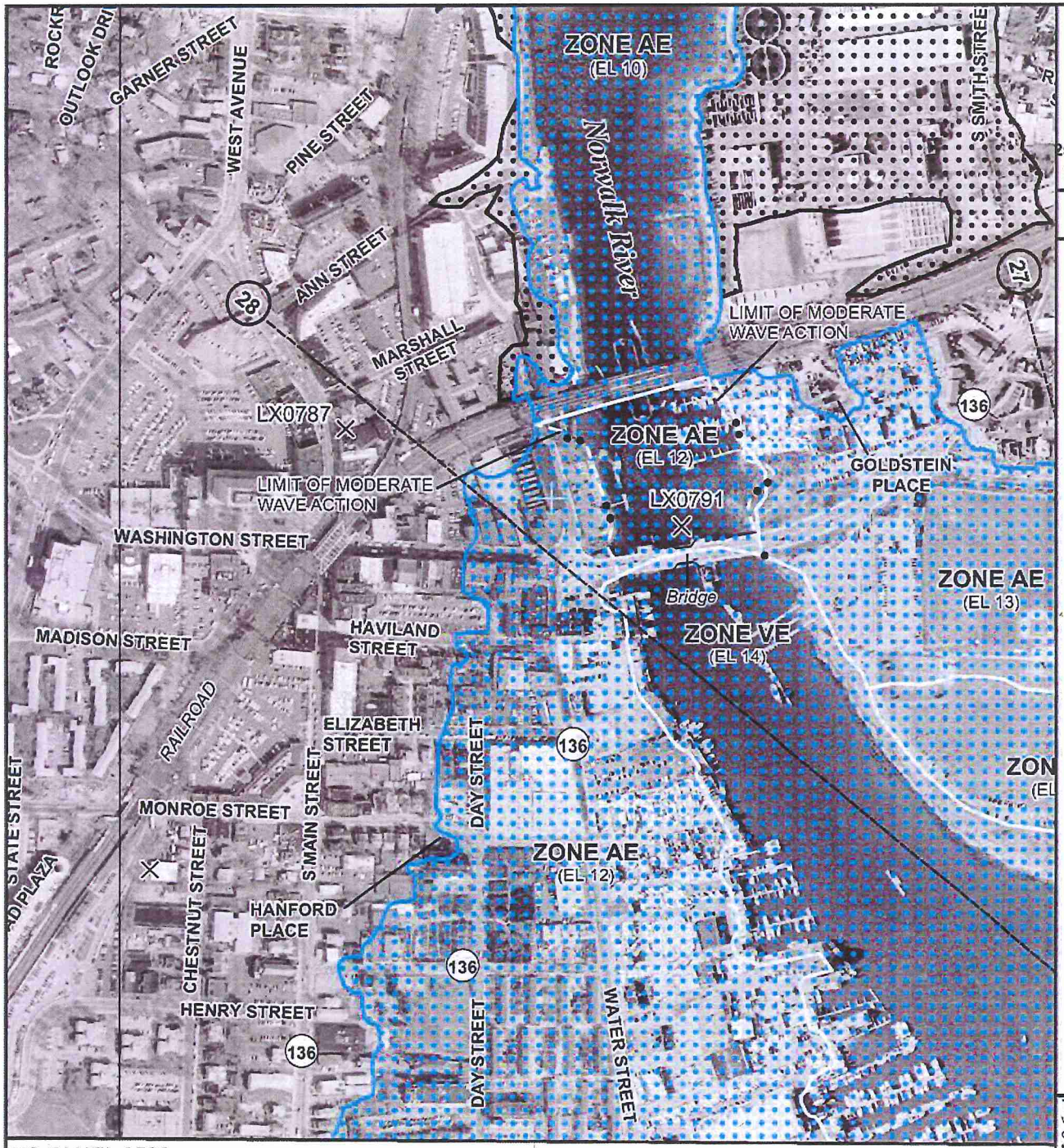
Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Y:\Site_Locus_Figures\NorwalkCT\13DayStreet\MXD\CoastalResources\Figure 2 Aerial.mxd

I-0071

Appendix B
FEMA Firmette



NS PANEL 0533

MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0531G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT

(ALL JURISDICTIONS)

PANEL 531 OF 626

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NORWALK, CITY OF	090012	0531	G

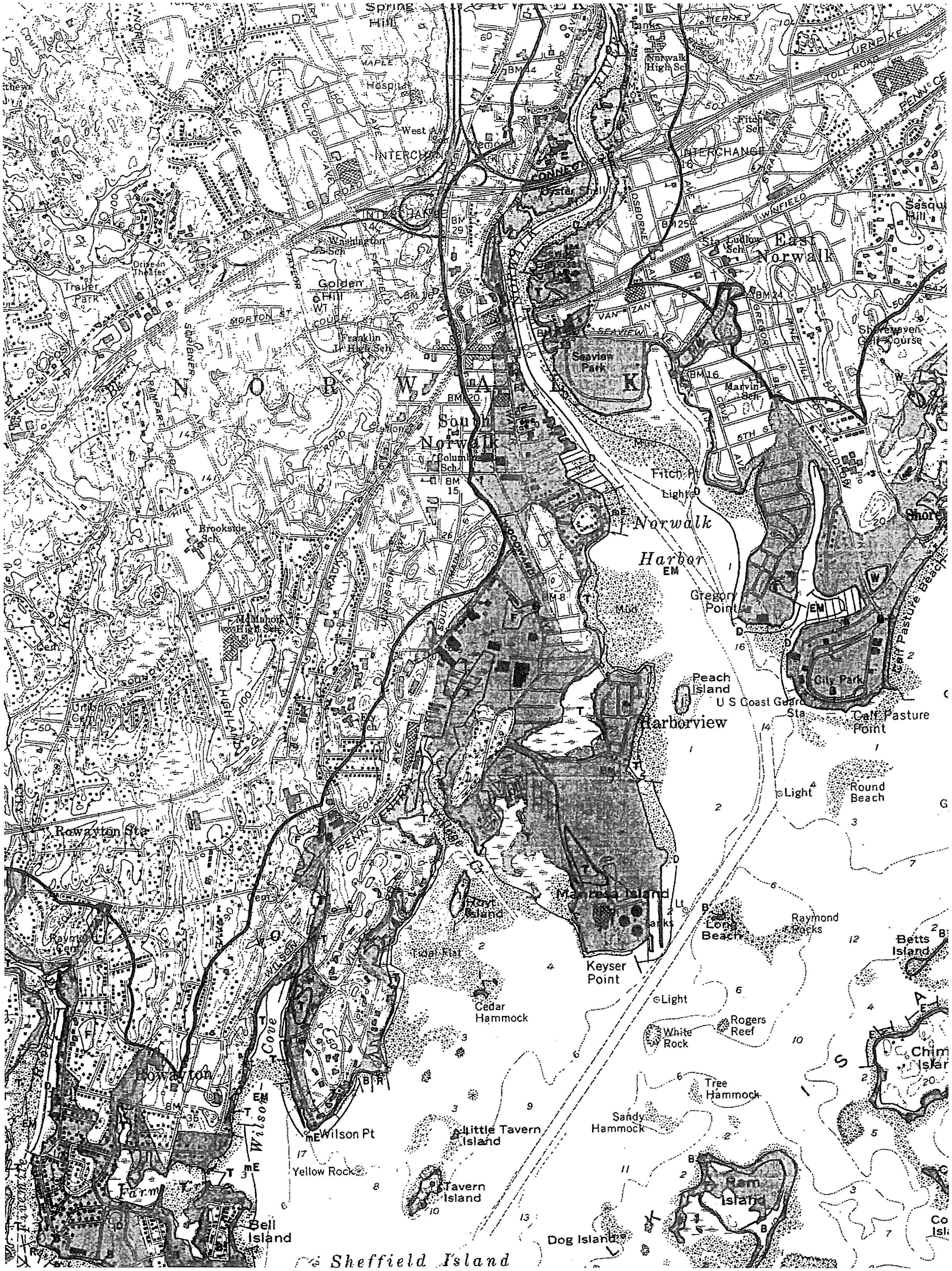
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
09001C0531G

MAP REVISED
JULY 8, 2013

Federal Emergency Management Agency

Appendix C
Coastal Resources Map
Norwalk South Quadrangle
Coastal Management Act Proram 1979
U.S.G.S. & CTDEEP



Spring Hill
Norwalk High Sch
Hospital
West
INTERCHANGE
Oyster Shell
TURNPIKE
TOLL ROAD
Fitch Sch
Washington Sch
Drive-in Theater
Trailer Park
Golden Hill
MORTON ST
Franklin Jr High Sch
East Norwalk
Sta
Ludlow Sch
Sasqua Hill
WINFIELD
OSBORNE
VAN ZANT
SEAVIEW AVE
Seaview Park
Shorehaven Golf Course
N O R W A L K
South Norwalk
Columbus Sch
Marvin Sch
5TH ST
Fitch Pt
Light
Mud
Norwalk
Harbor
Brookside Sch
Gregory Point
McMahon High Sch
Peach Island
U S Coast Guard Sta
City Park
Calf Pasture Point
Calf Pasture Beach
Harborview
Union Cem
Round Beach
Rowayton Sta
Hoyt Island
Manresa Island
Long Beach
Raymond Rocks
Betts Island
Tidal Flat
Keyser Point
Cedar Hammock
Light
White Rock
Rogers Reef
Wilson Cove
Rowayton
Tree Hammock
Sandy Hammock
Wilson Pt
Little Tavern Island
Yellow Rock
Tavern Island
Ram Island
Bell Island
Dog Island
Sheffield Island

Coastal Site Plan Review

Day Street
Building B

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Prepared for:

City of Norwalk
Zoning Commission

September 2013

Section 1 Executive Summary

Section 2 Project Narrative

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2.2 Proposed Project 2-1

Section 3 Coastal Site Plan Review

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3.2 Coastal Resource Policies and Project Compliance 3-2
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Appendix B – FEMA Firmette

Appendix C – CTDEEP Coastal Resources Map

Site Plans & Architectural Drawings Attached Separately

Section 1 Executive Summary

The Applicants, Trinity Washington Village Limited Partnership and the Norwalk Housing Authority, are proposing to construct a housing development on an approximate 1.288-acre property located at 20 Day Street in Norwalk, Connecticut ("Property"). The Property is located within the Coastal Boundary and thus subject to compliance with coastal site plan review requirements as detailed in Sections 22a-105 through 22a-109 of the Coastal Management Act and Article 111 of the Building Zone Regulations of the City of Norwalk.

The proposed development ("Project") will be a portion of a larger overall Washington Village development which will include two additional properties; one to the south and one to the north. The 71 residential units proposed in Building B will be a mixture of one to three bedroom units in a multi-story building. The proposed housing complex will front Day Street with pedestrian access from the City sidewalk. A total of 48 covered parking spaces will be provided beneath Building B. A 50-space paved parking lot will also be located to the east of the building (98 total spaces), with vehicular access provided off of Hanford Place.

Coastal resources within or in proximity to the Property include Coastal 'Flood' Hazard Area and Developed Shorefront. The proposed Project meets the requirements of the Connecticut Coastal Management Act and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

Section 2 Project Narrative

2.1 Site Description

The approximate 1.288-acre Property is bounded to the west by Day Street; to the south by Raymond Street; to the north by Hanford Place; and to the east by private properties off of Water Street. Please refer to *Appendix A, Figure 1 - Site Location Map and Figure 2 - Aerial Site & Coastal Resources Map* for reference. The Property, owned by the City of Norwalk, is described by the City of Norwalk Tax Assessor as; 20 Day Street, Map 15SE District 2 Block 60 Lot 1. The parcel is zoned as Industrial No. 1 (I1).

The Property is located within the 100-year flood elevation (Zone AE) as show on Flood Insurance Rate (FIRM) Map Number 09001C0531G, dated July 8, 2013. Please refer to *Appendix B, FEMA Firmette* for reference.

The Property is void of building structures and is currently being utilized as a landscape storage yard. A review of aerial photography from 1970 indicates the Property had previously included several structures, accessory buildings, and driveways. Land use proximate to the Property is characterized by dense residential and commercial development.

2.2 Proposed Project

The proposed redevelopment will be a portion of a larger overall Washington Village development which will include two additional properties; one to the south and one to the north. The Norwalk Housing Authority and its developer, Trinity Washington Village Limited Partnership, will construct one higher income unit for each of the existing public housing units in Washington Village for a total of 273 units. The 71 residential units proposed in Building B will be a mixture of one to three bedroom units in a multi-story building. The proposed housing complex will front Day Street with pedestrian access from the City sidewalk.

The buildings will be constructed such that the first floor residential units are constructed at elevation 16.5, which is 1-foot above the 500-year flood elevation plus wave setup, which is 14.6. Parking will be located at-grade below the first floor units. Floodproofed elevators and stairwells will provide access from the elevated units to street level. All mechanical units for the units will be placed above the base flood elevation, and utilities below this elevation would be floodproofed to minimize infiltration or discharge.

The parking area beneath Building B will provide a total of 48 covered spaces. A 50-space paved parking lot will also be located to the east of the building (98 total spaces) with vehicular access provided off of Hanford Place.

Section 3 Coastal Site Plan Review

The following narrative is intended to demonstrate that the proposed Project meets the requirements of the Coastal Management Act (CGS Section 22a-90 through 22a-112) and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

3.1 Coastal Resources

Tighe & Bond conducted a review of publically available coastal resource mapping (Norwalk South Quadrangle, dated 1979) to determine the location of coastal resources in proximity to the Property. Please refer to *Appendix A, Figure 2 – Aerial Site & Coastal Resources Map* and *Appendix C – Coastal Resources Map (Norwalk South Quadrangle)* for reference. The Property is located within a Coastal 'Flood' Hazard Area and approximately 650 feet west of Developed Shorefront located along the west side of Norwalk Harbor. The following are definitions of these resource areas as defined in CGS Sections 22a-93(7)(H) and 22a-93(7)(G) respectively:

Coastal 'Flood' Hazard Areas are statutorily defined as those land areas inundated during coastal storm events or subject to erosion induced by such events, including flood hazard areas as defined and determined by the National Flood Insurance Act and all erosion hazard areas as determined by the Commissioner. In general, coastal flood hazard areas include all areas designated as within A-zone and V-zones by the Federal Emergency Management Agency (FEMA). A-zones are subject to still-water flooding during so called "100-year" flood events. During 100-year flood events, V-zones are subject to direct action by waves three feet or more in height.

Developed Shorefront means those harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems.

3.2 Coastal Resource Policies and Project Compliance

Coastal resource policies for the above-referenced resources and documentation of Project compliance with these policies is detailed below:

3.2.1 Coastal Resource Policies

Applicable policies regarding Coastal 'Flood' Hazard Areas as defined in CGS Section 22a-92(b)(2)(F) include the following:

1. *To manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized.*

2. *To promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water-dependent uses.*

3. *To minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures.*

4. *Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, or existing inhabited structures, and where there is no feasible, less environmentally damaging alternative*

and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.

5. *To maintain, enhance, or, where feasible, restore natural patterns of water circulation and fresh and saltwater exchange in the placement or replacement of culverts, tide gates or other drainage or flood control structures.*

6. *It is hereby found and declared that, because of the occurrence of severe storms accompanied by winds up to hurricane force, abnormal high tides and tide flooding, the lives and property of residents and other persons within areas exposed to such hazards are endangered, and that, in the interest of public health, safety and general welfare, it is necessary to minimize, and as far as possible to prevent, loss of life, property and revenue to municipalities and the state from taxation by the construction of protective works on or near shores and beaches within such areas.*

Applicable policies regarding Developed Shorefront are defined in CGS Section 22a-92(b)(2)(G) as follows:

1. *To promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shorefront areas for marine-related uses, including but not limited to commercial and recreational fishing, boating and other water-dependent commercial, industrial and recreational uses.*

3.2.2 Project Compliance

Coastal resource policies associated with Coastal 'Flood' Hazard Areas are generally related to minimizing hazards to life and property associated with flooding events. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone Regulations (Article 110). Furthermore, the Project is subject to Flood Management Certification from the Connecticut Department of Energy and Environmental Protection. Therefore, the Project will comply with coastal resource policies associated with this resource area.

Coastal resource policies regarding developed shorefront are related to water-dependent uses. The Property is located approximately 650 feet from Norwalk Harbor; therefore, compliance is not applicable.

3.3 Coastal Use Policies and Project Compliance

The proposed Project activities are consistent with General Development as referenced in CGS Section 22a-92. Applicable use policies associated with General Development include the following:

1. *To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth.*

The proposed Project is consistent with the use policies noted above. The proposed Project is located within a densely developed area lacking significant land and water resources. The proposed Project will not disrupt the natural environment and is intended to promote economic growth.

3.4 Adverse Impacts

The proposed project will not result in adverse impacts to coastal resources as defined in the Coastal Management Act. The Coastal Management Act identifies eight potential adverse impacts to coastal resources. This section provides a definition of the potential adverse impacts associated with each resource area and why the proposed project would not adversely affect the resources.

1. *Degrading **water quality** of coastal waters by introducing significant amounts of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity.*

The proposed Project will not affect water quality within Norwalk Harbor or other nearby coastal resources. The proposed development will utilize a series of low impact development strategies and best management practices (BMP's) to improve water quality and reduce the quantity of runoff from the site. These BMP measures will be part of an overall treatment train designed to mitigate development impacts on stormwater discharge from the site. These measures have been designed in compliance with Connecticut Department of Environmental Protection's guidance and recommendations contained in the *2004 Connecticut Stormwater Quality Manual* and *2002 State of Connecticut Guidelines for Soil Erosion and Sediment Control*.

2. *Degrading **existing circulation patterns of coastal waters** by impacting tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours.*

The proposed Project is located outside of tidally influenced coastal water areas and as such will not impact current drainage or circulation patterns to tidally influenced areas.

3. *Degrading **natural erosion patterns** by significantly altering littoral transport of sediments in terms of deposition or source reduction.*

The proposed Project would not affect littoral transport of sediments since the Property is not located on a shoreline.

4. *Degrading **natural or existing drainage patterns** by significantly altering groundwater flow and recharge and volume of runoff.*

Stormwater runoff patterns for the proposed development will follow approximately the same patterns as at present. No alterations are proposed that would adversely affect the volume or quality of stormwater runoff from the Property.

5. *Increasing the hazard of **coastal flooding** by significantly altering shoreline configurations or bathymetry, particularly within high velocity flood zones.*

Based on the most recent available digital FIRM mapping, as well as publically available coastal resource mapping, the Property is located within the 100-year flood hazard zone and Coastal 'Flood' Hazard Area. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone Regulations (Article 110). Additionally, the proposed Project is located 650 feet inland from Norwalk Harbor. Therefore, the Project will not alter shoreline configurations or bathymetry and will not increase coastal flooding.

6. *Degrading **visual quality** by significantly altering the natural features of vistas and viewpoints.*

The Project includes development of a previously developed parcel within a densely developed area of South Norwalk located approximately 650 feet west of Norwalk Harbor. Views of the Property from coastal waters are currently obstructed by three building structures located on Water Street to the east. Therefore, the Project will not degrade visual quality by significantly altering the natural features of vistas and viewpoints.

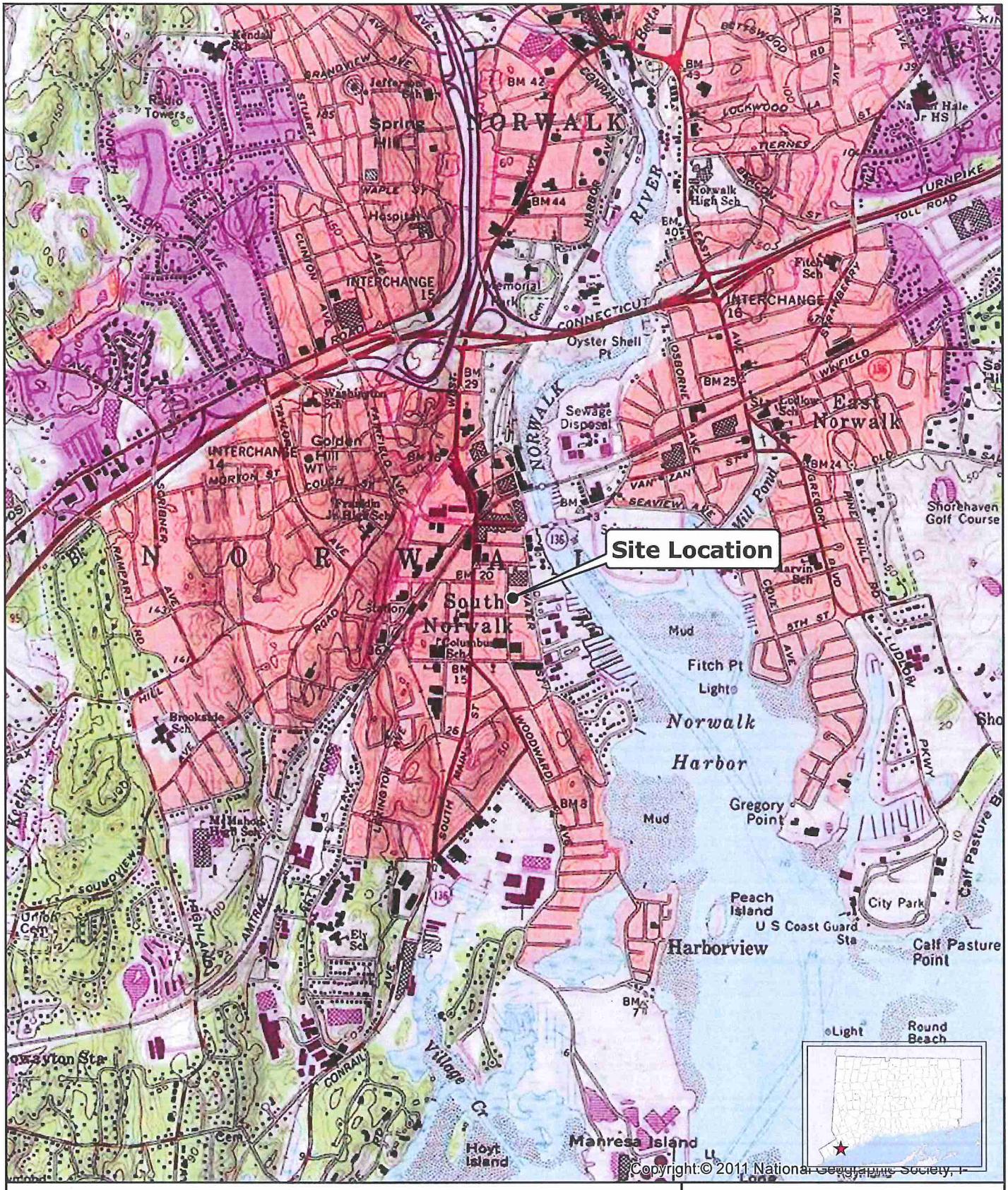
7. *Degrading or destroying **essential wildlife, finfish or shellfish habitat** by significantly altering the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significantly altering the natural components of the habitat.*

The proposed Project is located within a densely developed area of Norwalk, 650 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade or destroy essential coastal wildlife, finfish or shellfish habitat.

8. *Degrading t**idal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments** by significantly altering their natural characteristics or function.*

The proposed Project is located within a densely developed area of Norwalk, 650 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments.

Appendix A
Figures



LEGEND

● Site Location

September 2013

Tighe&Bond
Consulting Engineers
Environmental Specialists

Source: U.S Geological Survey, in cooperation with CTDEEP, Office of Information Management

Based on USGS Topographic Map for Norwalk South, CT, Rev. 1985, 1:24,000

Map Date: September 2013

1:24,000

0 1,000 2,000

Feet

N

FIGURE 1
SITE LOCATION MAP

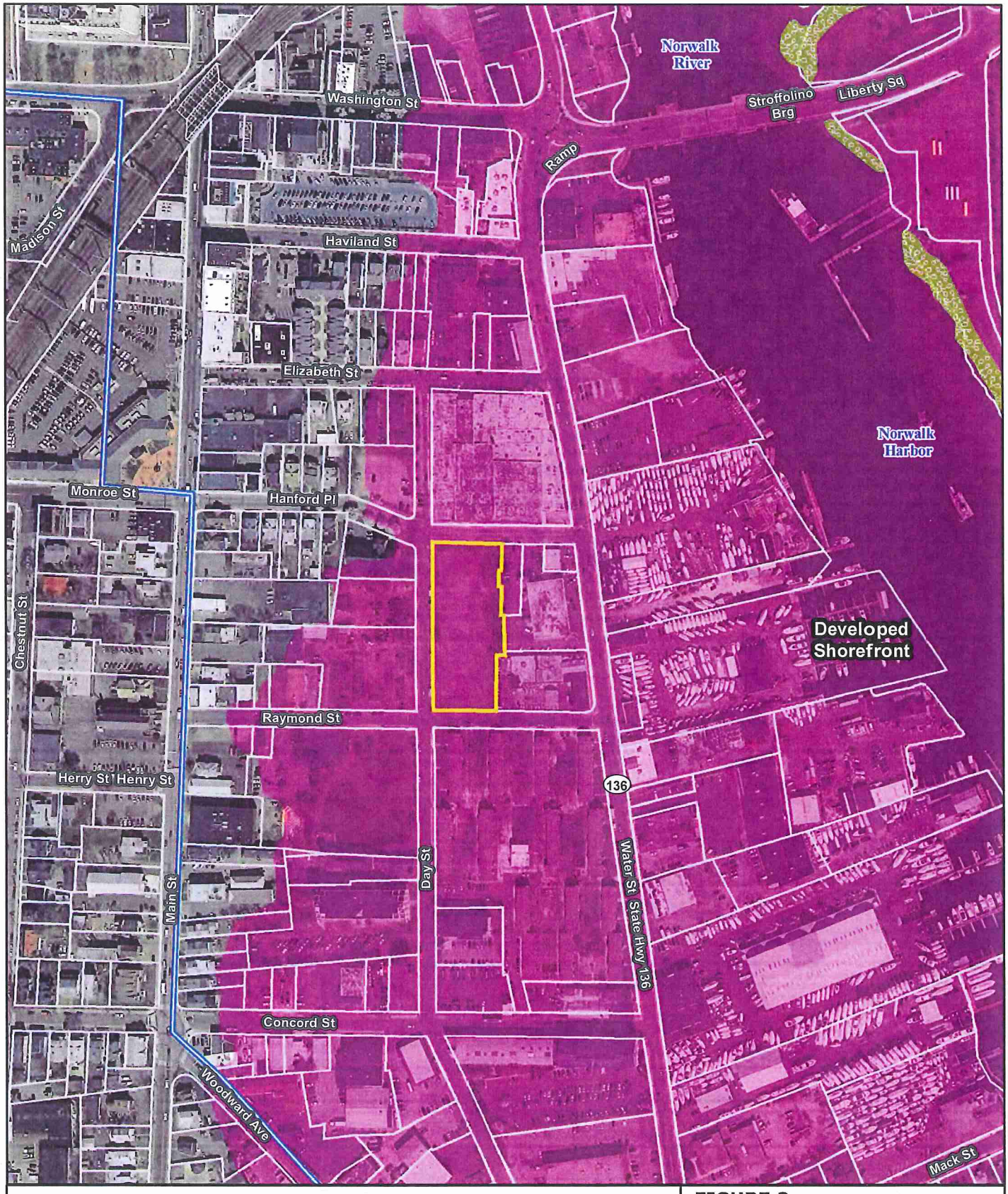
Day Street, Building B

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Y:\Site_Locus_Figures\NorwalkCT\20DayStreet\MXD\CoastalResources\Figure 1 Topo.mxd

I-0071



LEGEND

- Approximate Site Boundary
- Approximate Parcel Boundary
- Coastal Boundary Line
- Tidal Wetlands (1990)

Coastal Resource Area

- 100-Year Flood Zone / Coastal 'Flood' Hazard Area
- Developed Shorefront

Source:
Connecticut DEEP, Office of Information Management GIS Data
FEMA Flood Zones are maintained by FEMA.
The data layers shown are the most recent publications.
Ortho Base Map: State of Connecticut 2012 aerial imagery with 1-ft ground resolution provided by CTECO

1:3,600
0 150 300
Feet

N

FIGURE 2
AERIAL SITE AND COASTAL RESOURCES MAP

Day Street, Building B

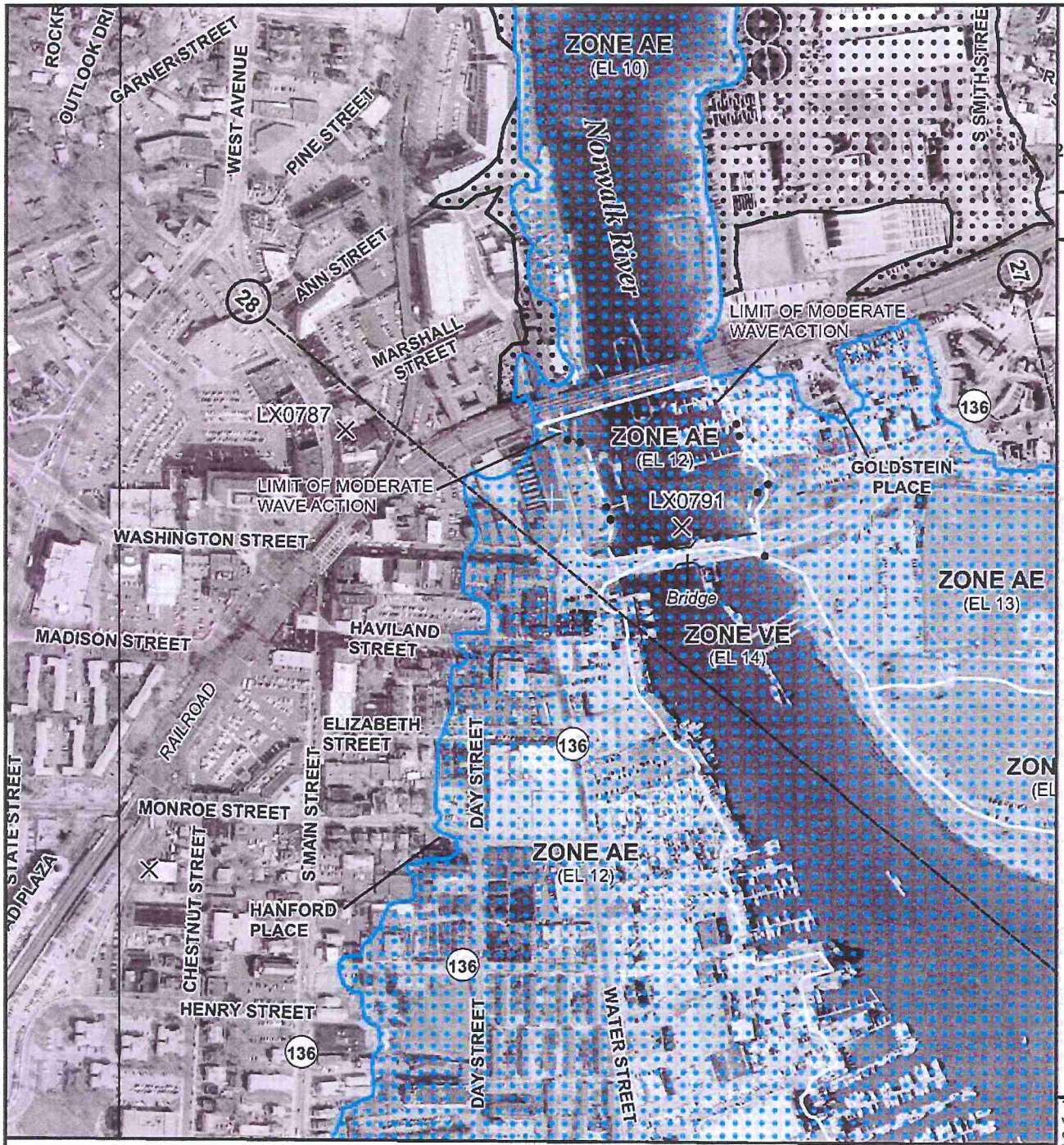
Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Y:\Site_Locus_Figures\NorwalkCT\20DayStreet\MXD\CoastalResources\Figure 2 Aerial.mxd

I-0071

Appendix B
FEMA Firmette



MAP SCALE 1" = 500'

250 0 500 1000

FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0531G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT (ALL JURISDICTIONS)

PANEL 531 OF 626

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NORWALK, CITY OF	090012	0531	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
09001C0531G

MAP REVISED
JULY 8, 2013

Federal Emergency Management Agency

Appendix C
Coastal Resources Map
Norwalk South Quadrangle
Coastal Management Act Proram 1979
U.S.G.S. & CTDEEP

Spring Hill
Norwalk High Sch
Hospital
West Av
INTERCHANGE
Oyster Shell
Washington Sch
Drive-in Theater
Trailer Park
Golden Hill
Franklin Jr High Sch
East Norwalk
Fitch Sch
Ludlow Sch
Marvin Sch
Seaview Park
Shorehaven Golf Course
N O R W A L K
South Norwalk
Columbus Sch
Brookside Sch
McMahon High Sch
Union Cem
Fitch Pt
Light
Norwalk Harbor
Mud
Gregory Point
City Park
Calf Pasture Beach
Calf Pasture Point
Peach Island
U S Coast Guard Sta
Harborview
Round Beach
Rowayton Sta
Manresa Island
Tanks
Keyser Point
Hoyt Island
Tidal Flat
Long Beach
Raymond Rocks
Betts Island
Cedar Hammock
White Rock
Rogers Reef
Rowayton
Tree Hammock
Wilson Cove
Wilson Pt
Sandy Hammock
Little Tavern Island
Yellow Rock
Tavern Island
Ram Island
Farm Cr
Bell Island
Dog Island
Sheffield Island

Coastal Site Plan Review

Washington Village
Buildings C, D and E

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Prepared for:

City of Norwalk
Zoning Commission

September 2013

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3.2.1 Coastal Resource Policies 3-2
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3.3 Coastal Use Policies and Project Compliance 3-3
3.4 Adverse Impacts 3-4

Appendix A – Figures

Appendix B – FEMA Firmette

Appendix C – CTDEEP Coastal Resources Map

Site Plans & Architectural Drawings Attached Separately

Section 1 Executive Summary

The Applicants, Trinity Washington Village Limited Partnership and the Norwalk Housing Authority, are proposing to construct a housing development on an approximate 4.762-acre property located on Raymond Street in Norwalk, Connecticut ("Property"). The Property is located within the Coastal Boundary and thus subject to compliance with coastal site plan review requirements as detailed in Sections 22a-105 through 22a-109 of the Coastal Management Act and Article 111 of the Building Zone Regulations of the City of Norwalk.

The proposed development ("Project") will be a portion of a larger overall Washington Village development which will include two additional properties to the north. The 192 residential units proposed in Buildings C, D and E will be a mixture of one to three bedroom units in three multi-story buildings. The parking beneath Buildings C, D and E will provide a total of 150 covered spaces. 232 spaces of surface parking will also be located on the Washington Village site (382 total spaces) with vehicular access provided off of Water Street, Day Street, and Concord Street.

Coastal resources within or in proximity to the Property include Coastal 'Flood' Hazard Area and Developed Shorefront. The proposed Project meets the requirements of the Connecticut Coastal Management Act and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

Section 2 Project Narrative

2.1 Site Description

The approximate 4.762-acre Property is bounded to the west by Day Street; to the south by Concord Street and private properties; to the north by Raymond Street; and to the east by Water Street. Please refer to *Appendix A, Figure 1 - Site Location Map and Figure 2 - Aerial Site & Coastal Resources Map* for reference. The Property, owned by the City of Norwalk, is described by the City of Norwalk Tax Assessor as; Raymond Street, Map 16NE District 2 Block 61 Lot 4. The parcel is zoned as Industrial No. 1 (I1).

The Property is located within the 100-year flood elevation (Zone AE) as show on Flood Insurance Rate (FIRM) Map Number 09001C0531G, dated July 8, 2013. Please refer to *Appendix B, FEMA Firmette* for reference.

The Property currently maintains eleven residential buildings, a community center, pavilions, play areas, planters, sidewalks and surface parking areas. Land use proximate to the Property is characterized by dense residential and commercial development.

2.2 Proposed Project

The proposed development will be a portion of a larger overall Washington Village development which will include two additional properties; both of which are located to the north. The Norwalk Housing Authority and its developer, Trinity Washington Village Limited Partnership, will construct one higher income unit for each of the existing public housing units in Washington Village for a total of 273 units. The 192 residential units proposed in Buildings C, D and E will be a mixture of one to three bedroom units in three multi-story buildings.

Buildings C, D, and E will be constructed such that the first floor residential units are constructed at elevation 17.5, 18.0 and 18.0 respectively. These finished floor elevations satisfy the CT DEEP requirement for critical activity of 1-foot above the 500-year flood elevation plus wave setup of 13.6. Parking will be located at-grade below the first floor units. Floodproofed elevators and stairwells will provide access from the elevated units to street level. All mechanical units for the residential buildings will be placed above the base flood elevation, and utilities below this elevation would be floodproofed to minimize infiltration or discharge.

The parking beneath Buildings C, D and E will provide a total of 150 covered spaces. 232 spaces of surface parking will also be located on the Washington Village site (382 total spaces) with vehicular access provided off of Water Street, Day Street, and Concord Street.

Section 3 Coastal Site Plan Review

The following narrative is intended to demonstrate that the proposed Project meets the requirements of the Coastal Management Act (CGS Section 22a-90 through 22a-112) and is adequately protective of the interests of these regulations and the City of Norwalk's coastal resources.

3.1 Coastal Resources

Tighe & Bond conducted a review of publically available coastal resource mapping (Norwalk South Quadrangle, dated 1979) to determine the location of coastal resources in proximity to the Property. Please refer to *Appendix A, Figure 2 – Aerial Site & Coastal Resources Map* and *Appendix C – Coastal Resources Map (Norwalk South Quadrangle)* for reference. The Property is located within a Coastal 'Flood' Hazard Area and approximately 500 feet west of Developed Shorefront located along the west side of Norwalk Harbor. The following are definitions of these resource areas as defined in CGS Sections 22a-93(7)(H) and 22a-93(7)(G) respectively:

Coastal 'Flood' Hazard Areas are statutorily defined as those land areas inundated during coastal storm events or subject to erosion induced by such events, including flood hazard areas as defined and determined by the National Flood Insurance Act and all erosion hazard areas as determined by the Commissioner. In general, coastal flood hazard areas include all areas designated as within A-zone and V-zones by the Federal Emergency Management Agency (FEMA). A-zones are subject to still-water flooding during so called "100-year" flood events. During 100-year flood events, V-zones are subject to direct action by waves three feet or more in height.

Developed Shorefront means those harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems.

3.2 Coastal Resource Policies and Project Compliance

Coastal resource policies for the above-referenced resources and documentation of Project compliance with these policies is detailed below:

3.2.1 Coastal Resource Policies

Applicable policies regarding Coastal 'Flood' Hazard Areas as defined in CGS Section 22a-92(b)(2)(F) include the following:

1. *To manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized.*

2. *To promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water-dependent uses.*

3. *To minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures.*

4. *Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, or existing inhabited structures, and where there is no feasible, less environmentally damaging alternative*

and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.

5. *To maintain, enhance, or, where feasible, restore natural patterns of water circulation and fresh and saltwater exchange in the placement or replacement of culverts, tide gates or other drainage or flood control structures.*

6. *It is hereby found and declared that, because of the occurrence of severe storms accompanied by winds up to hurricane force, abnormal high tides and tide flooding, the lives and property of residents and other persons within areas exposed to such hazards are endangered, and that, in the interest of public health, safety and general welfare, it is necessary to minimize, and as far as possible to prevent, loss of life, property and revenue to municipalities and the state from taxation by the construction of protective works on or near shores and beaches within such areas.*

Policies regarding Developed Shorefront are defined in CGS Section 22a-92(b)(2)(G) as follows:

1. *To promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shorefront areas for marine-related uses, including but not limited to commercial and recreational fishing, boating and other water-dependent commercial, industrial and recreational uses.*

3.2.2 Project Compliance

Coastal resource policies associated with Coastal 'Flood' Hazard Areas are generally related to minimizing hazards to life and property associated with flooding events. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone regulations (Article 110). Furthermore, the Project is subject to Flood Management Certification from the Connecticut Department of Energy and Environmental Protection. Therefore, the Project will comply with coastal resource policies associated with this resource area.

Coastal resource policies regarding developed shorefront are related to water-dependent uses. The Property is located approximately 500 feet from Norwalk Harbor; therefore, compliance is not applicable.

3.3 Coastal Use Policies and Project Compliance

The proposed Project activities are consistent with General Development as referenced in CGS Section 22a-92. Applicable use policies associated with General Development include the following:

1. *To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth.*

The proposed Project is consistent with the use policy noted above. The proposed Project is located within a densely developed area lacking significant land and water resources. The proposed Project will not disrupt the natural environment and is intended to promote economic growth.

3.4 Adverse Impacts

The proposed project will not result in adverse impacts to coastal resources as defined in the Coastal Management Act. The Coastal Management Act identifies eight potential adverse impacts to coastal resources. This section provides a definition of the potential adverse impacts associated with each resource area and why the proposed project would not adversely affect the resources.

1. *Degrading **water quality** of coastal waters by introducing significant amounts of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity.*

The proposed Project will not affect water quality within Norwalk Harbor or other nearby coastal resources. The proposed development will utilize a series of low impact development strategies and best management practices (BMP's) to improve water quality and reduce the quantity of runoff from the site. These BMP measures will be part of an overall treatment train designed to mitigate development impacts on the discharge from the site. The existing drainage area sheds runoff from the site untreated into the City storm drainage systems in Water Street, Raymond Street and Day Street. There are no existing measures in place to improve the quality of runoff or encourage infiltration to reduce the quantity of runoff. The Project will incorporate porous pavement for the driveway and parking areas on the southern and eastern portions of the site. In addition a 36-inch HDPE below-grade infiltration system will be provided south of building D to infiltrate the roof runoff for buildings D and E, and a precast concrete galley system will be provided on the north end of the site to infiltrate the remaining parking areas and building C. These treatment measures have been designed in compliance with Connecticut Department of Environmental Protection's guidance and recommendations contained in the *2004 Connecticut Stormwater Quality Manual* and *2002 State of Connecticut Guidelines for Soil Erosion and Sediment Control* and represent an improvement over existing conditions.

2. *Degrading **existing circulation patterns of coastal waters** by impacting tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours.*

The proposed Project is located outside of tidally influenced coastal water areas and as such will not impact current drainage or circulation patterns to tidally influenced areas.

3. *Degrading **natural erosion patterns** by significantly altering littoral transport of sediments in terms of deposition or source reduction.*

The proposed Project would not affect littoral transport of sediments since the Property is not located on a shoreline.

4. *Degrading **natural or existing drainage patterns** by significantly altering groundwater flow and recharge and volume of runoff.*

Stormwater runoff patterns for the proposed development will follow approximately the same patterns as at present. No alterations are proposed that would adversely affect the volume or quality of stormwater runoff from the Property.

5. *Increasing the hazard of **coastal flooding** by significantly altering shoreline configurations or bathymetry, particularly within high velocity flood zones.*

Based on the most recent available digital FIRM mapping, as well as publically available coastal resource mapping, the Property is located within the 100-year flood hazard zone and Coastal 'Flood' Hazard Area. The Project has been designed to comply with the City of Norwalk's Flood Hazard Zone regulations (Article 110). Additionally, the proposed Project is located 500 feet inland from Norwalk Harbor. Therefore, the Project will not alter shoreline configurations or bathymetry and will not increase coastal flooding.

6. *Degrading **visual quality** by significantly altering the natural features of vistas and viewpoints.*

The Project includes redevelopment of a parcel which is currently developed with eleven housing units. The Property is located within a densely developed area of South Norwalk approximately 500 feet west of Norwalk Harbor. Views of the Property from coastal waters are currently partially obstructed by several building structures located on Water Street to the east. Therefore, the Project will not degrade visual quality by significantly altering the natural features of vistas and viewpoints.

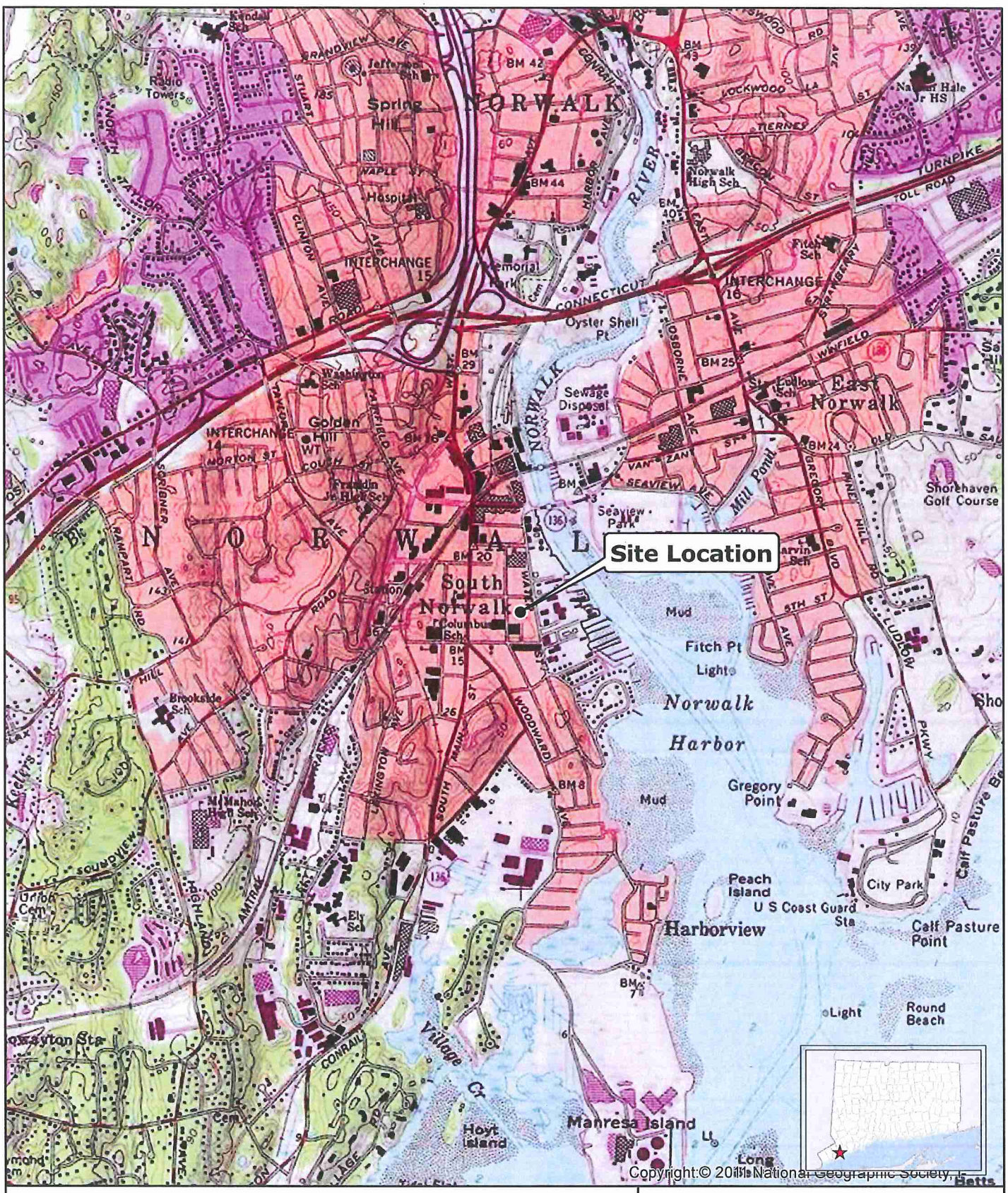
7. *Degrading or destroying **essential wildlife, finfish or shellfish habitat** by significantly altering the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significantly altering the natural components of the habitat.*

The proposed Project is located within a densely developed area of Norwalk, 500 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade or destroy essential coastal wildlife, finfish or shellfish habitat.

8. *Degrading t**idal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments** by significantly altering their natural characteristics or function.*

The proposed Project is located within a densely developed area of Norwalk, 500 feet inland from Norwalk Harbor. Therefore, the proposed Project will not degrade tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments.

Appendix A
Figures



LEGEND

● Site Location

September 2013

Source: U.S Geological Survey, in cooperation with CTDEEP, Office of Information Management

Based on USGS Topographic Map for Norwalk South, CT, Rev. 1985, 1:24,000

Map Date: September 2013

1:24,000

0 1,000 2,000

Feet

N

FIGURE 1
SITE LOCATION MAP

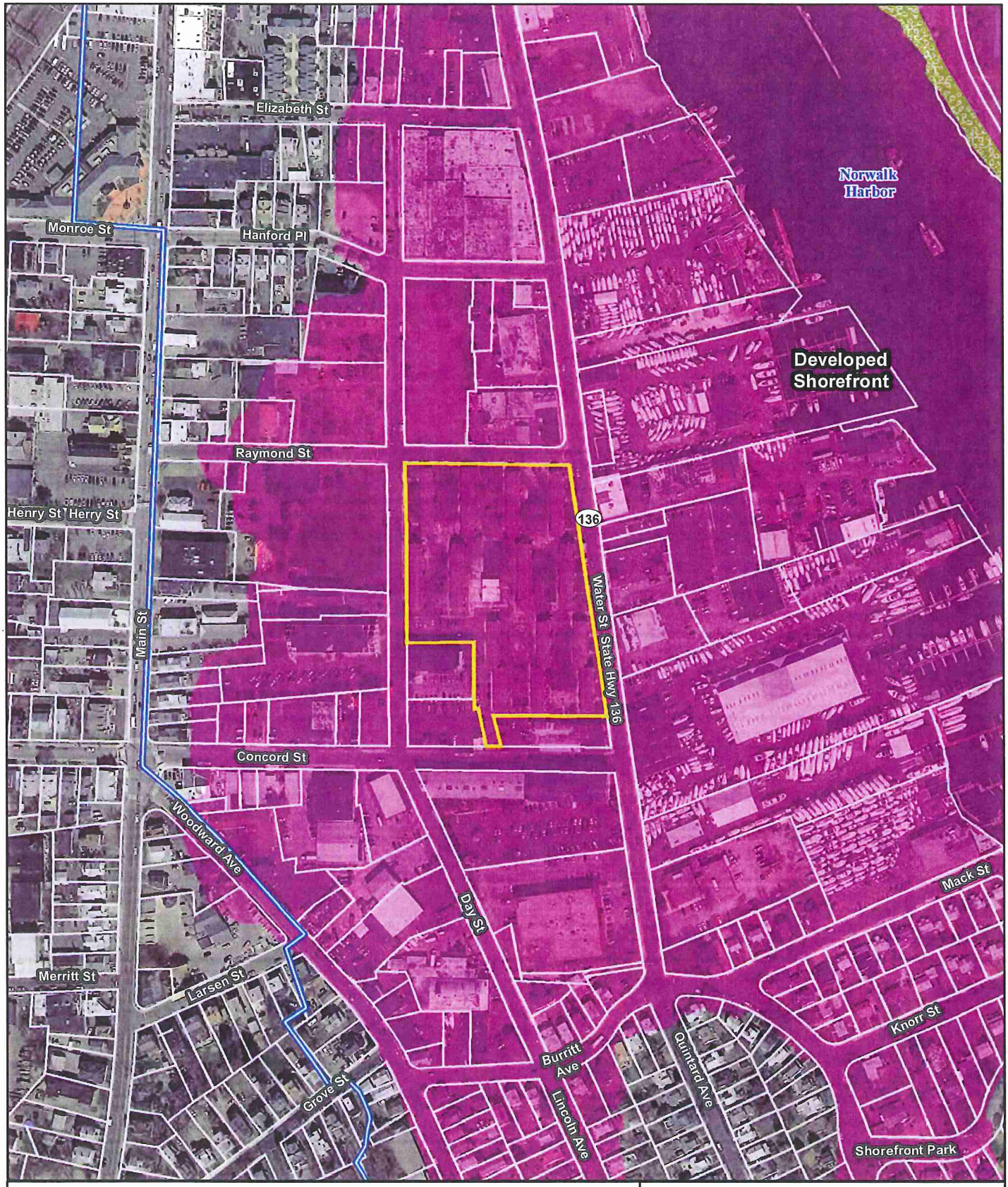
Washington Village, Buildings C, D, and E

Trinity Washington Village Limited Partnership & The Norwalk Housing Authority

Norwalk, Connecticut

Y:\Site_Locus_Figures\NorwalkCT\WashingtonVillage\MXDs\Coastal Maps\Figure 1 Topo.mxd

I-0071



LEGEND

- Approximate Site Boundary
- Approximate Parcel Boundary
- Coastal Boundary Line
- Tidal Wetlands (1990)

Coastal Resource Area

- 100-Year Flood Zone / Coastal 'Flood' Hazard Area
- Developed Shorefront

Tighe&Bond
Consulting Engineers
Environmental Specialists

Source:
Connecticut DEEP, Office of Information Management GIS Data and State of Connecticut 2012 aerial imagery with 1-foot ground resolution provided by CTECO

1:3,600
0 150 300
Feet

N

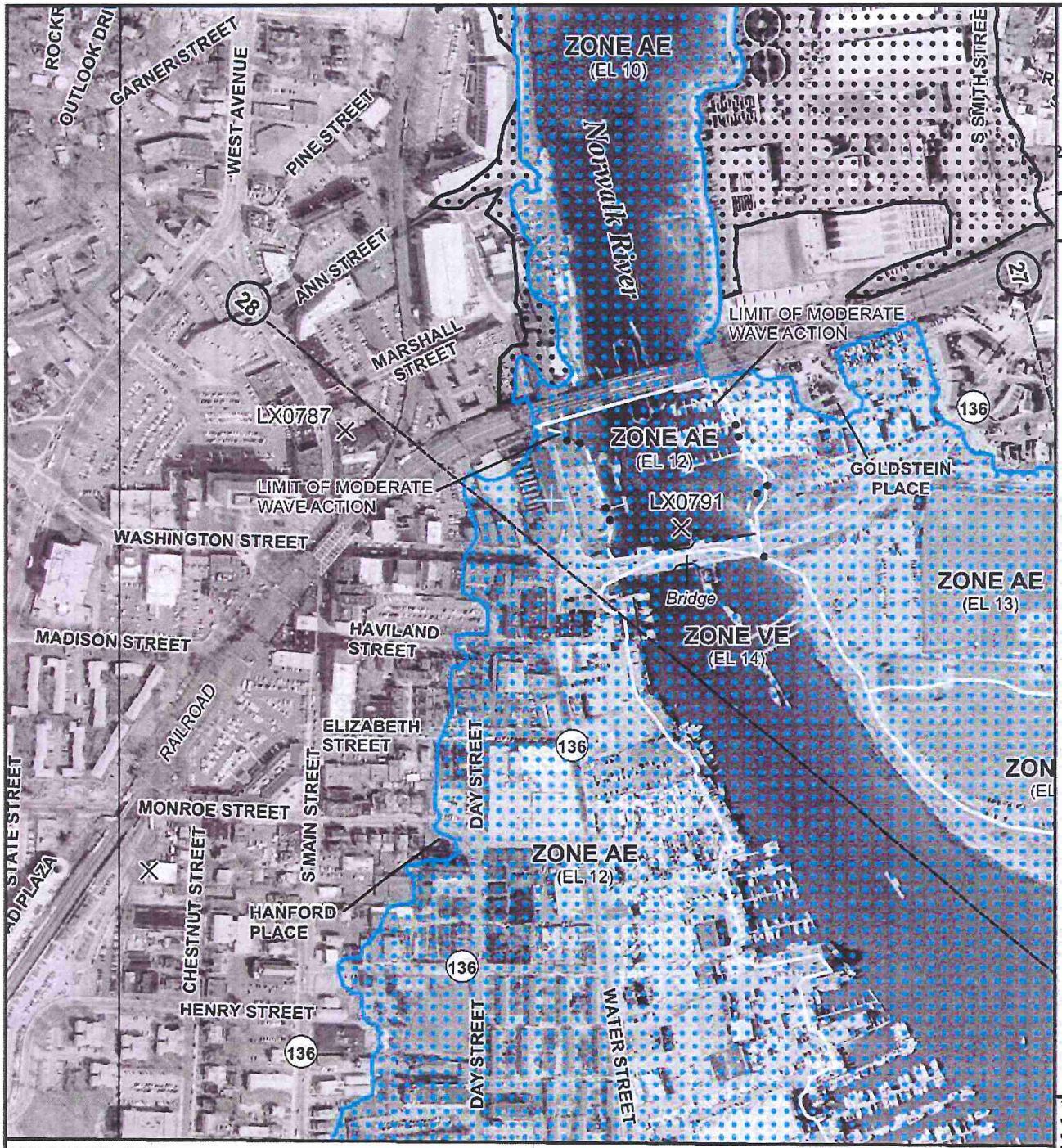
FIGURE 2
AERIAL SITE AND COASTAL RESOURCES MAP

Washington Village, Buildings C, D, and E
Trinity Washington Village Limited Partnership & The Norwalk Housing Authority
Norwalk, Connecticut

Y:\Site_Locus_Figures\NorwalkCT\WashingtonVillage\MXDs\Coastal Maps\Figure 2 Aerial2.mxd

I-0071

Appendix B
FEMA Firmette



MAP SCALE 1" = 500'

250 0 500 1000

FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0531G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT (ALL JURISDICTIONS)

PANEL 531 OF 626

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NORWALK, CITY OF	090012	0531	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

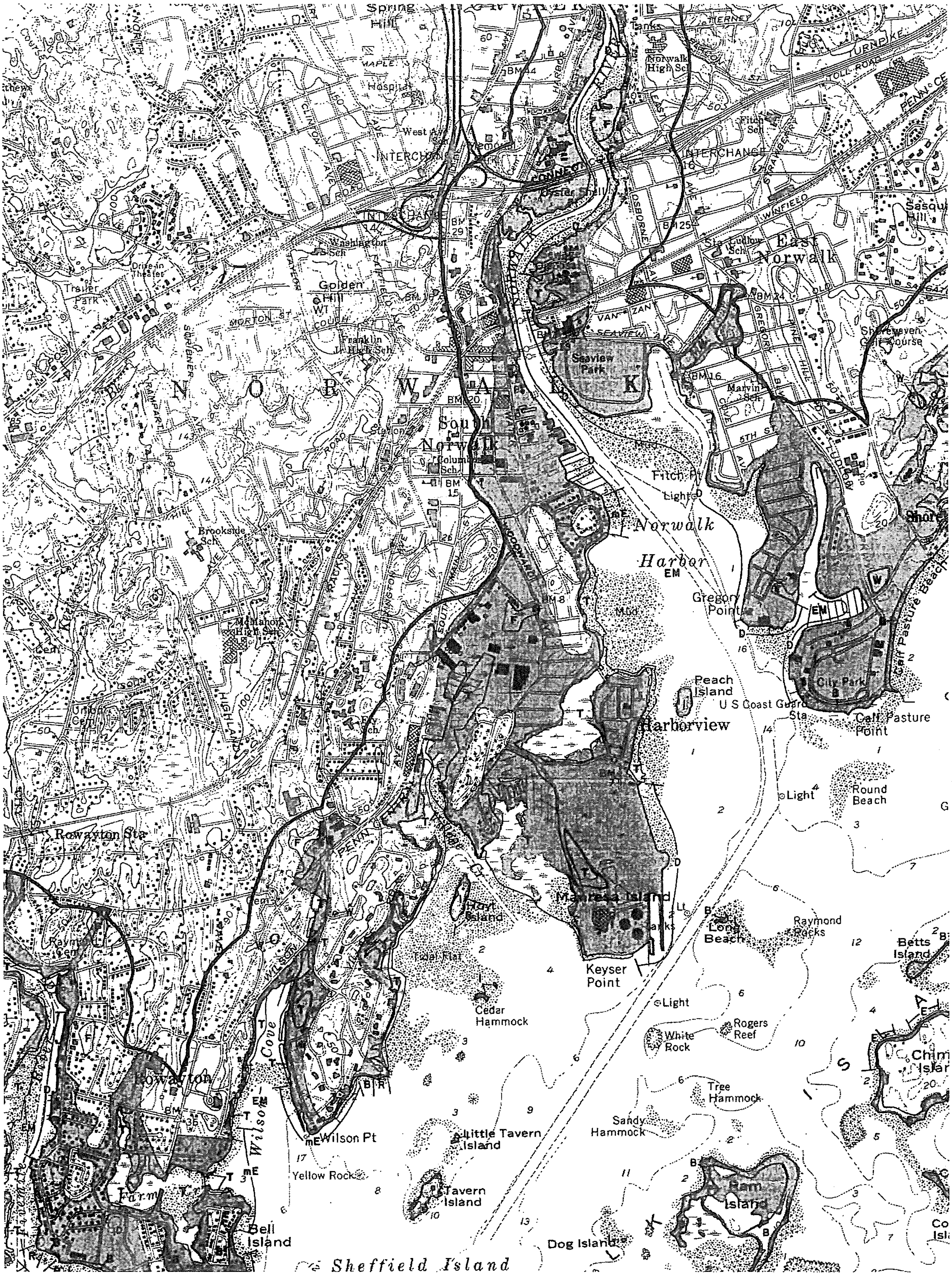
MAP NUMBER
09001C0531G

MAP REVISED
JULY 8, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix C
Coastal Resources Map
Norwalk South Quadrangle
Coastal Management Act Proram 1979
U.S.G.S. & CTDEEP



Spring Hill
Norwalk High Sch
Hospital
West Ave Sch
INTERCHANGE
TURNPIKE
TOLL ROAD
Fitch Sch
Oyster Shell
Washington Sch
Drive-in Theater
Trailer Park
Golden Hill
WT
MORTON ST
Franklin Jr High Sch
Ludlow Sch
East Norwalk
Seaview Park
SEAVIEW AVE
VAN ZANT
Marvin Sch
Shorehaven Golf Course
N O R W A L K
South Norwalk
Columbus Sch
Fitch Pt
Light
Norwalk
Harbor
Mud
Brookside Sch
McMahon High Sch
Gregory Point
Peach Island
U S Coast Guard Sta
City Park
Calf Pasture Point
Calf Pasture Beach
Union Cem
Harborview
Light
Round Beach
Rowayton Sta
Cem
Manresa Island
Tanks
Hoyt Island
Long Beach
Raymond Rocks
Betts Island
Tidal Flat
Keyser Point
Light
Cedar Hammock
White Rock
Rogers Reef
Rowayton
Wilson Cove
Wilson Pt
Tree Hammock
Sandy Hammock
Little Tavern Island
Yellow Rock
Tavern Island
Ram Island
Farm Cr
Bell Island
Dog Island
Sheffield Island

Tighe&Bond

SECTION 10

Washington Village
Norwalk, Connecticut

Floodplain Management Requirements

July 2, 2013

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
The Federal Insurance Administrator will provide the data upon which flood plain management regulations shall be based. If the Federal Insurance Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Federal Insurance Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Federal Insurance Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Federal Insurance Administrator. Minimum standards for communities are as follows: (a) When the Federal Insurance Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:	Norwalk is a 44 CFR 60.3(e) community. However, portions of that article reference back to 44 CFR 60.3(a)(2), (3), (4), (5) and (6).
(1) Require permits for all proposed construction or other development in the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;	(1) N/A. Special flood hazard areas have been identified in the project area.
(2) Review proposed development to assure that all necessary permits have been received from those governmental	(2) The City will review the proposed development to determine that the required permits have been secured prior to the

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;	building permit being issued.
(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) 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, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.	(3) The City will review the proposed building plans to identify if the buildings have been designed such that they are adequately anchored, constructed with flood resistant materials, constructed in a manner in which flood damages will be minimized, and that building electrical, heating, ventilation, plumbing, and air conditioning equipment will be located to minimize flood damage to these components.
(4) Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;	(4) As part of its land use application project, the City will review the project to determine if it will be reasonably safe from flooding and that the proposal minimizes flood damage, utilities are located and designed to minimize flood damage, and adequate drainage is provided.
(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and	(5) The proposed water supply system will be designed with watertight joints to minimize the infiltration of floodwaters.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.	(6) The project will be designed such that the sanitary sewer system will have watertight joints to minimize the infiltration of floodwaters. No on-site waste disposal systems are proposed.
(b) When the Federal Insurance Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall: (1) Require permits for all proposed construction and other developments including the placement of manufactured homes, within Zone A on the community's FHBM or FIRM;	Norwalk is a 44 CFR 60.3(e) community. However, portions of that article reference back to 44 CFR 60.3(b). (1) This subparagraph does not apply since the project is not located in a Zone A.
(2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;	(2) This subparagraph does not apply since the project is not located in a Zone A.
(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;	(3) This subparagraph does not apply since the project is not a subdivision.
(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;	(4) This subparagraph does not apply since the project is not in Zone A
(5) Where base flood elevation data are	(5) This subparagraph does not apply since the

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
utilized, within Zone A on the community's FHBM or FIRM: (i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and (ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level) to which the structure was floodproofed, and (iii) Maintain a record of all such information with the official designated by the community under §59.22 (a)(9)(iii);	project is not in Zone A.
(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Federal Insurance Administrator;	(6) No relocation or alteration of watercourses is proposed, therefore this subparagraph does not apply.
(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;	(7) No relocation or alteration of watercourses is proposed, therefore this subparagraph does not apply.
(8) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.	(8) No manufactured homes are proposed, therefore this subparagraph does not apply.
(c) When the Federal Insurance Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a	Norwalk is a 44 CFR 60.3(e) community. That section incorporates 44 CFR 60.3(c), subparagraphs (1) through (14) here. (1) The project will comply with the standards of 44 CFR 60.3(b) as outlined above.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
regulatory floodway or coastal high hazard area, the community shall: (1) Require the standards of paragraph (b) of this section within all A1–30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;	
(2) Require that all new construction and substantial improvements of residential structures within Zones A1–30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Federal Insurance Administrator for the allowance of basements in accordance with §60.6 (b) or (c);	(2) The lowest floor, including basement, of the proposed structures will be raised above the base flood elevation, as well as the 500 year flood elevation.
(3) Require that all new construction and substantial improvements of non-residential structures within Zones A1–30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;	(3) This subparagraph does not apply since the proposed structure is residential in nature.
(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official	(4) This subparagraph does not apply since the proposed structure is residential in nature.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
designated by the community under §59.22(a)(9)(iii);	
(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.	(5) The building will be designed such that parking spaces or storage spaces below the base flood elevation will be made with openings large enough to equalize hydrostatic forces. At a minimum, openings equal to one square inch per square foot of enclosed floor space will be provided, with a minimum of two total openings, located on opposite walls.
(6) Require that manufactured homes that are placed or substantially improved within Zones A1–30, AH, and AE on the community's FIRM on sites (i) Outside of a manufactured home park or subdivision, (ii) In a new manufactured home park or subdivision, (iii) In an expansion to an existing manufactured home park or subdivision, or (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation	(6) This subparagraph does not apply since manufactured homes are not proposed.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
system to resist floatation collapse and lateral movement.	
(7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified);	(7) This subparagraph does not apply since the project is not within Zone AO.
(8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in §60.3(c)(3)(ii);	(8) This subparagraph does not apply since the project is not within Zone AO.
(9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;	(9) This subparagraph does not apply since the project is not within Zone A99.
(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1–30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.	(10) This subparagraph does not apply since a floodway cannot be designated for the project location since it is an AE zone subject to coastal flooding.
(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed	(11) This subparagraph does not apply since the project is not within Zone AH or Zone AO.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
structures.	
(12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either (i) The lowest floor of the manufactured home is at or above the base flood elevation, or (ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.	(12) This subparagraph does not apply since manufactured homes are not proposed.
(13) Notwithstanding any other provisions of §60.3, a community may approve certain development in Zones Al-30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of §65.12, and receives the approval of the Federal Insurance Administrator.	(13) This subparagraph does not apply since the project will not increase flood elevations by more than one foot.
(14) Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either (i) Be on the site for fewer than 180 consecutive days, (ii) Be fully licensed and ready for highway use, or (iii) Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for "manufactured homes" in paragraph (c)(6) of this	(14) Recreational vehicles will be prohibited from being stored on-site.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
section. 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.	
(d) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall: (1) Meet the requirements of paragraphs (c) (1) through (14) of this section; (2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point; (3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge; (4) Notwithstanding any other provisions of §60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of §65.12, and receives the approval of the Federal Insurance	Norwalk is a 44 CFR 60.3(e) community. This section does not apply.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
Administrator.	
(e) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1–30, VE, and/or V, the community shall: (1) Meet the requirements of paragraphs (c)(1) through (14) of this section;	(1) This project will comply with the requirements of paragraphs (c)(1) through (14) of 44 CFR 60.3. Please see responses above.
(2) Within Zones V1–30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under §59.22(a)(9)(iii);	(2) This requirement does not apply since the project is not located within a V-zone.
(3) Provide that all new construction within Zones V1–30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;	(3) This requirement does not apply since the project is not located within a V-zone
(4) Provide that all new construction and substantial improvements in Zones V1–30 and VE, and also Zone V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local	(4) This requirement does not apply since the project is not located within a V-zone.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (e)(4) (i) and (ii) of this section.	
(5) Provide that all new construction and substantial improvements within Zones V1–30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions: (i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and, (ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those	(5) This requirement does not apply since the project is not located within a V-zone.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
required by applicable State or local building standards. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.	
(6) Prohibit the use of fill for structural support of buildings within Zones V1–30, VE, and V on the community's FIRM;	(6) This requirement does not apply since the project is not located within a V-zone.
(7) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1–30, VE, and V on the community's FIRM which would increase potential flood damage.	(7) This requirement does not apply since the project is not located within a V-zone.
(8) Require that manufactured homes placed or substantially improved within Zones V1–30, V, and VE on the community's FIRM on sites (i) Outside of a manufactured home park or subdivision, (ii) In a new manufactured home park or subdivision, (ii) In an expansion to an existing manufactured home park or subdivision, or (iii) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones VI–30, V, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section.	(8) This requirement does not apply since the project is not located within a V-zone.
(9) Require that recreational vehicles placed on sites within Zones V1–30, V, and VE on the community's FIRM either	(9) This requirement does not apply since the project is not located within a V-zone.

44 CFR 60.3 Federal Emergency Management Agency	
Standard	**Compliance Evaluation**
(i) Be on the site for fewer than 180 consecutive days, (ii) Be fully licensed and ready for highway use, or (iii) Meet the requirements in paragraphs (b)(1) and (e) (2) through (7) of this section. 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.	

Washington Village
Norwalk, Connecticut

Floodplain Management Requirements

July 2, 2013

HUD 8-Step Process for EO 11988	
Standard	**Compliance Evaluation**
Step 1. Determine whether the action is located in a 100-year floodplain (or a 500-year floodplain for critical actions).	The existing development is located within a 100-year floodplain.
Step 2. Notify the public for early review of the proposal and involve the affected and interested public in the decision making process.	The public will be notified following the CTDEEP pre-application meeting.
Step 3: Identify and evaluate practicable alternatives.	Various alternatives have been evaluated. These alternatives include the following: (1) Current proposal with parking located at grade beneath the buildings such that all units are at or above the 500 year floodplain elevation. (2) Constructing walls around the proposed development and elevating on fill. (3) Reconstructing the site at the same elevation.
Step 4: Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.	Since the project will be constructed such that the residential units will be constructed above the 500-year flood elevation, we anticipate that the impacts on the floodplain would be minimal, and considerably less than what they are today.
Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.	The proposed action has been designed to minimize potential adverse impacts since all residential units will be above the 500-year floodplain elevation.
Step 6: Reevaluate the Alternatives.	The alternatives will be re-evaluated after our meeting with CTDEEP and DECD.
Step 7: Determination of No Practicable Alternative	This will be documented later in the process.
Step 8: Implement the Proposed Action	The schedule for implementation will be finalized.

Washington Village
Norwalk, Connecticut

Floodplain Management Requirements

July 2, 2013

City of Norwalk Regulations	
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118-1100.C. Regulations for development. (1) Flood zones. All references to flood zones in this section refer to the areas of special flood hazard identified 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, and other supporting data applicable to the City of Norwalk, and any subsequent revisions thereto, are adopted by reference and declared to be a part of this regulation as cited in Section 118-200. Since mapping is legally adopted by reference into this regulation it must take precedence until such time as a map amendment or map revision is obtained from FEMA. The area of special flood hazard includes any area shown on the FIRM as Zones A, AE, and VE, including areas designated as a floodway on the FIRM. Zone VE is also identified as a Coastal High Hazard Area. Areas of special flood hazard are determined utilizing the base flood elevations (BFE) provided on the flood profiles in the Flood Insurance Study (FIS) for Norwalk. BFEs provided on a Flood Insurance Rate Map (FIRM) are approximate (rounded up or down) and should be verified with the BFEs published in the FIS for a specific location.	The site is within an AE zone by the coast, but outside of the LiMWA.
(2) Base flood elevation data. All proposed developments shall include within such proposals base flood elevation data. (a) In A Zones where base flood elevations have been determined, but before a floodway is designated, require that no new construction, substantial improvement or other development (including fill) be permitted which will increase base flood elevations more than one (1) foot at any point along the watercourse when all anticipated development is considered cumulatively with the proposed development.	N/A. The site is located in an AE zone.

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(b) Should data be requested and/or provided, adopt a regulatory floodway based on the principle 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.	Since the source of flooding is coastal, and not riverine in nature, no floodway is designated on the site.
(3) In all special flood hazard areas designated as Flood Zones A, AE and VE the following provisions shall apply: (a) Proposed development shall be reviewed to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. Section 1334, and to determine whether proposed building sites will be reasonably safe from flooding.	This project will be submitted to the City for review.
(b) Permits shall be required for all new construction, substantial improvements and other development and shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure, be constructed with materials resistant to flood damage and be constructed by methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing and 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.	The project will be designed such that it is adequately anchored and constructed with flood resistant materials. Electrical and mechanical equipment will be raised to one foot above the base flood elevation.
(c) For all new construction and substantial improvements in A and AE zones, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by a registered professional engineer or architect and must meet or	The garage below the building will be designed to withstand and equalize hydrostatic forces. The design will be prepared by a Connecticut licensed engineer, and the openings will exceed the minimum area required.

City of Norwalk Regulations	
Standard	**Compliance Evaluation**
exceed the following minimum criteria: A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.	
(d) The placement of mobile homes and manufactured homes shall be prohibited in flood hazard areas A, AE, shaded X, and VE. This prohibition includes placement outside of 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 in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a result of a flood. Recreational vehicles placed on sites within Zones A, AE and VE shall: (1) be on the site for fewer than one hundred eighty (180) consecutive days; and (2) be fully licensed and ready for highway use. (A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.)	No manufactured homes are proposed for the site.
(e) New and replacement water supply and sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the system. Sanitary sewer systems shall also minimize or eliminate discharge from the system into floodwaters. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.	New sanitary sewer and water systems serving the site will be designed to resist the infiltration of floodwaters. The sanitary sewer will also be design to eliminate discharges into the floodwaters. No on-site waste disposal systems are proposed.
(f) The property owner, or his agent, shall notify adjacent communities and the Connecticut Department of Environment Protection of any alteration or relocation of a watercourse. This notification shall be	No relocation or alteration of existing watercourses is planned.

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by certified mail, return receipt requested, with evidence of such notification submitted to the Zoning Commission and the Federal Emergency Management Agency. The property owner shall file in the Town Clerk's Office a maintenance agreement assuring that the flood-carrying capacity of the altered or relocated watercourse is not diminished.	
(g) The Zoning Inspector will obtain, record and maintain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new construction and substantial improvements. For coastal high hazard areas (VE zones), the Zoning Inspector will obtain, record and maintain the elevation of the bottom of the lowest horizontal structural member for all new construction and substantial improvements.	So noted.
(4) Flood Zone A, unnumbered. The following provisions additionally shall apply: (a) The Zoning Inspector shall require the applicant to utilize any base flood elevation and floodway data available from a federal, state or other source as criteria for requiring that all new construction and substantial improvements of residential structures have the lowest floor, including basement, elevated to or above the base flood level and all new construction and substantial improvements of nonresidential structures have the lowest floor, including basement, elevated or floodproofed so that it is watertight above the base flood level. Where floodproofing is utilized for a particular structure, a Connecticut registered professional engineer or architect shall certify 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, and a record of such certificate indicating the specific elevation, in relation to mean sea level, to which such structures are floodproofed shall be maintained with the Zoning Inspector.	This project is not located in an unnumbered A Zone.

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(5) Flood Zone AE. The following provisions additionally shall apply: (a) All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated to or above the base flood level.	This is an AE Zone. All proposed construction will be elevated to a minimum of one foot above the 500 year floodplain elevation.
(b) All new construction and substantial improvements of nonresidential structures shall have the lowest floor (including basement) elevated to or above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is floodproofed to or above that level.	N/A. This is a residential project.
(c) Where floodproofing is utilized for a particular structure in accordance with Subsection C(5)(b) of this section, a Connecticut registered professional engineer or architect shall certify 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, and a record of such certificate indicating the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the Zoning Inspector.	No floodproofing of the structure is proposed.
(6) Flood Zone VE. The following provisions additionally shall apply. (a) All new construction shall be located landward of the reach of mean high tide.	N/A. The site is not within a VE Zone.
(b) All new construction and substantial improvements shall be elevated on adequately anchored pilings or columns, and securely anchored to such piles or columns so that the lowest portion of the lowest horizontal structural members of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; a Connecticut registered professional engineer or architect shall certify that the structure is securely anchored to adequately anchored pilings or columns in order to resist flotation, collapse and lateral movement; in order to withstand the effects of wind and water	N/A. The site is not within a VE Zone.

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loads acting simultaneously on all building components as well as velocity waters and hurricane wave wash from a one-hundred-year storm event and the space beneath the lowest floor shall be free of obstruction, or be constructed with breakaway walls intended to collapse under stress; said space shall not be used for human habitation. Non-supporting breakaway walls, lattice work or mesh screening shall be allowed below the base flood elevation provided it is not part of the structural support of the structure and is designed so as to break away, under abnormally high tides or wave action, without damage to the structural integrity of the structure on which it is to be used and provided the following design specifications are met: (1) Design safe loading resistance of each wall shall not be less than ten (10) pounds per square foot or more than twenty (20) pounds per square foot; or (2) If more than twenty (20) pounds per square foot, a licensed professional engineer or architect shall certify that the design wall collapse would result from a water load less than that which would occur during the base flood event and the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water loads acting simultaneously on all building components prior to or during the collapse of such wall. If breakaway walls, lattice work or screening are utilized, the resulting enclosed space shall not be designed to be used for human habitation, but shall be designed to be used only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Electrical, plumbing, machinery or other utility equipment that service the structure must be elevated to or above the BFE and cannot be located below the structure. Any service equipment that must be located below the BFE must be floodproofed to prevent water from entering during conditions of flooding.	
(c) No use of fill for structural support of buildings shall be permitted.	N/A. The site is not within a VE Zone.

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(d) Man-made alterations of sand dunes which would increase potential flood hazard damage is prohibited.	N/A. The site is not within a VE Zone.
(7) Floodway. In the floodway designated on the Flood Insurance Rate Map the following shall additionally apply: (a) Encroachments, including fill, new construction, substantial improvements and other development that would result in any (0.00 feet) increase in flood levels within the community during the occurrence of the base flood discharge shall be prohibited. The provision of proof that there shall be no (0.00 feet) increase in flood levels during occurrence of the base flood discharge due to the proposed construction or encroachment shall be the responsibility of the applicant and shall be based on hydrologic and hydraulic studies, performed in accordance with standard engineering practice, and certification, with supporting technical data, by a Connecticut Registered Professional Engineer.	No work will be performed in the floodway.
(8) Variances. In addition to the provisions set forth in Article 140, § 118-1410, Board of Appeals, the following shall apply in flood hazard areas: (a) The applicant for a variance shall be notified in writing over the signature of the Zoning Inspector that the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance, and such construction below the base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in Subsection C(8)(b) of this section.	No variances are proposed at this time.
(b) The city shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its annual report submitted to the Administrator.	No variances are proposed at this time.
(10) Compliance.	At the conclusion of the project, the City will be provided with as as-built drawing prepared by a

City of Norwalk Regulations	
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(a) Upon completion of the foundation for all structures in a flood hazard area and before any further construction can occur, an as-built drawing prepared by a licensed surveyor shall be submitted to the Zoning Officer. The as-built drawing shall show the location of the foundation on the property as well as the elevation of the top of the foundation.	Connecticut licensed surveyor.
(b) Upon completion of all structures in a flood hazard area, a professional engineer or registered architect shall certify that the structure has been constructed in compliance with the standards set forth in § 118-1100 of the Building Zone Regulations.	At the conclusion of the project, written certification by a Connecticut licensed professional engineer that the project was constructed in compliance with Section 118-1100 will be provided.
(11) Warning and Disclaimer of Liability (a) The degree of flood protection required by this regulation is considered the minimum reasonable for regulatory purposes and is based on scientific and engineering consideration and research. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This regulation does not imply or guarantee that land outside the Special Flood Hazard Area or uses permitted in such areas will be free from flooding and flood damages. This regulation shall not create liability on the part of the City of Norwalk or by any officer or employee thereof for any flood damages that result from reliance on this regulation or any administrative decision lawfully made thereunder. The City of Norwalk, its officers and employees shall assume no liability for another person's reliance on any maps, data or information provided by the City of Norwalk.	No comment necessary.

Washington Village
Norwalk, Connecticut

Floodplain Management Requirements

July 2, 2013

Regulations of Connecticut State Agencies Department of Energy and Energy and Environmental Protection	
Standard	**Compliance Evaluation**
Sec. 25-68h-2(a). All state activities shall conform to the Federal Emergency Management Agency National Flood Insurance Program requirements, specifically Part 60 - Criteria For Land Management and Use, Subpart A Sections 60.3, 60.4 and 60.5.	The proposed activities conform to NFIP Part 60. Please refer to the separate summary for NFIP Part 60 compliance.
Sec. 25-68h-2(b). The following restrictions shall pertain to all new and substantially improved structures located within the floodplain. (1) Structures shall not be designed for human habitation unless elevated with the lowest floor one foot above the level of the base flood.	(1) All residential units will be elevated above the 500 year flood elevation.
(2) Structures and all stored materials which may result in damage to other structures, restriction of bridge openings or other narrow sections of the stream or river shall be anchored or restrained to prevent them from floating away.	(2) Structures will be founded on foundations and be built and anchored in accordance with building codes to resist flotation. Materials will not be stored in locations where they would be subject to flotation. During construction, on-site stockpiles will be kept to the minimum necessary for the construction of the development, and no hazardous materials will be stockpiled within the floodplain.
(3) Service facilities such as electrical and heating equipment shall be constructed at or above the elevation of the base flood or floodproofed with a passive system.	(3) Electrical and heating equipment will be elevated above the 500 year flood elevation. Underground utility lines to the building will be designed with water-tight joints to resist floodwater infiltration.
(4) Structures located within a "coastal high hazard area" as defined in 44 CFR Part 59 shall be elevated on adequately anchored pilings or columns and securely anchored to such piles or columns such that the lowest portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to one foot above the base flood and certified by a registered professional engineer or architect that the structure is securely anchored to piling or columns in order to withstand velocity waters and hurricane wave wash.	(4) This project is located in an AE Zone. Only projects in V-Zones are located within the "coastal high hazard area".

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(5) No new structures shall be permitted on undeveloped coastal barrier beaches as designated by the Federal Emergency Management Agency (FEMA).	(5) This project is not located in an area designed by FEMA as an undeveloped coastal barrier beach.
(6) All water supply equipment shall be designed to prevent flood waters from entering and contaminating the system.	(6) Water supply equipment will be designed such that the piping is designed with watertight joints that prevent floodwater infiltration.
(7) All sanitary sewer collection systems located in the floodplain must have watertight manhole covers and if equipped with vents, shall extend above the elevation of the base flood.	(7) Sanitary sewer collection systems will have watertight manhole covers and will be constructed with watertight pipe. All vents will extend above the elevation of the base flood.
Sec. 25-68h-2(c). The following restrictions shall pertain to all filling, dumping, construction, excavating, and other activities which change the topography within the floodplain. (1) No filling, dumping or construction or other activity shall be allowed which would increase the elevation of the base flood by more than one foot or adversely affect the hydraulic characteristics of the floodplain unless the proposed filling is fully compensated for by excavation in or contiguous to the filled area.	(1) This is an AE zone, subject to coastal flooding, but landward of the LiMWA, and therefore the placement of fill or excavation will not change the floodplain base flood elevation.
(2) No filling, dumping, construction or excavation will be allowed if these changes will result in a concentration of the natural flow of water such as to cause or increase drainage, erosion or sediment problems.	(2) The proposed construction will not exacerbate drainage, erosion or sediment problems in the area.
(3) Any fill placed in the floodplain shall not be greater than that which is necessary to achieve the intended purpose as demonstrated by a plan showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials.	(3) The placement of fill will be limited to that necessary to provide egress from the building and to elevate the first floor elevation above the 500 year flood elevation.

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(4) Such fill or other material shall be protected against erosion as discussed in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as may be amended.	(4) Proposed fill will be protected against erosion in accordance with the Connecticut Guidelines for Sediment and Erosion Control.
(5) Any activity within a floodway designated by FEMA which would result in an increase of the elevation of the base flood or ten year flood profile is prohibited.	(5) There is no FEMA designated floodway on the site.
(6) The placement of fill in areas of high velocity flow or at the outside edge of a migrating river bend is discouraged.	(6) This area is not subject to high velocity flow, and is not on the outside edge of a migrating river.
Sec. 25-68h-2. The following restrictions shall pertain to the storage of materials and equipment within the floodplain. (1) The storage of materials that are buoyant, hazardous, flammable, explosive, soluble, expansive radioactive or which could be injurious to human, animal or plant life is prohibited below the elevation of the base flood for a critical activity.	(1) The project specifications and plans will include prohibitions on storage of buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or otherwise injurious materials below the base flood elevation. .
(2) Other material or equipment may be stored below the elevation of the base flood for a critical activity provided that such material or equipment is not subject to major damage by floods, and provided that such material or equipment is firmly anchored, restrained or enclosed to prevent it from floating away.	(2) The project specifications and plans will include language identifying suitable materials to be stored below the base flood elevation with the provision that such material is not subject to major damage, and is firmly anchored, restrained, or enclosed.
Sec. 25-68h-3(a). On-site stormwater management. (1) The stormwater management plans for state activities shall be prepared so as to minimize any adverse increases to the peak flow rate, the timing of runoff and the volume of runoff. Hydrology studies shall be conducted at a level of detail commensurate with the probable impact of the project.	(1) The project's stormwater management system will be designed such that it conforms with City of Norwalk requirements that do not allow adverse flooding impacts on adjacent properties.
(A) A complete runoff hydrograph evaluation is required for (i) Basin Stormwater Management Plans pursuant to Section 25-68h-3 (h), (ii) Stormwater management plans for project sites	(A) The project's stormwater management system will be designed using an evaluation of hydrographs.

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resulting in significant impacts, and (iii) other state activities and critical activities as determined by the Commissioner. Hydrograph evaluations shall be conducted for existing and anticipated land use conditions for storms with average return frequencies of 2, 10 and 100 years. Where appropriate, the hydrograph analysis shall include determination of runoff for each subwatershed and routing runoff through storage impoundments and floodplain storage areas. The timing sequence of the runoff must be fully developed.	
(B) Where suitable records exist, hydrographs should be developed from historic gauged flood data. For other watercourses, the hydrographs shall be developed from deterministic rainfall-runoff techniques and compared with flood flows of similar gauged watersheds and an assessment made as to the need to calibrate the hydrograph based on this comparison.	(B) Hydrographs for this project will be developed based upon the best available data.
(2) Stormwater management plans for project sites shall be coordinated with Basin Stormwater Management Plans, where available.	(2) This project will be designed in accordance with basin stormwater management plans to the extent practicable.
Sec. 25-68h-3(b). Stormwater detention facilities. Facilities to temporarily store excess storm runoff shall be subject to the following requirements: (1) Any detention facility whose failure could cause significant damage or loss of life shall be regulated as a dam pursuant to Sections 22a-401 through 22a-409 of the General Statutes.	(1) No detention facility whose failure could cause significant damage or loss of life is proposed.
(2) All detention facilities serving a watershed larger than 10 acres in size shall be analyzed with hydrograph and storage routing techniques.	(2) Any proposed detention facility will be analyzed with hydrograph and storage routing techniques in accordance with good engineering practice.
(3) The release rates from detention facilities shall be consistent with the Basin Stormwater Management Plan for the watershed in which it is located, or comply with items 4, 5 and 6 below if there is no Basin Stormwater	(3) The release rates will be consistent with the Basin Stormwater Management Plan, or the following items, whichever is more stringent.

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Management Plan.	
(4) The release rate shall consider the existing and proposed flow rates at the site and downstream channels or structures, and the timing of runoff from other subwatersheds within the basin for the base flood.	(4) The release rate will consider existing and proposed flow rates at the site, downstream channels or structures, and the timing of runoff in comparison with adjacent watersheds.
(5) The waters released from a detention facility shall not increase the peak flow rate at offsite downstream points unless they have adequate flow capacity for the base flood.	(5) Any detention facility shall be designed such that it does not exacerbate downstream flooding conditions.
(6) Extended duration detention facility discharges directly into alluvial or eroding channels shall not exceed the bankfull capacity or the 2 year flood frequency flow, whichever is less, unless it is determined said channel will be stable.	(6) The proposed project does not discharge into an alluvial or eroding channel.
(7) Section 8E of the "Connecticut Guidelines for Erosion and Sediment Control" (1985) as may be amended, shall be used as a guide to construction details and materials.	(7) The cited section shall be used as a guide to construction details and materials for proposed detention facilities as appropriate.
(8) An operation and maintenance schedule shall be prepared for every detention facility identifying responsibilities and items of routine maintenance, after use and emergency operations in the event of a flood.	(8) An operations and maintenance plan will be prepared for the proposed stormwater detention system and stormwater management system.
Sec. 25-68h-3(c). Storm Drainage Systems. All subsurface storm drainage systems shall be designed in accordance with the methods and procedures defined in the Connecticut Department of Transportation Drainage Manual prepared by the Division of Design, Bureau of Highway, as may be amended and shall meet the following requirements: (1) Storm drainage systems for parking lots, driveways, and roads shall be designed for a ten year frequency storm without closing use of the facility.	(1) The proposed storm drainage system will be designed for a 25-year storm in accordance with City of Norwalk requirements.
(2) The design of storm drainage systems for depressed roads and driveways shall comply with the DOT Drainage Manual.	(2) The design of storm drainage systems for depressed roads and driveways shall comply with the CTDOT Drainage Manual or City of Norwalk standards, whichever is more stringent.
(3) Use of curbing shall be minimized in order to encourage overland disbursed flow through	(3) Since this project occurs in an urban area, curbing will be used. Low impact design

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stable vegetated areas.	methods will be included as part of the design.
(4) The hydrology and hydraulic design of catch basins, gutters, and storm drain pipes shall comply with the DOT Drainage Manual.	(4) The hydrology and hydraulic design of catch basins, gutters, and storm drainage pipes will comply with the CTDOT Drainage Manual or City of Norwalk Drainage Manual and standards, whichever is more stringent.
(5) Design computations shall be prepared on the appropriate forms contained in the DOT Drainage Manual.	(5) Design computations will be prepared in formats customarily accepted by both CTDOT and the City of Norwalk.
(6) The foundation drains and floor drains of buildings connected into storm drainage systems shall be designed to prevent backflow for the 100 year frequency flood into the building.	(6) Foundation and floor drains of buildings will be designed to prevent backflow for the 100-year frequency flood.
(7) Surface runoff shall be directed through vegetated filter strips or grass swales wherever possible prior to storm drain inlets.	(7) Vegetated filter strips and grass swales will be used as a means of conveying stormwater to inlets to the maximum extent practicable within the context of the proposed project.
(8) The design of the storm drainage system should be coordinated with the soil erosion and sediment control plan.	(8) The design of the storm drainage system will be coordinated with the soil erosion and sediment control plan.
(9) Storm drainage discharges shall be coordinated with the National Pollution Discharge Elimination System permit program administered by the Water Compliance Unit of CTDEEP.	(9) Storm drainage discharge will be designed in compliance with the requirements of the National Pollutant Discharge Elimination System.
(10) Storm drainage systems discharging into watercourses tributary to public water supply reservoirs shall be in compliance with the Public Health Code.	(10) This site will not discharge into watercourses tributary to public water supply watersheds.
(11) Storm drains shall be extended to a suitable discharge point into a watercourse or public drainage system, or to where drainage rights have been secured.	(11) Storm drains will be directed into existing City of Norwalk facilities.
Sec. 25-68h-3(d). Open Channels. The analysis and design of open channels shall be consistent with the type of channel and its intended purpose. Channels shall be classified as local drainage channels or as watercourse channels, depending on use, and shall be classified as alluvial or non-alluvial based upon their geologic characteristics.	(1) No new open channels are proposed as part of this project, nor will the project discharge directly to existing open channels.

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(1) Type A open channels are local drainage channels with a primary purpose of conveying urban, parking lot and road runoff from small watersheds, frequently with intermittent flow and limited ecological value and are intended to convey their design flow within their banks. They shall be designed in accordance with Section 12.02, 12.03, and 12.04 of the DOT Drainage Manual and: (A) Freeboard allowances shall be provided in proportion to the potential damages that could occur in the event of overtopping; (B) The use of impervious linings is discouraged except for very high velocity flow and steep slopes;	
(2) Type B open channels are natural perennial watercourses or man made channels planned to simulate a natural watercourse. They shall be designed in accordance with Section 12.05 of the DOT Drainage Manual and the following where appropriate: (A) Shall have minimum flow capacity of a flood equal to at least 25 year frequency flood. (B) Shall have an inner channel to concentrate low flows with a capacity of a 2 year frequency flood. (C) Shall have water surface profiles prepared for the 2, 25, and 100 year frequency floods. (D) Shall consider the hydraulic capacity of floodplains. (E) Shall have a sediment transport capacity similar to upstream and down stream channels. (F) Shall be designed to minimize the use of artificial linings for flows in excess of the two year frequency flood. (G) Shall encourage ecological productivity and variety. (H) Shall be visually compatible with its surroundings.	(2) No new open channels are proposed as part of this project, nor will the project discharge directly to existing open channels.

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(I) The alignment and slope shall be compatible with natural channels in similar site conditions. (J) Variations in width, depth, invert evaluations, and side slopes are encouraged for aquatic and visual diversity. (K) Straightening channels and decreasing their length is discouraged. (L) The cross sections used to define the channel and floodplain geometry for water surface profile computations shall be located upstream and downstream of hydraulic structures, at changes in bed slope or cross section shape, and generally at intervals of not more than ten times the width of the 100 year floodplain. (M) The friction coefficients used in the hydraulic analysis are to assume maximum seasonal vegetation conditions, and should be adjusted to the depth of flow.	
(3) Channel restoration plans shall be prepared for all open channel work. The plan shall help restore and/or create an aquatic habitats suitable for fisheries, while maintaining or improving water quality, recreation, aesthetics and flow capacity. Coordination with the Fisheries and Wildlife Units of DEP is recommended. The channel restoration plan shall include, as appropriate: (A) Avoidance of barriers to fish movement; (B) Formation of pools and riffles; (C) Provision for areas of sheltered flow with use of deflectors, boulders, low check dams; (D) Preservation of stream bank vegetation and establishment of new vegetation; (E) Use of clean natural bed materials of a suitable size; (F) Schedule work to minimize conflicts with	(3) No open channel work is proposed.

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spawning, stocking, and fishing seasons; and (G) Removal of excess debris.	
(4) The design of rock riprap in channels with uniform flow shall be based upon the tractive force methods defined in both the DOT Drainage Manual and the Connecticut Guidelines for Erosion and Sediment Control.	(4) No new open channels are proposed as part of this project, nor will the project discharge directly to existing open channels.
(5) The hydraulic analysis and modification of watercourses prone to ice jams or floods due to ice should be coordinated directly with the Department of Environmental Protection.	(5) No watercourse modifications are proposed
(6) The water surface profiles of open channels in coastal areas shall consider the potential combined occurrence of tides, storm surges, and peak runoff. The starting water elevation for the base flood in watersheds with time of concentrations of over 6 hours shall be the ten year frequency tidal surge level.	(6) No new open channels are proposed as part of this project, nor will the project discharge directly to existing open channels.
Sec. 25-68h-3. Culverts and Bridges. All drainage culverts and bridges shall be designed in accordance to the methods and procedures defined in the DOT Drainage Manual and shall meet the following requirements: (1) Culverts and bridges will be designed for flood frequencies and underclearances stipulated in the DOT Drainage Manual, except that on local (not state highways) roads and driveways with low traffic volumes and where alternate routes are available, lower design criteria is acceptable when: (A) Flood discharges may be allowed to cross over roads that are at or close to the floodplain grade. (B) Water surface elevations shall not be increased by more than one foot, nor allowed to cause damage to upstream properties. (C) Provisions are made to barricade the road when overtopped. (D) The road or driveway is posted as being subject to flooding.	No bridges or culverts are proposed as part of this project.

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(2) Bridges and culverts along stocked watercourses and watercourses which may support fish shall be designed to allow passage of fish as may be recommended by the Department of Environmental Protection Fisheries and Wildlife Units. (3) The location of new bridges and culverts shall minimize the relocation of watercourses. (4) Where applicable, rigid structural floors at bridges and culverts should be depressed below the normal streambed, to allow an alluvial streambed to form over them, and shall anticipate if the streambed is degrading. (5) The use of solid parapet walls at bridges and culverts located in the sag part of vertical curves is discouraged. (6) Debris barriers shall be used upstream of structures prone to blockage by debris. (7) The use of a single large culvert or bridge opening is preferred over use of multiple small openings. (8) The under clearances and maximum headwaters stipulated in the DOT Drainage Manual may be waived when decreasing the headwater depth at existing structures could increase downstream peak flows.	
Sec. 25-68h-3(f). Standard Conditions for Approval. (1) All construction work shall incorporate best management practices to minimize soil erosion and sedimentation and conform with the "Connecticut Guidelines for Soil Erosion and Sediment Control."	(1) All construction work will incorporate best management practices to minimize soil erosion and sedimentation in conformance with the 2002 Connecticut Guidelines for Erosion and Sediment Control, CTDEEP Bulletin No. 34.
(2) All fill shall be clean, material free of stumps, rubbish, hazardous, and toxic material.	(2) All fill will be clean material, free of stumps, rubbish, hazardous, toxic, and other deleterious materials.
(3) Contractor shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractors responsibility to obtain such warnings when flooding is anticipated.	(3) The project specifications will require that the Contractor remove equipment and materials from the floodplain when flood warnings have been issued or are anticipated.

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(4) Contractor shall notify the Commissioner seven days prior to starting work on-site.	(4) The contractor shall provide seven days written notice to the Commissioner in advance of starting construction.
(5) Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.	(5) Once started, the project construction will proceed as expeditiously as possible such that disturbed areas are restored quickly.
(6) Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without further coordination with the water supply utility and Department of Health Services.	(6) No work is proposed adjacent to water courses and reservoirs used as public water supply sources.
(7) All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structure, cofferdams and fill shall be based on Chapter 18 of the DOT Drainage Manual, where applicable.	(7) The project specifications will stipulate that any temporary structures, cofferdams, and temporary fill shall not impede flood flows, and must be removed at the end of their use. Any such temporary structure shall be designed in accordance with the temporary structure provisions of the CTDOT Drainage Manual.
(8) The applicant or his agent shall permanently maintain the proposed facility.	(8) The proposed facility will be maintained by the City of Norwalk or its designated agent.

Washington Village
Norwalk, Connecticut

Floodplain Management Requirements

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Sec. 25-68d(b)(1) The proposal will not obstruct flood flows or result in an adverse increase in flood elevations, significantly affect the storage or flood control value of the floodplains, cause an adverse increase in flood velocities, or an adverse flooding impact upon upstream, downstream or abutting properties, or pose a hazard to human life, health or property in the event of a base flood or base flood for a critical activity;	**Existing Conditions.** The existing development is constructed such that the buildings are mostly slab-on-grade, with the dwelling units located below the base flood elevation. **Obstructions.** The proposed development contains garages below the residential units. The garages are at the lowest level, and will allow flood waters to pass through the garage space. Therefore, the existing floodplain will be less obstructed than it is under existing conditions, where buildings extend to grade without any openings to accommodate the passage of flood flows. **Flood Elevations.** This is an AE zone where the flooding source is coastal in nature, therefore the proposed development will not adversely impact flood elevations. Please note that site is located landward of the LiMWA, and is therefore not a coastal AE zone. **Storage and Flood Control Value of Floodplain**. The open garages will provide more area in which the flood flow can spread out beneath the building. This additional area available for flood flow will increase the volume of storage for flood waters within the zone. **Flood Velocities.** This is an AE zone where the flooding source is coastal in nature, therefore the proposed development will not adversely impact flood velocities. **Flooding Impacts.** Since the proposed garages will allow the floodwaters to flow through and reduce flood heights, no adverse flooding impacts are anticipated to upstream or downstream properties. **Hazard to Human Life/Health/Property.** The proposed placement of all residential units above the 500 year floodplain will reduce the level of hazard presented by the floodplain in comparison with the existing conditions at the site.
Sec. 25-68d(b)(2) The proposal complies with	**Compliance with NFIP program.** 44 CFR 59

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the provisions of the National Flood Insurance Program, 44 CFR 59 et seq., and any floodplain zoning requirements adopted by a municipality in the area of the proposal and the requirements for stream channel encroachment lines adopted pursuant to the provisions of section 22a-342;	address the conditions required for community acceptance for participation in the NFIP program. Since Norwalk is an NFIP participating community, the conditions of 44 CFR 59 have been fulfilled. 44 CFR 60.3 identifies specific floodplain management criteria, which this project is in compliance with. Please refer to the section dealing with 44 CFR 60.3 further in this matrix. **Compliance with local floodplain requirements.** Norwalk has not adopted any floodplain requirements that are more stringent than the State or NFIP, and therefore, compliance with NFIP and State requirements will also comply with municipal requirements. Please see the matrix referring to compliance with City of Norwalk regulations. **Stream Channel Encroachment Lines.** There are no stream channel encroachment lines established within the project boundary.
Sec. 25-68d(b)(3) The agency has acquired, through public or private purchase or conveyance, easements and property in floodplains when the base flood or base flood for a critical activity is elevated above the increment authorized by the National Flood Insurance Program or the flood storage loss would cause adverse increases in such base flood flows;	Since this project is within a AE Zone subject to flooding from coastal sources, it is anticipated that the proposed project will not increase base flood elevations. Therefore, no easements or property conveyances are required for this purpose.
Sec. 25-68d(b)(4) The proposal promotes long-term non-intensive floodplain uses and has utilities located to discourage floodplain development;	Although all of the project's residential units will be constructed above the 500-year floodplain elevation, since there will be more units within the floodplain, this project will increase the intensity of floodplain development. Therefore, this project will require an exemption from the floodplain management regulations with respect to development intensity.
Sec. 25-68d(b)(5) The agency has considered and will use to the extent feasible flood-proofing techniques to protect new and existing structures and utility lines, will construct dikes, dams, channel alterations, seawalls, breakwaters or other structures only where there are no practical alternatives and will implement stormwater management practices in accordance with regulations adopted pursuant to section 25-68h;	No floodproofing measures exist for the existing buildings. Floodproofing of the proposed building is not proposed since residential buildings cannot be floodproofed. The residential units of the proposed buildings will all be raised above the base flood elevation, with parking, building access and storage below the base flood elevation. The building access and storage areas will be constructed with flood-resistant materials. Utilities will be designed to resist the infiltration of floodwaters. Dams, dikes, channel alterations, seawalls,

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	breakwaters or similar structures are not proposed.
Sec. 25-68d(b)(6) The agency has flood forecasting and warning capabilities consistent with the system maintained by the National Weather Service and has a flood preparedness plan.	**Flood Warning System.** A flood warning system has been established for the Norwalk River. **Flood Preparedness Plan.** A flood preparedness plan will be produced for the proposed development as required by HUD. The plan will identify warning systems, evacuation routes, and will also include signage regarding the height of the base flood elevation.
Sec. 25-68d(c) The commissioner shall make a decision either approving, approving with conditions or rejecting a certification not later than ninety days after receipt of such certification, except that in the case of an exemption any decision shall be made ninety days after the close of the hearing. If a certification is rejected, the agency shall be entitled to a hearing in accordance with the provisions of sections 4-176e, 4-177, 4-177c and 4-180.	N/A
Sec. 25-68d(d) Any state agency proposing an activity or critical activity within or affecting the floodplain may apply to the commissioner for exemption from the provisions of subsection (b) of this section. Such application shall include a statement of the reasons why such agency is unable to comply with said subsection and any other information the commissioner deems necessary. The commissioner, at least thirty days before approving, approving with conditions or denying any such application, shall publish once in a newspaper having a substantial circulation in the affected area notice of: (1) The name of the applicant; (2) the location and nature of the requested exemption; (3) the tentative decision on the application; and (4) additional information the commissioner deems necessary to support the decision to approve, approve with conditions or deny the application. There shall be a comment period following the public notice during which period interested persons and municipalities may submit written comments. After the comment period, the commissioner shall make a final determination to either approve the application, approve the application with conditions or deny the application. The commissioner may hold a public hearing prior to approving, approving with conditions or denying any application if in the discretion of the commissioner the public interest	An exemption will be requested for this project based upon the intensity of development. An exemption request will be written to CTDEEP based upon the following: a. The project is in the public interest. We believe that the Department of Housing's endorsement of the application would serve as proof that the project is in the public interest. We would also include other documentation regarding the public interest already provided to us by the developer and the City. b. The project will be constructed to comply with or exceed NFIP regulations, since all units will be above the 500-year flood elevation. In addition, the project proposes dry access to and from the site from the intersection of Raymond and Day Streets through Ryan Park. An egress pathway across the park will be constructed to support emergency vehicles and pedestrians. c. The project will comply with, or exceed NFIP regulations. Please refer to the documentation of NFIP compliance and compliance with City floodplain

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will be best served thereby, and the commissioner shall hold a public hearing upon receipt of a petition signed by at least twenty-five persons. Notice of such hearing shall be published at least thirty days before the hearing in a newspaper having a substantial circulation in the area affected. The commissioner may approve or approve with conditions such exemption if the commissioner determines that (A) the agency has shown that the activity or critical activity is in the public interest, will not injure persons or damage property in the area of such activity or critical activity, complies with the provisions of the National Flood Insurance Program, and, in the case of a loan or grant, the recipient of the loan or grant has been informed that increased flood insurance premiums may result from the activity or critical activity. An activity shall be considered to be in the public interest if it is a development subject to environmental remediation regulations adopted pursuant to section 22a-133k and is in or adjacent to an area identified as a regional center, neighborhood conservation area, growth area or rural community center in the State Plan of Conservation and Development pursuant to chapter 297, or (B) in the case of a flood control project, such project meets the criteria of subparagraph (A) of this subdivision and is more cost-effective to the state and municipalities than a project constructed to or above the base flood or base flood for a critical activity. Following approval for exemption for a flood control project, the commissioner shall provide notice of the hazards of a flood greater than the capacity of the project design to each member of the legislature whose district will be affected by the project and to the following agencies and officials in the area to be protected by the project: The planning and zoning commission, the inland wetlands agency, the director of civil defense, the conservation commission, the fire department, the police department, the chief elected official and each member of the legislative body, and the regional planning agency. Notice shall be given to the general public by publication in a newspaper of general circulation in each municipality in the area in which the project is to be located.	management requirements. d. The City and developer have been made aware of the potential for increased flood insurance premiums.
Sec. 25-68d(e) The use of a mill that is located on a brownfield, as defined in section 32-9kk, shall be exempt from the certification requirements of subdivision (4) of subsection (b) of this section, provided the agency demonstrates: (1) The activity is subject to the	N/A. This project is not a mill located on a brownfield.

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environmental remediation requirements of the regulations adopted pursuant to section 22a-133k, (2) the activity is limited to the areas of the property where historical mill uses occurred, (3) any critical activity is above the five-hundred-year flood elevation, and (4) the activity complies with the provisions of the National Flood Insurance Program.	
Sec. 25-68d(f) The failure of any agency to comply with the provisions of this section or any regulations adopted pursuant to section 25-68c shall be grounds for revocation of the approval of the certification.	N/A
Sec. 25-68d(g) The provisions of this section shall not apply to any proposal by the Department of Transportation or the Department of Economic and Community Development for a project within a drainage basin of less than one square mile.	N/A. The proposed project is within a drainage area exceeding one square mile.
Sec. 25-68d(h) The provisions of subsections (a) to (d), inclusive, and (f) and (g) of this section shall not apply to the following critical activities above the one-hundred-year flood elevation that involve state funded housing reconstruction, rehabilitation or renovation, provided the state agency that provides funding for such activity certifies that it complies with the provisions of the National Flood Insurance Program and the requirements of this subsection: (1) Projects involving the renovation or rehabilitation of existing housing on the Department of Economic and Community Development's most recent affordable housing appeals list; (2) construction of minor structures to an existing building for the purpose of providing handicapped accessibility pursuant to the State Building Code; (3) construction of open decks attached to residential structures, properly anchored in accordance with the State Building Code; (4) the demolition and reconstruction of existing housing for persons and families of low and moderate income, provided there is no increase in the number of dwelling units and (A) such reconstruction is limited to the footprint of the existing foundation of the building or buildings used for such purpose, or which could be used for such purpose subsequent to reconstruction, or (B) such reconstruction is on a parcel of land where the elevation of such land is above the one-hundred-year flood elevation, provided there is no placement of fill within an adopted Federal Emergency Management Agency flood zone.	N/A. The proposed project does not qualify for an exemption from floodplain management criteria based upon the criteria of this section.

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Sec. 25-68e. Suspension. The provisions of sections 25-68b to 25-68h, inclusive, and any regulations adopted thereunder may be suspended by the commissioner during any disaster emergency proclaimed by the Governor pursuant to section 28-9a or during an emergency declaration or major disaster declaration declared by the President of the United States under Public Law 93-288.	N/A. This provision only applies to disaster or emergency declarations.
Sec. 25-68f. Floodplain designation. Where more than one flood zone has been designated for an area, the most stringent designation shall be used in fulfilling the provisions of sections 25-68b to 25-68h, inclusive.	N/A. Only one floodplain designation exists on site.
Sec. 25-68g. Immunity. The state, any municipality or any officer or employee thereof shall not be liable for any damage resulting from reliance on any decision made pursuant to section 25-68d.	N/A.