Request For Proposals

Consultant Services for Design Construction and Construction Management Services

Project: CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery

PIN: 8502015HR0011-13P

Bill de Blasio
MAYOR

Amy Peterson, *Director*
New York City Housing Recovery Office/ Build It Back

Feniosky Peña-Mora, *Commissioner*
New York City Department of Design and Construction

PRE-PROPOSAL CONFERENCE:
December 19th, 2014 at 10:00am
30-30 Thomson Avenue, Atrium
Long Island City, NY 11101

QUESTIONS SUBMISSION DUE DATE:
December 17th, 2014

PROPOSAL SUBMISSION DEADLINE:
January 12th, 2015 at 4:00pm
30-30 Thomson Avenue, 4th Floor
Long Island City, NY 11101

DEPARTMENT OF DESIGN AND CONSTRUCTION
NYC Housing Recovery Office / Build It Back Program

REQUEST FOR PROPOSALS

PROJECT:
Construction Management/ Design/ Build for Hurricane Sandy-affected Residential Community Recovery

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PREFACE

The City of New York is committed to rebuilding neighborhoods and homes impacted by Hurricane Sandy. To achieve this goal, the New York City Housing Recovery Office ("HRO") and the New York City Department of Design and Construction ("DDC") are issuing this RFP to procure construction management, design and contracting services to assist homeowners and landlords rebuild and repair their Sandy damaged homes.

SECTION I. TIMETABLE

1. RFP Issuance

Pre-Proposal Conference: A Pre-Proposal conference will be held at 10:00 AM on Friday, December 19th, 2014 at DDC Headquarters, 30-30 Thomson Avenue, Long Island City, NY 11101, Atrium. Attendance at this pre-proposal conference is not mandatory; however, it is strongly encouraged.

Prime/Sub Networking Event: A Prime/Sub Networking event will be held at 12:00 PM on Friday, December 19th, 2014 at DDC Headquarters, 30-30 Thomson Avenue, Long Island City, NY 11101, Atrium. Attendance at this networking event is not mandatory; however, it is strongly encouraged. MWBE firms, local firms from Sandy impacted neighborhoods, community-based organizations, and voluntary organizations involved in rebuilding are encouraged to attend.

Due to space constraints, we request that Prospective Proposers limit their firms' attendance at the Pre-Proposal Conference and Prime/Sub Networking Event to **two** company representatives. We appreciate that you RSVP to Ms. Leslie Quan at 718-391-2651 or email her at QUANL@ddc.nyc.gov

Submission Deadline

Proposals shall be hand delivered, on or before **4:00 PM** on **Monday, January 12th, 2015,** to the authorized agency contact person at the location listed below. Proposers are advised to utilize the Checklist of Proposal Package Contents in Section IV to assure completeness prior to submitting their proposals.

Authorized Agency Contact Person:
Jue Zhang, (718) 391-1096
Professional Contracts Section
Department of Design and Construction
30-30 Thomson Avenue, 4th Floor (Entrance on 30th Place)
Long Island City, NY 11101
E-mail: zhangju@ddc.nyc.gov

E-mailed or faxed proposals will not be accepted by DDC.

Proposals received after the proposal due date and time are late and shall not be accepted by the Agency, except as provided under the New York City Procurement

Policy Board Rules. The agency will consider requests made to the Authorized Agency Contact Person to extend the proposed due date and time prescribed above. However, unless the agency issues a written addendum to this RFP that extends the Proposal due date and time for all proposers, the proposal due date and time prescribed above shall remain in effect.

NOTE: Respondents are responsible for ensuring that their proposals are received by the Professional Contract Section by the deadline. Respondents are warned not to rely on signed delivery slips from their messenger services. Packages are sometimes incorrectly delivered to the School Construction Authority located in the same building and the packages are not forwarded to the DDC Professional Contracts Section before the deadline. Entrance to DDC is on 30th Place, *not* Thomson Avenue despite our Thomson Avenue house number.

2. Inquiries

All questions regarding the RFP must be made in writing by mail or email to the Authorized Agency contact person before Wednesday, December 17th, 2014. HRO/DDC will respond to the inquiry in writing and such response will be furnished as an addendum to the RFP to all proposers that received the RFP document and will also be posted on the DDC website: http://ddcftp.nyc.gov/rfpweb/

3. Addenda

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the Acknowledgement of Addendum and original signed copy(ies) of Addenda to the technical proposal. All addenda shall become a part of the requirements for this RFP. Failure to do so may deem the proposal non-responsive.

4. RFP Schedule

The following is the estimated timetable and is provided to assist responding firms in planning.

RFP Release Date	December 12th, 2014
Pre-Proposal Conference (Optional)	December 19th, 2014
Prime/Sub Networking Event (Optional)	December 19th, 2014
Last Day for Submission of Questions	December 17th, 2014
Proposal Submission Deadline	January 12th, 2015 at 4:00 pm
Notice to Proceed	When directed by DDC/HRO

SECTION II. SUMMARY OF THE REQUEST FOR PROPOSALS

1. Background and Objectives of the Project

The New York City Housing Recovery Office ("HRO"), New York City Housing Preservation and Development ("HPD"), and the New York City Department of Design and Construction ("DDC") are engaged in a major program designed to assist homeowners, landlords, and tenants in the five boroughs who have agreed to participate in the rehabilitation plan of HRO, known as Build-it-Back Program, for the homes damaged by Hurricane Sandy. This Agreement is being procured by the City and funded by the US Department of Housing and Urban Development ("HUD"), under the Federal Community Development Block Grant Disaster Relief Program. The Contractor must comply with all federal requirements, including those described in Exhibit G of the attached contract. These home repair projects range from relatively moderate rehabilitation, such as the replacement of interior materials and the relocation of utilities within the building structure, to much more extensive and complex undertakings, involving the rebuilding and elevation of existing homes. Over 15,000 homeowners across Sandy impacted boroughs of Brooklyn, Queens and Staten Island, have applied to the NYC Housing Recovery Build It Back Program. Approximately 10,000 homes require moderate rehabilitation, 4,000 homes require elevation, and 500 homes require complete rebuilds. Amongst these neighborhoods are blocks of homes with serious design and infrastructure constraints, which will require innovative urban design approaches for achieving a more cohesive neighborhood scale design by working with groups of homeowners linked by common architectural or structural features. Actual volume of homes to be repaired will vary depending on homeowners' engagement in the Build It Back program, the case management process and eligibility determination, and the applicant's selection of their individual pathway including transferring unspent funds to the City.

The purpose of this procurement is to advance the settlement of homeowners, landlords and tenants into their homes by substantially increasing design and construction capacity for the Build It Back program, including design capacity for complex projects. The City's goal is to maximize the number of projects designed and constructed in 2015. Through this Request for Proposals ("RFP"), DDC is seeking to engage up to three (3) Construction Management ("CM") firms for the provision of all services necessary and required to manage the design and construction. The construction will include rehabilitation, elevation and/or reconstruction of one- to four-family homes, including attached homes and row-houses.

There will be three competition pools. Proposers may propose on one or more boroughs: Queens, Brooklyn, and/or Staten Island, by submitting separate and complete packages for each competition pool. Proposers will provide information in their proposal on their ability to perform work in any borough they are interested in pursuing. The Proposers may indicate their preference of the borough(s) in the proposal; however the City reserves the right to assign the awardees to one or more borough(s) based on the proposer's capacity and the best interest of the City.

There are three different categories ("pathways") of construction. Pathways for the construction of each home will primarily be determined according to the cost analysis of storm damage:

1. Rehabilitation: cost analysis of storm damage is under 50% of the pre-storm value
2. Elevation: cost analysis of storm damage is above 50% of the pre-storm value
3. Reconstruction: cost analysis of storm damage is above 50% of the pre-storm value and cost to elevate is above cost to reconstruct; homeowners whose cost to elevate is between 75% and 100% of cost to reconstruct may choose either elevation or reconstruction

Details for determination of pathways are in Section III. 1. Scope of Services.

The current estimated project counts for each borough and affected neighborhoods are listed as follows:

Estimated Project Counts

	A Total Rehabilitations	B Total Elevations	C Total Reconstructions (E)	D Total Projects (A+B+C)
Queens	1,250	950	20	**2,220**
Brooklyn	2,500	800	25	**3,325**
Staten Island	1,200	950	30	**2,180**
Total	**4,950**	**2,700**	**75**	**7,725**

Queens Neighborhoods	Brooklyn Neighborhoods	Staten Island Neighborhoods
1. Edgemere 2. Far Rockaway – Bayswater 3. Hamilton Beach 4. Old Howard Beach 5. Rockaway Beach 6. Rockaway Park	1. Brighton Beach 2. Canarsie 3. Coney Island 4. Gerritsen Beach 5. Manhattan Beach 6. Red Hook 7. Seagate 8. Sheepshead Bay	1. Cedar Grove 2. Great Kills 3. Midland Beach 4. New Dorp 5. Oakwood Beach 6. South Beach

The CMs are required to procure all construction contracts from one of eight Pre-Qualified List(s) of the contractors provided and maintained by HRO/DDC. These contracts shall be held by the CM. The Pre-Qualified Lists (PQL) are detailed in Section III.1. Task B.2. Preparation of Construction Bid Documents. PQL will be established by DDC in accordance with New York City Procurement Policy Board (NYC PPB) Rules.

2. Joint Ventures and Other Consultant Relationships

Proposals may be submitted by Joint Ventures. Note that, there is no minimum requirement for the proportion of work by either of the two joint ventured parties. Joint ventures must carry the required insurance either as policies written specifically for the joint venture entity, or by using their existing single entity policies with endorsements written for the joint venture activity.

HRO/DDC does not recognize the corporate configuration wherein one company is “in association with” another. Relationships between two or more firms shall be either as joint venture or prime consultant/subconsultant. In the event that a proposal is received wherein two or more firms are described as being "in association with" each other, DDC will treat the relationship as one of prime consultant/subconsultant(s). The RFP evaluation will be handled accordingly, and if chosen as a winner, the contract documents will show only the prime firm on the signature page, and all other firms will be relegated to Exhibit A of the attached contract, which lists any subconsultants.

3. Contract Term

This Contract shall commence as of the date indicated in the Notice to Proceed Letter and shall remain in until Final Acceptance of all required construction work for the Project and completion of all required services. The timeframe for Final Completion of all required construction work for the Project and all required services is 1,825 consecutive calendar days.

4. Insurance

The CM and consultants or subconsultants performing professional services must provide the types and amounts of insurance specified in Article 23 of the attached contract. All construction contractors and construction subcontractors performing services for this contract must provide the types and amounts of insurance set forth in Schedule A of the General Conditions, to be provided by DDC. The proposer is advised to carefully review such insurance requirements. All insurance must provide coverage for work on residential properties. The proposer is encouraged to suggest creative ways to save money, including in the area of insurance.

5. Payment Provisions

This is not a fixed price lump sum contract. No fee or Payments will be earned or paid for any period of time after Final Completion.

Payments will be made in a combination of milestone payment, fee for services payment, hourly rates, and incentive/damage payment.

The terms and conditions applicable to payment for all required services for the Project are set forth in Article 42 of the attached contract and in Article 26 and 28 as applicable. Such payment categories directly correspond to Tasks identified in the Scope of Work and are identified below:

- Task A Construction Management Services and Task C Construction Procurement Services:
  - Base Fee (Annual Cost of professional staffing): monthly payment according to one twelfth of the amount in the final negotiated Fee Proposal
  - Set Up of Project Office (mobilization and demobilization): lump sum payment of the amount in the final negotiated Fee Proposal
  - Operation of the Project Office: monthly payment according to one sixtieth of the lump sum total set forth in the fee
  - Fee for Profit in increments of 20 homes per pathway: milestone payment. 25% of the Fee for Profit upon being issued a work order identifying a project; 50% of the Fee for Profit upon executing the contract with the PQL contractors to start construction; and 25% of the Fee for Profit upon close out of a project and handover to all the home owners in the project

- Task B Scoping and Design Services
  - Scoping and Design Services: milestone payment based on the Unit Price per home for three different pathways set forth in the final negotiated Fee Proposal. 10% payable upon completion of Scoping and cost estimate; 30% payable upon completion of preliminary design; 50% payable upon completion of final design including bid document; and 10% for construction services payable upon completion of construction. CMs shall not invoice the City more than once a month
  - Additional A&E Services: monthly payment based on the hourly rates set forth in the final negotiated Fee Proposal

- Task C Construction Services
  - The CM shall be paid the price of the award given to the construction contractor. The milestone payments shall be 10% of the awarded dollar amount upon execution of the construction contract; 50% of the awarded dollar amount upon 50% of completion of the work; and 40% of the awarded dollar amount upon Substantial Completion

- Task D Emergency Work
  - Should critical life safety issues arise as described in Section III Task D, emergency work shall be treated as change orders under Article 26 and 28 of the attached contract. For units requiring emergency work where a project has already been bid and awarded, the PQL contractor shall be required to do the

emergency work. For units requiring emergency work where a project has not been bid, the CM will be required to bid the work to at least three contractors off the appropriate PQL lists

- Bonus and Liquidated Damages

  In accordance with Article 71 of the attached contract, liquidated damages may be applied on a Work Order by Work Order basis at the sole discretion of HRO/DDC.

The CM will be required to submit invoices on a monthly basis with a breakdown by each home identified by the application number and borough, block and lot number. These invoices will identify the names and titles of the CM and subconsultant personnel, hourly rate, and number of hours per pay period. Invoices for services will be accepted once every 30 days. See Appendix 3 for Sample Invoice.

Payments will be made to the CMs in accordance with the Prompt Payment provisions of the New York City Procurement Policy Board Rules.

SECTION III. SCOPE OF WORK AND CONTRACT CONDITIONS

1. Scope of Services

The scope of work for this contract includes construction management, scoping and design services, and construction for the rehabilitation, elevation, and reconstruction of detached, semi-attached and fully attached, one- to four-family homes in three boroughs of New York City (Brooklyn, Queens, and Staten Island).

- ***Construction Management***: The CM will be required to provide all services necessary and required for the quality, management, coordination, and administration of the work, including management of the M/WBE utilization plan, from commencement at the packaging of projects after the homeowners' engagement through substantial completion, final acceptance, project close-out, and homeowners' acceptance, including monitoring of the construction one year warranty period.

- ***Scoping and Design Services:*** The CM will be responsible for creating a comprehensive Scope of Work that falls within the parameters of the HRO provided feasibility study for each home as per Exhibit L of the attached contract. Additional design work through architectural, engineering, and technical expertise shall, as necessary, be provided for complex design and infrastructure issues.

- ***Construction***: The CM will be required to procure all construction contracts from a Pre-Qualified List of contractors (PQL) that will be provided and maintained by HRO/DDC. The CM must ensure that the approved scope of work is bid out and executed at the high level of quality standards and completed in a timely manner.

- ***Post Construction***: The CM will be required to request a Final Inspection, resolve outstanding issues, receive a written determination of Final Acceptance, perform any necessary tasks to obtain a permanent Certificate of Occupancy as well as submit all documents and records including, but not limited to, warranty certificates, manuals, and drawings.

Based upon the Project Schedules below, HRO/DDC is looking for CM teams to find innovative and efficient ways to manage and complete large volumes of homes through design and construction as quickly as possible.

Project Schedules					
Phase	**Type of Construction**	**Contract Schedule**	**Accelerated Schedule**	**Defined Start of Phase**	**Defined Completion of Phase**
Scoping and Design	Rehabilitation	28 days	21 days	Work Order from DDC	Completed
Construction	Rehabilitation	56 days	28 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Elevation (No BSA or DEC approval)	84 days	56 days	Work Order from DDC	Completed
Construction	Elevation (No BSA or DEC approval)	140 days	84 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Elevation (BSA and/or DEC approval)	168 days	140 days	Work Order from DDC	Completed
Construction	Elevation (BSA and/or DEC approval)	140 days	84 days	Signed Grant Agreement	Final Inspection

Scoping and Design	Reconstruction (No BSA or DEC approval)	140 days	84 days	Work Order from DDC	Completed
Construction	Reconstruction (No BSA or DEC approval)	252 days	168 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Reconstruction (BSA and/or DEC approval)	224 days	168 days	Work Order from DDC	Completed
Construction	Reconstruction (BSA and/or DEC approval)	252 days	168 days	Signed Grant Agreement	Final Inspection

The services to be provided by the Construction Management firm(s) shall include without limitation the services set forth below:

A. CONSTRUCTION MANAGEMENT:

The CM shall provide Construction Management Services in accordance with Article 11 of the attached contract.

Task A.1 Construction Management

The CM must provide and manage all services necessary during all phases of each concurrent project including quality, management, coordination, and administration of the work, so that the required design and construction work is properly executed, completed in a timely fashion and conforms to all applicable requirements and to good design and construction practice. This includes, but is not limited to:

- Tracking issues to resolution;
- Management and coordination of sub-consultants, contractors and subcontractors;
- Homeowner communication and coordination;
- Manage and monitor project compliance with MWBE participation goals on a weekly basis and take corrective action to ensure that project goals are met;
- Perform regular Quality Assurance and Quality Control checks;
- Monitor safety and security and compliance with safety and security plans;
- Document management and records retention; and
- Ensure compliance with all applicable City, State, and Federal requirements.

Task A.2 Implementation Plan:

At the onset of the contract, the CM will meet with HRO and DDC to review the scope of Borough(s) assigned to the CM. The CM will be provided detailed information about the homeowners who are active in the program, their status with Build It Back, and their projected pathway. The CM will work with HRO and DDC to establish an Implementation Plan for design and construction of all potential homes. The Implementation Plan will include plans to:

- Facilitate the timely design and construction of all homes;
- Minimize impact to the neighborhoods;
- Coordinate with other planned and on-going community construction projects;
- Identify and target homeowners who have not been able to return to their home;
- Cooperate and coordinate with local elected officials and civic leaders in partnership with HRO;
- Take into account any on-going Build It Back work being performed by other contractors, including Choose Your Own Contractors program;

- Focus on solutions for complex zoning, infrastructure, wetland, and other environmental issues and plans for coordination with other agencies for necessary approvals;
- Identify all attached homes, and other homes that have design and construction issues that need to be coordinated; and
- Plan for communicating with homeowners throughout design and construction.

Full implementation of the plan will be dependent on homeowners' engagement in the Build It Back program, the case management process, and the selection of their individual pathway. HRO will work with the CM to prioritize homeowners through case management based on the Implementation Plan developed by the CM for their Borough(s).

The Commissioner shall, by written Work Order(s), assign to the CM and their Design Consultant(s) a list or lists of impacted homes for the performance of required services. All homeowners must complete their case management process and eligibility review, select a pathway, and complete Quality Assurance and Control before they will be assigned by written Work Order to the CM.

The CM will develop a project schedule for design and construction as part of the Implementation Plan. The implementation plan is to be completed within 3 weeks of the Notice to Proceed and updated at the issuance of each Work Order.

Task A.3 Project Office(s):
The CM shall be required to set up and operate for the duration of the project, a Project Office dedicated to the activities of personnel in connection with Projects assigned in the RFP. Requirements for Project Office are set forth in Exhibit D of the attached contract.

Task A.4: Program and Project Reporting, Compliance Reporting and Meetings
Project Reporting: Each CM will be required to record, track, manage and report on a bi-weekly and monthly basis the key milestones of all projects assigned according to a uniform reporting structure set forth by HRO/DDC. On a monthly basis, each CM will be required to provide monthly budget updates. Each CM will also be required to prepare and provide reports in real-time and other communications as directed for HRO/DDC to evaluate Program performance. Each CM shall also undertake the responsibilities with respect to Project and Program reports as per Article 11.6.14 of the attached contract.
Because of the critical and time-sensitive nature of this assignment, the CM will be required to utilize IT/web-based systems developed by HRO which allow information to be recorded in a timely and transparent manner to ensure the integrity and timeliness of project data. Details of the IT system are prescribed in Task A.5.

- Compliance Reporting: The CM is required, in collaboration with HRO/DDC, to develop the format and frequency of delivery of compliance reports, including M/WBE goals, Safety and Security monitoring and all City, State and Federal requirements.

- Meetings: Each CM will be required to schedule and conduct standing meetings with representatives from DDC and HRO, the CM and/or sub-consultant(s). Each CM will also schedule and conduct meetings with regulatory agencies and any other entities or individuals including other Program vendors involved as directed to advance the projects in a timely fashion.

Task A.5 IT Database Administration

The CM must coordinate, track, monitor and report on a high volume of concurrently active projects during design, construction and closeouts in its selected region(s). The firm must interface with existing databases and software platforms/packages operated and maintained by HRO. HRO is running the Case Management System hosted in the Microsoft Azure Cloud.

The technologies deployed in the Microsoft Azure cloud are as follows:

- Barracuda Web Application Firewall "WAF" firmware v7.9.0.19 - Application Firewall - www.barracuda.com
- MS Windows 2008/2012 Server Active Directory - User Authentication
- MS SQL 2012 Server - Dynamics CRM and SharePoint DBs
- MS ADFS 2.0 Server - Federation services
- MS Dynamics CRM 2011 Server - CRM Server/Client
- MS SharePoint 2013 Server - Document management
- Scribe Insight 7.6.1.36092 - CRM automation and data integration - www.scribesoft.com
- MS System Center 2012 Operations Manager - Systems Monitoring
- MS System Center 2012 Configuration Manager - Patch management
- MS Team Foundation Server 2013 - Development / Versioning

The project controls manager from the CM will be required to assist and work with program and IT staff in the development of new interfaces including developing business requirements, job aids, and trainings.

Task A.6 Compliance with Sandy Recovery Hiring Plan

CMs are encouraged to work with local Community Based Organizations, pre-apprenticeship and apprenticeship programs, and voluntary groups engaged in rebuilding efforts. The selected CM must provide one full-time staff dedicated to daily tracking compliance with the Sandy Recovery Hiring Plan, set forth in Exhibit H of the attached contract, to ensure the successful implementation of the Plan.

Task A.7 Homeowner Services

The CM will require direct interactions with homeowners before assignment, during scoping and design, and during construction, close out, and one year warranty period. The CM will receive customer service referrals from the HRO Customer Call Center and the Build it Back Centers. The CM will work closely with HRO/DDC to ensure the highest quality of customer service to homeowners. Proposers should include in the proposal a plan for assisting in the management of homeowner relations throughout the project, potentially including leveraging community based organizations or other

organizations familiar with housing, relocation services, disaster recovery, and the local community.

The CM will work with HRO/DDC, and the local community, and engage potential homeowners as necessary in learning more about the pathways and process, and encourage homeowners to finalize their pathway decisions. Where homeowners' pathway decisions are linked with other homeowners, such as homeowners of attached homes or row houses, the CM may work with a group of homeowners to discuss potential design options and pathways for the entire group.

B. SCOPING AND DESIGN SERVICES PHASE:

Task B.1 Develop Scope of Work, Provide Design Solutions, and Determine Final Pathway and Services During Construction

The CM shall provide Design services in accordance with Article 9 of the attached contract. For each home, a current HRO contractor will perform a Preliminary Damage Assessment and generate Feasibility and Tier II Environmental Reports that determine whether or not a home is Substantially Damaged and the applicable environmental impacts to that home. A home that is deemed to be Substantially Damaged is one in which the cost of repairing the home to its pre-storm condition exceeds 50% of the pre-storm value of the home. The pre-storm value of the home is determined by taking the total value of the property in the 2012 tax year and subtracting the value of the land, all from the Department of Finance database. This Substantial Damage calculation will be provided to the CM. The CM will review the Preliminary Damage Assessment, Feasibility, and Tier II Environmental Reports. Samples of these reports are attached in Appendix 12. Using those reports, the CM does a preliminary determination to assign a pathway for the repair among Rehabilitation, Elevation, or Reconstruction alternatives.

The scoping and design functions are then staged. There are four design stages as follows:

- Scoping
  For each home, the CM and Design subconsultants engage the home owner, inspect existing conditions, prepare layout drawings and do all related work towards obtaining the scope of work and preliminary cost estimate. Pathways may change after this scoping effort.

- Preliminary Design
  Upon approval by HRO/DDC, the design efforts move to the Preliminary design stage. The Preliminary design is a solution to all issues identified in the Scope and after the design consultation with the homeowner, a final cost estimate is prepared. The documents go to HRO for review and preparation of the homeowner agreement.

- Final Design
  Upon approval of the Preliminary design and homeowner agreement, CM designer gets required regulatory approvals and prepares the construction bid documents, The Homeowner is then engaged for a final sign off.

- Services During Construction
  CM designers attend meetings, respond to Request for Information, review submittals, and issue bulletins to ensure that construction matters related to the design are resolved.

Specific Design Requirements
The CM will be required to provide safe and efficient designs solutions; ensure compliance with all local, state and federal laws, rules and regulations, including without limitation, compliance with all protocols required by the U.S Department of Housing and Urban Development, NYC Department of Buildings, New York City Department of Housing Preservation and Development, Board of Standards and Appeals, NYC Department of City Planning, New York State Department of Environmental Conservation, and Department of Interior National Fish & Wildlife; and services include pre-design investigation including title search services, site specific investigation, site surveying, cost estimating, zoning analysis, sewer and septic connections, wetland delineations, all other land use and zoning approvals, schematic design, design development, and regulatory approvals.

Rehabilitation – For those homes preliminarily determined to be in the Rehabilitation pathway, the CM will be required to review the preliminary reports and assign a team to perform a Design Consultation (DC). The DC team will create the scope of work required to repair the remaining storm damage and identify any life safety issues in the home.

The results of the DC for Rehabilitation will be used by the CM to create the Substantial Improvement calculation, which adds the amount of completed work indicated in the Feasibility Report to the work scoped in the DC. Should the Substantial Improvement percentage go over 50% of the pre-storm home value, the home will move into the Elevation pathway. Should it remain below 50%, the home will remain in the Rehabilitation pathway.

Elevation - For homes determined to be in the Elevation pathway, the CM will be required to review the preliminary reports and assign a team to perform an Elevation Design Consultation. In addition, the CM must research each home to determine compliance with rules, regulations, and policies from the Department of Buildings and the Department of Finance in regard to the existing building footprint and size and requirements, such as sprinklers, that will be imposed by the required elevation. Survey and geotechnical reports must be ordered and the Elevation Design Consultation team will then be sent to the site to document existing conditions, confirm the feasibility of elevation, and discuss potential solutions with the homeowner. Following satisfactory results from the above investigations, the

architectural or engineering sub-consultant will begin the design process for the home elevation.

Homes remaining in the Elevation pathway will require submission to the Department of Buildings of the plans for the elevation along with partial demolition plans for approval. The design of the home elevation must incorporate zoning considerations, wetland compliance with NYS DEC where the home is adjacent to or in a wetland, required Green Building Standards, BSA approval requirements (if needed), location factors including unmapped streets, homes located in the bed of mapped streets, homes on “courts” without direct access to public streets, street widening lines, substandard streets, attached or semi-attached homes, varying requirements of different flood zones and program standards, among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the Department of Buildings. The CM will be expected to obtain all necessary signatures from homeowners, pull all applicable permits, issue required notices, schedule required utility mark-outs and disconnections, and schedule all required pre-lift and lift inspections prior to elevation. HRO/DDC will provide any required Special Inspections.

Upon completion of Schematic Design for homes in the Elevation pathway, the CM will provide a Cost Reasonableness Analysis performed by a qualified cost estimator to compare the actual costs of elevation to the costs of reconstruction. Should the cost of Elevation exceed 100% of the cost of Reconstruction, or should the Elevation Consultation determine that the home cannot feasibly be lifted, the home will be moved to the Reconstruction pathway. Should the cost of Elevation exceed 75% of the cost of Reconstruction, the homeowner will be given the option to move their home to the Reconstruction pathway.

Reconstruction - For homes whose initial pathway or subsequent examination puts them into the Reconstruction pathway, a number of factors will need to be decided. The design of the home must incorporate the determination of eligible components of the home to be replaced, including square footage, number of units, number and type of rooms, zoning considerations, wetland compliance with NYS DEC where home is adjacent to or in a wetland, required Green Building Standards, Board of Standard and Appeals approval requirements (if needed), location factors including unmapped streets, homes located in the bed of mapped streets, homes on “courts” without direct access to public streets, street widening lines, substandard streets, attached or semi-attached homes, varying requirements of different flood zones and program standards among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the NYC Department of Buildings.

Task B.2 Preparation of Construction Bid Documents

The CM will bundle homes in its assigned borough in groups of projects for release of requests for bids for construction according to location, pathways, and other criteria so as to best expeditiously deliver a high volume of completed projects. Bid documents for the scope of work for the repair of the homes shall be packaged according to these projects and both the bid documents and the bundles of homes are subject to HRO/DDC approval prior to bidding.

The CM will ensure, prior to commencement of the bidding process, that all necessary permits, certificates, licenses, or approvals required for performance of the Work have been obtained. Pre-bid meeting with contractors shall be held as necessary.

There are no limits to the number of homes to be packaged for bid. DDC will have developed and maintained the following eight PQL at the execution of the CM/Design contracts:

General Construction for 1 to 4 Unit Residential Structures over $300,000
Electrical Rehabilitation for 1 to 4 Unit Residential Structures over $300,000
Plumbing Rehabilitation for 1 to 4 Unit Residential Structures over $300,000
Mechanical Rehabilitation for 1 to 4 Unit Residential Structures over $300,000

General Construction for 1 to 4 Unit Residential Structures $300,000 or less
Electrical Rehabilitation for 1 to 4 Unit Residential Structures $300,000 or less
Plumbing Rehabilitation for 1 to 4 Unit Residential Structures$300,000 or less
Mechanical Rehabilitation for 1 to 4 Unit Residential Structures $300,000 or less

Bid tabulation must be broken down by homes. The CM must ensure that the construction contract is to be awarded to the lowest responsive and responsible bidder. Bids may have an allowance for Time and Material (T&M) not to exceed 2% of the bid amount. T&M payment structure must be based on bid hourly rates for normal, and premium hours.

The CM may not prepare bid scopes that require Alternate Bids without pre-approval in writing from DDC/HRO. Alternate Bid is defined as a bid that states an amount which may change from the quoted price if alternate methods and materials are chosen.

C. CONSTRUCTION PHASE

The CM shall provide Construction Services in accordance with Article 10 of the attached contract.

Task C.1 Construction Procurement

The CM will be responsible for the management of all bidding, design, permitting, scheduling of subcontractors, scheduling of inspections and construction related to each home. The CM shall use a form of subcontract that is in compliance with the provisions of Article 10 of the Contract. The form of subcontract must be approved in advance by the Commissioner. HRO/DDC will complete a full due diligence review of construction contractors before they are allowed to be included in the PQL. However the CM will be required to undertake their own due diligence review at the 2nd tier subcontractors.

The CM will be required to comply with the procedures provided by the City in the attached Information for Bidders (Appendix 2) and procure all construction services from PQLs provided and maintained by HRO/DDC. The contracts awarded to the PQL contractors must include a Schedule B: M/WBE Utilization that aligns with the

goals in Attachment 7. In addition, the CM must require construction subcontractors to comply with Exhibit H, Sandy Recovery Hiring Plan. The Hiring Plan includes apprenticeship requirements and Building and Construction Trades Council of Greater New York and Vicinity (BCTC) Outer Borough Residential Project Labor Agreement (PLA) requirements.

The CM bid documents must include a bid sheet which in addition to presenting the bid price for the Scope of Work must include labor rates for normal hours, premium and holiday hours to be applied if change orders are required on T & M.

Task C.2 Services during the Construction Phase

The CM will provide the following services during the Construction Phase without limitation:

1. Manage and supervise the performance of the work by the Construction contractors described in each Scope of Work;
2. Communicate and coordinate the work with Construction contractors, homeowners, and any other relevant regulatory agencies or community partners;
3. Ensure Construction contractors are providing all necessary materials and equipment to perform the work in a timely manner; and
4. Communicate and coordinate with design sub-consultants and other Program vendors as necessary.

Anticipated Time Frames:

- Construction will commence for Rehabilitation projects within 1 months of a homeowner's final design sign-off, and construction shall be completed 6 months, thereafter.
- Construction will commence for Elevate projects within 3 months of a homeowner's final design sign-off, and construction shall be completed 12 months thereafter.
- Construction will commence for Reconstruction projects within 3 months of a homeowner's final design sign-off, and construction shall be completed 15 months thereafter.
- For Attached and Semi-Attached homes, the timeframe for milestones will be determined on a case by case basis.

Homes will not be determined to be complete until all work is completed and all required inspections have been performed and certificates (if any) issued by any and all appropriate oversight agencies and handover to the homeowner.

In order to maximize work efficiencies, HRO/DDC reserves the following rights:

(i) To determine the order of priority for the performance of the required services at the assigned sites;
(ii) To increase or decrease the sites assigned to the CM depending on performance, including assigning sites outside the current region;
(iii) To increase or decrease the value of the CM and transfer that contract capacity to another CM;

(iv) To solicit separate design proposals from selected Design Consultants for unique resilient developments which require greater innovation and creativity; and
(v) To assign sites that have completed designs done by another firm for construction only to the CM.

D. EMERGENCY REPAIRS

Should critical life safety issues related to Sandy damage arise, HRO/DDC will issue Change Order to the CM for inspecting and ensuring that critical life safety issues in the home are repaired on an emergency basis in compliance with HRO's Minimum Program Standards in Exhibit I of the attached contract. The CM will set up an after-hours point of contact person (weekdays between 5pm-9am and 24/7 on weekends/holidays) to be on-call to respond to HRO/DDC-related emergency calls. Upon receiving such a call or a notification during regular business hours, the CM will dispatch an emergency team to assess the situation. Examples of emergency repairs include, but are not limited to, a lack of heat/hot water, frozen pipes, and/or minor roof repairs threatening life/safety. The CM will share its findings and repair scope of work with the HRO/DDC program and case management leads immediately upon completion. The HRO/DDC program lead will approve/reject/modify the recommendations for the emergency repairs and authorize an emergency work order prior to repair commencement within 24 hours.

The CM will then provide the requisite crews of qualified personnel to perform the work, i.e., plumbers, electricians, mechanics, and general tradesmen within 24 hours.

For homes already awarded to a PQL contractor, the CM must instruct the PQL contractors to make repairs on an emergency basis. For payment purpose, the work will be treated as Extra Work according to Article 26 and 28 of the attached contract.

For homes not yet awarded to PQL contractors, the CM must contact a minimum of three contractors on the appropriate PQL list, issue to each of them the same scope and opportunities for site visits and request bids for the completion of the work. The bid must be returned, evaluated and awarded within 48 hours.

2. Contract Provisions

The services to be provided by the CM and all standards of performance applicable to the required work are set forth in the form of contract, attached hereto and incorporated herein as part of this RFP. Any firm awarded a contract as a result of this RFP will be required to sign a contract containing the City's contract provisions, in substantially the form they appear in the attached contract. For a more complete and thorough description of the terms and conditions, the proposer is advised to review the attached contract.

3. Staffing Requirements

a. Key Personnel: It is the intent of the City to ensure the continuity of the personal services of those key construction management personnel identified by the

proposer in its technical proposal. In accordance with Article 11 of the attached contract, the CM agrees to assign such key personnel to the project for the entire duration thereof. Failure by the CM to provide such key personnel will be considered a material breach of the contract and grounds for termination for cause. The CM shall make every reasonable effort to maintain stability of the professional staff assigned to the Project to prevent the departure of the most productive and expert resources from the Project. The reassignment of Key Personnel shall be subject to the City's approval. The CM shall provide the City with at least 30 days' notice of any change in Key Personnel staff assigned to the Agreement. Personnel shall be removed from the Program upon request by the City.

b. Staffing Requirements for Construction Management and Design Consultant Personnel: Overall staffing requirements for Design Consultant and Construction Management personnel for the Project have been established by the Commissioner and are set forth in Attachment 4 of this RFP and Exhibit B of the attached contract. Such staffing requirements specify the titles of construction management and design personnel that may be required for the Project. In accordance with the procedure outlined in Article 11 of the attached contract, the Staffing Plan, which sets forth the number and titles of design and construction management personnel required for the Project, as well as the specified personnel to be assigned to the Project, is subject to the prior written approval of the Commissioner. The CM agrees, throughout the term of the contract, to provide design and construction management personnel as directed by the Commissioner.

4. Compliance with Iran Divestment Act of 2012:

Pursuant to State Finance Law Section 165-a and General Municipal Law Section 103-g, the City is prohibited from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Each proposer is required to complete the attached Bidders Certification of Compliance with the Iran Divestment Act, certifying that it is not on a list of entities engaged in investments activities in Iran created by the Commissioner of the NYS Office of General Services. If a proposer appears on that list, the Agency/Department will be able to award a contract to such proposer only in situations where the proposer is takings steps to cease its investments in Iran or where the proposer is a necessary sole source. Please refer to Attachment for information on the Iran Divestment Act required for this solicitation and instructions on how to complete the required form and to http://www.ogs.ny.gov/About/regs/ida.asp for additional information concerning the list of entities.

A proposal shall not be considered for award nor shall any award be made where the proposer fails to submit a signed and verified proposer's certification.

6. Participation by Minority Owned and Women Owned Business Enterprises in City Procurement:

If the contract resulting from this Request for Proposals will be subject to M/WBE participation requirements under Section 6-129 of the Administrative Code of the City of

New York, as indicated by the inclusion of Schedule B – M/WBE Utilization Plan (Attachment 7) and the Participation Goals indicated in Part I thereof, proposers must complete the Schedule B – M/WBE Utilization Plan and submit it with their proposals. Please refer to the Schedule B – M/WBE Utilization Plan and the Notice to All Prospective Contractors (Attachment 7) for information on the M/WBE requirements established for this solicitation and instructions on how to complete the required forms. If the proposer intends to seek a full or partial waiver of the Participation Goals on the grounds described in Section 10 of the Notice to All Prospective Contractors, including but not limited to, proposer's intention to use its own forces to perform any or all of the required contract work would result in a failure to attain the Participation Goals, the proposer must request and obtain from the Agency a full or partial waiver of the Participation Goals (M/WBE Utilization Plan, Part III) in advance of proposal submission and submit the waiver determination with the proposal. Please note that if a partial waiver is obtained, the proposer is required to submit a completed Schedule B-M/WBE Utilization Plan based on the revised Participation Goals in order to be found responsive.

Note: As fully explained in Attachment 7, if you are planning to request a waiver of the M/WBE participation goals, the waiver must be submitted to the Agency at least seven days prior to the proposal due date and time in order to be considered.

7. Compliance with Local Law 34 of 2007

Pursuant to Local Law 34 of 2007, amending the City's Campaign Finance Law, the City established a computerized database containing the names of any "person" that has "business dealings with the city" as such terms are defined in the Local Law. For the purposes of the database, proposers are required to complete the attached Doing Business Data Form and return it with this proposal submission, and should do so in a separate envelope. (If the proposer is a proposed joint venture, the entities that comprise the proposed joint venture must each complete a Data Form.) If the City determines that a proposer has failed to submit a Data Form or has submitted a Data Form that is not complete, the proposer will be notified by the Agency and will be given four (4) calendar days from receipt of notification to cure the specified deficiencies and return a complete Data Form to the Agency. Failure to do so will result in a determination that the [proposal] [submission] is non-responsive. Receipt of notification is defined as the day notice is e-mailed or faxed (if the proposer has provided an e-mail address or fax number), or no later than five (5) days from the date of mailing or upon delivery, if delivered.

8. Whistleblower Protection Expansion Act Rider

Local Law Nos. 30 and 33 of 2012, codified at sections 6-132 and 12-113 of the New York City Administrative Code, the Whistleblower Protection Expansion Act, protect employees of certain City contractors from adverse personnel action based on whistleblower activity relating to a City contract and require contractors to post a notice informing employees of their rights. Please read Exhibit M of the attached contract, the Whistleblower Protection Expansion Act Rider, carefully.

9. Subcontractor Compliance Notice

The selected vendor will be required to utilize the City's web based system to identify all subcontractors in order to obtain subcontractor approval pursuant to PPB Rule section 4-13, and will also be required to enter all subcontractor payment information and other related information in such system during the contract term. Please read Attachment 10, the subcontractor compliance notice as it relates to competitive solicitations.

SECTION IV. FORMAT AND CONTENT OF THE PROPOSAL

Instructions: Proposers should provide all information required in the format below. The proposal should be typed on both sides of 8½" X 11" paper. The City of New York requests that all proposals be submitted on paper with no less than 30% post-consumer material content, i.e., the minimum recovered fiber content level for reprographic paper recommended by the United States Environmental Protection Agency (for any changes to that standard please consult: http://www.epa.gov/epg/products/printing.htm). Pages should be paginated. The proposal will be evaluated on the basis of its content, not its length. Failure to comply with any of these instructions will not make the proposal non-responsive.

1. Technical Proposal

Include the following information in the Technical Proposal in the order outlined below. There may be further breakdowns of this format for each item, if the proposer so requires to clarify its proposal.

Introductory Material:

- Cover Letter: Submit a maximum one-page cover letter, indicating the firm's name and address, and the name, address and telephone number of the person authorized to represent the firm. The HRO/DDC project name and number must be included.

- Table of Contents: Provide a table of contents of the material contained in the proposal.

- Summary: Submit a brief statement of the salient features of the proposal, including approach, qualifications and nature of the proposed project team. Do not include fee data in the summary. Inclusion of such information may deem the proposal non-responsive.

Support Documentation:

A. **Experience of Firm**:
Describe the specific relevant successful experience of the proposing firm(s) and, if applicable, that of each subconsultants. Include a thorough description of other relevant projects, which demonstrate the firm's ability to carry out the scope of work similar to the one described in this RFP. Firms will be evaluated in terms of their demonstrated ability to design and build multiple concurrent projects in a fast paced environment for projects that are similar in nature to those that are the subject of this contract. In addition, submit Form SF-254, which lists the number of current full-time staff and the projects on which the firm is currently working, have completed and future projects and commitments. Provide the value of these contracts and their schedules.

If applicable, submit a completed Form SF-254 for each of the subconsultants proposed to be used as part of the project team. (HRO/DDC must approve the actual subconsultants prior to their actual use).

If the proposer is a joint venture, delineate the areas of responsibility and expertise of each joint venture partner.

Project Team: Identify the proposer's proposed project team, throughout the term of the contract, to perform the required services. In addition, submit a Form SF-255 which identifies the Project Team which includes the Design Personnel and Construction Management Personnel listed in Attachment 4. A resume of each person on the project team should also be submitted in Form SF-255. The resume shall include academic qualification, professional experience, and professional license if applicable, with supporting documents. Minimum requirements are set forth in Attachment 4.

NOTE: The proposer shall specify the following key personnel: Program Executive, Project Executive, Project Manager, Lead Design Manager, Design Project Manager, and Project Controls Manager. Resumes of the proposed key personnel, detailing managerial and technical qualifications, shall be included. Particular attention and appropriate evaluation credit will be given to the track record of the proposed key personnel in successfully completing projects of comparable scope and complexity to that described in this RFP.

If applicable, submit a completed Form SF-255 for each of the subconsultants proposed to be used as part of the project team. (HRO/DDC must approve the actual subconsultants prior to their use).

B. **Technical Approach (Methodology):**

Describe and demonstrate the effectiveness of the proposer's methodology in managing, designing and constructing multiple concurrent projects; understanding of the program specifics and schedules of construction for the volume of projects at hand.

Submit a comprehensive Staffing Plan that demonstrates the proposer's clear understanding of an effective organizational approach to the management of multiple concurrent projects in design, construction and coordination with project case management.

Submit a Project Schedule, including projected vs actual completion dates, for a previously completed project of similar scope and nature as the subject project.

The Staffing Plan and Project Schedule shall be based on the scenarios of the Sample Project described below:

Sample Project

HRO/DDC will provide a bundle of 1,450 residential buildings in Staten Island. The breakdown of the 1,450 homes is as follows:

Rehabilitation Pathway – 1,000 *homes require structural repairs, relocation of boiler and electrical panels from the basement to the second floor and replacement of interior finishes. Locations vary.*

Elevation Pathway - 400 *homes require the existing structures habitable floors to be elevated to the new floodplain elevations levels. The new requirements range from 4 to 9 feet in elevation. All of the homes were substantially damaged. 200 are fully attached, 150 are semi attached and 50 are detached 1 to 4 unit single family homes.*

The 200 fully attached homes are interspersed among city block and many of the homes being elevated will be adjacent to homes that will not be elevated. Locations vary.

The 150 semi attached homes are interspersed among city blocks. Locations vary.

All 50 detached homes were originally constructed over 40 years ago on unmapped streets, were never permitted by the NYC Building Department, and therefore do not have a Certificate of Occupancy. The feasibility reports indicate that a majority of these lots are non-conforming with the Zoning Ordinances and lack proper setbacks. Many of the homes require the work to bring the structure into compliance with all codes. Locations vary.

Reconstruction Pathway - 50 *detached homes require the existing structures to be demolished and rebuilt to the new floodplain elevations. 20% of these currently operate with a standalone septic system and are not connected to the city sewer system.*

This bundle will require:

1. *coordination with NYC regulatory agencies such as NYC DOB, NYSDEC, NYC City Planning, NYC BSA, etc.,*
2. *interaction with community groups and boards,*
3. *input and data tracking with case management system that will be monitored by HRO/DDC,*
4. *design services,*
5. *construction procurement, and*
6. *construction management.*

~ End of Program ~

Proposers are advised to read closely the requirements/Exhibits in the attached contract.

Exhibit A:	Contract Information
Exhibit B:	Staffing Requirements
Exhibit C:	Partial Payment for Stored Material
Exhibit D:	Requirements for Project Office
Exhibit E:	Safety Requirements
Exhibit F:	Form of Payment and Performance Bond
Exhibit G:	Federal HUD Requirements (Appendix B, CDBG Rider)
Exhibit H:	Sandy Recovery Hiring Plan
Exhibit I:	NYC Build It Back Minimum Program Standards
Exhibit J:	FEMA Elevation Certificate Instructions
Exhibit K:	2012 Enterprise Green Communities and Checklist
Exhibit L:	Sample Damage Assessment Report, Tier 2 Environmental Review and Feasibility Study
Exhibit M	Whistleblower Protection Expansion Act Rider

Greater consideration will be given to proposers who can expeditiously deliver a high volume of cost effective, neighborhood based solutions that demonstrate extensive experience in resilience improvements of residential structures to reduce risk and strengthen neighborhoods in flood zones.

C. <u>Organizational Capability</u>:
Demonstrate the proposer's capability in terms of quality of project management, design, staffing, construction management, CAD capabilities and current workload including other Sandy related HRO/DDC projects and administration of public and federally compliant contracts. Demonstrate the proposer's ability to provide personnel, managerial, and other resources as and when required to meet the project's objectives.

D. <u>Statement of Understanding</u>: The Statement of Understanding form (Attachment 1) shall be signed by the proposer and submitted with the technical proposal.

E. <u>Acknowledgement of Addenda</u>: The acknowledgement of Addenda form (Attachment 5) serves as the proposer's acknowledgement of the receipt of addenda to this RFP that may have been issued by the Agency prior to the Proposal Due Date and Time. The proposer should complete the original Addendum and Acknowledgement of Addenda Form as instructed on the form.

2. <u>Fee Proposal</u>

A form for the submission of the Fee Proposal is included as Attachment 3 of the RFP. The proposer must complete the Fee Proposal as per instruction on Attachment 3 and submit the Fee Proposal in separate sealed package.

3. Proposal Package Contents ("Checklist")

The Proposal Package should consist of the following **FOUR** packages:

A. Technical Proposal (1 original and 5 copies):
Sealed envelope, clearly marked as "Technical Proposal", including

- Completed Forms 254 and 255
- Statement of Understanding and Certification (Attachment 1)
- Completed and Notarized Proposer's Certification of Compliance with Iran Divestment Act (Attachment 2)
- Staffing Plan based on the Sample Project
- Project Schedule based on the Sample Project
- Acknowledgement of Addenda (Attachment 5)

B. Fee Proposal (1 original): (Attachment 3)
Sealed envelope clearly marked as "Fee Proposal"

C. SCHEDULE B: M/WBE Utilization Plan (1 original each): (Attachment 7)
Including three forms for Design, Construction Management and Construction respectively
Sealed envelope clearly marked as
"SCHEDULE B: M/WBE Utilization Plan"

D. Doing Business Data Form (1 original): (Attachment 8)
Sealed envelope clearly marked as
"Doing Business Data Form" containing
a completed Doing Business Data Form.

In addition, all the sealed packages should also have two labels containing:

- The proposer's name and address, the Project Name and PIN # of this RFP and the name and telephone number of the Proposer's Contact Person.
- The name, title and address of the Authorized Agency Contact Person.

SECTION V. PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES

1. Selection Process

All proposals accepted by the Agency/Department will be reviewed to determine whether they are responsive or non-responsive to the requisites of this RFP. Proposals that are determined by the Agency to be non-responsive will be rejected. For each competition pool, an HRO/DDC evaluation committee will review, evaluate and score all Technical Proposals in accordance with evaluation criteria prescribed in this RFP. This evaluation and scoring will determine the proposer's technical score. HRO/DDC reserves the right to conduct site visits and/or interviews and/or to request that proposers make presentations and/or demonstrations, as the Agency deems applicable and appropriate. Although discussions may be conducted with proposers submitting acceptable proposals, the Agency reserves the right to award contracts on the basis of initial proposals received, without discussions; therefore, the proposer's initial proposal should contain its best technical and price terms.

2. Proposal Evaluation Criteria:

For each competition pool, the project submitted will be evaluated based on the following criteria:

A.	Experience of Firm and Key Personnel	[Weight 30%]
B.	Technical Approach (Methodology)	[Weight 40%]
C.	Organizational Capability	[Weight 30%]

3. Basis of Award

For each competition pool, the Department of Design and Construction will award the contract to the responsible proposer whose proposal represents the best value to the City by optimizing quality, cost and efficiency and is determined to be the most advantageous to the City, taking into consideration the price and such other factors or criteria set forth in this RFP. Price will be considered as follows: Based on the final technical scores of the proposals, the Agency will establish a shortlist; and those proposals under consideration for award will be ranked in the order of lowest price per technical point. Contract award shall be subject to the timely completion of contract negotiations between the agency and the selected proposer.

4. Supplies and Service Employment Report

Upon selection, each successful proposer will be required to submit one original copy of the Department of Business Services Supply and Service Employment Report, a copy of which can be downloaded from http://www.nyc.gov/html/ddc/html/otherfrm.html. Upon written notification, the proposer must submit the Service and Supply Employment Report within ten days of such notification.

5. VENDEX

Upon selection, each successful proposer will be required to submit proof of filing of the appropriate VENDEX Questionnaires. Upon written notification, the proposer must submit a Confirmation of Vendex Compliance to HRO/DDC within five days of official notification. A form for this confirmation is set forth in the RFP.

The proposer is advised that Vendex Questionnaires and procedures have changed. See www.nyc.gov/vendex to download the new VENDEX Questionnaires and a Vendor's Guide to VENDEX or contact DDC's VENDEX Unit at 718-391-1570.

(a) Submission: Vendex Questionnaires (if required) must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007.

(b) Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, proposers may be obligated to complete and submit VENDEX Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after award.

6. Contract Finalization

Upon selection, the successful proposers will be asked to finalize a contract with DDC subject to the conditions specified in the RFP and to the agency's standard contract provisions. The contents of the selected proposal, together with this RFP and any addendum(s) provided during the proposal process, may be incorporated into the final contract to be developed by the agency.

SECTION VI. GENERAL INFORMATION TO PROPOSERS

A. Complaints

The New York City Comptroller is charged with the audit of contracts in New York City. Any proposer who believes that there has been unfairness, favoritism or impropriety in the proposal process should inform the Comptroller, Office of Contract Administration, 1 Centre Street, Room 1005, New York, NY 10007; the telephone number is (212) 669-2323. In addition, the New York City Department of Investigation should be informed of such complaints at its Investigations Division, 80 Maiden Lane, New York, NY 10038; the telephone number is (212) 825-5959.

B. Applicable Laws

This Request for Proposals and the resulting contract award(s), if any, unless otherwise stated, are subject to all applicable provisions of New York State Law, the New York City Administrative Code, New York City Charter and New York City Procurement Policy Board (PPB) Rules. A copy of the PPB Rules may be obtained by contacting the PPB at (212) 788-7820.

C. General Contract Provisions

Contracts shall be subject to New York City's contract provisions, in substantially the form that they appear in the attached contract.

D. Contract Award

Contract award is subject to each of the following applicable conditions and any others that may apply: New York City Fair Share Criteria; New York City MacBride Principles Law; submission by the proposer of the requisite New York City Department of Small Business Services/Division of Labor Services Employment Report and certification by that office; submission by the proposer of the requisite VENDEX Questionnaires/Affidavits of No Change and review of the information contained therein by the New York City Department of Investigation; all other required oversight approvals; applicable provisions of federal, state and local laws and executive orders requiring affirmative action and equal employment opportunity; and Section 6-108.1 of the New York City Administrative Code relating to the Local Based Enterprises program and its implementation rules.

E. Proposer Appeal Rights

Pursuant to the PPB Rules, proposers have the right to appeal Agency non-responsiveness determinations and Agency non-responsibility determinations and to protest an Agency's determination regarding the solicitation or award of a contract.

F. Multi-Year Contracts

Multi-year contracts are subject to modification or cancellation if adequate funds are not appropriated to the Agency to support continuation of performance in any City fiscal year succeeding the first fiscal year and/or if the CM's performance is not satisfactory. The Agency will notify the contractor as soon as is practicable that the funds are, or are not,

available for the continuation of the multi-year contract for each succeeding City fiscal year. In the event of cancellation, the contractor will be reimbursed for those costs, if any, which are so provided for in the contract.

G. Prompt Payment Policy

Pursuant to the New York City's Procurement Policy Board Rules, it is the policy of the City to process contract payments efficiently and expeditiously.

H. Prices Irrevocable

Prices proposed by the proposer shall be irrevocable until contract award, unless the proposal is withdrawn. Proposals may only be withdrawn by submitting a written request to the Agency prior to contract award but after the expiration of 90 days after the opening of proposals. This shall not limit the discretion of the Agency to request proposers to revise proposed prices through the submission of best and final offers and/or the conduct of negotiations.

I. Confidential, Proprietary Information or Trade Secrets

Proposers should give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification of why such materials, upon request, should not be disclosed by the City. Such information must be easily separable from the non-confidential sections of the proposal. All information not so identified may be disclosed by the City.

J. RFP Postponement/Cancellation

The Agency reserves the right to postpone or cancel this RFP in whole or in part, and to reject all proposals.

K. Proposer Costs

Proposers will not be reimbursed for any costs incurred to prepare proposals.

L. VENDEX Fees

Pursuant to PPB Rule 2-08(f)(2), the CM will be charged a fee for the administration of the VENDEX system, including the Vendor Name Check process, if a Vendor Name Check review is required to be conducted by the Department of Investigation. The CM shall also be required to pay the applicable required fees for any of its Design Consultants for which Vendor Name Check reviews are required. The fee(s) will be deducted from payments made to the CM under the contract. For contracts with an estimated value of less than or equal to $1,000,000, the fee will be $175. For contracts with an estimated value of greater than $1,000,000, the fee will be $350.

M. Charter Section 312(a) Certification

_✓_ The Agency has determined that the contract(s) to be awarded through this Request for Proposals will not result in the displacement of any New York City employee within this Agency. See attached Displacement Determination Form.

____ The Agency has determined that the contract(s) to be awarded through this Request for Proposals will result in the displacement of New York City employee(s) within this Agency. See attached Displacement Determination Form.

____ The contract to be awarded through this Request for Proposal is a task order contract that does not simultaneously result in the award of a first task order; a displacement determination will be made in conjunction with the issuance of each task pursuant to such task order contract. Determination for any subsequent task orders will be made in conjunction with such subsequent task orders.

_____ _____

Agency Chief Contracting Officer Date

ATTACHMENT 1: STATEMENT OF UNDERSTANDING AND CERTIFICATION

STATEMENT OF UNDERSTANDING: By signing in the space provided below, the undersigned certifies that the proposer: (i) has read and understands the scope and requirements of this project, as described in the RFP and all attachments; (ii) has the capacity to execute this project, (iii) agrees to accept payment in accordance with the requirements of this RFP and the standard design contract, attached hereto, (iv) will, if its proposal is accepted, enter into the attached standard contract with the New York City Department of Design and Construction, and (v) will carry all types of insurance specified in the contract. The undersigned further certifies that the information in this proposal is, to the best of his/her knowledge, true and accurate.

Is the proposal printed on both sides, on recycled paper containing the minimum percentage of recovered fiber content as requested by the City in the instructions to this solicitation?

□ **Yes** □ **No**

CERTIFICATION FOR M/WBE UTILIZATION PLAN: By signing in the space below, the proposer agrees to the Vendor Certification and Required Affirmations set forth below, unless a full waiver of the Participation Goals is granted. The Vendor Certification and Required Affirmations will be deemed to satisfy the requirement to complete Section V of Part II of Schedule B: M/WBE Utilization Plan.

Section V: Vendor Certification and Required Affirmations

I hereby:

1) acknowledge my understanding of the M/WBE participation requirements as set forth in this Contract and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and the rules promulgated thereunder;
2) affirm that the information supplied in support of the M/WBE Utilization Plan is true and correct;
3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

_____
Name of Proposer
(Full Business Name)

By: _____ _____
Signature of Partner or Corporate Officer Date

_____ _____
Print Name Title

_____ _____
Telephone # EIN#

_____ _____
Address E-Mail Address

ATTACHMENT 2

IRAN DIVESTMENT ACT COMPLIANCE RIDER FOR NEW YORK CITY CONTRACTORS

The Iran Divestment Act of 2012, effective as of April 12, 2012, is codified at State Finance Law ("SFL") §165-a and General Municipal Law ("GML") §103-g. The Iran Divestment Act, with certain exceptions, prohibits municipalities, including the City, from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in SFL §165-a and GML §103-g, a person engages in investment activities in the energy sector of Iran if:

i. The person provides goods or services of twenty million dollars or more in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or

ii. The person is a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created pursuant to paragraph (b) of subdivision three of Section 165-a of the State Finance Law and maintained by the Commissioner of the Office of General Services.

A bid or proposal shall not be considered for award nor shall any award be made where the bidder or proposer fails to submit a signed and verified bidder's certification.

Each bidder or proposer must certify that it is not on the list of entities engaged in investment activities in Iran created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. In any case where the bidder or proposer cannot certify that they are not on such list, the bidder or proposer shall so state and shall furnish with the bid or proposal a signed statement which sets forth in detail the reasons why such statement cannot be made. The City of New York may award a bid to a bidder who cannot make the certification on a case by case basis if:

(1) The investment activities in Iran were made before the effective date of this section (i.e., April 12, 2012), the investment activities in Iran have not been expanded or renewed after the effective date of this section and the person has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran: or

(2) The City makes a determination that the goods or services are necessary for the City to perform its functions and that, absent such an exemption, the City would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.

ATTACHMENT 2 (continued)

PROPOSER'S CERTIFICATION OF COMPLIANCE WITH IRAN DIVESTMENT ACT

Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the proposer submits the following certification:

[*Please Check One*]

PROPOSER'S CERTIFICATION

☐ By submission of this proposal, each proposer and each person signing on behalf of any proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

☐ I am unable to certify that my name and the name of the proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: _____, _____
City State

_____ 20___
Month, Date Year

_____
SIGNATURE

_____
PRINTED NAME

_____
TITLE

_____
FULL BUSINESS NAME

Sworn to before me this

_____ day of_____, 20____

_____
Notary Public

ATTACHMENT 3

FEE PROPOSAL FORM

FMS ID: SANDHRO

PROJECT: Construction Management/ Design/Build for the rehabilitation, elevation and/or rebuilding of substantially damaged and non-substantially damaged residential homes.

Submission: The proposal shall submit Attachment 3 as its Fee Proposal in a clearly marked, sealed envelope.

The estimated quantities set forth in the Fee Proposal are based on the estimated project counts of each borough in the RFP (RFP-4) and are solely for purpose of price comparison.

The extended prices for the unit price items are to be paid for the actual quantities of the completed work and must cover the cost of the entire staff and administrative costs, labor, material, tools, plant and appliances of every description necessary to complete the entire work.

ATTACHMENT 3A

FEE PROPOSAL FORM - Borough of Queens

	List of Services Borough of Queens	Estimated Quantity of Homes (a)	Unit Price per Home (b)	Extended Price (a x b)
1.	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support homeowner customer service (assume 2 hours per home for bidding purposes) • All meetings with homeowner to review and agree on scope of work • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	1,250		
2.	**All required scoping and design services for elevation of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	950		
3.	**All required scoping and design services reconstruction of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	20		
			Subtotal A (1+2+3):	

4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**	**Extended Rate (a x b)**
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500		
	Early Engineering (any pathway, prefinal design sign off by homeowners)	500		
	Emergency Construction Services	500		
	Wetlands	500		
	Septics	500		
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500		
	Demolition Plans	500		
	Post Approval Amendments	500		
	SJO/RFI's	500		
	Marine Engineering	500		
			Subtotal B (3):	
5.	**Base Fee** **The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal:** • Quality personnel to develop and insure compliance with the CM Quality Management Plan • Production Staff required to track and maintain • Supervisory staff • Administrative support staff *Note: This includes overhead, reimbursable expenses, and any other associated costs.*	**Year One Lump Sum**		
		Year Two Lump Sum		
		Year Three Lump Sum		
		Year Four Lump Sum		
		Year Five Lump Sum		
			Subtotal C (5):	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**		
7.	**Project Office Operation for 60 months**	**Lump Sum**		
			Subtotal D (6+7):	
8.	**Fee for Profit** CM firms are required to submit a Fee for Profit for each home pathway in increments of 20 homes. Upon being issued a Work Order from DDC (in increments of 20 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 20 Homes, the CM shall receive 25% of the Fee for Profit.	**Estimated Qty of Groups of 20 Homes (a)**	**Unit Price per 20 Homes (b)**	**Extended Price (a x b)**
	20 Rehabilitations	62.5		
	20 Elevations	47.5		
	20 Reconstructions	1		
			Subtotal E (8):	

Total Fee Proposal for Queens (A+B+C+D+E):

_____
Name of Proposer (company name)

By: _____
Signature of partner or corporate officer

Print name of signature above: _____

Title: _____

Date: _____

Address: _____

Telephone: _____ E-Mail: _____

EIN: _____

ATTACHMENT 3B

FEE PROPOSAL FORM - Borough of Brooklyn

	List of Services Borough of Brooklyn	Estimated Quantity of Homes (a)	Unit Price per Home (b)	Extended Price (a x b)
2.	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support homeowner customer service (assume 2 hours per home for bidding purposes) • All meetings with homeowner to review and agree on scope of work • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	2,500		
2.	**All required scoping and design services for elevation of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	800		
3.	**All required scoping and design services reconstruction of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	25		
			Subtotal A (1+2+3):	

4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**	**Extended Rate (a x b)**
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500		
	Early Engineering (any pathway, pre final design sign off by homeowners)	500		
	Emergency Construction Services	500		
	Wetlands	500		
	Septics	500		
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500		
	Demolition Plans	500		
	Post Approval Amendments	500		
	SJO/RFI's	500		
	Marine Engineering	500		
			Subtotal B (3):	
5.	**Base Fee** **The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal:** • Quality personnel to develop and insure compliance with the CM Quality Management Plan • Production Staff required to track and maintain • Supervisory staff • Administrative support staff *Note: This include overhead, reimbursable expenses, and any other associated costs.*	**Year One Lump Sum**		
		Year Two Lump Sum		
		Year Three Lump Sum		
		Year Four Lump Sum		
		Year Five Lump Sum		
			Subtotal C (5):	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**		
7.	**Project Office Operation for 60 months**	**Lump Sum**		
			Subtotal D (6+7):	
8.	**Fee for Profit** CM firms are required to submit a Fee for Profit for each home pathway in increments of 20 homes. Upon being issued a Work Order from DDC (in increments of 20 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 20 Homes, the CM shall receive 25% of the Fee for Profit.	**Estimated Qty of Groups of 20 Homes (a)**	**Unit Price per 20 Homes (b)**	**Extended Price (a x b)**
	20 Rehabilitations	125		
	20 Elevations	40		
	20 Reconstructions	1.25		
			Subtotal E (8):	

Total Fee Proposal for Brooklyn (A+B+C+D+E):

_____
Name of Proposer (company name)

By: _____
Signature of partner or corporate officer

Print name of signature above: _____

Title: _____

Date: _____

Address: _____

Telephone: _____ E-Mail: _____

EIN: _____

ATTACHMENT 3C

FEE PROPOSAL FORM - Borough of Staten Island

	List of Services Borough of Staten Island	Estimated Quantity of Homes (a)	Unit Price per Home (b)	Extended Price (a x b)
3.	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support homeowner customer service (assume 2 hours per home for bidding purposes) • All meetings with homeowner to review and agree on scope of work • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	1,200		
2.	**All required scoping and design services for elevation of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	950		
3.	**All required scoping and design services reconstruction of one- to four- family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents and sign off final design doc • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	30		
			Subtotal A (1+2+3):	

4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**	**Extended Rate (a x b)**
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500		
	Early Engineering (any pathway, pre final design sign off by homeowners)	500		
	Emergency Construction Services	500		
	Wetlands	500		
	Septics	500		
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500		
	Demolition Plans	500		
	Post Approval Amendments	500		
	SJO/RFI's	500		
	Marine Engineering	500		
			Subtotal B (3):	
5.	**Base Fee** **The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal:** • Quality personnel to develop and insure compliance with the CM Quality Management Plan • Production Staff required to track and maintain • Supervisory staff • Administrative support staff *Note: This include overhead, reimbursable expenses, and any other associated costs.*	**Year One Lump Sum**		
		Year Two Lump Sum		
		Year Three Lump Sum		
		Year Four Lump Sum		
		Year Five Lump Sum		
			Subtotal C (5):	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**		
7.	**Project Office Operation for 60 months**	**Lump Sum**		
			Subtotal D (6+7):	
8.	**Fee for Profit** CM firms are required to submit a Fee for Profit for each home pathway in increments of 20 homes. Upon being issued a Work Order from DDC (in increments of 20 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 20 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 20 Homes, the CM shall receive 25% of the Fee for Profit.	**Estimated Qty of Groups of 20 Homes (a)**	**Unit Price per 20 Homes (b)**	**Extended Price (a x b)**
	20 Rehabilitations	60		
	20 Elevations	47.5		
	20 Reconstructions	1.5		
			Subtotal E (8):	

Total Fee Proposal for Staten Island (A+B+C+D+E):

_____
Name of Proposer (company name)

By: _____
Signature of partner or corporate officer

Print name of signature above: _____

Title: _____

Date: _____

Address: _____

Telephone: _____ E-Mail: _____

EIN: _____

ATTACHMENT 4

STAFFING REQUIREMENTS

FMS ID: SANDHRO

PROJECT: Construction Management/Design/Build for the rehabilitation, elevation and/or rebuilding of substantially damaged and non-substantially damaged residential homes

Overall staffing requirements for design and construction management personnel for the Project have been establish by the Commissioner and are set forth below. Such staffing requirements specify the titles of design and construction management personnel that may be required for the Project. A staffing plan for the project shall be established in accordance with the procedure set forth in Article 11 of the contract.

List of Key Personnel:

- Program Executive
- Project Executive
- Project Manager
- Lead Design Manager
- Design Project Manager
- Project Controls Manager

Minimum Qualification Requirements Per Title

Any personnel provided by the CM and/or its Design Consultants must satisfy the Minimum Requirements Per Title set forth below.

ARCHITECTURAL PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License
Project Architect	7	Professional License
Project Manager (Architecture)	7	
Senior Architectural Designer	5	
Junior Architectural Designer	3	
Architectural Technician	1	
Senior Interior Designer	5	
Junior Interior Designer	3	
Interiors Technician	1	
Programming Specialist	3	
Senior Landscape Architect	5	Professional License
Junior Landscape Architect	3	
Senior Landscape Architectural Designer	5	
Junior Landscape Architectural Designer	3	
Landscape Technician	1	
Senior Draftsperson/CAD	5	
Junior Draftsperson/CAD	1	

ENGINEERING PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License
Project Engineer	7	Professional License
Project Manager (Engineer)	7	
Senior Structural Engineering Designer	5	
Senior Electrical Designer	5	
Senior Plumbing Designer	5	
Senior HVAC Designer	5	
Junior Structural Engineering Designer	3	
Junior Electrical Designer	3	
Junior Plumbing Designer	3	
Junior HVAC Designer	1	
Engineering Technician	1	
Senior Engineering Draftsperson/CAD	5	
Junior Engineering Draftsperson/CAD	1	

PERSONNEL FOR ESTIMATING

Title	Number of Years of Experience	Professional License or Certification
Principal	7	Professional Certification
Senior Estimator	7	
Junior Estimator	3	

PERSONNEL FOR VARIOUS SPECIALTIES

Title	Number of Years of Experience	Professional License or Certification
Principal	7	Professional Certification
Fire Protection Specialist	5	
Geotechnical Specialist	5	
Marine Engineer	10	Professional License
Environmental Conservationist	5	
Arborist	3	ISA Certified
Expediter	5	
Clerical	0	

CONSTRUCTION MANAGEMENT PERSONNEL

TITLES	Academic Qualification (Minimum)	Licensure	Number of Years of Experience	Number of Years in Relevant Supervising Experience
Program Executive	BS		10	7
Project Executive	BS		10	7
Project Manager	BS in Engineering, Architecture, Construction related degree	PE, RA, CCM	10	5

TITLES	**Academic Qualification (Minimum)**	**Licensure**	**Number of Years of Experience**	**Number of Years in Relevant Supervising Experience**
Assistant Project Manager	BS in Engineering, Architecture, Construction related degree	PE, RA, CCM	7	5
Construction Inspector/ Resident Engineer	BS in Engineering (CE, EE or ME, BS in Arch.)	PE	5	3
Project Controls Manager	BS in Engineering, Architecture, Construction related degree		10-15	5 years of leadership in projects of the similar size and complexity
Contract Manager/Local Hiring Manager	BS		5	3
Office Engineer/Utilities Coordinator/Operational Logistics Coordinator	BS in Engineering (CE, EE or ME)		5	3
Clerical	12th Grade	Computer Skill	0	

ATTACHMENT 5

ACKNOWLEDGEMENT OF ADDENDA

TITLE OF THE REQUEST FOR PROPOSALS: Construction Management / Design /Build for Hurricane Sandy-affected Residential Community Recovery	PIN: 8502015HR0011P-13P

Instructions: The proposer is to complete Part I or Part II of this form, whichever is applicable, and sign and date this form. This form serves as the proposer's acknowledgement of the receipt of Addenda to this Request for Proposals (RFP) which may have been issued by the Agency prior to the Proposal Due Date and Time

___Part I

Listed below are the dates of issue for each Addendum received in connection with this RFP.

Addendum # 1, dated _____
Addendum # 2, dated _____
Addendum # 3, dated _____
Addendum # 4, dated _____
Addendum # 5, dated _____
Addendum # 6, dated _____
Addendum # 7, dated _____
Addendum # 8, dated _____
Addendum # 9, dated _____
Addendum #10, dated _____

___Part II

No Addendum was received in connection with this RFP.

Proposer Name

Proposer's Authorized Representative:

Name:_____

Title: _____

Signature: _____

Date: _____

ATTACHMENT 6

CONFIRMATION OF VENDEX COMPLIANCE

The Proposer shall submit this Confirmation of VENDEX Compliance

Name of Proposer: _____

Proposer's Address: _____

Proposer's Telephone Number: _____

Proposer's Fax Number: _____

Date of Proposal Submission: _____

Project ID: _____

VENDEX Compliance: To demonstrate compliance with VENDEX requirements, the Proposer shall complete either Section (1) or Section (2) below, whichever applies.

(1) **Submission of Questionnaires to MOCS**: By signing in the space provided below, the Proposer certifies that as of the date specified below, the Proposer has submitted VENDEX Questionnaires to the Mayor's Office of Contract Services, Attn: VENDEX, 253 Broadway, 9th Floor, New York, New York 10007.

Date of Submission: _____

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

(2) **Submission of Certification of No Change to DDC**: By signing in the space provided below, the Proposer certifies that it has read the instructions in a "Vendor's Guide to VENDEX" and that such instructions do not require the Proposer to submit VENDEX Questionnaires. The Proposer has completed **TWO ORIGINALS** of the Certification of No Change.

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

ATTACHMENT 7

SCHEDULE B: M/WBE UTILIZATION PLAN

M/WBE Program Requirements: The requirements for the M/WBE Program are set forth on the following pages of this RFP, in the section entitled "Notice to All Prospective Contractors".

Schedule B: M/WBE Utilization Plan: Schedule B: M/WBE Utilization Plan for this Contract is set forth in this RFP on the pages following the section entitled "Notice to All Prospective Contractors". The Schedule B: M/WBE Utilization Plan (Part I) indicates whether Participation Goals have been established for this Contract. If Participation Goals have been established for this Contract, the proposer must submit a Schedule B: M/WBE Utilization Plan (Part II) with its proposal.

Waiver: The proposer may seek a full or partial pre-award waiver of the Participation Goals in accordance with the "Notice to All Prospective Contractors" (See Part A, Section 10). The proposer's request for a waiver must be submitted at least seven (7) calendar days prior to the proposal submission date. Waiver requests submitted after the deadline will not be considered. The form for requesting a waiver of the Participation Goals is set forth in the Schedule B: M/WBE Utilization Plan (Part III).

Rejection of the Proposal: The proposer must complete Schedule B: M/WBE Utilization Plan (Part II) set forth in this RFP on the pages following the section entitled "Notice to All Prospective Contractors". A Schedule B submitted by the proposer which does not include the Vendor Certification and Required Affirmations (See Section V of Part II) will be deemed to be non-responsive, unless a full waiver of the Participation Goals is granted (Schedule B, Part III). In the event that the City determines that the proposer has submitted a Schedule B where the Vendor Certification and Required Affirmations are completed but other aspects of the Schedule B are not complete, or contain a copy or computation error that is at odds with the Vendor Certification and Required Affirmations, the proposer will be notified by the Agency and will be given four (4) calendar days from receipt of notification to cure the specified deficiencies and return and completed Schedule B to the Agency. Failure to do so will result in a determination that the Proposal is non-responsive. Receipt of notification is defined as the date notice is emailed or faxed (if the proposer has provided an email address or fax number), or no later than five (5) calendar days from the date of mailing or upon delivery, if delivered.

06/2013

NOTICE TO ALL PROSPECTIVE CONTRACTORS

PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below.

The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A
PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The **MBE and/or WBE Participation Goals** established for this Contract or Task Orders issued pursuant to this Contract, ("**Participation Goals**"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both. A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting

from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre- award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined

in Section 6-129(c)(22)). **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below $3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work**. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to,: the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE** Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE** Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an **M/WBE** Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or $500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.
(a) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886). Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided,

however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(b) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(c) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its **M/WBE** Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE** Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of **M/WBE** Utilization Plan. (a) A Contractor may request a modification of its **M/WBE** Utilization Plan after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below $3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission**. The Agency may grant a request for Modification of a Contractor's **M/WBE** Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals.** In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
(ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
(iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
(iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
(v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
(vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
(vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
(viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs. Agency's M/WBE officer shall provide written notice to the Contract of the determination.

(a) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE** Utilization Plan would be awarded to subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE** Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with

regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an **M/WBE** Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE** Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE** Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE** Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE** Utilization Plan, Agency may determine that one of the following actions should be taken:

(a) entering into an agreement with the Contractor allowing the Contractor to cure the violation

(b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
(c) making a finding that the Contractor is in default of the Contract;
(d) terminating the Contract;
(e) declaring the Contractor to be in breach of Contract;
(f) withholding payment or reimbursement;
(g) determining not to renew the Contract;
(h) assessing actual and consequential damages;
(i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
(j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
(k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its **M/WBE** Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an **M/WBE** Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

Tax ID #: _____

APT E-PIN #: 85015P0007

SCHEDULE B – M/WBE Utilization Plan
Part I: M/WBE Participation Goals

Part I to be completed by contracting agency

Contract Overview

APT E- Pin #	85015P0007	**FMS Project ID#:**	SANDHRO
Project Title/ Agency PIN #	CM/Design/Build for Hurricane Sandy-Affected Residential Community Recovery in the Boroughs of Queens, Brooklyn and Staten Island / 8502015HR0011P-13P		
Bid/Proposal Response Date	Monday, January 12th, 2015		
Contracting Agency	Department of Design and Construction		
Agency Address	30-30 Thomson Ave., 4th Fl.	**City**	Long Island City
State	NY	**Zip Code**	11101
Contact Person	Ramon Rodriguez	**Title**	Deputy ACCO
Telephone #	(718) 391-1505	**Email**	rodrigur@ddc.nyc.gov

Project Description *(attach additional pages if necessary)*

SANDHRO, CM/Design/Build for Hurricane Sandy Residential Community Recovery in the Boroughs of Queens, Brooklyn and Staten Island

M/WBE Participation Goals for Services

Enter the percentage amount for each group or for an unspecified goal. Please note that there are no goals for Asian Americans in Professional Services.

Prime Contract Industry: Professional

Group	Percentage	
Unspecified*	**30%**	
or		
Black American	**UNSPECIFIED**	
Hispanic American	**UNSPECIFIED**	
Asian American	**NO GOAL**	
Women	**UNSPECIFIED**	
Total Participation Goals	**30%**	**Line 1**

**Note: For this procurement, individual ethnicity and gender goals are not specified. The Total Participation Goal for professional service contracts may be met by using either Black-American, Hispanic-American, or Women certified firms or any combination of such firms.*

Tax ID #: _____ APT E-PIN #: 85015P0007

SCHEDULE B - Part II: M/WBE Participation Plan

Part II to be completed by the bidder/proposer.

Please note: For Non-M/WBE Prime Contractors who will NOT subcontract any services and will self-perform the entire contract, you must obtain a FULL waiver by completing the Waiver Application on pages 5 and 6 and timely submitting it to the contracting agency pursuant to the Notice to Prospective Contractors. Once a FULL WAIVER is granted, it must be included with your bid or proposal and you do not have to complete or submit this form with your bid or proposal.

Section I: Prime Contractor Contact Information

Tax ID # _____ **FMS Vendor ID #** _____

Business Name _____ **Contact Person** _____

Address _____

Telephone # _____ **Email** _____

Section II: M/WBE Utilization Goal Calculation: Check the applicable box and complete subsection.

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

☐ **For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals.**	**Total Bid/Proposal Value**		**Agency Total Participation Goals (Line 1, Page 1)**		**Calculated M/WBE Participation Amount**
Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	**$**	**X**		**=**	**$ Line 2**

PRIME CONTRACTOR OBTAINED PARTIAL WAIVER APPROVAL: ADOPTING MODIFIED M/WBE PARTICIPATION GOALS

☐ **For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE Participation Goals.**	**Total Bid/Proposal Value**		**Adjusted Participation Goal (From Partial Waiver)**		**Calculated M/WBE Participation Amount**
Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	**$**	**X**		**=**	**$ Line 3**

Tax ID #: _____ APT E-PIN #: 85015P0007

Section III: M/WBE Utilization Plan: How Proposer/Bidder Will Fulfill M/WBE Participation Goals. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. Check applicable box. The Proposer or Bidder will fulfill the M/WBE Participation Goals:

☐ As an M/WBE Prime Contractor that will self-perform and/or subcontract to other M/WBE firms a portion of the contract the value of which is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals. Please check all that apply to Prime Contractor:

☐ MBE ☐WBE

☐ As a Qualified Joint Venture with an M/WBE partner, in which the value of the M/WBE partner's participation and/or the value of any work subcontracted to other M/WBE firms is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals.

☐ As a non M/WBE Prime Contractor that will enter into subcontracts with M/WBE firms the value of which is at least the amount located on Lines 2 or 3 above, as applicable.

Section IV: General Contract Information

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status? % ____

✓ Scopes of Subcontract Work

Enter brief description of the type(s) and dollar value of subcontracts for all/any services you plan on subcontracting if awarded this contract. For each item, indicate whether the work is designated for participation by MBEs and/or WBEs and the time frame in which such work is scheduled to begin and end. Use additional sheets if necessary.

1._____
2._____
3._____
4._____
5._____
6._____
7._____
8._____
9. _____
10._____
11._____
12._____
13._____
14._____
15._____
16._____
17._____

Section V: Vendor Certification and Required Affirmations

I hereby:

1) acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and

the rules promulgated thereunder;
2) affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;
3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

Signature _____ **Date** _____

Print Name _____ **Title** _____

Tax ID #: _____ APT E-PIN #: 85015P0007

SCHEDULE B – PART III – REQUEST FOR WAIVER OF M/WBE PARTICIPATION REQUIREMENT

Contract Overview

Tax ID # _____ **FMS Vendor ID #** _____

Business Name _____

Contact Name _____ **Telephone #** _____ **Email** _____

Type of Procurement ☐ **Competitive Sealed Bids** ☐ **Other** **Bid/Response Due Date** _____

APT E-PIN # (for this procurement):_____ **Contracting Agency:** _____

M/WBE Participation Goals as described in bid/solicitation documents

_____ **%** **Agency M/WBE Participation Goal**

Proposed M/WBE Participation Goal ***as anticipated by vendor seeking waiver***

_____ **%** **of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for services and/or credited to an M/WBE Prime Contractor or Qualified Joint Venture.**

Basis for Waiver Request: *Check appropriate box & explain in detail below (attach additional pages if needed)*

☐ **Vendor does not subcontract services, and has the capacity and good faith intention to perform all such work itself with its own employees.**

☐ **Vendor subcontracts *some* of this type of work but at a *lower* % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract. (Attach subcontracting plan outlining services that the vendor will self-perform and subcontract to other vendors or consultants.)**

☐ **Vendor has other legitimate business reasons for proposing the M/WBE Participation Goal above. Explain under separate cover.**

References

List 3 most recent contracts performed for NYC agencies (if any). Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

CONTRACT NO. _____ **AGENCY** _____ **DATE COMPLETED** _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____

Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

CONTRACT NO. _____ **AGENCY** _____ **DATE COMPLETED** _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____

Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

CONTRACT NO. _____ **AGENCY** _____ **DATE COMPLETED** _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____

Item of Work Subcontracted and _____ Item of Work Subcontracted and _____ Item of Work Subcontracted and _____

Tax ID #: _____ APT E-PIN #: 85015P0007

Value of subcontract _____ Value of subcontract _____ Value of subcontract _____

List 3 most recent contracts performed for other entities. Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

(Complete ONLY if vendor has performed fewer than 3 New York City contracts.)

TYPE OF Contract _____ **ENTITY** _____ **DATE COMPLETED** _____

Manager at entity that hired vendor (Name/Phone No./Email) _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____ _____

Type of Work Subcontracted _____ _____ _____

_____

TYPE OF Contract _____ **AGENCY/ENTITY** _____ **DATE COMPLETED** _____

Manager at agency/entity that hired vendor (Name/Phone No./Email) _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____ _____

Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

_____

TYPE OF Contract _____ **AGENCY/ENTITY** _____ **DATE COMPLETED** _____

Manager at entity that hired vendor (Name/Phone No./Email) _____

Total Contract Amount $ _____ **Total Amount Subcontracted** $ _____ _____

Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

_____

VENDOR CERTIFICATION: *I hereby affirm that the information supplied in support of this waiver request is true and correct, and that this request is made in good faith.*

Signature: _____ **Date:** _____

Print Name: _____ **Title:** _____

Shaded area below is for agency completion only

AGENCY CHIEF CONTRACTING OFFICER APPROVAL

Signature: _____ **Date:** _____

CITY CHIEF PROCUREMENT OFFICER APPROVAL

Signature:

_____ **Date:** _____

Waiver Determination

Full Waiver Approved: ☐

Waiver Denied: ☐

Partial Waiver Approved: ☐

Revised Participation Goal:_____%

ATTACHMENT 8

DOING BUSINESS DATA FORM

DOING BUSINESS ACCOUNTABILITY PROJECT
QUESTIONS AND ANSWERS ABOUT THE DOING BUSINESS DATA FORM

What is the purpose of this *Data Form*?

To collect accurate, up-to-date identification information about entities that have business dealings with the City of New York in order to comply with Local Law 34 of 2007 (LL 34), the recently passed campaign finance reform law. LL 34 limits municipal campaign contributions from principal officers, owners and senior managers of these entities and mandates the creation of a *Doing Business Database* to allow the City to enforce the law. The information requested in this *Data Form* must be provided, regardless of whether the entity or the people associated with it make or intend to make campaign contributions. No sensitive personal information collected will be disclosed to the public.

Why have I received this *Data Form*?

The contract, franchise, concession, grant or economic development agreement you are proposing on, applying for or have already been awarded is considered a business dealing with the City under LL 34. No proposal or application will be considered and no award will be made unless this Data Form is completed. Most transactions valued at more than $5,000 are considered business dealings and require completion of the Data Form. Exceptions include transactions awarded on an emergency basis or by "conventional" competitive sealed bid (i.e. bids that do not use a prequalified list or "Best Value" selection criteria.) Other types of transactions that are considered business dealings include real property and land use actions with the City.

What individuals will be included in the Doing Business Database?

The principal officers, owners and certain senior managers of entities listed in the *Doing Business Database* are themselves considered to be doing business with the City and will also be included in the *Database*.

- **Principal Officers** are the Chief Executive Officer (CEO), Chief Financial Officer (CFO) and Chief Operating Officer (COO), or their functional equivalents. See the *Data Form* for examples of titles that apply.
- **Principal Owners** are individuals who own or control 10% of more of the entity. This includes stockholders, partners and anyone else with an ownership or controlling interest in the entity.
- **Senior Managers** include anyone who, either by job title or actual duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any contract, concession, franchise, grant or economic development agreement with the City. At least one Senior Manager must be listed or the Data Form will be considered incomplete.

I have already completed a Doing Business Data Form; do I have to submit another one?

Yes. An organization is required to submit a Doing Business Data Form each time it enters into a transaction considered a business dealing with the City, including contract, concession and franchise proposals. However, the Data Form has both a Change option, which requires only information that has changed since the last Data Form was filed, and a No Change option. No organization should have to fill out the entire Data Form more than once. If you have already submitted a Data Form for one transaction type (such as a contract), and this is the first time you are completing a Data Form for a different transaction type (such as a grant), please select the Change option and complete Section 4 (Senior Managers) for the new transaction type.

Will the personal information on this Data Form be available to the public?

No. The names and titles of the officers, owners and senior managers reported on the Data Form will be made available to the public, as will information about the organization itself. <u>However, personal identifying information, such as home address, home phone and date of birth, will not be disclosed to the public, and home address and phone number information will not be used for communication purposes</u>.

I provided some of this information on the VENDEX Questionnaire; do I have to provide it again?

Although the *Doing Business Data Form* and the VENDEX Questionnaire request some of the same information, they serve entirely different purposes. In addition, the *Data Form* requests information concerning senior managers, which is not part of the VENDEX Questionnaire.

What organizations will be included in the Doing Business Database?

Organizations that hold $100,000 or more in grants, contracts for goods or services, franchises or concessions ($500,000 for construction contracts), or that hold any economic development agreement or pension fund investment contract, are considered to be doing business with the City for the purposes of LL 34. Because all of the business that an organization does or proposes to do with the City will be added together, the *Data Form* must be completed for all transactions valued at more than $5,000 even if the organization doesn't currently do enough business with the City to be listed in the *Database*.

No one in my organization plans to contribute to a candidate; do I have to fill out this *Data Form*?

Yes. All organizations are required to return this *Data Form* with complete and accurate information, regardless of the history or intention of the entity or its officers, owners or senior managers to make campaign contributions. The *Doing Business Database* must be complete so that the Campaign Finance Board can verify whether future contributions are in compliance with the law.

My organization is proposing on a contract with another firm as a Joint Venture that does not exist yet; how should the Data Form be completed?

A joint venture that does not yet exist must submit a Data Form for each of its component firms. If the joint venture receives the award, it must then complete a form in the name of the joint venture.

How long will an organization and its officers, owners and senior managers remain listed on the *Doing Business Database*?

- **Contract, Concession and Economic Development Agreement holders:** generally for the term of the transaction, plus one year.
- **Franchise and Grant holders:** from the commencement or renewal of the transaction, plus one year.
- **Pension investment contracts:** from the time of presentation on an investment opportunity or the submission of a proposal, whichever is earlier, until the end of the contract, plus one year.
- **Line item and discretionary appropriations:** from the date of budget adoption until the end of the contract, plus one year.
- **Contract proposers:** for one year from the proposal date or date of public advertisement of the solicitation, whichever is later.
- **Franchise and Concession proposers:** for one year from the proposal submission date.

For information on other transaction types, contact the Doing Business Accountability Project.

How does a person remove him/herself from the *Doing Business Database*?

When an organization stops doing business with the City, the people associated with it are removed from the *Database* automatically. However, any person who believes that s/he should not be listed may apply for removal. Reasons that a person would be removed include his/her no longer being the principal officer, owner or senior manager of the organization. Organizations may also update their database information by submitting an update form. Removal Request and Update forms are available online at www.nyc.gov/mocs (once there, click MOCS Programs) or by calling 212-788-8104.

What are the new campaign contribution limits for people doing business with the City?

Contributions to City Council candidates are limited to $250 per election cycle; $320 to Borough President candidates; and $400 to candidates for citywide office. Please contact the NYC Campaign Finance Board for more information at www.nyccfb.info, or 212-306-7100.

The *Data Form* is to be returned to the City office that issued it.

If you have any questions about the *Data Form* please contact the Doing Business Accountability Project at 212-788-8104 or DoingBusiness@cityhall.nyc.gov.

06/21/12

The City of New York
Mayor's Office of Contract Services
Doing Business Accountability Project

Doing Business Data Form

To be completed by the City agency prior to distribution

Agency: 850 **Transaction ID:** EPIN85015P0007/8502015HR0011P-13P

Check One:	Transaction Type (check one):			
☒ Proposal	☐ Concession	☒ Contract	☐ Economic Development Agreement
☐ Award	☐ Franchise	☐ Grant	☐ Pension Investment Contract

Any entity receiving, applying for or proposing on an award or agreement must complete a Doing Business Data Form (see Q&A sheet for more information). Please either type responses directly into this fillable form or print answers by hand in black ink, and be sure to fill out the certification box on the last page. **Submission of a complete and accurate form is required for a proposal to be considered responsive or for any entity to receive an award or enter into an agreement.**

This Data Form requires information to be provided on principal officers, owners and senior managers. The name, employer and title of each person identified on the Data Form will be included in a public database of people who do business with the City of New York; no other information reported on this form will be disclosed to the public. **This Data Form is not related to the City's VENDEX requirements.**

Please return the completed Data Form to the City office that supplied it. Please contact the Doing Business Accountability Project at DoingBusiness@cityhall.nyc.gov or 212-788-8104 with any questions regarding this Data Form. Thank you for your cooperation.

Section 1: Entity Information

Entity Name: _____

Entity EIN/TIN: _____

Entity Filing Status (select one):

☐ Entity has never completed a Doing Business Data Form. *Fill out the entire form.*

☐ Change from previous Data Form dated _____. *Fill out only those sections that have changed, and indicate the name of the persons who no longer hold positions with the entity.*

☐ No Change from previous Data Form dated _____. *Skip to the bottom of the last page.*

Entity is a Non-Profit: ☐ Yes ☐ No

Entity Type: ☐ Corporation (any type) ☐ Joint Venture ☐ LLC ☐ Partnership (any type) ☐ Sole Proprietor ☐ Other (specify): _____

Address: _____

City: _____ State: _____ Zip: _____

Phone : _____ Fax : _____

E-mail: _____

Provide your e-mail address and/or fax number in order to receive notices regarding this form by e-mail or fax.

Section 2: Principal Officers

Please fill in the required identification information for each officer listed below. If the entity has no such officer or its equivalent, please check "This position does not exist." If the entity is filing a Change Form and the person listed is replacing someone who was previously disclosed, please check "This person replaced..." and fill in the name of the person being replaced so his/her name can be removed from the *Doing Business Database*, and indicate the date that the change became effective.

Chief Executive Officer (CEO) or equivalent officer

☐ This position does not exist

The highest ranking officer or manager, such as the President, Executive Director, Sole Proprietor or Chairperson of the Board.

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former CEO: _____ on date: _____

Chief Financial Officer (CFO) or equivalent officer

☐ This position does not exist

The highest ranking financial officer, such as the Treasurer, Comptroller, Financial Director or VP for Finance.

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former CFO: _____ on date: _____

Chief Operating Officer (COO) or equivalent officer

☐ This position does not exist

The highest ranking operational officer, such as the Chief Planning Officer, Director of Operations or VP for Operations.

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former COO: _____ on date: _____

Section 3: Principal Owners

Please fill in the required identification information for all individuals who, through stock shares, partnership agreements or other means, **own or control 10% or more of the entity**. If no individual owners exist, please check the appropriate box to indicate why and skip to the next page. If the entity is owned by other companies, those companies do **not** need to be listed. If an owner was identified on the previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list any individuals who are no longer owners at the bottom of this page. If more space is needed, attach additional pages labeled "Additional Owners."

There are no owners listed because (select one):

☐ The entity is not-for-profit ☐ There are no individual owners ☐ No individual owner holds 10% or more shares in the entity

☐ Other (explain): _____

Principal Owners (who own or control 10% or more of the entity):

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

Remove the following previously-reported Principal Owners:

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Section 4: Senior Managers

Please fill in the required identification information for all senior managers who oversee any of the entity's relevant transactions with the City (e.g., contract managers if this form is for a contract award/proposal, grant managers if for a grant, etc.). Senior managers include anyone who, either by title or duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any transaction with the City. **At least one senior manager must be listed, or the Data Form will be considered incomplete.** If a senior manager has been identified on a previous page, fill in his/her name and write "See above." If the entity is filing a Change Form, list individuals who are no longer senior managers at the bottom of this section. If more space is needed, attach additional pages labeled "Additional Senior Managers."

Senior Managers:

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not employed by entity): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

Remove the following previously-reported Senior Managers:

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Certification

I certify that the information submitted on these four pages and _____ additional pages is accurate and complete. I understand that willful or fraudulent submission of a materially false statement may result in the entity being found non-responsible and therefore denied future City awards.

Name: _____

Signature: _____ Date: _____

Entity Name: _____

Title: _____ Work Phone #: _____

Please return this form to the City agency that supplied it to you, not to the Doing Business Accountability Project.

For information or assistance, call the Doing Business Accountability Project at 212-788-8104.

Printed on paper containing 30% post-consumer material

ATTACHMENT 9

SUBCONTRACTOR REPORTING

NOTICE TO BIDDERS

As of March 2013 the City has implemented a new web based subcontractor reporting system through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip. In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at that site. Additional assistance with PIP may be received by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

In order to obtain subcontractor approval under Article 10.2.5 of the Standard Construction Contract and PPB Rule § 4-13 Contractor is required to list the subcontractor in the system. For each subcontractor listed, Contractor is required to provide the following information: maximum contract value, description of subcontractor work, start and end date of the subcontract and identification of the subcontractor's industry. Thereafter, Contractor will be required to report in the system the payments made to each subcontractor within 30 days of making the payment. If any of the required information changes throughout the term of the contract, Contractor will be required to revise the information in the system.

Failure of the Contractor to list a subcontractor and/or to report subcontractor payments in a timely fashion may result in the Agency declaring the Contractor in default of the Contract and will subject Contractor to liquidated damages in the amount of $100 per day for each day that the Contractor fails to identify a subcontractor along with the required information about the subcontractor and/or fails to report payments to a subcontractor, beyond the time frames set forth herein or in the notice from the City. For construction contracts, the provisions of Article 15 of the Standard Construction Contract shall govern the issue of liquidated damages.

Contractor hereby agrees to these provisions.

ATTACHMENT 10

Displacement Determination Form – Pursuant to City Charter § 312(a)

(for PSRs or equivalent pre-procurement documents)

This form must be used to certify whether or not there is displacement in the instant contracting action, as defined in City Charter § 312(a) (as amended by Local Law 63 of 2011). You can either certify that there is no displacement by completing Part 1 of this form, or you can certify that there is displacement by completing Part 2 of this form.

If the contract that you are awarding is a task order contract that does not simultaneously result in the award of a first task order, then you must check the box on the bottom of this page; displacement determinations will be made in conjunction with the issuance of task orders pursuant to the subject contract. If the contract that you are awarding does simultaneously result in the award of a first task order, then the displacement determination for that first task order must be done prior to issuance of the solicitation and you must complete either Part 1 or Part 2 of this form.

If you have any questions about Local Law 63 or about completing this form, please contact the Mayor's Office of Contract Services at APTLL63@cityhall.nyc.gov or (212) 788-0010.

Procurement Description:

APT EPIN: 85015P0007

Your Name: Miguel Cedeno

Phone: 718-391-1072 **Email:** CedenoM@ddc.nyc.gov

Please specifically identify the service(s) being procured.

Construction Management/Design/Build for Hurricane Sandy-affected Residential Community Recovery, Boroughs of Queens, Brooklyn and Staten Island

☐ If the contract to be awarded as a result of this procurement action is a task order contract (multiple or single award and multiple or single agency) that does not simultaneously result in the award of a first task order, then displacement determinations will be made in conjunction with the issuance of task orders pursuant to the subject contract. (Check this box *only* if you are completing this form for a task order contract that will *not* simultaneously result in the award of the first task order. If you check this box, do not fill out the remainder of this form.)

If the contract to be awarded as a result of this procurement action *does* simultaneously result in the award of a first task order, then the displacement determination for that first task order must be done prior to issuance of the solicitation and you must complete either Part 1 or Part 2 of this form.

Part 1: Certification of No Displacement

☒ **The Agency has determined that the contract resulting from this procurement action *will not* result in the displacement of any City employee within this Agency, as defined by Charter § 312(a).**

The basis upon which the Agency has made this determination (Please answer *all* questions under Part 1):

Do any civil service and/or job titles within this Agency currently perform the services sought by the proposed contract and/or services of a substantially similar nature or purpose?

Yes ☐ No ☒

If so, list the names of such titles and the extent to which Agency employees within such titles currently perform such services.

Do the services sought by the proposed contract expand, supplement, or replace existing services?

Yes ☒ No ☐

In either event, include a detailed description comparing the services sought by the proposed contract with such existing services.

The services under this proposed contract expand existing capacity. The services sought by the proposed contract will secure construction management, design and construction services . The role of the DDC staff in the Architecture and Engineering Division is predominantly one of review and oversight, coordination, including, but not limited, to colaborating with the client agency in project scope development, review of consultant work in the form of design plans and specifications, and ensuring that all design guidelines are met.

Is there capacity within the Agency to perform the services sought by the proposed contract?

Yes ☐ No ☒

If not, provide a detailed description specifying the ways in which the Agency lacks such capacity.

Constraints imposed by the agency budget for personnel service, in additon to fluctuations in our capital design and construction portfolio, has prevented the agency from hiring qualified personnel to meet these ineeds in-house.

For the term of the proposed contract, list the projected headcount of employees within such titles or employees who perform such services and/or services of a substantially similar nature or purpose.

Non-applicable.

As indicated above, currently no employees within DDC perfom such services and/or services of a substantially similar nature or purpose.

☒ Check this box to confirm that none of the below events have occurred within the Agency in the past three years.

- The displacement of a City employee within the agency who performs or has performed the services sought by the proposed contract and/or services of a substantially similar nature or purpose; or
- The announcement of spending reductions in connection with a budgetary program, including but not limited to a Program to Eliminate the Gap, that could result or has resulted in the displacement of a City employee within the Agency who performs or has performed the services sought by the proposed contract and/or services of a substantially similar nature or purpose; or
- Any other statement by an Agency or by the Mayor of a specific anticipated employment action that could result or has resulted in the displacement of a City employee within the Agency who performs or has performed the services sought by the proposed contract and/or services of a substantially similar nature or purpose.

List any other bases for the Agency's determination that the contract resulting from this procurement action will not result in the displacement of any City employee within this Agency.

The Agency does not have the staff to perform the scope of work outlined on these contracts. As such, the procurement of these contracts does not result in the displacement of the agency's employees. The agency's employees assigned will supervise and manage the performance of the contractors and act as a liaison between the client agencies and the contractors.

Part 2: Certification of Displacement

☐ **The agency has determined that displacement, as defined by Charter § 312(a), has or will occur as a result of this contracting action. The agency has performed the required cost-benefit analysis, as described in Charter § 312(a).**

APPENDIX 1

CONTRACT DOCUMENT

APPENDIX 2

GUIDELINES FOR INFORMATION FOR BIDDERS

CM/Design/Build for Hurricane Sandy-affected Residential Community Recovery

GUIDELINES
FOR
INFORMATION FOR BIDDERS

December 2014

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GUIDELINES FOR INFORMATION FOR BIDDERS

HUD allocated funds to the City through the Community Development Block Grant Disaster Relief ("CDBG-DR") Program

1. Description and Location of Work

The description and location of the work for which bids are requested are specified in Attachment 1, "Bid Information". Attachment 1 is included in the Bid Booklet.

2. Time and Place for Receipt of Bids

Sealed bids shall be received on or before the date and hour specified in Attachment 1, at which time they will be publicly opened and read aloud in the presence of the authorized Construction Manager (CM) designee and any bidders who may desire to be present.

3. Definitions

The definitions set forth in the Procurement Policy Board Rules shall apply to this Invitation For Bids.

4. Invitation For Bids and Contract Documents

(A) Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience) the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of the Contract and the Invitation for Bids.

(1) All provisions required by law to be inserted in this Contract, whether actually inserted or not
(2) The Contract Drawings and Specifications
(3) The General Conditions, the General Requirements and the Special Conditions, if any
(4) The Contract (The form of subcontract must be approved in advance by DDC/HRO.
(5) The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet
(6) All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.

(B) For particulars as to this procurement, including quantity and quality of the purchase, extent of the work or labor to be performed, delivery and performance schedule, and any other special instructions, prospective bidders are referred to the Invitation For Bids Documents. A copy of such documents can be obtained at the location set forth in Attachment 1.

(C) Deposit for Copy of Invitation For Bids Documents: Prospective bidders may obtain a copy of the Invitation For Bids Documents by complying with the conditions set forth in the Notice of Solicitation. The deposit must be in the form of a check or money order made payable to the City of New York, and drawn upon a state or national bank or trust company, or a check of such bank or trust company signed by a duly authorized officer thereof.

(D) Return of Invitation For Bids Documents: All Invitation For Bids Documents must be returned to the Construction Manager upon request. If the bidder elects not to submit a bid thereunder, the Invitation For Bids Documents shall be returned to the Construction Manager , along with a statement that no bid will be submitted.

(E) Return of Deposit: Such deposit will be returned within 30 days after the award of the contract or the rejection of all bids as set forth in the advertisement, provided the Invitation For Bids Documents are returned to the location specified in Attachment 1, in physical condition satisfactory to the Commissioner.

(F) Additional Copies: Additional copies of the Invitation For Bids Documents may be obtained, subject to the conditions set forth in the advertisement for bids.

5. Pre-Bid Conference

A pre-bid conference shall be held as set forth in Attachment 1. Nothing stated at the pre-bid conference shall change the terms or conditions of the Invitation For Bids Documents, unless a change is made by written amendment as provided in Section 9 below. Failure to attend a mandatory pre-bid conference shall constitute grounds for the rejection of the bid.

6. Construction Manager Contact

Any questions or correspondence relating to this bid solicitation shall be addressed to the Contact person specified in Attachment 1.

7. Bidder's Oath

(A) The bid shall be properly signed by an authorized representative of the bidder and the bid shall be verified by the written oath of the authorized representative who signed the bid, that the several matters stated and information furnished therein are in all aspects true.

(B) A materially false statement willfully or fraudulently made in connection with the bid or any of the forms completed and submitted with the bid may result in the termination of any Contract between the City and the Bidder. As a result, the Bidder may be barred from participating in future City contracts as well as be subject to possible criminal prosecution.

8. Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions

(A) Pre-Bidding (Investigation) Viewing of Site - Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Contact person specified in Attachment 1.

(B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not reasonably have been anticipated by the contractor and were not anticipated by the City, the Contract may be modified with his written approval.

9. Examination of Proposed Contract

(A) Request for Interpretation or Correction: Prospective bidders must examine the Contract Documents carefully and before bidding must request the Commissioner in writing for an interpretation or correction of every patent ambiguity, inconsistency or error therein which should have been discovered by a reasonably prudent bidder. Such interpretation or correction, as well as any additional contract provisions the Commissioner may decide to include, will be issued in writing by the Commissioner as an addendum to the Contract, which will be transmitted to each person recorded as having received a copy of the Contract Documents from the Construction Manager . Transmission of such addendum will be by mail, e-mail, facsimile or hand delivery. Such addendum will also be posted at the place where the Contract Documents are available for the inspection of prospective bidders. Upon transmission as provided for herein, such addendum shall become a part of the Contract Documents, and binding on all bidders, whether or not actual notice of such addendum is shown.

(B) Only Commissioner's Interpretation or Correction Binding: Only the written interpretation or correction so given by the Commissioner shall be binding, and prospective bidders are warned that no other officer, agent or employee of the City is authorized to give information concerning, or to explain or interpret, the Contract.

(C) Documents given to a subcontractor for the purpose of soliciting the subcontractor's bid shall include either a copy of the bid cover sheet or a separate information sheet setting forth the project name, the Contract number (if available), the name of the Construction Manager who will be the contracting entity, and the Project's location.

10. Form of Bid

Each bid must be submitted upon the prescribed form and must contain: a) the name, residence and place of business of the person or persons making the same; b) the names of all persons interested therein, and if no other person is so interested, such fact must be distinctly stated; c) a statement to the effect that it is made without any connection with any other person making a bid for the same purpose and that it is in all respects fair and without collusion or fraud; d) a statement that no Council member or other officer or employee or person whose salary is payable in whole or part from the City Treasury is directly or indirectly interested therein or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof; e) a statement that the bidder is not in arrears to the City or to any agency upon a debt or contract or taxes, and is not a defaulter as surety or otherwise upon any obligation to the City to any agency thereof, except as set forth in the bid.

THE BID SHALL BE TYPEWRITTEN OR WRITTEN LEGIBLY IN INK. THE BID SHALL BE SIGNED IN INK. ERASURES OR ALTERATIONS SHALL BE INITIALED BY THE SIGNER IN INK. FAILURE TO CONFORM TO THE REQUIREMENTS OF THIS SECTION 10 SHALL RESULT IN THE REJECTION OF THE BID.

11. Irrevocability of Bid

The prices set forth in the bid cannot be revoked and shall be effective until the award of the Contract, unless the bid is withdrawn as provided for in Sections 15 and 18 below.

12. Acknowledgment of Amendments

The receipt of any amendment to the Contract Documents shall be acknowledged by the bidder in its bid submission.

13. Bid Samples and Descriptive Literature

Bid samples and descriptive literature shall not be submitted by the bidder, unless expressly requested elsewhere in the Contract or Contract Documents. Any unsolicited bid samples or descriptive literature which are submitted shall not be examined or tested and shall not be deemed to vary any of the provisions of this Contract.

14. Proprietary Information/Trade Secrets

(A) The bidder shall identify those portions of the bid which it deems to be confidential, proprietary information or trade secrets, and provide justification why such materials shall not be disclosed by the CM City. All such materials shall be clearly indicated by stamping the pages on which such information appears, at the top and bottom thereof with the word "Confidential". Such materials stamped "Confidential" must be easily separable from the non-confidential sections of the bid.

(B) All such materials so indicated shall be reviewed by the Construction Manager and any decision not to honor a request for confidentiality shall be communicated in writing to the bidder. For those bids which are unsuccessful, all such confidential materials shall be returned to the bidder. Prices, makes and model or catalog numbers of the items offered, deliveries, and terms of payment shall be publicly available after bid opening, regardless of any designation of confidentiality made by the bidder.

15. Pre-Opening Modification or Withdrawal of Bids

Bids may be modified or withdrawn by written notice received in the office designated in Attachment 1, before the time and date set for the bid opening. If a bid is withdrawn in accordance with this Section, the bid security, if any, shall be returned to the bidder.

16. Bid Evaluation and Award

In accordance with the New York City Charter, the Procurement Policy Board Rules and the terms and conditions of this Invitation For Bids, this Contract shall be awarded, if at all, to the responsible bidder whose bid meets the requirements and evaluation criteria set forth in the Invitation For Bids, and whose bid price is either the most favorable bid price or, if the Invitation For Bids so states, the most favorable evaluated bid price. A bid may not be evaluated for any requirement or criterion that is not disclosed in the Invitation For Bids.

Restriction: No negotiations with any bidder shall be allowed to take place except under the circumstances and in the manner set forth in Section 21. Nothing in this Section shall be deemed to permit a contract award to a bidder submitting a higher quality item than that designated in the Invitation For Bids, if that bid is not also the most favorable bid.

17. Late Bids, Late Withdrawals and Late Modifications

Any bid received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. Any request for withdrawal or modification received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. The exception to this provision is that a late modification of a successful bid that makes the bid terms more favorable to the City shall be considered at any time it is received.

18. Withdrawal of Bids.

Except as provided for in Section 15, above, a bidder may not withdraw its bid before the expiration of forty-five (45) days after the date of the opening of bids; thereafter, a bidder may withdraw its bid only in writing and in advance of an actual award. If within sixty (60) days after the execution of the Contract, the Commissioner fails to fix the date for commencement of work by written notice to the bidder, the bidder, at his option, may ask to be relieved of his obligation to perform the work called for by written notice to the Commissioner. If such notice is given to the Commissioner, and the request to withdraw is granted, the bidder waives all claims in connection with this Contract.

19. Mistake in Bids

(A) Mistake Discovered Before Bid Opening: A bidder may correct mistakes discovered before the time and date set for bid opening by withdrawing or correcting the bid as provided in Section 15 above.

(B) Mistakes Discovered Before Award

(1) In accordance with General Municipal Law (Section 103, subdivision 11), where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn upon written approval of the Construction Manager if the following conditions are met:

(a) The mistake is known or made known to the Construction Manager prior to the awarding of the Contract or within 3 days after the opening of the bid, whichever period is shorter; and

(b) The price bid was based upon an error of such magnitude that enforcement would be unconscionable; and

(c) The bid was submitted in good faith and the bidder submits credible evidence that the mistake was

a clerical error as opposed to a judgment error; and

(d) The error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the bid, which unintentional arithmetic error pr unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and

(e) It is possible to place the Construction Manager in the same position as existed prior to the bid.

(2) Unless otherwise required by law, the sole remedy for a bid mistake in accordance with this Article shall be withdrawal of the bid, and the return of the bid bond or other security, if any, to the bidder. Thereafter, the Construction Manager may, in its discretion, award the Contract to the next lowest bidder or rebid the Contract. Any amendment to or reformation of a bid or a Contract to rectify such an error or mistake therein is strictly prohibited.

(3) If the mistake and the intended correct bid are clearly evident on the face of the bid document, the bid shall be corrected to the intended correct bid and may not be withdrawn. Examples of mistakes that may be corrected are typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

20. Low Tie Bids

(A) When two or more low responsive bids from responsible bidders are identical in price, meeting all the requirements and criteria set forth in the Invitation For Bids, the Construction Manager Chief Contracting Officer will break the tie in the following manner and order of priority:

(1) Award to a certified New York City small, minority or woman-owned business entity bidder;
(2) Award to a New York City bidder;
(3) Award to a certified New York State small, minority or woman-owned business bidder;
(4) Award to a New York State bidder.

(B) If two or more bidders still remain equally eligible after application of paragraph (A) above, award shall be made by a drawing by lot limited to those bidders. The bidders involved shall be invited to attend the drawing. A witness shall be present to verify the drawing and shall certify the results on the bid tabulation sheet.

21. Rejection of Bids

(A) Rejection of Individual Bids: The Construction Manager may reject a bid if:

(1) The bidder fails to furnish any of the information required pursuant to Section 24 or 28 hereof; or if
(2) The bidder is determined to be not responsible pursuant to the Procurement Policy Board Rules; or if
(3) The bid is determined to be non-responsive pursuant to the Procurement Policy Board Rules; or if
(4) The bid, in the opinion of the Construction Manager Chief Contracting Officer, contains unbalanced bid prices and is thus non-responsive, unless the bidder can show that the prices are not unbalanced for the probable required quantity of items, or if the imbalance is corrected pursuant to Section 15.

(B) Rejection of All Bids: The Construction Manager may reject all bids and solicit new bids, upon written approval by DDC/HRO.

22. Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award

The bidder has the right to appeal a determination of non-responsiveness or non-responsibility and has the right to protest a solicitation and award.

23. Affirmative Action and Equal Employment Opportunity

This Invitation For Bids is subject to applicable provisions of Federal, State and Local Laws and executive orders requiring affirmative action and equal employment opportunity.

25. Complaints About the Bid Process

The New York City Comptroller is charged with the audit of contracts in New York City. Any vendor who believes that there has been unfairness, favoritism or impropriety in the bid process should inform the Comptroller, Office of Contract Administration, One Centre Street, Room 1005, New York, New York; telephone number (212)669-2323.

26. Bid, Performance and Payment Security

(A) Bid Security: As required by CM.

(B) Performance and Payment Security: 100 percent Performance and Payment Security must be provided in an amount and type specified in Attachment 1. The performance and payment security shall be delivered by the contractor prior to or at the time of execution of the Contract. If a contractor fails to deliver the required performance and payment security, its bid security shall be enforced, and an award of Contract may be made to the next lowest responsible and responsive bidder, or the contract may be rebid.

(C) Acceptable Types of Security: Not used

(D) Form of Bonds: Security provided in the form of bonds must be prepared on the form of bonds authorized by the City of New York. Forms for bid, performance, and payment bonds are included in the Invitation for Bids Documents. Such bonds must have as surety thereunder such surety company or companies as are: (1) approved by the City of New York; (2) authorized to do business in the State of New York, and (3) approved by the Department of the Treasury of the United States. Premiums for any required bonds must be included in the base bid.

The bidder is advised that submission of a bid bond where the surety on such bond fails to meet the criteria set forth herein, shall result in the rejection of the bid as non-responsive.

The Department of the Treasury of the United States advises that information concerning approved surety companies may be obtained as follows: (1) from the Government Printing Office at 202-512-1800; (2) through the Internet at http://www.fms.treas.gov/c570/index.html, and (3) through a computerized public bulletin board, which can be accessed by using your computer modem and dialing 202-874-6887.

(E) Power of Attorney: Attorneys in fact who sign bid, performance, or payment bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

27. Failure to Execute Contract

In the event of failure of the successful bidder to execute the Contract and furnish the required security within ten (10) days after notice of the award of the Contract, the deposit of the successful bidder or so much thereof as shall be applicable to the amount of the award made shall be retained by the City, and the successful bidder shall be liable for and hereby agrees to pay on demand the difference between the price bid and the price for which such Contract shall be subsequently awarded, including the cost of any required reletting and less the amount of such deposit. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of the deposit or as a defense to any action based upon such accepted bid. Further, should the bidder's failure to comply with this Section cause any funding agency, body or group (Federal, State, City, Public, Private, etc.) to terminate, cancel or reduce the funding on this project, the bidder in such event shall be liable also to the City for the amount of actual funding withdrawn by such agency on this project, less the amount of the forfeited deposit.

28. Bidder Responsibilities and Qualifications

(A) Bidders must include with their bids all information necessary for a determination of bidder

responsibility, as set forth in the Specifications.

(B) If required, a bidder must also submit a sworn statement setting forth such information as the Construction Manager may require concerning present and proposed plant and equipment, the personnel and qualifications of his working organizations, prior experience and performance record.

(C) Oral Examination on Qualifications: In addition thereto, and when directed by the Construction Manager , the bidder, or a responsible officer, agent or employee of the bidder, must submit to an oral examination to be conducted by the Construction Manager in relation to his proposed tentative plan and schedule of operations, and such other matters as the Construction Manager may deem necessary in order to determine the bidder's ability and responsibility to perform the work in accordance with the Contract. Each person so examined must sign and verify a stenographic transcript of such examination noting thereon such corrections as such person may desire to make.

(D) If the bidder fails or refuses to supply any of the documents or information set forth in paragraph (B) hereof or fails to comply with any of the requirements thereof, the Construction Manager may reject the bid.

29. Employment Report

Construction Employment Report (ER) must be filed according to the instructions at
http://www.nyc.gov/html/sbs/downloads/pdf/DLS_Employ_Rpt_Inst.pdf

30. Labor Law Requirements

(A) General: The successful bidder will be required to comply strictly with all Federal, State and local labor laws and regulations.

(B) Deleted.

(C) Records: The Contractor is expected to submit accurate payroll reports and other required documents and verify attendance and job classifications being utilized in compliance with the law, Contract provisions and Construction Manager procedures.

31. Insurance

(A) Bidders are advised that the insurance requirements contained herein are regarded as material terms of the Contract. As required by Article 22 of the Contract, the contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the types of insurance set forth therein, when required by and in the amounts set forth in Schedule A of the General Conditions. Such required insurance must be provided from the date the contractor is ordered to commence work and up to the date of final acceptance of all required work.

(B) The contractor must, within ten days of receipt of the notice of award, submit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A of the General Conditions, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by Section 57 of the New York State Workers' Compensation Law and Section 220 of the Disability Benefits Law.

32. Lump Sum Contracts

(A) Comparison of Bids: Bids on Lump Sum Contracts will be compared on the basis of the lump sum price bid, adjusted for alternate prices bid, if any.

(B) Lump Sum Bids for "General Construction Work" which include excavation shall include all necessary excavation work defined in the Specifications as being included in the lump sum bid. The bidder shall

also bid a unit price for the additional cost of excavating material which is defined in the Specifications as excavation for which additional payment will be made. The total estimated additional cost of removing such material will be taken as the quantity set forth in the Engineer's Estimate multiplied by the unit price bid. This total estimated cost of additional excavation shall be added to the lump sum bid for the General Construction Work for the purpose of comparing bids to determine the low bidder.

(C) Variations from Engineer's Estimate: The Engineer's Estimate of the quantity of excavation for which additional payment will be made is approximate only and is given solely to be used as a uniform basis for the comparison of bids and such estimate is not to be considered as part of this contract. The quantities actually required to complete the contract work may be more or less than the quantities in the Engineer's Estimate and, if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

33. Unit Price Contracts

(A) Comparison of Bids: Bids on Unit Price Contracts will be compared on the basis of a total estimated price, arrived at by taking the sum of the estimated quantities of such items, in accordance with the Engineer's Estimate of Quantities set forth in the Bid Form, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

(B) Variations from Engineer's Estimate: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

(C) Overruns: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Tax

Pursuant to this Contract, the Contractor agrees to sell all tangible personal property, other than consumable supplies and other tangible personal property that the Contractor is required to remove from the Site during or upon completion of the Work, that is required, necessary or proper for or incidental to the construction and rehabilitation Work covered by this Contract. The purchase by Subcontractors or Materialmen of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the Contractor (either directly or through other Subcontractors). The sum paid under this Contract for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

The Contractor may include in its bid the cost to the Contractor of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on tangible personal property incorporated into the Dwellings. The Contractor and its Subcontractors shall be responsible for and pay any and all applicable taxes, including Sales and Compensation Use Taxes, on tangible personal property and leased tools, machinery, equipment or other property.

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

36. Multiple Prime Contractors

If more than one prime contractor will be involved on this project, all contractors are required to examine

the Invitation for Bid packages for all other parts of the project.

37. Not Used

38. Bid Submission Requirements

The Bid Submission Requirements are set forth on page 2 of the Bid Booklet.

39. Not Used

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. CONSTRUCTION MANAGER Safety Requirements

The CONSTRUCTION MANAGER Safety Requirements apply to the work to be performed pursuant to the Contract. The CONSTRUCTION MANAGER Safety Requirements are set forth on the following pages.

CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

SAFETY REQUIREMENTS

THE CONSTRUCTION MANAGER SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

I. POLICY ON SITE SAFETY

II. PURPOSE

III. DEFINITIONS

IV. RESPONSIBILITIES

V. SAFETY QUESTIONNAIRE

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW

VIII. EVALUATION DURING WORK IN PROGRESS

IX. SAFETY PERFORMANCE EVALUATION

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I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction and the Construction Manager is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is Construction Manager 's policy that work carried out by Contractors on Construction Manager jobsites must, at a minimum, comply with applicable federal, state and city laws, rules and regulations, including without limitation:

- U. S. Department of Labor 29 Code of Federal Regulations (CFR) Part 1926 and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA) including, but not limited to "Respiratory Protection" (29 CFR 1910.134), "Permit-Required Confined Spaces" (29 CFR 1910.146), and "Hazard Communication" (29 CFR 1910.1200);
- New York State Department of Labor Industrial Code Rule 23 – Protection in Construction, Demolition and Excavation;
- New York City Construction Codes, Title 28
- NYC Department of Transportation Title 34 Chapter 2 – Highway Rules
- New York State Department of Labor Industrial Code Rule 753
- NYC Local Law No. 113 (2005) Noise Control Code

In addition, all regulations promulgated by the NYC Department of Transportation, including requirements for Maintenance and Protection of Traffic (MPT), are applicable when contained in contract specifications. While MPT is a significant component of work in our Infrastructure Division, it does not supersede or exempt Contractors from complying with other applicable health and safety standards (for example, excavating and trenching standards, operation of heavy equipment and compliance with City environmental and noise regulations).

I. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazard, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Construction Manager Chief Contracting Officer shall mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Construction Manager.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them.

Construction Safety Auditor: A representative of the Construction Manager Safety Unit who provides inspection and assessment services to enhance health and safety on all Construction Manager projects. The activities of the Construction Safety Auditor include performing site surveys, reviewing health and safety plans, reviewing construction permits, and rendering technical advice and assistance to Construction Manager Resident Engineers and Project Managers.

Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term "Contractor" shall mean any person or entity that enters into a contract for the performance of construction work on a Construction Manager project. The term "Contractor" shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System ("JOCS Contract"), and (3) a subcontract with a CM/Builder ("First Tier Subcontract").

Director - Quality Assurance and Construction Safety (QACS): Responsible for the operations of the QACS Construction Safety Unit and the Construction Manager Site Safety management programs.

Job Hazard Assessment (JHA): A process of identifying site-specific hazards that may be present during construction and establishing the means and methods to reduce or eliminate those hazards.

Jobsite Safety Coordinator: A person designated by the Contractor to be onsite during all activities. This individual shall have received, at a minimum, the OSHA 10-hour construction safety program. Other examples of acceptable training are the 30-hour OSHA Safety and Health Standards for the Construction Industry training program (OSHA 510) or a degree/certificate in a safety and health from a college-level curriculum. This person does not necessarily have to be dedicated full-time to site safety, but must have sufficient experience and authority to undertake corrective action and must qualify to be a competent person. For certain projects, as defined in NYC Construction Codes – Title 28, this person may be required to have a Site Safety Manager's License issued by the NYC DOB.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a CM, retained by Construction Manager .)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer / Construction Project Manager / Construction Manager

- Monitors the issuance of safety- related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with Construction Manager policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meeting.
- Notifies the Construction Safety Unit and the ACCO's Insurance and Risk Management Unit of project- related accidents and emergencies, as per Construction Manager 's Construction Safety Emergency Protocol.
- Gathers facts related to all accidents and prepares DDC Accident Reports.
- Notifies the Construction Safety Unit of outside regulatory agency inspections and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the Site Safety Plan and Construction Manager construction documents.
- Notifies the contractor and Construction Manager in the event that any condition or activity exists that is not in compliance with the Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies Construction Manager of any emergency condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Reports gross safety violations to the Construction Safety Unit immediately.

A. Contractors

- Complete a Safety Questionnaire and submit with its bid or as part of a pre-qualification package.
- Provide a Written Job Hazard Assessment (JHA) that identifies expected safety issues of the work to be performed. JHA shall be included with the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 15 days of issuance of the Notice to Proceed, or as otherwise directed. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. The Site Safety Plan shall be revised and updated as necessary.
- Ensure that all employees are aware of the hazards associated with the project through formal and informal training and/or other communications. Conduct and document weekly safety meetings for the duration of the project. Documentation to be provided to the RE/CPM/CM on a monthly basis.
- Name a Construction Superintendent, if required.
- Name a Job Site Safety Coordinator. The Contractor will be required to identify the Job Site Safety Coordinator in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- As part of the Site Safety Plan, prepare a site specific MPT (if not otherwise provided in the contract documents) and comply with all of its provisions.
- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Job Site Safety Coordinator will conduct this training prior to mobilization and provide documentation to the RE/CPM/CM.
- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe conditions or hazards to the DDC RE/CPM/CM as soon as practical, but no more than 24 hours after discovery, and take action to remove or abate such conditions.

- Report any accident involving injuries to workers or the general public, as well as property damage, to the DDC RE/CPM/CM within two (2) hours.
- Notify the DDC RE/CPM/CM within two (2) hours of the start of an inspection by any regulatory agency personnel, including OSHA.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Respond to DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

Within fifteen (15) days of issuance of the Notice to Proceed, or as otherwise directed, the Contractor shall submit the following: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standard, and the Site Safety Plan shall identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. Failure by the contractor to submit an acceptable Site Safety Plan and Safety Program shall be grounds for default.

The Site Safety Plan shall apply to all Contractor and subcontractor operations, and shall have at a minimum, the following elements. Each element shall be described in a separate section in the written document. It may be necessary to modify the basic format for certain unique or high-risk projects (such as tunnels or high-rise construction). The basic elements are as follows:

1. Responsibility and Organization: Identify the person or persons with authority and responsibility for implementing the Site Safety Plan. Provide an organization chart and define levels of authority and responsibility. Identify the Competent Person, the Construction Superintendent (if required), the Job Safety Coordinator and the Qualified Person required for this project.

2. Communication: Establish a system for communicating with employees and subcontractors on matters relating to worker and public safety and health and environmental protection, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. An emergency response notification protocol is to be established that also includes after hours contact numbers. The plan must also include provisions for weekly safety meetings held by the Job Site Safety Coordinator.

3. Job Hazard Assessment: A written document submitted by the contractor, used to identify expected job hazards and public safety risks and state the specific means and methods to reduce, control or eliminate those hazards. This part of the Site Safety Plan must also include how on-going evaluations of those risks and hazards will be carried out, including plans for periodic inspections to identify unsafe conditions, work practices and public safety hazards.

4. Accident/Exposure Investigation: Establish a procedure to investigate and report occupational and public injury or illness, property damage, vehicle accidents or other mishaps.

5. Hazard Correction: Establish means, methods and/or procedures for correcting unsafe or unhealthy conditions that might be exposing both the public and workers to hazards. Corrective actions must be taken immediately when observed or discovered. Should an imminent hazard exist which cannot be immediately abated without endangering employees, the public and/or property, remove or restrict all exposed persons from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. When corrective actions cannot be taken immediately, temporary measures should be taken until such time permanent measures are taken to eliminate the potential risks or hazards

6. Training: Describe site-specific hazard training programs. In addition to the required safety orientation, additional site specific training, in the form of required weekly safety meetings, will be required. Contractors must also initiate training when: a) new employees are hired; b) employees are given new job assignments for which training has not been previously received; c) new substances, processes, procedures or equipment are introduced that might represent a new public or worker hazard; d) the employee is made aware of a new or previously unrecognized hazard; e) new supervisors are assigned to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed; and f) after a jobsite incident or accident has occurred.

7. Recordkeeping: Establish procedures to maintain records of scheduled and periodic inspections, weekly safety meetings, and training records. Updated records shall be maintained at the jobsite, accessible to the Construction Safety Auditors and/or Quality Assurance Auditors/RE/CPM, and retained in accordance with DDC policy.

The most critical component of the Site Safety Plan is the Job Hazard Assessment section. This section must address specific hazards that are anticipated throughout the project. Each Site Safety Plan must address, at a minimum:

- Public and pedestrian safety
- Fall protection
- Electrical hazards
- Scaffolding
- Fire protection
- Emergency notification & response
- Housekeeping / debris removal
- Dust control
- Maintenance and protection of traffic
- Trenching and excavating
- Heavy equipment operations
- Material / equipment storage
- Environmental contamination
- Sheeting and shoring
- Alcohol and Drug Abuse Policy

The following additional hazards must be addressed, if applicable, based on the contract safety specifications and/or the results of the JHA (the list is not all-inclusive):

- Basic Personal Protective Equipment
- Compressed Air
- Compressed Gas Cylinders
- Cranes, Derricks and Hoists
- Demolition
- Electrical safety
- Excavations and Trenching
- Fall Protection – Floor openings/Stairways
- Fall Protection – Guardrails Toe boards etc
- Fall Protection – Leading Edge
- Fall Protection – Personal Fall Protection Devices
- Fire Protection and Fire Prevention
- Hazard Communication (RIGHT TO KNOW)
- Hazardous Energy & Lock Out / Tag Out
- Housekeeping/ Sanitation
- Maintenance and Protection of Traffic (MPT)
- Man Lifts /Aerial Lifts
- Marine Operations
- Motor Vehicle Safety
- Overhead Power lines
- Permit Required Confined Space
- Portable Ladders
- Powered Actuated Tools
- Powered Material Handling Equipment
- Scaffolds – Mobile
- Scaffolds – Stationary

- Scaffolds – Suspended
- Slings
- Steel Erection
- Welding and Cutting (Hot Work)
- Airborne Contaminants – Particulates – General
- Asbestos
- Blood borne Pathogens
- Hearing Protection
- Lead in Construction
- Mercury in Construction
- PCB's
- Respiratory Protection
- Silica
- Thermal Stress
- West Nile Virus
- Rodents and Vermin
- Noise Mitigation Plan

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor will be required to submit a Safety Program. In addition, certain DDC Operating Units may establish program or client-specific safety requirements. The contractor's Site Safety Plan must address such program or client specific safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

As part of the construction kick-off meeting, a Site Safety Plan review will be part of the agenda. A QACS representative will participate in this meeting with the contractor prior to the start of the project for the purpose of:

A. Reviewing the safety issues detailed in the contract.
B. Reviewing the Site Safety Plan.
C. Reviewing any new issues or information that was not previously addressed.
D. Discussing planned inspections and audits of the site by DDC personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Superintendents or Safety Representatives.

B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and forward them to the Construction Safety Unit on a weekly basis. Any critical deficiencies shall be immediately reported to QACS phone# (718) 391-1624 or (718) 391-1911.

C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director- QACS, or designee will meet with the Contractor's safety representative, the DDC project manager, the RE/CPM, or the DDC Environmental Specialist (if

environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.

D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.

E. The contractor shall inform the Construction Safety Unit and ACCO Insurance and Risk Management Unit of all medical injuries or illnesses that require doctors' treatment resulting from an on-the-job incident within 24 hours of the occurrence. The Construction Safety Unit shall also be immediately informed of all fatalities, catastrophic accidents with more than one employee hospitalized, any injuries to members of the general public and major equipment damage (e.g., property damage, equipment rollovers, loads dropped from crane). QACS shall maintain a record of all contractor injuries and illnesses during the project and provide regular reports to the Construction Manager .

F. The Construction Safety Unit shall be immediately notified at the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections. The Director of Quality Assurance & Construction Safety shall maintain a log of all contractor OSHA/EPA inspections and citations during the project.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including all DDC inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which will be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

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SAMPLE

APPENDIX 3

DDC SAMPLE INVOICE

DDC/HRO Build it Back

SERVICES' Payment Requisition Form (NOT FOR CONSTRUCTION)

Project Application Number:		Borough:		Block:		Lot:	
Payment Period:		TO					
Contract Registration #:							
CM Firm's Name:				Region:			
CM Firm's Address:							
Telepone Number				Fax :			

Summary of billable Hours:

Name/Title of Sub-Consultants or Staff (back up TIMESHEETS to be attached):

Construction Management Staff

	(Name & Title)					
1			Hourly Rate:		Number Of Hours:	
2			Hourly Rate:		Number Of Hours:	
3			Hourly Rate:		Number Of Hours:	
	Multiplier:		Sub-Total:			

Sub-consultant Firm A Name:

	(Name & Title)					
1			Hourly Rate:		Number Of Hours:	
2			Hourly Rate:		Number Of Hours:	
3			Hourly Rate:		Number Of Hours:	
	Multiplier:		Sub-Total:			

Sub-consultant Firm B Name:

	(Name & Title)					
1			Hourly Rate:		Number Of Hours:	
2			Hourly Rate:		Number Of Hours:	
3			Hourly Rate:		Number Of Hours:	
	Multiplier:		Sub-Total:			

Sub-consultant Firm C Name:

	(Name & Title)					
1			Hourly Rate:		Number Of Hours:	
2			Hourly Rate:		Number Of Hours:	
3			Hourly Rate:		Number Of Hours:	
	Multiplier:		Sub-Total:			

Sub-consultant Firm D Name:

	(Name & Title)					
1			Hourly Rate:		Number Of Hours:	
2			Hourly Rate:		Number Of Hours:	
3			Hourly Rate:		Number Of Hours:	
	Multiplier:		Sub-Total:			

Grand Total Amount:

Sample

THE CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

DIVISION OF PUBLIC BUILDINGS

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101

CONTRACT FOR DESIGN, CONSTRUCTION AND CONSTRUCTION MANAGEMENT SERVICES

PROJECT: CM/Design/Build for Hurricane Sandy Residential Community Recovery
In the Borough of:_____

FMS NUMBER: _____

REGISTRATION NUMBER: _____

CONTRACTOR: _____

_____

_____

Telephone: _____

Fax: _____

For the New York City Housing Recovery Office
December 2014

This AGREEMENT, made and entered into this _____day of _____, _____, by and between the City of New York (the "City") acting by and through the Commissioner of the Department of Design and Construction (the "Commissioner") and _____ (the "Construction Manager" or "Contractor"), located at _____.

WITNESSETH:

WHEREAS, the City desires to have Construction Management, design and construction performed on a Work Order basis for various projects, as described in Exhibit A, to ensure compliance with all local state and federal laws, rules and regulations; and

WHEREAS, the Contractor has been selected based upon and in consideration of its representation that it can perform the required services and complete the Project in the time set forth herein,

WHEREAS, Hurricane Sandy struck New York on October 29, 2012, causing unprecedented damage throughout the City and damage to thousands of homes that have not been fully rehabilitated many months later; and

WHEREAS, pursuant to the Disaster Relief Appropriations Act of 2013 (P.L. 113-2), the federal government authorized a supplemental appropriation to improve and streamline disaster assistance for Hurricane Sandy and allocated funds to the Department of Housing and Urban Development ("HUD") Community Development Fund to pay for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization, for activities authorized under title I of the Housing and Community Development Act of 1974; and

WHEREAS, HUD allocated funds to the City through the Community Development Block Grant Disaster Relief ("CDBG-DR") Program; and

WHEREAS, the Disaster Relief Appropriations Act also appropriated funds to the Federal Emergency Management Agency ("FEMA") and other federal agencies to pay for necessary expenses related to disaster relief; and

WHEREAS, in order to aid residents impacted by Hurricane Sandy with CDBG-DR and other federal funds, the City established the Build It Back Program a construction project to rehabilitate private homes that have been destroyed or damaged by Hurricane Sandy; and

WHEREAS, there is no public use, ownership, access, and/or enjoyment of the private one- to four-family homes to be rehabilitated pursuant to this contract;

NOW THEREFORE, the parties to this Contract, in consideration of the mutual agreements contained herein, agree as follows:

ARTICLE 1 - DEFINITIONS

1.1 "Agreement" shall mean this Agreement which has been signed by the parties and each of the various parts of this Agreement set forth below, both as a whole and severally, whether or not existing in final approved form at the time of execution of this Agreement. In the event of any conflict between items 1.1.12 and 1.1.13, item 1.1.12 shall prevail.

1.1.1 The Agreement
1.1.2 The Budget Director's Certificate
1.1.3 The Construction Documents
1.1.4 Exhibit A: Contract Information
1.1.5 Exhibit B: Staffing Requirements
1.1.6 Exhibit C: Partial Payment for Stored Material
1.1.7 Exhibit D: Requirements for Project Office
1.1.8 Exhibit E: Safety Requirements
1.1.9 Exhibit F Form of Payment and Performance Bond
1.1.10 Exhibit G Federal HUD Requirements (Appendix B, CDBG Rider)
1.1.11 Exhibit H Sandy Recovery Hiring Plan
1.1.12 Exhibit I NYC Build It Back Minimum Program Standards
1.1.13 Exhibit J FEMA Elevation Certificate Instructions
1.1.14 Exhibit K 2012 Enterprise Green Communities and Checklist
1.1.15 Exhibit L Sample Damage Assessment Report, Tier 2 Environmental Review and Feasibility Study
1.1.16 Exhibit M Whistleblower Protection Expansion Act Rider
1.1.17 Exhibit N Not Used
1.1.18 Exhibit O Not Used
1.1.19 Advise of Award
1.1.20 Request for Proposals for the Contract
1.1.21 Contractor's Proposal submitted for the Contract

1.1.22 All provisions required by law to be inserted in this Agreement, whether actually inserted or not

1.1.23 Notice of Award
1.1.24 Request for Proposals for the Contract
1.1.25 Contractor's Proposal submitted for the Contract
1.1.26 All provisions required by law to be inserted in this Agreement, whether actually inserted or not

1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

1.3 "Agency Chief Contracting Officer" ("ACCO") shall mean the person designated by the Commissioner to exercise such powers and duties with respect to procurement as are set forth in the Procurement Policy Board Rules.

1.4 "Allowance" shall mean those contract funds allocated for the payment of specific costs and expenses, in accordance with Article 42 hereof.

1.5 "Business Day" shall mean a day other than a Saturday, Sunday or a day on which the executive offices of the Department are not officially open for business.

1.6 "City" shall mean the City of New York.

1.7 "Commissioner" or "Agency Head" shall mean the Commissioner of the Department of Design and Construction of the City of New York, his/her successors, or duly authorized representative(s).

1.8 "Commissioner's Representative" shall mean the Project Manager designated by the Commissioner or any successor or alternate representative selected by the Commissioner.

1.9 "Comptroller" shall mean the Comptroller of the City of New York, his/her successors, or duly authorized representatives.

1.10 "Consultant" or "Consultant(s)" shall mean any person, firm, partnership or corporation engaged by the Contractor to furnish architectural, engineering, design, or any other consulting services for the Project.

1.11 "Construction Documents" shall mean the final plans, drawings and specifications and all modifications thereto prepared by consultant(s) engaged by the Contractor and approved in writing by the Commissioner. Upon such approval, the Construction Documents shall become part of this Agreement, as set forth in Article 1.1.3.

1.12 "Contract" or "Contract Documents" shall mean each of the various parts of the Agreement set forth in Article 1.1.

1.13 "Contract Work" shall mean everything required to be furnished and done by the Contractor pursuant to the Agreement, except Extra Work.

1.14 "Contractor" or “Construction Manager” or “CM” shall mean the, whether a corporation, firm, or individual, or any combination thereof, and its, their, his or her successors, personal representatives, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted in the place of the party of the second part under this Contract.

1.15 "Department" or "DDC" shall mean the Department of Design and Construction of the City of New York acting by and through the Commissioner thereof, or his/her duly authorized representative.

1.16 "Drawings" shall mean all graphic or written illustrations, descriptions, explanations, directions, requirements and standards of performance applied to the Work as detailed and designated in the Construction Documents.

1.17 "Extra Work" shall mean work not reasonably foreseeable at the time of the execution of this Agreement or not reasonably inferable from the Agreement.

1.18 "Final Acceptance" shall mean the final written acceptance of all Work required hereunder, as determined by the Commissioner. The Commissioner may also issue a written determination of Final Acceptance with respect to any subcontract hereunder.

1.19 "Government Entity" shall mean the United States, the State and City of New York, and any and every agency, department, court, commission, or other instrumentality or political subdivision of government of any kind whatsoever, now existing or hereafter created.

1.19.1“Homeowner” shall mean the owner of a one- to four-family home assigned to the Contractor as a Project, including the building and land, that was adversely affected by Hurricane Sandy that are included in the Housing Recovery Office’s Build It Back program.

1.19.2 “HUD Notices” means Federal Register Notices published by HUD as follows:

- “Allocations, Common Application, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy,” Federal Register, Volume 78, No. 43 (March 5, 2013);
- “Clarifying Guidance, Waivers, and Alternative Requirements for Hurricane Sandy Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds,” Federal Register, Volume 78, No. 76 (April 19, 2013);
- “Allocations, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant Disaster Recovery Funds in Response to Disasters Occurring in 2011 or 2012,” Federal Register, Volume 78, No. 103 (May 29, 2013);
- “Additional Waivers and Alternative Requirements for Hurricane Sandy Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds,” Federal Register, Volume 78, No. 149 (August 2, 2013);
- “Second Allocation, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy,” Federal Register, Volume 78, No. 222 (November 18, 2013);
- “Clarifying Guidance, Waivers, and Alternative Requirements for Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds Under the Disaster Relief Appropriations Act, 2013,” Federal Register, Volume 79, No. 59 (March 27, 2014);
- “Second Allocation, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Disasters Occurring in 2013,” Federal Register, Volume 79, No. 106 (June 3, 2014); and
- “Additional Clarifying Guidance, Waivers, and Alternative Requirements for Grantees in Receipt of Community Development Block Grant Disaster Recovery Funds Under the Disaster Relief Appropriations Act, 2013,” Federal Register, Volume 79, No. 133 (July 11, 2014);

and all subsequent Federal Register Notices that are published and related to CDBG-DR assistance provided to the City of New York for recovery purposes related to Hurricane Sandy.

1.19.3 “Integrity Monitor” means the person or firm hired by the New York City Department of Investigation to conduct audits and investigations.

1.20 "Law(s)" shall mean each and every law, rule, regulation, order or ordinance of any kind whatsoever issued by any Government Entity, common law, or HUD Notice, in effect from the date hereof through Final Acceptance, applicable to or affecting the Project, the Site(s), the Construction Documents, the Work, and all employees engaged in Work hereunder.

1.21 "Lien" shall mean any and every lien, lease, security interest, or encumbrance of any kind whatsoever including, but not limited to, a Mechanic's Lien.

1.22 "Materialman" shall mean any person, firm, or corporation, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor to fabricate or deliver, or who actually fabricates or delivers, plant, material or equipment to be incorporated into the Work.

1.23 "Mayor" shall mean the Mayor of the City of New York, his successors or duly authorized representatives.

1.24 "Means and Methods of Construction" shall mean the labor, materials in temporary structures, tools, plant and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Agreement.

1.25 "Modification" shall mean any written amendment of this Agreement signed by both the Department and the Contractor.

1.26 "Project" shall mean any and all of the various Projects for which the Contractor’s services are required set forth in Exhibit A . The Commissioner shall, by written Work Order assign various Projects to the Contractor for the performance of required services. All Projects assigned to the Contractor may sometimes be referred to as the “Program”.

1.27 “Project Executive” shall mean the person designated by the Contractor to provide, on an as needed basis, executive or management expertise and oversight with respect to the Project. The person so designated shall be identified as the Project Executive in Exhibit A and in the staffing plan approved by the Commissioner in accordance with Article 11.3.1

1.28 "Safety Standards" shall mean all laws, union rules and trade or industry custom or codes of any kind whatsoever, in effect from the date hereof through Final Acceptance, pertaining to worker safety and accident prevention applicable to the Project and/or the Work (including, but not limited to, rules, regulations and standards adopted pursuant to the Occupational Safety and Health Act of 1970, as amended from time to time).

1.29 "Samples" shall mean physical examples or specimens, intended to demonstrate workmanship or the characteristics of materials and equipment and/or to establish standards by which the Work will be judged. "Samples" includes (but is not limited to) raw materials,

assemblies, completed items, working components or parts thereof, required under this Agreement or by the City to ascertain whether the kind, quality, assembly, construction, workmanship, finish, color, texture, grade or other characteristics of Work submitted by the Contractor conforms to the requirements of the Agreement.

1.30 "Shop Drawing" shall mean any and all drawings, diagrams, layouts, explanations, illustrations, manufacturer's drawings or other written or graphic materials which illustrate any portion of the Work.

1.31 "Site(s)" shall mean the area(s) upon or in which the Contractor's operations hereunder are carried on, and such other areas adjacent thereto as may be designated by the Commissioner's Representative.

1.32 "Specifications" shall mean all of the directions, requirements and standards of performance applied to the Work as detailed and designated in the Construction Documents.

1.33 "Subcontractor" shall mean any person, firm, or corporation, other than employees of the Contractor, who or which contracts with the Contractor or his Subcontractors to furnish, or actually furnishes consulting services, labor, or labor and materials, or labor and equipment, at the Site or in the performance of any of the Work hereunder. All Subcontractors are subject to the prior written approval of the Commissioner.

1.34 "Substantial Completion" shall mean the written determination by the Commissioner that all required Work for any subcontract is substantially complete. The terms and conditions that must be satisfied to achieve Substantial Completion are set forth in Article 10.

1.35 "Unavoidable Delay" shall mean any delay or obstruction whatsoever in the Work resulting from any act or event which has had (or may reasonably be expected to have) a material adverse effect on Contractor's ability to perform its obligations under this Agreement, if such act or event is beyond the reasonable control of Contractor and such act or event was not (and would not have been) separately or concurrently caused by a negligent or willful act or omission of Contractor and/or could not have been prevented by reasonable actions on Contractor's part. Unavoidable Delay shall include without limitation:

1.35.1 Acts of God;
1.35.2 Unforeseeably severe weather conditions;
1.35.3 Fire, earthquake, explosion, landslide, lightning or flood;
1.35.4 Epidemic;
1.35.5 Strikes or lockouts;
1.35.6 Riots, civil disturbance, insurrection, enemy action or war;
1.35.7 Injunctions or orders of any Government Entity;
1.35.8 Embargoes or blockades.

1.36 "Utilities" shall mean any and all utility services and installations whatsoever including, but not limited to, gas, water, electricity, telephone, other telecommunications, steam, sewer and storm sewer, and all piping, wiring, conduit and/or other fixtures of every kind whatsoever related thereto or used in connection therewith.

1.37 "Work" shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, design, communication and coordination with Homeowners, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

ARTICLE 2 - COMPLIANCE WITH LAWS

2.1 Procurement Policy Board Rules: This Contract is subject to the Rules of the Procurement Policy Board of the City of New York ("PPB Rules") in effect at the time of the receipt of proposals for this Contract. In the event of a conflict between the PPB Rules and a provision of this contract, the PPB Rules shall take precedence.

2.2 The Contractor shall comply with all local, State and Federal laws, rules and regulations applicable to this Agreement and to the work to be done hereunder.

2.3 The Contractor shall give or cause to be given all necessary notices, obtain or cause to be obtained all permits, and pay or cause to be paid all fees required in connection with the Work, and comply with all local, state and federal laws, rules and regulations affecting work of this character. These laws, rules and regulations shall take precedence over any requirements of this Contract where a conflict occurs. Nothing herein contained shall, however, be construed as permitting the use of material and equipment of lesser quality than specified hereunder, unless the specified material or equipment violates such laws, rules or regulations.

2.4 The Contractor shall be responsible for applying for and obtaining the required approval of all federal, state and local agencies having jurisdiction over the subject matter hereof. As provided in Article 10.4, such approvals are required for a determination of Substantial Completion.

2.5 In accordance with Section 165 of the State Finance Law, the Contractor agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing

provision of law.

2.6 The Contractor shall comply with all HUD requirements, as set forth in Exhibit G.

ARTICLE 3 - TIME OF ESSENCE

3.1 In performing the Work hereunder, the Contractor and the City shall place emphasis on considerations which will aid in expediting the construction of the Project consistent with the construction standards and procedures of the City. The Contractor agrees to use all resources at its command so that the Project is completed in an expeditious fashion by the various Subcontractors and to this end, it shall give constant attention to the adequacy of its own and each Subcontractor's planning, personnel, equipment and the availability of materials and supplies. The Contractor and the City acknowledge that time will be of the essence for the Project and will use their best efforts to prevent delays. If a situation cannot be resolved, the Contractor shall bring it to the immediate attention of the Commissioner.

ARTICLE 4 - AGREEMENT TO SERVE

4.1 The City hereby retains the Contractor to perform the Work hereinafter described, on the terms and conditions specified herein, and the Contractor hereby agrees to so serve. The Contractor is familiar with the terms of this Agreement, and the intended use of the Project upon completion of construction. The Contractor hereby certifies that it has the necessary experience, expertise, personnel and resources to fulfill its obligations under this Agreement competently and efficiently. The Contractor agrees to use its best efforts to complete this Project as soon as possible, in a manner meeting the highest professional standards.

ARTICLE 5 - REPRESENTATIONS AND WARRANTIES

5.1 Responsibility and Competency: The Contractor warrants and represents as follows:

5.1.1 That it is financially solvent and sufficiently experienced and competent to perform the Work required by this Agreement, or to cause the same to be performed.

5.1.2 That its employees, agents, Consultants, and Subcontractors possess the requisite expertise, skill, experience and financial resources to perform the Work as required by this Agreement.

5.1.3 That (1) it is not in arrears to the City of New York upon debt, contract, or taxes; (2) it is not a defaulter, as surety or otherwise, upon any obligation of the City of New York; (3) it has not been declared not responsible or disqualified by any agency of the City of New York or State of New York, and (4) there is not any proceeding pending relating to the responsibility or qualification of the Contractor to receive public contracts.

5.2 Procurement of Agreement: The Contractor represents and warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage fee, contingent fee or any other compensation. The Contractor further represents and warrants that no payment, gift or thing of value has been made, given or promised to obtain this or any other agreement between the parties. The Contractor makes such representations and warranties to induce the City to enter into this Agreement and the City relies upon such representations and warranties in the execution hereof.

5.2.1 For a breach or violation of such representations or warranties, the Commissioner shall have the right to annul this Agreement without liability, entitling the City to recover all moneys paid hereunder and the Contractor shall not make claim for, or be entitled to recover, any sum or sums due under this Agreement. This remedy, if effected, shall not constitute the sole remedy afforded the City for falsity or breach, nor shall it constitute a waiver of the City's right to claim damages or refuse payment or to take any other action provided for by law or pursuant to this Agreement.

5.3 Conflicts of Interest:

5.3.1. The Contractor represents and warrants that neither it nor any of its directors, officers, members, partners or employees, has any interest nor shall they acquire any interest, directly or indirectly, which conflicts in any manner or degree with the performance of this Agreement. The Contractor further represents and warrants that no person having such interest or possible interest shall be employed by or connected with the Contractor in the performance of this Agreement.

5.3.2 Consistent with Charter § 2604 and other related provisions of the Charter, the Admin. Code and the New York State Penal Law, no elected official or other officer or employee of the City, nor any person whose salary is payable, in whole or in part, from the City Treasury, shall participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership or other entity in which he or she is, directly or indirectly, interested; nor shall any such official, officer, employee, or person have any interest in, or in the proceeds of, this Agreement. This Paragraph B shall not prevent directors, officers, members, partners, or employees of the Contractor from participating in decisions relating to this Agreement where their sole personal interest is in the Contractor.

5.3.3. The Contractor shall not employ a person or permit a person to serve as a member of the Board of Directors or as an officer of the Contractor if such employment or service would violate Chapter 68 of the Charter.

5.4 Fair Practices: The Contractor and each person signing on its behalf certifies, under penalties of perjury, that to the best of its, his or her knowledge and belief:

5.4.1 The prices in this Contract have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other proposer or with any competitor;

5.4.2 Unless otherwise required by law, the prices which have been quoted in this contract and in the proposal submitted by the Contractor have not been knowingly disclosed by the Contractor prior to the proposal opening, directly or indirectly, to any other proposer or to any other competitor, and

5.4.3 No attempt has been made or will be made by the Contractor to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

5.4.4 The fact that the Contractor (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not, without more, constitute a disclosure within the meaning of the above.

ARTICLE 6 - TERM OF PERFORMANCE

6.1 Term of Contract: This Contract shall commence as of the date indicated in the notice to proceed letter and shall remain in until Final Acceptance of all required construction work for the Project and completion of all Work. The timeframe for Final Acceptance of all required construction work, for the Project and all required Work is 1825 consecutive calendar days.

ARTICLE 7 - OVERVIEW OF CONTRACTOR'S SERVICES

7.1 The Contractor shall provide construction management / design / build services on a requirements basis for the types of Projects described in Exhibit A. This Agreement is for the rehabilitation of one- to four-family homes within the City of New York that were damaged by Hurricane Sandy. Homeowners have agreed to participate in the Build it Back Program of the New York City Housing Recovery Office. This Agreement is being procured by the City and funded by the US Department of Housing and Urban Development ("HUD"), under the Federal Community Development Block Grant Disaster Relief Program. The Contractor must comply with all federal requirements, including those described in "Exhibit G." The Contractor's Work shall include without limitation, investigation, planning, pre-construction, design, construction, management, supervision and coordination of all Work necessary and required for any Project assigned hereunder to effectuate its timely completion.

7.2 The Commissioner shall, by Work Order, assign various homes or groups of homes to the Contractor for the performance of required Work which may include the areas of work described in detail Exhibit A, (a Project). Regarding the assignment of Projects, the Commissioner reserves the following rights: (1) to determine the order of priority for the performance of Work for the assigned Projects; (2) to increase or decrease the Projects assigned to the Contractor based on need or performance including assigning Sites outside the Borough assigned, and (3) To solicit separate design proposals from selected design Consultants for unique resilient developments which require greater innovation and creativity, and (4) To assign Sites that have designs that have been developed by another firm and assigned to the CM for construction only.

7.3 Ownership of Documents: Any and all material records or documents prepared by or for the Contractor pursuant to this Agreement, including, but not limited to, office diaries, field diaries, daily records of labor, materials and equipment used, notes, reports, including laboratory and plant inspection reports, designs, drawings, tracings, estimates, specifications, schedules, and/or photographs, shall be the property of the City. During the term of this Agreement and at any time within 6 years thereafter, the Contractor shall, upon demand, promptly deliver such records or documents to the Commissioner, or make such records or documents available to the Commissioner or his authorized representatives for review and reproduction at such place as may be designated by the Commissioner. Thereafter, the City may utilize such records or documents in whole or in part or in modified form and in such manner or for such purposes or as many times as it may deem advisable without employment of or additional compensation to the Contractor.

ARTICLE 8 - PROGRESS SCHEDULE

8.1 To enable the Work to be performed in an orderly and expeditious manner, the Contractor, within twenty (20) calendar days after commencement of the Contract, unless otherwise directed by the Commissioner, shall submit a proposed progress schedule per Project, indicating the information specified below:

8.1.1 The anticipated time of commencement and completion of each of the various operations to be performed;
8.1.2 The sequence and inter-relationship of each these operations with the others;
8.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the work.

8.2 The proposed schedule per Project shall be revised as directed by the Commissioner's Representative, until finally approved by him, and after such approval, shall, subject to the provisions of Article 17, be strictly adhered to by the Contractor.

8.3 If the Contractor shall fail to adhere to the approved progress schedule per Project, or to the schedule as revised pursuant to Article 17 hereof, he must promptly adopt such other or additional means and methods of construction as will make up for the time lost and will assure completion in accordance with such schedule.

8.4 Responsibility for Delay: In the event the Project is not completed within the timeframe set forth in the original Project Schedule, the Commissioner shall prepare a report analyzing the causes of the delay and determining responsibility for the same.

8.4.1 If the report indicates that the Contractor, as a result of its actions or inactions, is responsible for the delay, or any portion thereof, the Commissioner shall deduct from any amount due and owing to the Contractor under this Contract, the total amount of staffing expenses paid to the Contractor for the period of the delay, or any portion thereof, for which the Commissioner determines the Contractor is responsible. For the purpose of this deduction, staffing expenses shall mean the Basic Fee set forth in Exhibit A. If the amount due and owing to the Contractor under this Contract is less than the total amount of the deduction described herein, the Contractor shall be liable for and agrees to pay the difference upon demand by the Commissioner.

8.4.2 If the Contractor files a dispute regarding its responsibility for the delay, or any portion thereof, the Contractor is obligated, while the dispute is pending, to continue performing any required Work pursuant to this Contract, and, if demanded by the Commissioner, to pay the amount described in the paragraph above.

8.4.3 The following shall have no relevance to a determination by the Commissioner that the Contractor is responsible for the delay, or any portion thereof: (a) approval by the Commissioner of any time extension(s), and/or (2) approval by the Commissioner of any revised Project Schedule. Any such approval(s) by the Commissioner shall not be referred to or offered in evidence by the Contractor or its attorneys in any dispute or proceeding regarding the Contractor's responsibility for the delay.

8.5 Reporting

8.5.1 As of March 2013, the City has implemented a new web based Subcontractor reporting system through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip. In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at that Site. Additional assistance with PIP may be received by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

In order to obtain Subcontractor approval under this Article and PPB Rule § 4-13, Contractor is required to list the Subcontractor in the system. For each Subcontractor listed, Contractor is required to provide the following information: maximum contract value, description of Subcontractor work, start and end date of the subcontract and identification of the Subcontractor's industry. Thereafter, Contractor will be required to report in the system the payments made to each Subcontractor within 30 calendar days of making the payment. If any of the required information changes throughout the Term of the Contract, Contractor will be required to revise the information in the system.

Failure of the Contractor to list a Subcontractor and/or to report Subcontractor payments in a timely fashion may result in the Department declaring the Contractor in default of the Contract and will subject Contractor to liquidated damages in the amount of $100 per day for each day that the Contractor fails to identify a Subcontractor along with the required information about the Subcontractor and/or fails to report payments to a Subcontractor, beyond the time frames set forth herein or in the notice from the City. Article 15 shall govern the issue of liquidated damages.

8.5.2 The Commissioner's approval of a Subcontractor shall not relieve the Contractor of any of its responsibilities, duties and liabilities hereunder. The Contractor shall be solely responsible to the City for the acts or defaults of its Subcontractor and of such Subcontractor's officers, agents and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the Contractor to the extent of its subcontract.

8.2.3 Not Used

8.5.4 The Contractor shall promptly, upon request, file with the Commissioner's Representative a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

8.5.6 Payment to Subcontractors: The agreement between the Contractor and its Subcontractors shall contain the same terms and conditions as to method of payment for Work, labor and materials, and as to retained percentages, as are contained in this Contract.

8.5.7 Section 6-123 of the Administrative Code: Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the Contractor and its Subcontractors in excess of $50,000 shall include provisions that the Subcontractor shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 et seq.).

8.5.8 The Commissioner may deduct from the amounts certified under this Contract to be due to the Contractor, the sum or sums due and owing from the Contractor to the Subcontractors according to the terms of the said subcontracts, and in case of dispute between the Contractor and its Subcontractor, or Subcontractors, as to the amount due and owing, the Commissioner may deduct and withhold from the amounts certified under this Contract to be due to the Contractor such sum or sums as may be claimed by such Subcontractor, or Subcontractors, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally adjusted.

8.5.9 On Contracts where 100% performance bonds and payment bonds are executed, the Contractor shall include on each requisition for payment the following data: Subcontractor's name, value of the subcontract, total amount previously paid to Subcontractor for Work previously requisitioned, and the amount, including retainage, to be paid to the Subcontractor for Work included in the requisition.

8.5.6 Compliance with all HUD requirements.

ARTICLE 9 - DESIGN CONSULTANT

The Contractor shall, through its design Consultant, provide all design services required for the Project, as directed by the Commissioner. The types of Projects to be assigned to the Contractor under this Contract are set forth in Exhibit A.

9.3.1 Approval of Consultants and Subconsultants: Professional design services required hereunder shall be provided by persons or firms licensed by the State of New York. All Consultants performing such services are subject to the prior written approval of the Commissioner. If an approved
Consultant elects to subcontract any portion of its subcontract, the proposed subconsultant is subject to the prior written approval of the Commissioner. The Commissioner's approval of a Consultant or subconsultant shall not relieve the Contractor of any of its responsibilities, duties and liabilities hereunder.

9.3.2 Removal of Consultants: An approved Consultant performing professional design services hereunder shall not be removed without the prior written approval of the Commissioner. The Commissioner reserves the right to require the Contractor to remove and replace an approved Consultant.

9.3.3 Contractor's Responsibility for Consultants: The Contractor shall be solely responsible to the City for the acts, defaults, errors or omissions of its Consultants and of such Consultant's officers, agents and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the Contractor to the extent of its subcontract.

9.3.4 Specific Design Services: Design Services required for the Project shall include without limitation the following:

(a) Preparation of coordinated final design documents for all required work for the Project (plans, drawings and specifications). Specifications prepared by the manufacturer are not acceptable.
(b) Obtaining all required regulatory approvals of the design
(c) Review and approval of shop drawings
(d) Preparation of supplementary drawings, if necessary
(e) Preparation of original drawings reflecting as-built conditions
(f) Coordinate with Homeowners to regarding design of the home.

9.3.5 Design Compliance: All required design services shall be in accordance with: (1) criteria provided by DDC, and (2) all applicable local, state and federal laws, rules and regulations, including without limitation, the New York City Building Code and construction requirements in HUD Notices.

9.3.6 Approvals of Design: Final design documents are subject to: (1) written approval by the Commissioner, and (2) approval by all regulatory agencies whose approval of the design is required, including without limitation the New York State Department of Environmental Conservation, the New York City Department of Environmental Protection, the New York City Fire Department and the New York City Department of Buildings. All drawings shall bear all required stamps of approval, including the seal and authorized facsimile of the signature of the Architect of Record, and shall be accompanied by all necessary applications, certificates, or permits of all local, state and federal agencies having jurisdiction over the Work.

9.3.7 Review of Design Documents: Throughout the design process, the Contractor shall review and comment on the design, with special attention to the following issues: (1) constructability; (2) coordination; (3) economy and efficiency; (4) minimization of impact on agency operations; (5) division of the work for bidding purposes; (6) time of performance; (7) compliance with the required scope of Work; (8) compliance with DDC criteria, and (9) avoidance of inconsistencies, problems, delays and change orders during the construction process. At the time of submission of final design documents, the Contractor shall provide written comments addressing the above issues.

9.3.8 Submission and Approval of Final Design Documents: The provisions set forth below shall apply to the submission, review and resubmission of final design documents.

(a) Within fourteen (14) consecutive calendar days of submission or resubmission of final design documents, the Commissioner shall: (1) approve the same in writing, or (2) approve the same as noted and indicate whether resubmission is required, or (3) disapprove the same and transmit changes or comments to the Contractor.
(b) In the event the final design documents are not approved, the Contractor shall, within ten (10) consecutive calendar days of receipt of the Commissioner's changes or comments, revise such documents and resubmit the same to the Commissioner for written approval.
(c) The day on which the final design documents are actually received by the respective party shall be considered the first consecutive calendar day for the purpose of calculating the submission, resubmission and review times set forth above; provided, however, documents received after 3:00 P.M. shall be deemed received the next consecutive calendar day.
(d) Upon resubmission of final design documents, the Contractor shall not make any changes from the original submission, unless such changes are in response to comments by the Commissioner or are specifically noted in a written cover letter.

9.3.9 Subcontract Requirements: The subcontract(s) between the Contractor and the Consultant(s) hereunder shall be in accordance with the provisions set forth below, unless otherwise authorized in a written directive from the Commissioner.

(a) Such subcontracts shall require that all design services comply with all criteria and requirements set forth in this Contract.
(b) Such subcontracts shall contain provisions approved in advance by the Commissioner regarding the time for completion of all required design services.
(c) Such subcontracts shall require that the Consultant carry the following types and amounts of insurance, unless an exemption is expressly authorized in advance in writing by the Commissioner: (1) commercial general liability insurance with coverage at least as broad as ISO Form CG 0001, occurrence (rather than claims-based) in the minimum amount of $1,000,000 per occurrence (combined single limit), $2,000,000 aggregate, with the City of New York and the Homeowner named as additional insureds thereunder with coverage at least as broad as ISO Form CG 20 26; (2) workers compensation insurance, disability benefits insurance, and employer's liability insurance, as required by New York State Law; and (3) professional liability insurance, as set forth in Article 23. All policies shall be in compliance with the requirements of Article 23, except as otherwise provided in this paragraph, and shall be issued by companies that meet the criteria set forth in such article. Proof of Insurance shall be provided to DDC in accordance with Article 23.
(d) Such subcontracts shall contain a provision regarding the resolution of disputes between the Subcontractor and the Contractor. Such provision shall conform to the requirements set forth in Article 10.2.2(g).
(e) Such subcontracts shall require that the Consultant agree not to make any claims against the City, its officers, agents or employees, by reason of such subcontract or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to disputes submitted by Consultant pursuant to dispute resolution provisions contained in the subcontract.
(f) Such subcontracts shall include a provision requiring the Subcontractor to make payment to each of its Subcontractors or suppliers for Work performed under this Contract in the same manner and within the same time period set forth in Article 43 ("Prompt Payment").

9.4 Patented and Proprietary Items: The Consultant shall not, without the prior written approval of the Commissioner, specify for the Project, or necessarily imply the required use of any article, product, material, fixture or form of construction, the use of which is covered by a patent, or which is otherwise exclusively controlled by a particular firm or group of firms.

9.4.1 The Contractor shall be solely responsible for and shall defend, indemnify, and hold the City and Homeowners harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the City may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the Contractor of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the Contractor and/or its Subcontractors and/or Consultants in the performance or completion of the Work. Insofar as the facts or Law relating to any claim would preclude the City from being completely indemnified by the Contractor, the City shall be partially indemnified by the Contractor to the fullest extent permitted by Law. The Contractor's contract with the Consultant shall contain a provision that the Consultant will indemnify and hold harmless the City and all Homeowners in the same manner is the Contractor must pursuant to this article 9.4.1.

ARTICLE 10 - CONSTRUCTION WORK

10.1 General: The Contractor shall provide all required construction and/or remediation Work for the Project, as directed by the Commissioner. The types of Projects to be assigned to the Contractor pursuant to this Contract are set forth in Exhibit A.

10.1.1 Required Approvals: The Contractor's provision of all required Work for the Project must comply with all federal, state and local requirements, including obtaining all required permits and approvals from regulatory agencies having jurisdiction over the Work, including without limitation the agencies set forth below.

(a) New York State Department of Environmental Conservation
(b) New York City Department of Environmental Protection
(c) United States Environmental Protection Agency
(d) New York City Fire Department, Bureau of Fire Protection (Certificate of Operation)
(e) New York City Department of Buildings
(f) New York City Department of Consumer Affairs
(g) US Department of Housing and Urban Development

10.2 Subcontracts for Construction: As authorized in a written directive from the Commissioner, the Contractor shall, on the basis of fully coordinated Construction Documents, prepared by the design Consultant enter into subcontracts for all construction and/or remediation Work required for the Project.

10.2.1 Competitive Bid Procedure for Construction Work, Pre-Qualified List: Before entering into any subcontract for construction Work, the Contractor shall conduct a competitive bid procedure to construction Subcontractors that have been pre-qualified by DDC. DDC shall provide the Contractor with a list or lists, as appropriate, of Pre-Qualified construction Subcontractors. Such competitive bid procedure shall be in accordance with all DDC requirements, including without limitation, the items set forth below:

(a) The Contractor shall prepare a Request for Bids ("RFB") for the required construction and/or remediation Work and shall submit the same to the Commissioner for review and approval prior to issuance. The RFB shall include the following items:

(1) Not Used
(2) Form of subcontract. Such subcontract shall comply with the requirements set forth below.
(3) Requirements applicable to bidders, as specified by DDC, including without limitation, requirements of HUD (e.g., a requirement that the Contractor is not federally debarred), for MWBE participation, and for safety. The Contractor shall comply with directions from DDC regarding the review of requirements included in the RFB. After the receipt of bids, DDC shall determine bidder compliance with such requirements.

(b) Contracting firms submitting bids shall be required to complete and submit all forms or documentation the Commissioner may require.
(c) The Contractor shall submit a tabulation of the bids received and recommendation for award to the Commissioner for his/her review and approval. If any bid received by the Contractor contains conditions and/or exclusions, the Contractor shall provide written notification of the same to the Commissioner. The Contractor shall proceed as directed by the Commissioner.
(d) The Contractor shall award the subcontract to the lowest responsive and responsible bidder approved in writing by the Commissioner.
(e) In the event less than three bids are received, no subcontract shall be awarded, unless the Contractor obtains the prior written approval of the Commissioner.
(f) Limitation: The Contractor shall not employ or otherwise engage, or cause or permit any Subcontractor or sub-subcontractor at whatever tier to employ or otherwise engage (1) the Contractor, (2) any subsidiary, affiliate or parent of the Contractor, or (3) any person whose immediate family member is employed by the Contractor at a salary in excess of ten thousand dollars ($10,000.00) per annum, to perform work hereunder without the prior written approval of the Commissioner. For purposes of this Section, the term "immediate family member" shall mean a wife, husband, son, daughter, mother, father, brother, brother-in-law, sister, sister-in-law, son-in-law, daughter-in-law, mother-in-law, father-in-law, aunt, uncle, niece, nephew, stepparent or stepchild.

10.2.2 Exception: In order to ensure continuity of services at particular Project Sites, the Commissioner reserves the right to direct the Contractor to enter into subcontracts with specific Subcontractors at stipulated prices. In the event the Commissioner so directs the Contractor, the competitive bid procedure set forth above shall not apply.

10.2.3 Subcontract Requirements: Subcontracts between the Contractor and Subcontractors for Work hereunder shall be in accordance with the provisions set forth below, unless otherwise authorized in a written directive from the Commissioner. The form of subcontracts shall be subject to the prior approval of the Commissioner.

(a) Such subcontracts shall require that all labor performed and all material furnished thereunder shall strictly comply with all requirements of this Agreement.
(b) Such subcontracts shall contain the DDC General Conditions, including the Addendum to the General Conditions, and the DDC Safety Requirements. Such subcontracts shall contain provisions approved in advance by the Commissioner regarding: (1) time for completion; (2) assessment of liquidated damages, and (3) warranties and/or guarantees.
(c) Such subcontracts shall contain the same terms and conditions with respect to: (1) method of payment, as set forth in Article 42; (2) substantial completion, as set forth in Article 10.4; (3) method of payment for Extra Work, as set forth in Article 28; (4) extension of time, as set forth in Article 10.5; (5) termination without cause, as set forth in Article 45; (6) termination for cause, as set forth in Article 46; (7) omitted work, as set forth in Article 31; (8) tax exemption, as set forth in Article 49.

(d) Such subcontracts shall require that all construction Subcontractors provide performance and payment bonds, each of which shall be in an amount equal to or greater than 100% of the subcontract price and shall name the Contractor as obligee thereunder**.** Such bonds shall be provided by a surety company licensed and authorized to do business in the State of New York. Such bonds shall be identical in all respects to the form of bonds attached hereto as Exhibit E, with no variations, additions, or deletions to such form of bonds. Premiums for required bonds must be included in the Subcontractor's bid price. The Subcontractor shall be required to submit two (2) originals of such bonds, one of which shall be submitted to the City by the Contractor immediately after receipt. With respect to performance and payment bonds submitted by Subcontractors hereunder, the Contractor agrees, immediately upon receipt of the bonds, to execute an irrevocable assignment in accordance with the form of assignment attached hereto as Exhibit F. The Contractor shall submit such executed assignment to the City at the time it submits the original bonds
(e) Such subcontracts shall require that the Subcontractor carry the types and amounts of insurance set forth in Schedule A of the General Conditions, which will be provided by the City. All required policies shall be in accordance with the terms and conditions set forth in Article 23 of this Contract. Proof of Insurance shall be provided to the City in accordance with Article 23.3.
(f) Such subcontracts shall contain the following articles and shall require Subcontractor compliance with the same.

(1) Article 38: Labor Law Requirements
(2) Article 39: Payroll Reports
(3) Article 41: Noise Control Code Provisions
(4) Article 43: Prompt Payment
(5) Article 51: Locally Based Enterprise Program (if applicable)
(6) Article 49: Supplies, Labor, Services Materials and Tax Exemption
(7) Article 65: Ultra Low Sulfur Diesel Fuel
(8) Article 66: Ultra Low Sulfur Diesel Fuel (Consolidated Construction Act)
(9) Article 68: Participation by Minority-Owned and Women-Owned Business Enterprises in City Procurement.
(10) Sandy Recovery Hiring Plan

(g) Such subcontracts shall contain a provision regarding the resolution of disputes between the Subcontractor and the Contractor. Such provision shall conform to the requirements set forth below.

(1) Such provision shall provide that all disputes the Subcontractor may have of the kind delineated in Article 29 of this Agreement shall be resolved by the City in accordance with Article 29 and the PPB Rules. As set forth in Article 11, disputes submitted by a Subcontractor to the Contractor must be submitted by the Contractor to the City for resolution in accordance with Article 29.
(2) Such provision shall provide that all terms, conditions, requirements and limitations set forth in Article 29, including the limitation on judicial review, shall apply to disputes submitted by the Subcontractor, except as otherwise provided in paragraph (3) below.
(3) Such provision shall provide that Subcontractor disputes and related material shall be submitted to the Contractor, not to the City. Such provision shall contain time frames specified by the Contractor for the submission of disputes and related material by the Subcontractor to the Contractor. Such time frames shall be reasonable and substantially similar to the time frames set forth in Article 29.
(4) Such provision shall provide that the Subcontractor agrees that it has no right to submit a dispute to the City.

(h) Such subcontracts shall require that the Subcontractor agree not to make any claims against the City, its officers, agents or employees, by reason of such subcontract or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to (1) demands filed by Subcontractors pursuant to Article 10.6 hereof, or (2) disputes submitted by Subcontractors pursuant to dispute resolution provisions contained in the subcontract, as described in paragraph (g) above.
(i) Such subcontracts shall stipulate that the Subcontractor, without any further notification or other process, gives its unconditional consent for its insurance carrier to release directly to the City documentation verifying its actual rate for workers' compensation insurance.

10.2.4 Payment to Subcontractors: Payment by the Contractor to Subcontractors shall be in accordance with the provisions set forth below:

(a) The Contractor shall pay all Subcontractors for and on account of Work performed by such Subcontractors in accordance with the terms of their respective subcontracts. If and when required by the Commissioner, the Contractor shall submit satisfactory evidence that it has made such payment.
(b) The Contractor shall include on each requisition for payment the following data: Subcontractor name, value of the subcontract, total amount previously paid to Subcontractor for work previously requisitioned, and the amount, to be paid to the Subcontractor for work included in the requisition. The Contractor shall ust the form of requisition provided by DDC, and include the address, Borough Block and Lot, and HRO number of each home, with the costs delineated by home.

10.2.5 Approval of Subcontractors: All Subcontractors and the dollar amounts of their subcontracts are subject to the prior written approval of the Commissioner. If an approved Subcontractor elects to subcontract any portion of its subcontract, the proposed sub-subcontractor and the dollar amount of its sub-subcontract are subject to the prior written approval of the Commissioner. No Subcontractor or sub-subcontractor shall be permitted on the Site until such written approval as required herein has been obtained. Any proposed change order to any subcontract(s) hereunder is subject to the prior written approval of the Commissioner. The Commissioner's approval of a Subcontractor shall not relieve the Contractor of any of its responsibilities, duties and liabilities hereunder.

10.2.6 Contractor's Responsibility for Subcontractors: In the event of default by any of the Contractor's Subcontractors, the following conditions shall apply:

(a) The Contractor shall not be entitled to any payment whatsoever for any and all expenses, including without limitation staffing and/or administrative expenses, incurred by the Contractor in connection with the process of defaulting such Subcontractor and/or the bidding and/or other procedures involved in obtaining another Subcontractor to complete the required Work.

(b) The Contractor shall be responsible to compensate the City for any and all expenses, including without limitation administrative and/or professional design costs, incurred by the City in connection with the process of defaulting such Subcontractor and/or the bidding and/or other procedures involved in obtaining another Subcontractor to complete the required work. The Commissioner shall determine the amount of any such expenses incurred by the City and such determination shall be final, binding and conclusive upon the Contractor.

10.3 Liquidated Damages: The amount of liquidated damages to be included in each subcontract for Work hereunder shall be $500 per day. The Contractor shall include such specified liquidated damage amount in each respective subcontract for Work hereunder.

10.3.1 Any and all moneys collected by the Contractor as liquidated damages from its Subcontractors shall be paid by the Contractor to the City.

10.3.2 In each subcontract for Work, the Contractor shall include a provision expressly giving the City a right of action against the Subcontractor in the event such Subcontractor fails to pay any liquidated damages determined to be due and owing thereunder.

10.4 Requirements for Substantial Completion: Substantial Completion of the required Work for any subcontract shall occur when, in the sole determination of the Commissioner, all of the conditions set forth below have been satisfied.

(a) Contractor has obtained and delivered to the Commissioner: (1) the required written approval of any agency having jurisdiction over the work, and (2) all certificates of inspection for the Work.

(b) Contractor has completed all training sessions required by the City for equipment and/or systems installed for the Project.

(c) All utilities specified or required under the Contract are connected and function properly.

(d) The City determines that the homes that are the subject of this Project can lawfully be used and occupied by the Homeowners for the intended use and purpose.

(e) Contractor and the Commissioner's Representative have agreed in writing upon the Final Punch List and the date for Final Acceptance of all required Work, including completion of all Punch List items, or, if they are unable to agree, the Commissioner's Representative has prepared and issued in writing to the Contractor the Final Punch List and the date of Final Acceptance.

(f) All Work, except the items on the Final Punch List as approved by the Commissioner's Representative, is complete in all respects and is in compliance with the Contract to the satisfaction of the Commissioner's Representative.

(g) Contractor has delivered to the Commissioner's Representative a final verified statement of claims as described in Article 42 of the Agreement.

(h) Contractor has submitted to the Commissioner written certification that Contractor has paid all taxes and fees (including real property taxes and income or franchise taxes) due and payable by Contractor to the City prior to Substantial Completion.

(i) Contractor has submitted written certification that all of the foregoing conditions have been satisfied and the Commissioner has approved Contractor's certification.

Alternatively, Substantial Completion shall occur on any date certified by the Commissioner, who shall have discretion to waive any of the foregoing conditions.

10.5 Extensions of Time for Subcontracted Work: If the performance of Work performed by Subcontractors hereunder is delayed for a reason set forth in Article 10.5.1 below, the Contractor may be allowed a reasonable extension of time. An extension of time for subcontracted work may be granted only by the Commissioner, upon written application by the Contractor.

10.5.1 Grounds for Extension: If such application is made, the Contractor shall be entitled to an extension of time for delay in completion of subcontracted work, if such delay is caused solely: (1) by the acts or omissions of the City, its officers, agents or employees; or (2) by the act or omissions of other contractors or a Homeowner; or (3) by unavoidable delay, as defined in Article 1.35 hereof, or other supervening conditions entirely beyond the control of either party hereto.

The Contractor shall, however, be entitled to an extension of time for such causes only for the number of days of delay which the Commissioner may determine to be due solely to such causes, and then only if the Contractor shall have strictly complied with all of the requirements of Articles 8, 16, and 17 hereof.

10.5.2 Extension for Concurrent Causes of Delay: The Contractor shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the subcontracted work as determined by the Commissioner, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the Contractor or of his Subcontractors or materialmen, and would of itself (irrespective of the concurrent causes) have delayed the subcontracted work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission. The determination made by the Commissioner shall be binding and conclusive on the Contractor. The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the Commissioner.

Permitting the Contractor to continue with the subcontracted work after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the Contractor after such time, shall in no way operate as a waiver on the part of the City of any of its rights under this Contract.

10.5.3 Application for Extension of Time: Before the Contractor's request for a time extension for subcontracted work may be approved, the Contractor must within five (5) calendar days after commencement of the condition which allegedly has caused or is causing the delay, submit a written application to the Commissioner identifying:

(a) Contractor; the Subcontractor; the Contract registration number; and Project description;
(b) Liquidated damage assessment rate, as specified in the subcontract;
(c) Original subcontract bid amount;
(d) Original subcontract start date and completion date;
(e) Any previous time extensions granted (number and duration); and
(f) Extension of time requested.

In addition, the application for extension of time shall set forth in detail:

(a) Nature of each alleged cause of delay in completing the work;
(b) Date upon which each such cause of delay began and ended and the number of days attributable to each such cause;
(c) Statement that the Contractor waives all claims except for those delineated in the application, and the particulars of any claims which the Contractor does not agree to waive. For time extensions for final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and
(d) Statement indicating the Contractor's understanding that the time extension is granted only for the purpose of permitting continuation of subcontract performance and payment for work performed and that the City retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

10.5.4 Determination of Time Extensions: Time extensions for subcontracted work shall be determined in writing by the Commissioner.

10.5.5 Delay Analysis: For extensions of time for final completion payments for subcontracted work, the agency engineering staff shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of the Contract). The report shall be made a part of the agency contract file.

10.5.6 Assessment of Liquidated Damages: In the case of final completion payments for subcontracted work, liquidated damages shall be assessed as determined by the delay analysis. However, neither the failure to assess liquidated damages at this time, nor the report itself, nor the granting of a time extension at final completion, shall operate as a waiver or release of any claim the City may have against the Subcontractor for either actual or liquidated damages.

10.6 Payment Guarantee.

10.6.1 The City shall, in accordance with the terms of this Article 10.6, guarantee payment of all lawful claims for:

(a) Wages and compensation for labor performed and/or services rendered; and
(b) Materials, equipment, and supplies provided, whether incorporated into the Work or not, when demands have been filed with the City as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the Work performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the City or the Contractor.

10.6.2 The provisions of Article 10.6 are subject to the following limitations and conditions:

(a)If the Contractor provides a payment bond for a value that is less than one hundred (100%) percent of the value of the Contract Work, the payment bond provided by the Contractor shall be primary (and non-contributing) to the payment guarantee provided under this Article 10.6.

(b) The guarantee is made for the benefit of all beneficiaries as defined in Article 10.6.1(b) provided that those beneficiaries

strictly adhere to the terms and conditions of Article 10.6.2(d) and 10.6.2(e).

(c) Nothing in this Article 10.6 shall prevent a beneficiary providing labor, services or material for the Work from suing the Contractor for any amounts due and owing the beneficiary by the Contractor.

(d) Every person who has furnished labor or material, to the Contractor or to a Subcontractor of the Contractor, in the prosecution of the Work and who has not been paid in full therefor before the expiration of a period of ninety (90) Days after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a Subcontractor of the Contractor but no contractual relationship express or implied with the Contractor shall not have a right of action upon the guarantee unless he/she shall have given written notice to the Contractor within one hundred twenty (120) calendar days from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the Contractor or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the Contractor by other means, such notice shall be deemed sufficient.

(e) Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

(f) The Contractor shall promptly forward to the City any notice or demand received pursuant to Article 10.6.2(d). The Contractor shall inform the City of any defenses to the notice or demand and shall forward to the City any documents the City requests concerning the notice or demand.

(g) All demands made against the City by a beneficiary of this payment guarantee shall be presented to the Engineer along with all written documentation concerning the demand which the Engineer deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the Contractor for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the Contractor and that the demand has not been paid by the Contractor within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the Contractor concerning such demand. The City shall notify the Contractor that a demand has been made. The Contractor shall inform the City of any defenses to the demand and shall forward to the City any documents the City requests concerning the demand. (h) The City shall make payment only if, after considering all defenses presented by the Contractor, it determines that the payment is due and owing to the beneficiary making the demand.

(h) No beneficiary shall be entitled to interest from the City, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

10.6.3 Upon the receipt by the City of a demand pursuant to this Article 10.6, the City may withhold from any payment otherwise due and owing to the Contractor under this Contract an amount sufficient to satisfy the demand.

(a) In the event the City determines that the demand is valid, the City shall notify the Contractor of such determination and the amount thereof and direct the Contractor to immediately pay such amount to the beneficiary. In the event the Contractor, within seven (7) calendar days of receipt of such notification from the City, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the Contractor to the beneficiary for the amount of the demand determined by the City to be valid. The Contractor, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the City, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

(b) In the event that the amount otherwise due and owing to the Contractor by the City is insufficient to satisfy such demand, the City may, at its option, require payment from the Contractor of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the City may have under Law or Contract.

(c) In the event the City determines that the demand is invalid, any amount withheld pending the City's review of such demand shall be paid to the Contractor; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 24 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

10.6.4 The provisions of this Article 10.6 shall not prevent the City and the Contractor from resolving disputes in accordance with the PPB Rules, where applicable.

10.6.5 In the event the City determines that the beneficiary is entitled to payment pursuant to this Article 10.6, such determination and any defenses and counterclaims raised by the Contractor shall be taken into account in evaluating the Contractor's performance.

10.6.6 Nothing in this Article10.6 shall relieve the Contractor of the obligation to pay the claims of all persons with valid and lawful claims against the Contractor relating to the Work.

10.6.7 [Reserved.]

10.6.8 The payment guarantee made pursuant to this Article 10.6 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the Contractor or its Subcontractors in the prosecution of the Work under this Contract all of the rights and remedies afforded to such persons by such section, including but not limited to, the right to commence an action against the City on the payment guarantee provided by this Article 10.6 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 11 - CONSTRUCTION MANAGEMENT SERVICES

11.1 General Description of Construction Management Services: The Contractor shall provide, to the satisfaction of the

Commissioner, all Work necessary and required for the inspection, supervision, management, coordination and administration of the Project, so that the required Work is properly executed, completed in a timely fashion and conforms to the requirements of the Construction Documents and to good construction practice. The Contractor shall provide construction management services as directed by the Commissioner. Such construction management services shall include without limitation the services set forth in this Article 11. The Contractor shall cooperate in all respects with representatives of the Commissioner concerning all aspects of the Project.

11.2 The Contractor's Personnel

11.2.1 Key Personnel: It is the intent of the City to secure the personal services of those key design and construction management personnel identified in Exhibit A for the titles set forth therein. Accordingly, the Contractor agrees to assign such key personnel for the entire duration of Project. Failure by the Contractor to provide such key personnel will be considered a material breach of the Contract and grounds for termination for cause. Replacement of such key personnel will only be permitted in the following circumstances: (1) if the designated individual is no longer in the employ of the Contractor, or (2) if the City fails to direct the Contractor to commence work on the Project within nine (9) months of the date the Contractor submitted its technical proposal. Replacement of such key personnel must comply with the conditions set forth in Article 11.3.4 below.

11.2.2 Staffing Requirements: Staffing requirements for personnel are set forth in Exhibit B. Such staffing requirements specify the following: (1) titles of design and construction management personnel that may be required for the Project, (2) minimum requirements per title, and (3) Estimated Direct Salary Rate per hour per title. The Contractor agrees, throughout the term of the Contract, to provide design and construction management personnel as directed by the Commissioner. The Contractor specifically agrees that its employees, agents and consultants shall possess the experience, knowledge and character necessary to qualify them individually for the particular duties they perform.

11.2.3 Minimum Requirements Per Title: Design and construction management personnel providing services hereunder must satisfy the minimum requirements for the specific title in which he/she is performing services, as set forth in Exhibit B. The Contractor shall provide resumes or other documentation acceptable to the Commissioner to demonstrate that personnel provided hereunder comply with the minimum requirements per title**.**

11.3 Staffing Plan: A Staffing Plan for the Project shall be established as set forth below. Such Staffing Plan must be established and approved by the Commissioner prior to commencement of the Contractor's Work pursuant to this Contract.

11.3.1 Contents of Staffing Plan: The Staffing Plan shall include the items set forth below. Such Staffing Plan shall include only those titles of personnel necessary for the provision of the required Work.

(a) Key Personnel: Individuals named in Exhibit A as Key Personnel
(b) Other Personnel: Required titles and specific individual for each title
(c) For any Work that the Commissioner directs to be provided on a timecard basis, the Contractor shall provide a Direct Salary Rate per hour for each specified individual (except Project Executive), as determined by the Commissioner. The Direct Salary Rate per hour shall be the **LESSER** of (1) the individual's actual annual direct salary, computed on an hourly basis in accordance with Article 42, or (2) the Estimated Direct Salary Rate per hour for the as provided by the Commissioner
(d) Total estimated hours per title
(e) Total estimated amount per title
(f) Total estimated amount for all required titles

The specific personnel identified in the approved Staffing Plan, except for any Project Executive(s), shall be considered assigned personnel for the purpose of the Contractor's entitlement to reimbursement for Work performed by such personnel in accordance with Article 42. As specified therein, the Contractor shall not be entitled to payment for staffing expenses for: (1) any Project Executive(s), and (2) any personnel not assigned to the Project and not included in the approved Staffing Plan.

11.3.2 Proposed Staffing Plan: Within seven (7) calendar days after commencement of this Contract, the Contractor shall submit a proposed Staffing Plan for the Project. Such Staffing Plan shall include the items listed above. With respect to each proposed employee, the Contractor shall provide: (1) the employee's resume, as well as any other information detailing his/her technical qualifications and expertise, (2) the title in Exhibit B for which the employee meets the qualification requirements,

11.3.3 Review and Approval of Staffing Plan: The Commissioner shall review the Contractor's proposed Staffing Plan and shall direct revisions to the same if necessary prior to final approval thereof. As part of his/her review, the Commissioner shall determine (1) whether each specific employee meets the qualification requirements for the applicable title, and (2) the direct salary rate per hour to be paid for each specific employee, in accordance with Article 42. The Contractor shall revise the proposed Staffing Plan as directed, until such plan is approved in writing by the Commissioner.

11.3.4 Revisions to the Staffing Plan: Any revisions to the Staffing Plan are subject to the prior written approval of the Commissioner.

(a) Replacement Personnel: No substitutions for assigned personnel shall be permitted unless the proposed replacement has received the prior written approval of the Commissioner. Replacement personnel must possess qualifications substantially similar to those of the personnel being replaced. As set forth above, replacement of key design and

construction management personnel will not be permitted unless the designated individual is no longer in the employ of the Contractor.

(b) Changes by the Commissioner: The Commissioner reserves the right to direct changes to the Staffing Plan, including without limitation, modifying the titles of personnel necessary for the Project and increasing or decreasing the personnel assigned to the Project, based upon the scope of the required Work. The Contractor shall increase or decrease the personnel assigned to the Project, as directed by the Commissioner.

(c) Removal of Personnel: At the Commissioner's request at any time, the Contractor shall remove any personnel and substitute another employee of the Contractor reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, in his/her sole discretion.

(d) Revisions Due to Delay: In the event completion of the Project is delayed for any reason, including without limitation, strike, work stoppage, severe weather conditions or other circumstances not due to the fault of the Contractor, the Commissioner shall, in writing, direct revisions to the Staffing Plan to decrease the level of staffing to be maintained throughout the delay. During such period the Basic Fee will not be paid. The Contractor will be paied a reduced sum pursuant to the change order provisions of this Agreement.

11.3.5 Night Differential / Overtime: The Contractor shall provide a statement describing its company policy with respect to payment of a premium for Work performed during other than regular business hours (i.e., premium for Night Differential and/or Overtime). The Contractor's statement describing its policy shall indicate the following: (1) whether the policy is consistently applied to all clients; (2) the designated class(s) of employees to whom such policy applies, and (3) the premium or rate of increase to be paid to employees for such Work. For the purpose of payment, the Contractor's policy regarding payment of a premium for Work performed during other than regular business hours is subject to approval by the Commissioner. Approval shall only be given if the policy is reasonable, consistently applied to all clients and in accordance with standard practice in the industry. Payment of a premium for Work performed during other than regular business hours is subject to the limitations set forth in Article 42.

11.4 Related Services: Throughout the Project, the Contractor shall be responsible for providing the related services set forth below. All costs for such related services are deemed included in the Basic Fee.

11.4.1 Throughout the term of this Contract, the Contractor shall be required to provide and maintain a Project Office, dedicated to the activities of personnel in connection with Projects assigned under this Contract. Such Project Office shall be in accordance with the requirements set forth in Exhibit D, including the location of the Project Office

11.4.2 The Contractor shall provide overnight delivery of the following Project documents: (1) bid and Contract Documents; (2) all required submittals, including without limitation shop drawings, material samples and catalogue cuts; (3) change orders; (4) documents with respect to payment, and (5) any other critical communications and/or documents.

11.4.3 The Contractor shall provide transportation, including parking and tolls, for the Project Executive(s) and all personnel assigned to the Project, except as otherwise provided below. The transportation provided shall be vehicular, unless the Project site can be easily accessed by public transportation. Contractors and/or consultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.

(a) In the event the Contractor is directed in advance in writing by the Commissioner to provide services which require long distance travel, the Contractor shall be reimbursed for expenses incurred in connection with such long distance travel.

(b) Long distance travel shall mean travel which is in excess of 75 miles from whichever of the following is closer to the destination: (1) Columbus Circle, or (2) the Contractor's home office.

(c) Reimbursement for long distance travel expenses shall be as set forth in Article 42.5.

11.4.4 The Contractor shall provide communications equipment and service, including without limitation cellular telephones for the Project Executive(s) and all personnel assigned to the Project. The telephone numbers of all personnel assigned to the Project shall be submitted to the Commissioner.

11.5 NOT USED

11.6.4 The Contractor shall undertake the following responsibilities with respect to the Progress Schedule:

(a) Review proposed Progress Schedule(s), and any updates thereto, submitted by the Subcontractor(s) and direct the Subcontractor(s) to revise the same as necessary prior to Contractor submission of the Progress Schedule, or any updates thereto, to the Commissioner for approval in accordance with Article 8 hereof.

(b) Take appropriate action to ensure compliance with the Progress Schedule by the Subcontractor(s).

(c) Review the adequacy of the personnel and equipment of the Subcontractor(s) and the availability of necessary materials and supplies to ensure compliance with the Progress Schedule.

(d) Notify the Commissioner of any anticipated delays in fabrication or construction.

(e) Take appropriate action to minimize delays to the Project caused by labor disputes during construction.

(f) If performance of the Work by the Subcontractor(s) falls behind the Progress Schedule, advise the Commissioner of the same and make recommendations as to what methods should be adopted to make up for lost time.

11.6.5 Review and evaluate the means and methods of construction and/or remediation proposed by the Subcontractor(s) and direct changes as necessary in the event the Contractor reasonably believes that such proposed means and methods of construction and/or

remediation will constitute or create a hazard to the work, or persons or property, or will not produce finished work in accordance with the terms of the Construction Documents.

11.6.6 Undertake the following responsibilities with respect to the safety of the Project Site:

(a) Perform all CM responsibilities set forth in the DDC Safety Requirements (Exhibit E).
(b) Review all Safety Programs and Site Safety Plan(s) developed by the Subcontractor(s) and direct revisions to the same as necessary prior to submission to DDC.
(c) Take appropriate action to enforce Subcontractor compliance with (1) Safety Program, (2) Site Safety Plan, (3) DDC Safety Requirements, and (4) all applicable regulations that pertain to construction safety.
(d) Promptly notify the Commissioner and the Subcontractor(s) if the Contractor observes any hazardous conditions at the Site or non-compliance by the Subcontractor(s) with its Safety Program, Site Safety Plan, DDC Safety Requirements, any applicable safety regulations or subcontract requirements.
(e) Take or cause to be taken precautions to minimize the risk of injury to persons and damage to property resulting from or arising out of the Work.
(f) In the event of an emergency, provide such labor, materials, equipment and supervision necessary to cure such emergency condition. The Contractor shall immediately notify the Commissioner of any such emergency condition.

11.6.7 Undertake the following responsibilities with respect to Project record keeping:

(a) Keep accurate and detailed written records of the progress of the Project during all stages of planning and construction.
(b) Maintain a daily job diary or log book describing all activities which occurred on the Project on a daily basis, including without limitation, all Work accomplished, the number of workers, identified by trade, employed at the Site by the Subcontractor(s), the number of hours worked, material shortages, labor difficulties, weather conditions, visits by officials, decisions reached, specific problems encountered, general and specific observations, and all other pertinent data relative to the performance of the Work (c) Maintain accurate, orderly and detailed files and written records and documents regarding the Project, including without limitation, correspondence, minutes and/or reports of job conferences, progress reports, shop drawings and other submissions, subcontract documents, including all addenda, change orders, supplemental drawings records of all meetings and attempted meetings with Homeowners and all other Project-related documents

The Contractor shall provide any records, documents or information concerning the Project to the Commissioner as directed.

(d) With respect to work to be performed on a time-and-materials, unit cost, or similar basis, requiring the keeping of records and computation therefrom, maintain cost accounting records in accordance with the City's procedures.
(e) Ensure that record "As Built" Drawings are produced and kept current by the Subcontractor(s) in accordance with the requirements of the Construction Documents.
(f) All Project records, including without limitation those specified above, shall be available to the Commissioner at all times immediately upon request, and the Commissioner shall have the right to remove such Project records and make copies thereof.

11.6.8 Monitor compliance by the Subcontractor(s) with the following requirements applicable to the Work: (1) New York State Labor Law, except that prevailing wage laws are not applicable to this contract; (2) Americans with Disabilities Act (ADA); (3) requirements for the participation of M/WBEs, (4) the Sandy Hiring Plan and HUD requirements and (5) requirements for the participation of Locally Based Enterprises (LBEs). If Participation Goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the LBE Program.

11.6.9 Undertake the following responsibilities with respect to Subcontractor payments:

(a) Review all requisitions for payments submitted by the Subcontractor(s), including without limitation partial payments, payments for extra work, Substantial Completion and final payments.
(b) Verify all estimates for payments of Work performed, computations, as well as field measurements and sketches necessary for payment purposes.
(c) With respect to each requisition for payments submitted by the Subcontractor(s), determine the amount of liquidated damages, back charges or other deductions to be assessed.
(d) Contractor's requisitions for payment for Work performed by Subcontractors, submitted in accordance with Article 42 hereof, shall be based upon and in accordance with Subcontractor requisitions for payment reviewed and approved by the Contractor.

11.6.10 Review and approve or disapprove applications for extensions of time submitted by the Subcontractor(s). The Contractor's request for a time extension for construction Work performed by Subcontractors, submitted for Commissioner approval in accordance with Article 10 hereof, shall be based upon and in accordance with Subcontractor applications for extensions of time reviewed and approved by the Contractor.

11.6.11 Review, evaluate and respond to requests from Subcontractors for explanatory information and/or interpretation of the meaning and intent of the Construction Documents. The Contractor shall confer with the Consultant, ascertain the Consultant's interpretation and prepare a response to the Subcontractor setting forth the Consultant's interpretation. In the event the Subcontractor disagrees with such interpretation, the Contractor shall prepare a detailed report to the Commissioner setting forth the Consultant's

interpretation, the Subcontractor's interpretation and that by the Contractor.

11.6.12 Undertake the following responsibilities with respect to Subcontractor requests for change orders:

(a) Review, evaluate and make a decision with respect to the validity of all written Subcontractor requests for change orders. The Contractor's decision as to the validity of the proposed Subcontractor change order shall be in writing and shall provide a reasonably detailed explanation for the decision based upon the information presented by the Subcontractor and the requirements of the Construction Documents.

(b) If the Contractor decides that the Subcontractor's request for a change order is not valid, it shall provide such written decision to the Subcontractor, with a copy of the same to the Commissioner.

(c) If the Contractor decides that the Subcontractor's request for a change order is valid, the Contractor shall prepare the proposed Subcontractor change order and submit the same to the Commissioner for approval. Such proposed Subcontractor change order shall include or be accompanied by the following: (1) the Contractor's written decision as to the validity of the change order, (2) the cost proposal submitted by the Subcontractor, (3) the Contractor's evaluation of such cost proposal, (4) the Contractor's own cost estimate of the quantities of labor, equipment and materials required for the performance of the proposed change order. The Contractor must be prepared to substantiate the information with respect to the change order to the Commissioner, the Engineering Audit Officer, the Comptroller and any other agency having jurisdiction in this area. The Commissioner will make all final determinations regarding change orders, modifications and additions to the Construction Documents.

(d) If the Commissioner approves the Contractor's request for a Subcontractor change order, the Contractor shall negotiate a price, i.e., a lump sum price or unit prices, for the performance of the proposed change order work and submit the same to the Commissioner for his approval.

11.6.13 Conduct job meetings with the Subcontractor(s), Consultants, representatives of the Commissioner, interested city agencies and any other entities or individuals involved with the Project to discuss procedures, performance, progress, problems, scheduling and related issues. The Contractor shall prepare minutes of such meetings in a format authorized by the Commissioner and shall distribute such minutes to all attendees.

11.6.14 Undertake the following responsibilities with respect to Project and Program reports:

(a) Submit written progress reports to the Commissioner on a monthly basis, unless otherwise directed. Such reports shall be based upon the most current information and shall include, without limitation:

(1) Progress Schedule, including information concerning the Work of the construction Subcontractor(s) and the percentage of completion of the Work;
(2) Change Order Tracking Sheet, indicating the number and amount of change orders;
(3) Shop Drawing Log Schedule;
(4) Fabrication and Delivery Schedule;
(5) Budget for the Project, including a comparison of the original budget with current disbursements and the estimated cost to complete, and
(6) All reporting required by New York City Local Law 140 of 2013, (NYC Administrative Code 6-138.),
(7) Progress photographs, as set forth in Article 11.6.21.

(b) Provide reports regarding the Work as may be directed by the Commissioner, incorporating such information, interpretation, detail or back-up material as may be required by the Commissioner.

11.6.15 Undertake the responsibilities set forth below with respect to disputes submitted by its Subcontractors. Disputes shall mean disputes of the kind delineated in Article 29 of this Agreement.

(a) Review, evaluate and prepare a recommended determination with respect to disputes filed by its Subcontractors. The Contractor's recommendation shall be in writing, and shall contain a clearly stated, reasoned explanation for the determination based upon the information and evidence presented by the Subcontractor, as well as the requirements of the subcontract and the Construction Documents.

(b) The Contractor shall submit the dispute filed by its Subcontractor to the City for resolution in accordance with Article 29 of this Agreement. The Contractor's submission shall be accompanied by the recommended determination described above.

11.6.16 Determine the need for and undertake default proceedings against the Subcontractor(s). In the event of default by a Subcontractor, the Contractor shall promptly submit for Commissioner approval an alternate Subcontractor(s) to perform the Work.

11.6.17 Undertake the following responsibilities with respect to Substantial Completion of the Work:

(a) Inspect the Project in conjunction with the Consultant and the Commissioner's Representative at the time of Substantial Completion.

(b) Furnish a detailed report to the Commissioner and the Consultant setting forth any discrepancies or deficiencies in the finished Work.

(c) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any discrepancies or deficiencies in the finished Work.
(d) Finalize all necessary Punch Lists, including completion dates for all items, and expedite execution of the same by its Subcontractors.

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11.6.18 Undertake the following responsibilities with respect to Final Acceptance of the Work:

(a) Inspect the Project in conjunction with the Consultant and the Commissioner's Representative at the time of Final Acceptance.
(b) Furnish a detailed report to the Commissioner and the Consultant setting forth any discrepancies or deficiencies in the finished Work.
(c) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any discrepancies or deficiencies in the finished Work.
(d) Assemble and deliver to the Homeowner, with a copy to the Commissioner, all record "As Built" Drawings. The Contractor shall notify the Commissioner of any issues, problems or observations relative to such drawings.

11.6.19 Collect guarantees from the manufacturer, maintenance and operations manuals, keying schedules and other data required of the Subcontractor(s), and maintain photographic records, material and equipment delivery records, visual aids, charts and graphs.

11.6.20 Undertake the following responsibilities with respect to maintenance and guarantee obligations:

(a) Prior to the expiration of the guarantee period set forth in Article 25 hereof, inspect the Project and furnish a report to the Commissioner describing in detail any finished Work in which defects of materials or workmanship may have appeared or to which damage may have occurred because of such defects, during the applicable guarantee period.
(b) Take all appropriate action through its Subcontractors for the repair, replacement, restoration or rebuilding, as the Commissioner may determine, of any finished Work in which defects of materials or workmanship may have appeared or to which damage may have occurred because of such defects, during the applicable guarantee period.

11.6.21 Take photographs to document the progress of the construction Work. Such photographs shall be taken on a bi-weekly basis until Substantial Completion of the Work. As indicated in Article 11.6.14, such photographs shall be included in each monthly progress report.

11.6.22 Provide or cause to be provided all temporary facilities and utilities as necessary for the performance of the Work.

11.6.23 In the event any claim is made or any action brought in any way relating to the design or construction of the Project, the Contractor shall diligently render to the City and/or the Homeowner all assistance which may be required. Such services shall be rendered by the Contractor without additional fee or other compensation, except for the costs and expense of personnel who were assigned to the Project as job-site or management staff, or comparable personnel if those who were assigned to the Project are no longer employed by the Contractor.

11.6.23 In the event any claim is made or any action brought in any way relating to the Work provided hereunder, including design, construction and/or remediation, the Contractor shall diligently render to the City and/or the Homeowner all assistance which the City and/or the Homeowner may require. Such Work shall be rendered by the Contractor without additional fee or other compensation, except for the costs and expense of personnel who were assigned to the Project as job-site or management staff, or comparable personnel if those who were assigned to the Project are no longer employed by the Contractor.

11.6.24 Perform such other Project related Work as may from time to time be directed by the Commissioner.

11.7 Services During Post Construction/ Phase: The Contractor shall provide construction management services during the Post Construction/Remediation Phase as directed by the Commissioner. Such construction management services shall include without limitation the services set forth below.

11.7.1 Manage and supervise the delivery and installation of fixtures, furniture and equipment for the Project, as specified by the City.

11.7.2 Manage and supervise training sessions provided by the Subcontractors for all equipment and/or systems installed.

11.7.3 Obtain and deliver whichever of the following is required by the Commissioner: (1) permanent Certificates of Occupancy, (2) Letter of Completion from the Department of Buildings, (3) all certificates of inspection for the Work, and (4) written approval of any agency having jurisdiction over the Work.

11.7.4 Submit to the Commissioner originals of all final Project records, including without limitation, (1) all reports for the Project, including inspector's reports,; (2) office and/or field diaries or log books; (3) all original records with respect to Subcontractor payments;; (4) progress photographs of the construction, and (7) any other Project records required by the Commissioner. (Originals of "As

Built" Drawings and certificates of guarantees and warrantees shall be submitted to the Homeowner, with a copy to the Commissioner.)

11.8 Additional Services: The Contractor may be directed to provide additional services. Additional services shall be such services determined by the Commissioner to be necessary for the expeditious completion of the Project, and may include without limitation, the performance of general conditions Work and/or the purchase of miscellaneous items.

ARTICLE 12 - CHARACTER OF THE WORK

12.1 Unless otherwise expressly provided in this Agreement, the Work must be performed in accordance with the best, modern practice, with materials and workmanship of the highest quality, to the satisfaction of the Commissioner. All materials required for the Work shall be free from all defects, of the best available grade and quality, entirely satisfactory for the purpose intended, furnished in ample quantities to prevent delays, and in accordance with all requirements of this Agreement.

ARTICLE 13 - MEANS AND METHODS OF CONSTRUCTION

13.1 Unless otherwise expressly provided in this Agreement, the means and methods of construction and/or remediation shall be such as the Contractor may choose; subject, however, to the Commissioner's right to reject means and methods proposed by the Contractor which: (1) will constitute or create a hazard to the Work, or to persons or property; or (2) will not produce finished Work in accordance with the terms of the Agreement.

13.2 The Commissioner's approval of the Contractor's means and methods of construction and/or remediation, or his/her failure to exercise his right to reject such means or methods, shall not relieve the Contractor of his obligation to accomplish the result intended by the Agreement; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 14 - INSPECTION

14.1 During the progress of the Work and up to the date of Final Acceptance of all required Work, the Contractor shall at all times afford the representatives of the City and HUD every reasonable, safe and proper facility for inspecting all Work done or being done at the Site and also the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

14.2 The Contractor's obligation hereunder shall include the uncovering or taking down of finished Work and its restoration thereafter, provided, however that the order to uncover, take down and restore shall be in writing, and further provided that if Work thus exposed proves satisfactory, such uncovering or taking down and restoration shall be considered an item of Extra Work to be paid for in accordance with the provisions of Article 26 hereof.

14.3 Inspection and approval by the Commissioner's Representative of finished Work or of work being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the Contractor of his obligation to perform the Work in strict accordance with the Agreement. Finished or unfinished Work found not to be in strict accordance with the Agreement shall be replaced as directed by the Commissioner's Representative, even though such Work may have been previously approved and paid for.

14.4 Rejected Work and materials must be promptly taken down and removed from the Site, which must at all times be kept in a reasonably clean and neat condition.

ARTICLE 15 - PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION

15.1 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such Work at the Contractor's sole cost and expense, as directed by the Commissioner's Representative. The obligation to deliver finished Work in strict accordance with the Contract prior to Final Acceptance shall be absolute and shall not be affected by the Commissioner's Representative's approval of, or failure to prohibit, the Means and Methods of Construction used by the Contractor.

15.2 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall take all reasonable precautions to protect all persons and the property of the City and of others from damage, loss or injury resulting from the Contractor's, and/or its Subcontractors' operations under this Contract. The Contractor's obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the Site suitable and sufficient protection such as lights, barricades, and enclosures.

15.3 The Contractor shall comply with the notification requirements set forth below in the event of any loss, damage or injury to Work, persons or property, or any accidents arising out of the operations of the Contractor and/or its Subcontractors under this Contract.

15.3.1 The Contractor shall make a full and complete report in writing to the Commissioner's Representative within three (3) calendar days after the occurrence.

15.3.2 The Contractor shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the Contractor's own employees) no later than twenty (20) calendar days after such event and again no later than twenty (20) calendar days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the City and/or the Engineer, Architect, or Project Manager are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured." Such notice

shall also be sent to the Homeowner.

15.3.2(a) Whenever such notice is sent under a policy on which the City is an Additional Insured, the Contractor shall provide copies of the notice to the Comptroller, the Commissioner and the City Corporation Counsel. The copy to the Comptroller shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the Commissioner shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the City Corporation Counsel shall be sent to Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007. 15.3.2(b) If the Contractor fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the Contractor shall indemnify the City and all Homeowners for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the City.

15.4 To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold the all Homeowners, the City, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the Contractor and/or its Subcontractors and/or Consultants) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the Contractor and/or its Subcontractors and/or Consultants in the performance of this Contract or from the Contractor's and/or its Subcontractors' and/or Consultants failure to comply with any of the provisions of this Contract or of the Law. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 15.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of Law or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of Law, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

15.4.1 Indemnification under Article 15.4 or any other provision of the Contract shall operate whether or not Contractor or its Subcontractors or Consultants have placed and maintained the insurance specified under Article 22.

15.5 The provisions of this Article 15 shall not be deemed to create any new right of action in favor of third parties against the Contractor, the City, or the Homeowners.

ARTICLE 16 - REQUEST FOR INFORMATION OR APPROVAL

16.1 From time to time as the Work progresses and in the sequence indicated by the approved Progress Schedule, the Contractor may submit to the Commissioner a specific request in writing for each item of information or approval required by him. These requests must state the latest date upon which the information or approval is actually required by the Contractor, and must be submitted sufficiently in advance thereof to allow the Commissioner a reasonable time to act upon such submissions or any necessary re-submissions thereof.

16.2 The Contractor shall not have any right to an extension of time on account of delays due to his failure to submit his requests for the required information for the required approval in accordance with the above requirements.

ARTICLE 17 - NOTICE AND DOCUMENTATION OF DELAY DAMAGES AND OTHER DAMAGES; PRODUCTION OF FINANCIAL RECORDS

17.1 After the commencement of any condition which is causing or may cause a delay in completion of the Work, including conditions for which the Contractor may be entitled to an extension of time, the following notifications and submittals are required:

17.1.1 Within seven (7) calendar days after the commencement of such condition, the Contractor must notify the Commissioner's Representative in writing of the existence, nature and effect of such condition upon the approved progress schedule and the Work, and must state why and in what respects, if any, the condition is causing or may cause a delay.

17.1.2 If the Contractor shall claim to be sustaining damages for delay, by reason of any act or omission of the City or its agents, it shall submit to the Commissioner within forty-five (45) calendar cays from the time such damages are first incurred, and every thirty (30) calendar days thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The Contractor may submit any of the above statements within such additional time as may be granted by the Commissioner in writing upon written request therefor. Failure of the Commissioner to respond in writing to a written request for additional time within thirty (30) calendar days shall be deemed a denial of the request. On failure of the Contractor to fully comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the Contractor may claim in any action arising under or by reason of this Contract shall not be different from or in excess of the statements made and documentation provided pursuant to this Article.

17.2 Failure of the Contractor to strictly comply with the requirements of Article 17.1.1 may, in the discretion of the Commissioner, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the Contractor to strictly comply with the requirements of Articles 17.1.1 and 17.1.2 shall be deemed a conclusive waiver by the Contractor of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

17.3 When appropriate and directed by the Commissioner's Representative, the progress schedule shall be revised by the Contractor until finally approved by the Commissioner's Representative. The revised progress schedule must be strictly adhered to by the Contractor.

17.4 If the Contractor shall claim to be sustaining damages by reason of any act or omission of the City or its agents, it shall submit to the Commissioner within forty-five (45) calendar ays from the time such damages are first incurred, and every thirty (30) calendar days thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The Contractor may submit any of the above statements within such additional time as may be granted by the Commissioner in writing upon written request therefor. Failure of the Commissioner to respond in writing to a written request for additional time within thirty (30) calendar days shall be deemed a denial of the request. On failure of the Contractor to fully comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the Contractor may claim in any action or dispute resolution procedure arising under or by reason of this Contract shall not be different from or in excess of the statements and documentation made pursuant to this Article.

17.5 In addition to the foregoing statements, the Contractor shall, upon notice from the Commissioner, produce for examination at the Contractor's office, by the Commissioner's Representative, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, canceled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this Contract, and submit itself and persons in its employment, for examination under oath by any person designated by the Commissioner or Comptroller to investigate claims made or disputes against the City under this Contract. At such examination, a duly authorized representative of the Contractor may be present.

17.6 In addition to the statements required under Article 30 and this Article, the Contractor and/or its Subcontractor and/or Consultant shall, within thirty (30) calendar days upon notice from the Commissioner or Comptroller, produce for examination at the Contractor's and/or Subcontractor's and/or Consultant's office, by a representative of either the Commissioner or Comptroller, all of its books of account, bid documents, financial statements, accountant work papers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, canceled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this Contract. Further, the Contractor and/or its Subcontractor and/or Consultant shall submit any person in its employment, for examination under oath by any person designated by the Commissioner or Comptroller to investigate claims made or disputes against the City under this Contract. At such examination, a duly authorized representative of the Contractor may be present.

17.7 Unless the information and examination required under Article 17.6 is provided by the Contractor and/or its Subcontractor and/or Consultant upon thirty (30) calendar days' notice from the Commissioner or Comptroller, or upon the Commissioner's or Comptroller's written authorization to extend the time to comply, the City shall be released from all claims arising under, relating to or by reason of this Contract, except for sums certified by the Commissioner or Comptroller to be due under the provisions of this Contract. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the City to recover any sum in excess of the sums certified by the Commissioner or Comptroller to be due under or by reason of this Contract, the Contractor must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article.

17.8 In addition, after the commencement of any action or dispute resolution procedure by the Contractor arising under or by reason of this Contract, the City shall have the right to require the Contractor to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 17.6 and submit itself and all persons in its employ for examination under oath. If this Article is not complied with as required, then the Contractor hereby consents to the dismissal of the action or dispute resolution procedure.

ARTICLE 18 - DETERMINING DATE OF COMPLETION

18.1 Final inspection of the Work by the Commissioner's Representative shall be made within 10 days after receipt of the Contractor's written request therefor. The Work will be deemed complete as of the date of such inspection if, upon such inspection, the Commissioner's Representative finds that no further Work remains to be done. The Commissioner will then issue a certificate of completion and acceptance of the Work.

18.2 Request for Reinspection. However, if such inspection, in the opinion of the Commissioner's Representative, reveals items of Work still to be performed, the Contractor shall promptly perform them and then request a reinspection. If, upon any reinspection, the Commissioner's Representative determines that the Work is complete, the date of completion shall be deemed to be the actual date of such reinspection, which shall be made not more than 10 calendar days after the date of the request therefor.

ARTICLE 19 - EXTENSION OF TIME

19.1 Upon written application by the Contractor, the Agency Chief Contracting Officer may grant an extension of time for performance of the Contract. Said application must state, at a minimum, in detail, each cause for delay, the date the cause of the alleged delay occurred, and the total number of delay in days attributable to such cause. The ruling of the Agency Chief Contracting Officer shall be final and binding as to the allowance of an extension and the number of days allowed.

ARTICLE 20 - OCCUPATION OR USE PRIOR TO COMPLETION

20.1 Unless otherwise provided for in the Work Order, the Homeowner may take over, use, occupy or operate any part of the Work at any time prior to Final Acceptance, upon written authorization of the Commissioner. Such authorization must include the date when the Homeowner may take over, use, occupy or operate part of the Work and a brief description of the relevant part of the Work. A copy of such written authorization shall be provided to the City and the Homeowner before Final Acceptance. In the event the Homeowner takes over,

uses, occupies, or operates any part of the Work:

20.1.1 the Contractor shall issue a written certification of completion with respect to such part of the Work and shall submit a certification form with photo inventory of Work;

20.1.2 the Contractor shall be relieved of its absolute obligation to protect such part of the unfinished Work in accordance with Article 7; and

20.1.3the Contractor's guarantee on such part of the Work shall begin on the date in the written authorization by the Contractor required in Article 20.1.

ARTICLE 21 - CHANGED CONDITIONS

21.1 Should the Contractor encounter during the progress of the Work, subsurface conditions at the Site materially differing from any shown on any documents furnished by the Commissioner or such subsurface conditions as could not reasonably have been anticipated by the Contractor and were not anticipated by the City, which conditions will materially affect the cost of the Work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not reasonably have been anticipated by the Contractor and were not anticipated by the City, the Contract may be modified with his written approval. Any increase in cost resulting therefrom shall be in accordance with Article 26 and the Procurement Policy Board Rules.

ARTICLE 22 - ASSIGNMENTS

22.1 The Contractor shall not assign, transfer, convey or otherwise dispose of this Contract, or of its rights, obligations, duties, in whole or in part, or of its right to execute it, or its right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the moneys due or to become due under this contract, unless the prior written consent of the Commissioner shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments. Any such assignment, transfer, conveyance or other disposition without such consent shall be void.

22.2 Such assignment, transfer, or conveyance shall not be valid until filed in the office of the Department of Design and Construction and of the Treasurer with the written consent of the Commissioner endorsed thereon or attached thereto.

22.3 Failure of the Contractor to obtain the required prior written consent of the Commissioner to such an assignment, transfer or conveyance, shall be cause for termination for cause, at the option of the Commissioner; and, if so terminated, the City shall thereupon be relieved and discharged from any further liability and obligation to the Contractor, its assignees or transferees, and all Moines that may become due under the contract shall be forfeited to the City, except so much thereof as may be necessary to pay the Contractor's employees.

22.4 The provisions of this Article shall not be construed to hinder, prevent or affect an assignment by the Contractor for the benefit of creditors made pursuant to the statutes of the State of New York.

22.5 The Contractor hereby assigns, sells and transfers to the City of New York all right, title and interest in and to any claims and causes of action arising under the antitrust laws of New York State or of the United States relating to the particular goods or services purchased or procured by the City under this Contract.

22.6 This Contract may be assigned by the City to any corporation, agency or instrumentality having authority to accept such assignment.

ARTICLE 23 - INSURANCE

23.1 Types of Insurance: From the date the Contractor is ordered to commence Work and throughout the term of this Contract, the Contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the following types and amounts of insurance. All insurance shall meet the requirements set forth in this Article 23. Wherever this Article requires that insurance coverage be “at least as broad” as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the Contractor can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

23.1.1 Commercial General Liability Insurance: The Contractor shall provide a Commercial General Liability Insurance policy (with the coverages indicated below) in the minimum amount of $2,000,000 per occurrence (combined single limit), $10,000,000 aggregate. \The Contractor shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this Contract. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office (“ISO”) Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such

insurance shall contain a "per project" aggregate limit, as stated above, that applies separately to operations under this Contract.

23.1.1Such Commercial General Liability Insurance shall name the City and the Homeowner as an Additional Insured. Coverage for the City shall specifically include the City's officials and employees, be at least as broad as the latest edition of ISO Form CG 2010 and completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.
The general liability insurance policy provided shall include the following endorsements:

(a) The City of New York, including its officials and employees, and the Homeowner are Additional Insureds under this policy.
(b) Notice under the Policy to the Additional Insured shall be addressed to the Commissioner of the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, New York 11101 and to the Homeowner at the address provided by the City.
(c) Notice of Accident shall be given to the Company by the Insured within one hundred twenty (120) calendar days after notice of such accident has been sent to the Commissioner of the Department of Design and Construction and the Homeowner.
(d) Notice of Claim shall be given to the Company within one hundred twenty (120) calendar days after such notice shall be filed with the Comptroller of the City of New York.
(e) Any notice, demand or other writing by or on behalf of the Named Insured to the Insurance Company shall also be deemed to be a notice, demand, or other writing on behalf of the City and Homeowner as Additional Insureds. Any response by the Insurance Company to such notice, demand or other writing shall be addressed to Named Insured, to the Homeowner at the address provided by the City, and to the City at the following addresses: Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, N.Y. 10007; and Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, NY 10007.
(f) Notice of Cancellation of Policy, as set forth in Article 23.2.4 below.

23.1.2 Professional Liability Insurance: Any Consultant engaged by the Contractor to perform professional services hereunder, and any subconsultant performing professional services, must provide Professional Liability insurance in the amount of at least One Million Dollars ($1,000,000) per claim. The policy or policies shall include an endorsement to cover the liability arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the consultant or anyone employed by the consultant.

(a) Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Consultant or subconsulant shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.

23.1.3 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The Contractor shall provide, and shall cause its Subcontractors to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the Laws of the State of New York on behalf of all employees providing services under this Contract

23.1.5 Commercial Automobile Liability Insurance: The Contractor shall provide liability insurance in the amount of $1,000,000 per occurrence (combined single limit), $2,000,000 aggregate, covering all owned, non-owned and hired vehicles to be used in connection with this contract. Such policy shall name the City of New York as an additional insured thereunder. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

23..1.6 Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of $10,000,000 per Occurrence and $10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The all Homeowners and the City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.

23.2
General Requirements for Insurance Coverage and Policies:

23.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M.

Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the City Corporation Counsel.

23.2.2 The Contractor shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the City is an insured under the policy.

23.2.3 In his/her sole discretion, the Commissioner may, subject to the approval of the Comptroller and the City Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

23.2.4 The City's limits of coverage for all types of insurance required pursuant this contract shall be the greater of (i) the minimum limits set forth in the this agreement or (ii) the limits provided to the Contractor as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

23.2.5 The Contractor may satisfy its insurance obligations under this Article 23 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

23.2.6 Policies of insurance provided pursuant to this Article 23 shall be primary and non-contributing to any insurance or self-insurance maintained by the City.

23.3 Proof of Insurance:

23.3.1 For all types of insurance required by Article 23.1 except for Builder's Risk insurance, if required, the Contractor shall file proof of insurance in accordance with this Article 23.3 within ten (10) Days of award. For Builder's Risk, proof shall be filed by a date specified by the Commissioner or ten (10) Days prior to the commencement of the portion of the Work covered by such policy, whichever is earlier.

23.3.2 For Workers' Compensation Insurance provided pursuant to Article 23.1.3, the Contractor shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the Commissioner. For Disability Benefits Insurance provided pursuant to Article 23.1.3, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the Commissioner. ACORD forms are not acceptable.

23.3.3 For policies provided pursuant to all of Article 23.1 other than Builder's Risk, the Contractor shall submit one or more Certificates of Insurance on forms acceptable to the Commissioner. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 23.1.1 that the City and any other entity specified in Schedule A is an Additional Insured with coverage at least as broad as the most recent edition of ISO Forms CG 20 10, CG 20 37, and CG 20 26, as applicable; (c) in the event insurance is required pursuant to Article 23.1.6 and/or Article 23.1.7, that the City is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the Contract by the City. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form attached to this agreement and Schedule A of the General Conditions or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the Commissioner prior to the expiration date of coverage of policies required under this Contract. Such proofs of insurance shall comply with the requirements of Articles 23.3.2 and 23.3.3.

23.3.5 The Contractor shall be obligated to provide the City with a copy of any policy of insurance provided pursuant to this Article 23 upon the demand for such policy by the Commissioner or the City Corporation Counsel.

23.4 Operations of the Contractor:

23.4.1 The Contractor shall not commence the Work unless and until all required certificates have been submitted to and accepted by the Commissioner. Acceptance by the Commissioner of a certificate does not excuse the Contractor from securing insurance consistent with all provisions of this Article 23 or of any liability arising from its failure to do so.

23.4.2 The Contractor shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this Contract and shall be authorized to perform Work only during the effective period of all required coverage.

23.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the Contractor shall immediately stop all Work, and shall not recommence Work until authorized in writing to do so by the Commissioner. Upon quitting the Site, except as otherwise directed by the Commissioner, the Contractor shall leave all plant, materials, equipment, tools, and supplies on the Site. Contract time shall continue to run during such periods and no extensions of time will be granted. The Commissioner may also declare the Contractor in default for failure to maintain required insurance.

232.4.4 In the event the Contractor receives notice, from an insurance company or other person, that any insurance policy required under this Article 23 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the Contractor shall immediately forward a copy of such notice to both the Commissioner and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the Contractor shall ensure that there is no interruption in any of the insurance coverage required under this Article 23.

23.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 23, the Contractor shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this Contract (including notice to Commercial General Liability insurance carriers for events relating to the Contractor's own employees) no later than 20 days after such event. For any policy where the City is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The Contractor shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

23.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 23, the Contractor shall at all times fully cooperate with the City with regard to such potential or actual claim.

23.5 Subcontractor Insurance: In the event the Contractor requires any Subcontractor to procure insurance with regard to any operations under this Contract and requires such Subcontractor to name the Contractor as an Additional Insured thereunder, the Contractor shall ensure that the Subcontractor name the City, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

23.6 Wherever reference is made in Article 15 or this Article 23 to documents to be sent to the Commissioner (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the Commissioner's address as provided elsewhere in this Contract.

23.7 Apart from damages or losses covered by insurance provided pursuant to Articles 23.1.3, or 23.1.5, the Contractor waives all rights against the City, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 23 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the Contractor and/or its employees, agents, or Subcontractors.

23.8 In the event the Contractor utilizes a self-insurance program to satisfy any of the requirements of this Article 23, the Contractor shall ensure that any such self-insurance program provides the City with all rights that would be provided by traditional insurance under this Article 23, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

23.9 Materiality/Non-Waiver: The Contractor's failure to secure policies in complete conformity with this Article 23, or to give an insurance company timely notice of any sort required in this Contract or to do anything else required by this Article 23 shall constitute a material breach of this Contract. Such breach shall not be waived or otherwise excused by any action or inaction by the City at any time.

23.10 Pursuant to General Municipal Law Section 108, this Contract shall be void and of no effect unless Contractor maintains Workers' Compensation Insurance for the term of this Contract to the extent required and in compliance with the New York State Workers' Compensation Law.

23.11 Other Remedies: Insurance coverage provided pursuant to this Article 23 or otherwise shall not relieve the Contractor of any liability under this Contract, nor shall it preclude the City from exercising any rights or taking such other actions available to it under any other provisions of this Contract or Law.

ARTICLE 24 - MONEY RETAINED AGAINST CLAIMS

24.1 If any claim shall be made by any person or entity against the City or against the Contractor and the City for any of the following:

(a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Article 15, plus the reasonable costs of defending the City, which in the opinion of the Comptroller may not be paid by an insurance company (for any reason whatsoever); or

(b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 9.4.1; or

(c) Damage claimed to have been caused directly or indirectly by the failure of the Contractor to perform the Work in strict accordance with this Contract,

the amount of such claim, or so much thereof as the Comptroller may deem necessary, may be withheld by the Comptroller, as security against such claim, from any money due hereunder. The Comptroller, in his/her discretion, may permit the Contractor to substitute other satisfactory security in lieu of the monies so withheld.

24.2 If no action is commenced upon such claim within the time limited thereof by law, the Comptroller, upon written demand by the Contractor, shall return the amount so withheld without interest.

24.3 If an action on such claim is timely commenced and the liability of the City, or the Contractor, or both, shall have been established therein by a final judgment of a Court of competent jurisdiction, or if such claim shall have been admitted by the Contractor to be valid, the Comptroller shall pay such judgment or admitted claim out of the moneys retained by him under the provisions of this Article, and return the balance, if any, without interest, to the Contractor.

24.4
Liens: If any persons claiming to have performed any labor or furnished any material toward the performance or completion of this Contract file a lien against a Homeowner's property, the Contractor shall discharge such lien within 14 days pursuant to the New York Lien Law. The City may retain from the monies due or to become due under this Contract, so much of such monies as shall be sufficient to pay the amount claimed and the money so retained may be held by the City until the lien is discharged.

ARTICLE 25 - MAINTENANCE AND GUARANTY

25.1 The Contractor shall promptly repair, replace, restore or rebuild, as the Commissioner or Director of HRO may determine, any finished Work in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of Final Acceptance of the Work Order Order (or use and occupancy in accordance with Article).

25.1.1 For one year from the date of Substantial Completion of the Work Order completed by the Contractor, the Contractor shall maintain an email address to receive messages from the City directing the Contractor to repair, replace, restore or rebuild such defects of materials or workmanship or damage.
25.1.2 The Contractor shall check its designated email account at least once each business day and respond to the City's direction within one business day.
25.1.3 The City shall schedule an appointment with the Homeowner, the Contractor, a City representative. Generally such appointment will be scheduled within seven days, but may be sooner if the defect or damage presents a health or safety risk.
25.1.4 Pursuant to Article 71, the Contractor shall be liable for liquidated damages in the of $500 for failure to arrive at the appointment within 30 minutes of the scheduled time.
25.1.5 At the appointment, the Commissioner's Representative shall draft a proposed repair order, which describes the Work to be completed and the time for completion. The proposed repair order, when signed by the Commissioner's Representative, the Homeowner, and the Contractor, shall constitute the approved repair order.
25.1.6 Upon completion of the Work, the Contractor shall notify the HRO Management Team and request an inspection.
25.1.7 The City shall perform an inspection on such Work.

25.2 As security for the faithful performance of its obligations hereunder, the Contractor, upon filing his requisition for the Substantial Completion payment hereunder, shall deposit with the Commissioner a sum equal to l% of the value of the construction Work certified for payment in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the Comptroller; or obligations of the City of New York, which the Comptroller may approve as of equal value with the sum so required

25.3 If the Contractor has faithfully performed all of its obligations hereunder the Commissioner shall so certify to the Comptroller within five (5) Days after the expiration of one (1) year from the date of Final Acceptance of the last Work Order completed by the Contactor. The security payment shall be repaid to the Contractor without interest within thirty (30) Days after certification by the Commissioner to the Comptroller that the Contractor has faithfully performed all of its obligations in connection with the Contract.

25.4 Notice by the Director of HRO or Commissioner to the Contractor to repair, replace, rebuild or restore such defective or damaged Work shall be timely, pursuant to this article, if given not later than ten (10) Days subsequent to the expiration of the one (1) year period provided for herein.

25.5 If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged Work promptly after receiving such notice, the Commissioner shall have the right to have the Work done by others in the same manner as provided for in the completion of a defaulted Contract, under Article 51.

25.6 If the security payment so deposited is insufficient to cover the cost of such Work, the Contractor shall be liable to pay such deficiency on demand by the Commissioner.

25.7 The Director of HRO's certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective Work when performed by one other than the Contractor, shall be binding and conclusive upon the Contractor as to the amount thereof.

ARTICLE 26 - CONTRACT CHANGES

26.1 Changes may be made to this Contract only as duly authorized by the Agency Chief Contracting Officer or his or her designee. Contractors deviating from the requirements of an original purchase order or contract without a duly approved change order document, or

written contract modification or amendment, do so at their own risk. All such changes, modifications and amendments will become a part of the original Contract. Work so ordered must be performed by the Contractor.

26.2 Contract changes will be made only for Work necessary to complete the Work included in the original scope of the Contract, and for non-material changes to the scope of the Contract. Changes are not permitted for any material alteration in the scope of the Project. Contract changes may include any contract revision deemed necessary by the Contracting Officer. The Contractor may be entitled to a price adjustment for Extra Work performed pursuant to a written change order. If any part of the Contract Work is necessarily delayed by a change order, the Contractor may be entitled to an extension of time for performance. Adjustments to price shall be computed in one or more of the following ways: (1) by agreement of a fixed price; (2) by unit prices specified in the contract; (3) by time and material record; and/or (4) in any other manner approved by the City Chief Procurement Officer.

26.3 Where the cost of the change order has been negotiated in the absence of established cost history, the costs are subject to verification.

26.4 All payments for change orders are subject to pre-audit by the Engineering Audit Officer and may be post-audited by the Comptroller. If the audits reveal that the Contractor's costs for the change order work were inaccurately stated during negotiations, the Agency shall recoup the amount by which the costs were inaccurately stated by proportionately reducing the price of the change order. This remedy is not exclusive and in addition to all other rights and remedies of the City.

ARTICLE 27 - AUDIT AND EXAMINATION; INTEGRITY MONITOR

27.1 This Contract and all payments hereunder shall be subject to examination by the Engineering Audit Officer of DDC and post-audit by the Comptroller of the City of New York in accordance with Law.

27.2.1 The City Department of Investigation ("DOI") shall engage an Integrity Monitor to monitor the Work of Contractor, including but not limited to its chief executive personnel, employees, Subcontractors, Consultants, suppliers, vendors and affiliated businesses and monitor and investigate allegations of fraud by the Contractor and other parties in connection with the Build it Back Program. Among other activities, the Integrity Monitor will:

1. conduct audits and investigations to determine Contractor's compliance with the Law;
2. conduct audits and investigations to determine Contractor's compliance with all the terms and conditions of this Contract and any other agreements it enters into with the City in connection with the Build it Back Program;
3. examine documents related to the operation of Build it Back Program in the possession of Contractor, that may relate to its responsibility;
4. review payment requisitions for accuracy;
5. audit disposal of contaminated and hazardous waste;
6. review payrolls and refer anomalies to DDC;
7. report any integrity issue immediately to DOI;
8. refer any work quality and/or safety issue immediately to DDC and to DOI if the issue relates to the integrity of the Contractor;[1]
9. review Subcontractor approval documents;
10. maintain a site presence; and
11. investigate allegations of fraud in connection with the Build it Back Program.

27.2.2 Contractor shall fully cooperate with the Integrity Monitor.

27.2.3 Based on the Integrity Monitor's reports, the City may take remedial action or declare the Contractor in default.

ARTICLE 28 - METHODS OF PAYMENT FOR EXTRA WORK

28.1 Overrun of Unit Price Item: The provisions set forth below shall apply to overruns of unit price items which the Contractor, through its Subcontractor, is directed to provide. An overrun is any quantity of a unit price item which the Contractor, through its Subcontractor, is directed to provide which is in excess of one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

28.1.1 For any unit price item, the Contractor's Subcontractor will be paid at the unit price bid for any quantity up to one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the Work, the actual quantity of any unit price item required to complete the Work approaches the estimated quantity for that item, and due to errors,

[1] With respect to performance issues, DDC will determine what steps need to be taken if Contractor fails to do its job or does an inadequate job. The monitor(s) will identify performance issues for DDC, but DDC will determine the best way to proceed (e.g., require the Contractor to redo Work, withhold payment, replace the Contractor).

site conditions, changes in design, or any other reason, it appears that the actual quantity of any unit price item necessary to complete the Work will exceed the estimated quantity for that item by twenty-five (25%) percent, the Contractor shall immediately notify the Commissioner's Representative of such anticipated overrun. The Contractor's Subcontractor shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty five (125%) percent of the estimate quantity for that item set forth in the bid schedule without written authorization from the Commissioner's Representative.

28.1.2 If the actual quantity of any unit price item necessary to complete the Work will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the City reserves the right and the Contractor, through its Subcontractor, agrees to negotiate a new unit price for such item. In no event shall such negotiated new price exceed the unit bid price. If the City and Contractor, through its Subcontractor, cannot agree on a new unit price, then the City shall order the Contractor and the Contractor, through its Subcontractor agrees to provide additional quantities of the item on a time and material basis for the actual and reasonable cost as determined under Article 28.2, but in no event at a unit price exceeding the unit price bid.

28.2 Extra Work: For Extra Work where payment is by agreement on a fixed price in accordance with Article 26, the price to be paid for such Extra Work shall be based on the fair and reasonable estimated cost of the items set forth below. For Extra Work where payment is based on time and material records in accordance with Article26, the price to be paid for such Extra Work shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

28.2.1 Necessary materials (including transportation to the Site); plus
28.2.2Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus
28.2.3Sales and personal property taxes, if any, required to be paid on materials not incorporated into such Extra Work; plus

28.2.4 Reasonable rental value of Contractor-owned (or Subcontractor-owned, as applicable), necessary plant and equipment other than Small Tools, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: (.035) x (HP rating) x (Fuel cost/gallon). Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. Contractor-owned (or Subcontractor-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the Contractor (or Subcontractor, as applicable), as determined by the Commissioner. In establishing cost reimbursement for non-operating Contractor-owned (or Subcontractor-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the City may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the Site, if any, provided that, in the case of non-Contractor-owned (or non-Subcontractor-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

28.2.8 Reasonable rental costs of non-Contractor-owned (or non-Subcontractor-owned, as applicable) necessary plant and equipment other than Small Tools, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: (.035) x (HP rating) x (Fuel cost/gallon). In lieu of renting, the City reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

28.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the City for the performance of the Extra Work which is different than the types of insurance required by Article 23 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

28.2.10 Additional costs incurred as a result of the Extra Work for performance and payment bonds; plus

28.2.11 Twelve percent (12%) percent of the total of items in Articles 28.2.1 through 28.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by this Agreement other than Workers' Compensation Insurance; plus

28.2.12 Ten (10%) percent of the total of items in Articles 28.2.1 through 28.2.5, plus the items in Article 28.2.11, as compensation for profit, except that no percentage for profit will be allowed on Payroll Taxes or on the premium portion of overtime pay or on sales and personal property taxes; plus

28.2.13 Five (5%) percent of the total of items in Articles 28.2.6 through 28.2.10 as compensation for overhead and profit.

28.3 Where the Extra Work is performed in whole or in part by other than the Subcontractor's own forces, the Subcontractor shall be paid, subject to audit by the Engineering Audit Officer, the cost of such Work computed in accordance with Article 28.2 above, plus an additional allowance of five (5%) percent to cover the Subcontractor's overhead and profit.

28.4 Where a change is ordered, involving both Extra Work and omitted or reduced subcontract Work, the subcontract price shall be adjusted, subject to audit by the EAO, in an amount based on the difference between the cost of such Extra Work and of the omitted or reduced Work. The cost of such Extra Work and of such omitted or reduced Work shall be computed based upon applicable subcontract unit prices. Where there are no applicable subcontract unit prices, the cost of such Extra Work and of such omitted or reduced subcontract Work shall be computed in accordance with the Articles 28.2.1 through 28.2.7. If the cost of such Extra Work exceeds the costs of such omitted or reduced subcontract Work, the subcontract price shall be increased by the difference, plus percentages for overhead and profit as provided in Articles 28.2.8 and 28.2.9. If the cost of the omitted or reduced subcontract Work exceeds the cost of the Extra Work, then the subcontract price shall be reduced by the difference.

28.5 Where the Contractor and the Commissioner can agree upon another method of payment for Extra Work in accordance with Article 26.2, or for Extra Work ordered in connection with omitted work, such method, subject to audit by the EAO, may, at the option of the Commissioner, be substituted for the cost plus a percentage method; provided in Article 28.2; provided, however, that if the Extra Work is performed by a sub-subcontractor engaged by a Subcontractor, the Subcontractor shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such sub-subcontractor's Work as computed in accordance with Article 28.2.

28.6 Unless the parties agree on a lump sum payment for Extra Work, requests for payment for Extra Work performed by construction Subcontractors shall be accompanied by signed time sheets, documenting by date the actual hours worked by specific personnel for whom payment is requested, and any other data as may be requested by the Commissioner.

28.7 The Contractor shall not be entitled to any mark-up whatsoever on payments for Extra Work ordered pursuant to Article 26 hereof performed by Subcontractors.

ARTICLE 29 - RESOLUTION OF DISPUTES

1. All disputes between the City and the Contractor of the kind delineated in this Article that arise under, or by virtue of, this Contract shall be finally resolved in accordance with the provisions of this article and the PPB Rules. This procedure for resolving disputes of the kind delineated herein shall be the exclusive means of resolving such disputes.

(a) This Article shall not apply to disputes concerning matters dealt with in other sections of the PPB Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

(b) This Article shall apply only to disputes about the scope of work delineated by the Contract, the interpretation of Contract documents, the amount to be paid for extra work or disputed work performed in connection with the Contract, the conformity of the Contractor's work to the Contract, and the acceptability and quality of the Contractor's work; such disputes arise when the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner makes a determination with which the Contractor disagrees.

2. All determinations required by this Article shall be made in writing, clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article shall be deemed a non-determination without prejudice that will allow application to the next level.

3. During such time as any dispute is being presented, heard, and considered pursuant to this Article, the Contract terms shall remain in force and effect and the Contractor shall continue to perform Work as directed by the ACCO or the Engineer. Failure of the Contractor to continue Work as directed shall constitute a waiver by the Contractor of its claim.

4. Presentation of Dispute to Commissioner.

(a) Notice of Dispute and Agency Response. The Contractor shall present its dispute in writing ("Notice of Dispute") to the Commissioner within thirty (30) days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the Contract. The Notice of Dispute

shall include all the facts, evidence, documents, or other basis upon which the Contractor relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the Contractor in the dispute was arrived at. Within thirty (30) days after receipt of the detailed written submission comprising the complete Notice of Dispute, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, shall submit to the Commissioner all materials he or she deems pertinent to the dispute. Following initial submissions to the Commissioner, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the Commissioner shall be final. Willful failure of the Contractor to produce any requested material whose relevancy the Contractor has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the Contractor of its claim.

(b) Commissioner Inquiry. The Commissioner shall examine the material and may, in his or her discretion, convene an informal conference with the Contractor, the ACCO, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, to resolve the issue by mutual consent prior to reaching a determination. The Commissioner may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The Commissioner's ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the Commissioner participated therein. The Commissioner may or, at the request of any party to the dispute, shall compel the participation of any other contractor with a contract related to the work of this Contract and that contractor shall be bound by the decision of the Commissioner. Any contractor thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article as the Contractor initiating the dispute.

(c) Commissioner Determination. Within thirty (30) days after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the Commissioner shall make his or her determination and shall deliver or send a copy of such determination to the Contractor, the ACCO and the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, as applicable, together with a statement concerning how the decision may be appealed.

(d) Finality of Commissioner Decision. The Commissioner's decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board ("CDRB") pursuant to this Article. The City may not take a petition to the CDRB. However, should the Contractor take such a petition, the City may seek, and the CDRB may render, a determination less favorable to the Contractor and more favorable to the City than the decision of the Commissioner.

5. Presentation of Dispute to the Comptroller. Before any dispute may be brought by Contractor to the CDRB, the Contractor must first present its claim to the Comptroller for his or her review, investigation, and possible adjustment.

(a) Time, Form, and Content of Notice. Within thirty (30) days of receipt of a decision by the Commissioner, the Contractor shall submit to the Comptroller and to the Commissioner a Notice of Claim regarding its dispute with the Agency. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the Contractor contends the dispute was wrongly decided by the Commissioner; (ii) a copy of the decision of the Commissioner, and (iii) a copy of all materials submitted by the Contractor to the Agency, including the Notice of Dispute. The Contractor may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.

(b) Agency Response. Within thirty (30) days of receipt of the Notice of Claim, the Agency shall make available to the Comptroller a copy of all material submitted by the Agency to the Commissioner in connection with the dispute. The Agency may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.

(c) Comptroller Investigation. The Comptroller may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in sections 7-201 and 7-203 of the New York City Administrative Code. In addition, the Comptroller may demand of either party, and such party shall provide, whatever additional material the Comptroller deems pertinent to the claim, including original business records of the Contractor. Willful failure of the Contractor to produce within fifteen (15) days any material requested by the Comptroller shall constitute a waiver by the Contractor of its claim. The Comptroller may also schedule an informal conference to be attended by the Contractor, Agency representatives, and any other personnel desired by the Comptroller.

(d) Opportunity of Comptroller to Compromise or Adjust Claim. The Comptroller shall have forty-five (45) days from his or her receipt of all materials referred to in 5(c) to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the Contractor and the Comptroller, to a maximum of ninety (90) days from the Comptroller's receipt of all the materials. The Contractor may not present its petition to the CDRB until the period for investigation and compromise delineated in this paragraph has expired. In compromising or adjusting any claim hereunder, the Comptroller may not revise or disregard the terms of the contract between the parties.

6. Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

(a) The chief administrative law judge of the Office of Administrative Trials and Hearings ("OATH") or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this section as may be necessary in the execution of the CDRB's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

(b) The City Chief Procurement Officer ("CCPO") or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated, and

(c) A person with appropriate expertise who is not an employee of the City. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH, with appropriate

background to act as decision-makers in a dispute. Such individuals may not have a contract or dispute with the City or be an officer or employee of any company or organization that does, or regularly represent persons, companies, or organizations having disputes with the City.

7. Petition to CDRB. In the event the claim has not been settled or adjusted by the Comptroller within the period provided in this section, the Contractor, within thirty (30) days thereafter, may petition the CDRB to review the Commissioner's determination.

(a) Form and Content of Petition by Contractor. The Contractor shall present its dispute to the CDRB in the form of a Petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the Contractor contends that the dispute was wrongly decided by the Commissioner; (ii) a copy of the written decision of the Commissioner; (iii) copies of all materials submitted by the Contractor to the Agency; (iv) a copy of the written decision of the Comptroller, if any, and (v) copies of all correspondence with, and material submitted by the Contractor to, the Comptroller's Office. The Contractor shall concurrently submit four complete sets of the Petition: one to the Corporation Counsel (Attn: Commercial and Real Estate Litigation Division), and three to the CDRB at OATH's offices, with proof of service on the Corporation Counsel. In addition, the Contractor shall submit a copy of the statement of the substance of the dispute, cited in (i) above, to both the Commissioner and the Comptroller.

(b) Agency Response. Within thirty (30) days of receipt of the Petition by the Corporation Counsel, the Agency shall respond to the statement of the Contractor and make available to the CDRB all material it submitted to the Commissioner and Comptroller. Three complete copies of the Agency response shall be submitted to the CDRB at OATH's offices and one to the Contractor. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon the consent of the parties, for an initial period of up to thirty (30) days.

(c) Further Proceedings. The CDRB shall permit the Contractor to present its case by submission of memoranda, briefs, and oral argument. The CDRB shall also permit the Agency to present its case in response to the Contractor by submission of memoranda, briefs, and oral argument. If requested by the Corporation Counsel, the Comptroller shall provide reasonable assistance in the preparation of the Agency's case. Neither the Contractor nor the Agency may support its case with any documentation or other material that was not considered by the Comptroller, unless requested by the CDRB. The CDRB, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The CDRB, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

(d) CDRB Determination. Within forty-five (45) days of the conclusion of all submissions and oral arguments, the CDRB shall render a written decision resolving the dispute. In an unusually complex case, the CDRB may render its decision in a longer period of time, not to exceed ninety (90) days, and shall so advise the parties at the commencement of this period. The CDRB's decision must be consistent with the terms of the Contract. Decisions of the CDRB shall only resolve matters before the CDRB and shall not have precedential effect with respect to matters not before the CDRB.

(e) Notification of CDRB Decision. The CDRB shall send a copy of its decision to the Contractor, the ACCO, the Engineer, the Comptroller, the Corporation Counsel, the Comptroller, the CCPO, and the PPB. A decision in favor of the Contractor shall be subject to the prompt payment provisions of the PPB Rules. The Required Payment Date shall be thirty (30) days after the date the parties are formally notified of the CDRB's decision.

(f) Finality of CDRB Decision. The CDRB's decision shall be final and binding on all parties. Any party may seek review of the CDRB's decision solely in the form of a challenge, filed within four months of the date of the CDRB's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the CDRB's decision was made in violation of lawful procedure, was affected by an error of law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the CDRB in accordance with this Article.

8. Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article shall not affect or impair the ability of the Commissioner or the CDRB to make a binding and final decision pursuant to this Article.

ARTICLE 30 – RECORD KEEPING FOR EXTRA OR DISPUTED WORK

30.1 While the Contractor or any of its Subcontractors is performing Extra Work on a Time and Material Basis ordered by the Commissioner under Article 28, or is performing disputed Work, or complying with a determination or order under protest in accordance with Article 29 hereof, in each such case the Contractor shall furnish the Commissioner's Representative daily with three (3) copies of written statements signed by the Contractor's representative at the Site showing:

30.1.1 The name and number of each Worker employed on such Work or engaged in complying with such determination or order, the number of hours employed, and the character of the Work each is doing; and

30.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such Work or compliance with such determination or order, and from whom purchased or rented.

30.2 A copy of such statement will be countersigned by the Commissioner's Representative, noting thereon any items not agreed to or questioned, and will be returned to the Contractor within two (2) calendar days after submission.

30.3 The Contractor and its Subcontractors, when required by the Commissioner, or the Comptroller, shall also produce for inspection,

at the office of the Contractor or Subcontractor, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and canceled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such Work, or in complying with such determination or order, and the amounts expended therefor, and shall permit the Commissioner and the Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

30.4 In connection with the examination provided for herein, the Commissioner, upon demand therefor, will produce for inspection by the Contractor such records as the Agency may have with respect to such Extra or disputed Work performed under protest pursuant to order of the Commissioner, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the Contractor's claim.

30.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such Work or compliance with such determination or order.

ARTICLE 31 - OMITTED WORK

31.1 If any Work in a lump sum subcontract, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid subcontract is omitted by the Commissioner pursuant to Article 33, the subcontract price, subject to audit by the Engineering Audit Officer, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of Work omitted, subject to Article 31.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 42 shall be considered, but shall not be the determining factor.

31.2 If the whole of a lump sum item or units of any other item is so omitted by the Commissioner in a unit price, lump sum, or percentage-bid subcontract, then no payment will be made therefore, except as provided in Article 31.4.

31.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of Work omitted, subject to Article 31.4.

31.4 In the event the Subcontractor, with respect to any omitted Work, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of the subcontract and has been specifically fabricated for the sole purpose of the subcontract, but not yet incorporated into the Work, the Subcontractor shall be paid for such material and/or equipment, as set forth below; provided, however, such payment is contingent upon the Subcontractor’s delivery of such material and/or equipment in acceptable condition to a location designated by the City.

31.4.1 Payment for such material and/or equipment shall be in accordance with Article 28, subject to the following modification. For the purpose of payment hereunder, the percentage for overhead and profit set forth in Article 28.2.11 shall be reduced from twenty (12%) percent to five (5%) percent.

31.5 The Contractor and its Subcontractors agree to make no claim for damages or for loss of overhead and profit with regard to any omitted Work.

ARTICLE 32 - THE COMMISSIONER'S REPRESENTATIVE

32.1 The Commissioner's Representative shall be the representative of the Commissioner, and subject to review by the Commissioner, shall have the power, in the first instance, to inspect the performance of the Work and exercise such other authority as the Commissioner may delegate. He shall not however, have the power to issue an Extra Work order, except as specifically designated in writing by the Commissioner.

ARTICLE 33 - THE COMMISSIONER

33.1 The Commissioner, in addition to those matters elsewhere herein expressly made subject to his determination, direction or approval, shall have the power: (a) to review and determine any and all questions in relation to this Agreement and its performance; and (b) to modify or change this Agreement so as to require: (i) the performance of Extra Work (subject, however, to the limitations specified in Article 26 hereof); or (ii) the omission of Work whenever he deems it in the interest of the City to do so; or both; and (c) to postpone, delay, suspend or terminate the whole or any part of the Work, whenever in his judgment such action is required in the interest of the City.

ARTICLE 34 - NO ESTOPPEL

34.1 Neither the City nor any department, officer, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this Agreement by the City, the Commissioner, the Commissioner's Representative, or any other officer, agent or employee of the City, either before or after the final completion and acceptance of the Work and payment therefor:

34.1.1 from showing the true and correct classification, amount, quality or character of the Work actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the Work or any part thereof does not in fact conform to the requirements of this Agreement; and

34.1.2 from demanding and recovering from the Contractor any overpayments made to him, or such damages as it may sustain by reason of his failure to perform each and every part of his Agreement in strict accordance with its items, or both.

ARTICLE 35 - EMPLOYEES

35.1 The Contractor and its Subcontractors and Consultants shall not employ on the Work:

35.1.1 anyone who is not competent, faithful and skilled in the Work for which he shall be employed; and whenever the Commissioner shall inform the Contractor, in writing, that any employee is, in his opinion, incompetent, unfaithful or disobedient, he shall be discharged from the Work forthwith, and shall not again be employed upon it; or

35.1.2 any labor, materials or means whose employment, or utilization during the course of this Agreement, may tend to or in any way cause or result in strikes, Work stoppages, delays, suspension of Work or similar troubles by workers employed by the Contractor or his Subcontractors, or by any of the trades working in or about the buildings and premises where Work is being performed under this Agreement, or by other contractors or their Subcontractors pursuant to other contracts, or on any other building or premises owned or operated by the City of New York, its agencies, departments, boards or authorities. Any violation by the Contractor of this requirement may, upon certification of the Commissioner, be considered as proper and sufficient cause for terminating the Contractor for cause and taking such action as set forth in Article 46 hereof, or such other action as the Commissioner may deem proper; or

35.1.3 in accordance with Section 220.3.e of the New York State Labor Law, any apprentice, unless he is registered individually, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the Contractor as to his Work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above shall be paid the wage rate determined by the Comptroller of the City of New York for the classification of Work being actually performed. The Contractor or Subcontractor will be required to furnish written evidence of the registration of his program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the Contract Work.

35.2 If the total cost of the Work under this Contract is at least two hundred fifty thousand dollars, all laborers, workers, and mechanics employed in the performance of the Contract on the work site, either by the Contractor, Subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be certified prior to performing any Work as having successfully completed a course in construction safety and health approved by the United States department of labor's occupational safety and health administration that is at least ten hours in duration.

ARTICLE 36 - NO DISCRIMINATION

36.1 As required by New York State Labor Law Section 220.e, it is agreed between the parties hereto as follows:

36.1.1 That in the hiring of employees for the performance of Work under this Agreement or any subcontract hereunder, neither the Contractor, Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the Work to which the employment relates;

36.1.2 That neither the Contractor, Subcontractor, nor any person on his behalf shall, in any manner discriminate against or intimidate any employee hired for the performance of Work under this Agreement on account of race, creed, color or national origin;

36.1.3 That there may be deducted from the amount payable to the Contractor by the City under this Agreement a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this Agreement; and

36.1.4 That this Agreement may be canceled or terminated by the City and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the Agreement.

36.1.5 The aforesaid provisions of this section covering every contract for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

36.2 As required by New York City Administrative Code Section 6-108:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of building or engaged in the construction or repair of streets or highways pursuant to a contract with the City or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a contract with the City to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in subdivision 36.2.1 above, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person

employed or seeking employment from such person, firm or corporation.

36.2.3 Disobedience of the foregoing provisions shall be deemed a violation of a material provision of this Agreement.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this section shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars or by imprisonment for not more than thirty days, or both.

ARTICLE 37 - EQUAL EMPLOYMENT OPPORTUNITY

37.1 This Contract is subject to the requirements of Executive Order No. 50 (1980) as revised ("E.O. 50") and the Rules and Regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this contract, the Contractor agrees that:

37.1.1 The Contractor will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship status with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment;

37.1.2 When it subcontracts, the Contractor will not engage in any unlawful discrimination in the selection of Subcontractors on the basis of the owners', partners' or shareholders' race, color, creed, national origin, sex, age, disability, marital status, sexual orientation or citizenship status;

37.1.3 The Contractor will state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship, or that it is an equal employment opportunity employer;

37.1.4 The Contractor will send to each labor organization or representative or workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E. O. 50 and the rules and regulations promulgated thereunder; and

37.1.5 The Contractor will furnish all information and reports including an Employment Report before the award of the contract which are required by E. O. 50, the rules and regulations promulgated thereunder, and orders of the Director of the Office of Labor Services ("DLS"), and will permit access to its books, records and accounts by DLS for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

37.2 The Contractor understands that in the event of its noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of the contract and noncompliance with the E. O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of DLS, the Director of DLS may direct the imposition by the Commissioner of any or all of the following sanctions:

37.2.1 disapproval of the Contractor;
37.2.2 suspension or termination of the contract;
37.2.3 declaring the Contractor in default; or
37.2.4 in lieu of any of the foregoing sanctions, the Director may impose an employment program.

The Director of the DLS may recommend to the Department head that a Board of Responsibility be convened for purposes of declaring a contractor who has repeatedly failed to comply with E.O. 50 and the rules and regulations promulgated thereunder to be non-responsible.

37.3 The Contractor agrees to include the provisions of the foregoing paragraphs in every subcontract in the amount of $10,000 or more to which it becomes a party, unless exempted by E. O. 50 and the rules and regulations promulgated thereunder, so that such provisions will be binding upon each Subcontractor. The Contractor will take such action with respect to any subcontract as may be directed by the Director of DLS as a means of enforcing such provisions, including sanctions for noncompliance.

37.4 The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to E. O. 50 and the rules and regulations promulgated thereunder with a Subcontractor who is not in compliance with the requirements of E. O. 50 and the rules and regulations promulgated thereunder.

ARTICLE 38. LABOR LAW REQUIREMENTS

Labor Law Compliance: The Contractor shall take appropriate action to ensure compliance by its Subcontractors with the Labor Law.

Subcontracts: The Contractor shall include the provisions of this Article 38 set forth below in all subcontracts for construction Work for the Project.

LABOR LAW REQUIREMENTS

38.1 Minimum Wages: All persons employed by the Contractor and any Subcontractor in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this Contract, shall be paid, without subsequent deduction or rebate unless expressly authorized by Law, not less than the sum mandated by Law. Minimum wages shall be the rates fixed by Federal and State Law. The Contractor shall maintain employment and payroll records that comply with the requirements of the Fair Labor Standards Act.

38.2 Working Conditions: No part of the Work, labor or services shall be performed or rendered by the Contractor in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this Contract. Compliance with the safety, sanitary and factory inspection Laws of the state in which the Work is to be performed shall be prima facie evidence of compliance with this article.

38.3 For any breach or violation of either Working Conditions (Article 38.2) and Minimum Wages (Article 38.1), the party responsible therefore shall be liable to the City for liquidated damages, which may be withheld from any amounts due on any Contracts with the City of such party responsible, or may be recovered in suits brought by the Corporation Counsel in the name of the City, in addition to damage for any other breach of this Contract, a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this Contract. In addition, the Commissioner shall have the right to cancel Contracts and enter into other Contracts for the completion of the original Contract, with or without public letting, and the original Contractor shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the Commissioner directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the Contractor of the withholding or recovery of such sums by the City.

38.4 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this Contract, and grounds for cancellation thereof by the City.

38.5 The Contractor shall provide laminated identification badges which indicate the worker's, laborer's or mechanic's name, trade, employer's name and employment starting date (month/day/year). The Contractor shall require as a condition of employment on the Site, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the City and Homeowner during the performance of the Work.

38.6 Should a harmful dust hazard be created in performing the Work of this Contract, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this Contract voidable in the sole discretion of the City.

ARTICLE 39 - PAYROLL REPORTS

Compliance: The Contractor shall take appropriate action to ensure compliance by its Subcontractors with the payroll requirements set forth herein.

Subcontracts: The Contractor shall include the provisions of this Article 39 set forth below in all subcontracts for construction Work for the Project.

PAYROLL REPORTS

39.1 The Contractor shall maintain on the Site the original payrolls or transcripts thereof. The Contractor and Subcontractor(s) shall submit original payrolls or transcripts, subscribed and affirmed by it as true, with each and every payment requisition. The Contractor and Subcontractor(s) shall produce within five (5) calendar days on the Site of the Work and upon a written order of the Commissioner, Commissioner’s Representative, the ACCO, the Agency EAO, or the Comptroller, such original payrolls or transcripts thereof, subscribed and affirmed by it as true, and the statements signed by each worker pursuant to this Contract. In addition, the Contractor and Subcontractor(s) shall furnish to the Commissioner’s Representative upon written demand any other information to satisfy the Commissioner’s Representative that this Contract and the Labor Law, as to the hours of employment and rates of wages, are being observed. The Contractor shall maintain the payrolls or transcripts thereof for six (6) years from the date of completion of the Work on this Contract.

39.2 When directed by the Commissioner’s Representative, the Contractor or Subcontractor shall provide an attendance sheet for each Day on which Work is performed on the Site. Such attendance sheet shall be in a form acceptable to the Agency and shall provide information for employees of the Contractor and Subcontractor(s).

ARTICLE 40 - DUST HAZARDS

40.1 Should a harmful dust hazard be created in performing the Work of this Agreement, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the State of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this Agreement void.

ARTICLE 41 - NOISE CONTROL CODE PROVISIONS

41.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the City ("Administrative Code"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this Contract and which are subject to the provisions of the City Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the Commissioner of the Department of Environmental Protection.

41.2 The Contractor agrees to comply with Section 24-219 of the Administrative Code of the City ("Administrative Code") and implementing rules codified at 15 Rules of the City of New York ("RCNY") Section 28-100 et. seq. In accordance with such provisions, the Contractor, if the Contractor is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each work Site, in which the Contractor shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the Contractor cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the New York City Department of Environmental Protection. In addition, the Contractor's certified Construction Noise Mitigation Plan is subject inspection by the Department of Environmental Protection in accordance with 15 RCNY §28-101. No Contract work may take place at a work Site unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the Contractor shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

ARTICLE 42 - PAYMENT TERMS AND CONDITIONS

42.1 General

42.1.1 Total Payments: Total payments for all Work performed and all expenses incurred pursuant to this Agreement shall not exceed the amount set forth in Exhibit A.

42.1.2 Executory Only: This Agreement shall be deemed executory only to the extent of the moneys appropriated and available for the purpose of the Agreement and no liability or account thereof shall be incurred beyond the amount of such moneys. It is therefore understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available moneys for the purpose of this Agreement.

42.1.3 Not Used

42.1.4 Not Used

This is not a fixed price lump sum contract. No fee or Payments will be earned or paid for any period of time after Final Completion. Payments will be made in a combination of milestone payment, fee for services payment, hourly rates, and incentive/damage payment.

The terms and conditions applicable to payment for all required services for the Project are set forth in Article 42 of the attached contract and in Article 25 and 26 as applicable. Such payment categories directly correspond to Tasks identified in the Scope of Work and are identified below:
:

42.2 Professional Services

- 42.2.1
- Task A Construction Management Services and Task C Construction Procurement Services:
    - Base Fee (Annual Cost of professional staffing): monthly payment according to one twelfth of the amount in the final negotiated Fee Proposal
    - Set Up of Project Office (mobilization and demobilization): lump sum payment of the amount in the final negotiated Fee Proposal
    - Operation of the Project Office: monthly payment according to one sixtieth of the lump sum total set forth in the fee
    - Fee for Profit in increments of 20 homes per pathway: milestone payment. 25% of the Fee for Profit upon being issued a work order identifying a project; 50% of the Fee for Profit upon executing the contract with the PQL contractors to start construction; and 25% of the Fee for Profit upon close out of a project and handover to all the home owners in the project

- 42.2 2
- Task B Scoping and Design Services
    - Scoping and Design Services: milestone payment based on the Unit Price per home for three different pathways set forth in the final negotiated Fee Proposal. 10% payable upon completion of Scoping and cost estimate; 30% payable upon completion of preliminary design; 50% payable upon completion of final design including bid document; and 40% for construction services payable upon completion of construction. CMs shall not invoice the City more than once a month
    - Additional A&E Services: monthly payment based on the hourly rates set forth in the final negotiated Fee Proposal

- 42.2.3
- Task C Construction Services
    - The CM shall be paid the price of the award given to the construction contractor. The milestone payments shall be 10% of the awarded dollar amount upon execution of the construction contract; 50% of the awarded dollar amount upon 50% of completion of the work; and 40% of the awarded dollar amount upon Substantial Completion

- 42.2.4 Task D Emergency Work
    - Should critical life safety issues arise as described in Section III Task D, emergency work shall be treated as change orders under Article 26 and 28 of the attached contract. For units requiring emergency work where a project has already been bid and awarded, the PQL contractor shall be required to do the emergency work. For units requiring emergency work where a project has not been bid, the CM will be required to bid the work to at least three contractors off the appropriate PQL lists

DDC will award completion incentives based upon the Contractor's successful completion of design and construction of large volumes of homes within the contract schedule and within the accelerated schedule as detailed in the Fee Schedule.

The Contractor will be required to submit invoices on a monthly base with a breakdown by each home identified by the application number and borough, block and lot number. These invoices will identify the names and titles of the Contractor, Consultant, Subcontractor,, hourly rate, and number of hours per pay period. Invoices for services will be accepted once every 30 days. See Appendix 7 for Sample Invoice.

Payments will be made to the Contractors in accordance with the Prompt Payment provisions of the New York City Procurement Policy Board Rules.

42.3 NOT USED

42.4 Construction/

42.4.1 . Construction Work shall include all required Work for the types of Projects described in Exhibit A.

42.4.2 The total amount to be paid for ConstructionWork shall not exceed the cumulative total of the amounts for which subcontracts for Work for the Project are awarded and the amounts of any change orders to such subcontracts. No amounts shall be for Construction Work, unless the Commissioner has given prior written approval to the amount of award of the subcontract and the amount of any change orders thereto.

42.4.3 Bid Breakdown of Subcontract Price: Upon commencement of construction Work, the Contractor shall submit a bid breakdown of costs on a per subcontract basis, and any other information as may be required by the Commissioner. This breakdown shall be used for checking the Contractor's requests for partial payment for Work performed by Subcontractors and shall not be binding on the Commissioner for any purpose whatsoever.

42.4.4 Partial Payments: Partial payments to the Contractor for Work performed by Subcontractors shall be on the basis of and in proportion to the percentage of completion of all Work required under the subcontract, as determined by the Commissioner.

(a) With respect to Work, partial payments may be made for materials, fixtures and equipment in advance of their actual incorporation in the work, subject to approval by the Commissioner and compliance with the requirements set forth in Exhibit D.

42.4.5 Substantial Completion Requisition: Upon written determination by the Commissioner that the Work of a subcontract is substantially complete, the Contractor shall submit a requisition for a Substantial Completion payment for that subcontract. The Contractor must submit the following with such requisition:

(a) Final verified statement of any and all alleged claims against the City, and any pending dispute resolution procedures in accord with the PPB Rules and this Contract, in any way connected with or arising out of this Contract (including those as to which details may have been furnished pursuant to Articles 17, 29 and 30 hereof). With respect to each such claim, the

Contractor shall set forth the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the Contractor claims the performance of the Work or a particular part thereof, was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the Commissioner and the Comptroller shall have the same right to inspect, and to make extracts or copies of, books, vouchers, records, etc., of the Contractor or the Subcontractor, as referred to in Articles 17, 29 and 30 hereof. Nothing contained in this Article is intended to or shall relieve the Contractor from the obligation of giving timely notice of claims pursuant to Articles 17, 29 and 30 hereof. The Contractor is warned that unless such claims are completely set forth as herein required, the Contractor, upon acceptance of the Substantial Completion payment pursuant to this Article, will have waived any such claims arising out of the Work for which payment is requested.

(b) Final written complete punch list and a date for completion of all required Work. The punch list and completion date are subject to the written acceptance of the Commissioner.

(c) If required, a request for a substantial or final extension of time.

42.4.6 Substantial Completion Payment: The Commissioner shall issue a voucher calling for payment to the Contractor of any part or all of the balance due for subcontracted Work for which payment is requested, including moneys retained hereunder, less any and all deductions authorized to be made by the Commissioner, under this Contract or by law, and less twice the amount the Commissioner considers necessary to ensure the completion of the balance of the Work of the subcontract. No further partial payments shall be made to the Contractor after the Commissioner determines that the subcontracted Work is substantially complete, except the Substantial Completion payment and any requisitions for partial payment that were properly filed with the Commissioner prior to the date of Substantial Completion; provided, however, the Commissioner may grant a waiver for further partial payments after the date of Substantial Completion to permit payments for change order work. Such waiver shall be in writing.

42.4.7 Final Payment: After Final Acceptance by the Commissioner of the subcontracted Work, the Contractor shall submit all required certificates and documents, together with a requisition for the balance claimed to be due, less the amount authorized to be retained for maintenance under Article 25 hereof. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the Commissioner.

42.4.8 Requisition for Final Payment: The Contractor must also submit with the final requisition for Work performed any amendments to the final verified statement of any and all alleged claims against the City, and any pending dispute resolution procedures in accord with the PPB Rules and this Contract, in any way connected with or arising out of the Work performed for which payment is requested (including those as to which details may have been furnished pursuant to Articles 17, 29 and 30 hereof) that have occurred subsequent to Substantial Completion, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item. With reference to each permissible claim, the Commissioner and the Comptroller shall have the same right to inspect, and to make extracts or copies of, the books, vouchers, records, etc., of the Contractor or Subcontractor, as referred to in Articles 17, 29 and 30 hereof. Nothing contained in this Article, is intended to or shall relieve the Contractor from the obligation of giving timely notice of claims pursuant to Articles 17, 29 and 30 hereof. The Contractor is warned that unless such claims are completely set forth as herein required, the Contractor upon acceptance of the final payment, pursuant to Article 44 hereof, will have waived any such claims arising out of the Work performed for which payment is requested.

42.4.9 Voucher for Final Payment: Upon determining the balance due for subcontracted Work for which payment is requested, other than on account of claims, the Commissioner's Representative will prepare and certify, and the Commissioner will approve, a voucher for final payment in that amount less any and all deductions authorized to be made by the Commissioner under Contract or by law. Such voucher shall thereupon be filed with the Comptroller and a copy thereof delivered to the Contractor. The Commissioner shall certify the voucher for final payment for subcontracted Work for which payment is requested following completion and acceptance of the work, provided all requests for extensions of time have been acted upon, if required. Payment pursuant to such final voucher, less any deductions authorized to be made by the Commissioner under Contract or by law, shall constitute final payment in accordance with Article 44 hereof.

42.4.10 No Mark-Up: The Contractor shall not be entitled to any mark-up whatsoever on payments for subcontracted Work performed by Subcontractors.

42.5 Miscellaneous Expenses

42.5.1 The Contractor shall be reimbursed for expenses actually incurred in the procurement of miscellaneous items in accordance with the terms and conditions set forth below.

(a) No miscellaneous expenses shall be incurred by the Contractor, or reimbursed unless expressly authorized in a written directive from the Commissioner. For miscellaneous expenses in excess of $150, such written authorization must be provided in advance of the expenditure.

(b) In the event the Contractor is directed to purchase any item(s) pursuant to this allowance, such item(s) shall, unless otherwise directed by the Commissioner, be the sole property of the City or the Homeowner upon delivery to the designated location. Upon completion of the required work, as directed by the Commissioner, the Contractor shall turn such item(s) over to the City.

(c) With respect to miscellaneous expenses, the Contractor shall utilize the method of procurement and form of payment directed by the Commissioner.

(d) Reimbursement for miscellaneous expenses shall be the actual and reasonable cost of the same, with no mark-up for the Contractor's overhead and profit. Requests for reimbursement for miscellaneous expenses shall be accompanied by receipted bills or any other data required by the Commissioner.

(e) Reimbursement for long distance travel expenses, as set forth in Article 11, shall be in accordance with the normal travel allowances of the City of New York for its own employees as provided in Comptroller's "Directive #6, Travel, Meals, Lodging and Miscellaneous Agency Expenses." The Contractor shall not be entitled to any mark-up with respect to long distance travel expenses. Requests for reimbursement for long distance travel expenses shall be accompanied by receipted bills or any other data required by the Commissioner.

(f) Miscellaneous items shall be those items determined by the Commissioner to be necessary for the Project and shall include without limitation the items set forth below.

(1) equipment specified by DDC
(2) Printing of monthly reports, as well as bid and contract documents for subcontracts for required construction work
(3) express mail postage, except as otherwise provided in Article 11
(4) Builder's Risk Insurance for the Project, if directed by the Commissioner
(5) Long distance travel, as set forth in Article 11

42.6 NOT USED

42.7 Requisitions for Payment

42.7.1 Requisitions for payment may be submitted as the work progresses, but not more often than once a month. Requisitions shall be in the authorized form and shall set forth the services performed by the Contractor and the total amount of partial payment requested. The total amount of partial payment requested shall be broken down into the following categories, to the extent each respective category applies to the payment period: identifying the housing units, by lot and block, on which Work was performed and for which payment is requested (1) Construction Services; (2) Staffing Expenses; (3) Miscellaneous Expenses, and (4) Additional Services. The Contractor shall submit one (1) original and two (2) copies of each requisition for payment. Requisitions for payment shall be accompanied by the documentation set forth below.

(a) Project Progress Report: The Contractor shall submit a current report indicating (1) the percentage of completion of all required services for the Project, and (2) the Work the Contractor was directed to provide during the payment period.

(b) Construction/ Work: For payment for construction and/or remediation Work, the Contractor shall submit the documentation set forth below:

(1) Current report indicating: (1) the name and type of Work performed by each first tier Subcontractor, and (2) the percentage of completion of all required Work under that subcontract. A first tier Subcontractor shall mean a Subcontractor directly engaged by the Contractor.
(2) Certified copies of payroll reports for all Subcontractors of whatever tier which have performed Work for the Project.

(d) Miscellaneous Expenses or Additional Services: For payment for miscellaneous expenses or additional Work, the Contractor shall submit the documentation set forth below:

(1) Description of the miscellaneous expenses or additional Work the Contractor was directed to provide.
(2) If payment is on a lump sum basis, a report on the progress of the Work, indicating the percentage of completion of all required Work.
(3) If payment is on a unit price basis, a report indicating the number of completed units.
(4) If payment is based on actual cost, receipted bills or any other data required by the Commissioner.

42.7.2 All payments hereunder are contingent upon the Contractor's satisfactory performance of the required Work. The Commissioner is authorized to make deductions for any Work performed hereunder which he/she determines to be unsatisfactory.

42.7.3 Following the receipt of a satisfactory requisition for payment, the Commissioner's Representative will prepare, and the Commissioner will approve, a voucher in the amount certified for partial payment, less any and all deductions authorized to be made by the Commissioner under any terms of this Agreement or by law. This voucher will thereupon by filed with the Comptroller, with a copy thereof available to the Contractor if requested.

42.8 Electronic Funds Transfer: In accordance with Section 6-107.1 of the New York City Administrative Code, the Contractor agrees to accept payments under this Agreement from the City by electronic funds transfer. An electronic funds transfer is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this Agreement, the Contractor shall designate one financial institution or other authorized payment agent and shall complete the "EFT Vendor Payment Enrollment Form" (available at http://www.nyc.gov/dof) in order to provide the

Commissioner of Finance with information necessary for the Contractor to receive electronic funds transfer payments through the designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the Contractor shall constitute full satisfaction by the City for the amount of the payment under this agreement. The account information supplied by the Contractor to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by law.

42.8.1 The agency head may waive the application of the requirements herein to payments on contracts entered into pursuant to §315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the contracting agency may waive the requirements hereunder for payments in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 43 - PROMPT PAYMENT

43.1 The Prompt Payment provisions of the Procurement Policy Board ("PPB") Rules in effect at the time of the solicitation for this Contract shall be applicable to payments hereunder. The provisions require the payment to contractors of interest on payments made after the required payment date, except as otherwise provided in the PPB Rules. The Contractor must submit a proper invoice to receive payment, except where the Contract provides that the Contractor will be paid at predetermined intervals without having to submit an invoice for each scheduled payment. Determination of interest due will be made in accordance with the provisions of the PPB Rules. If the Contractor is paid interest, the proportionate share of that interest shall be forwarded by the Contractor to its Subcontractor(s).

43.2 The Contractor shall pay each Subcontractor (including a materials supplier) not later than seven (7) calendar days after receipt of payment out of amounts paid to the Contractor by the City for work performed by the Subcontractor or supplier under this Contract.

43.3 The Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to make payment to each of its Subcontractors or suppliers for Work performed under this Contract in the same manner and within the same time period set forth above.

43.4 If Contractor fails to make any payment to any Subcontractor or Materialman within seven (7) days after receipt of payment by the City pursuant to section 43.2 herein, then the Contractor shall pay interest on amounts due to such Subcontractor or Materialman at a rate of interest in effect on the date such payment is made by the Contractor computed in accordance with section 756-b (1)(b) of the NY General Business Law. Accrual of interest shall commence on the day immediately following the expiration of the seventh day following receipt of payment to the Contractor by the City and shall end on the date on which payment is made.

ARTICLE 44 - ACCEPTANCE OF FINAL PAYMENT

44.1 The acceptance by the Contractor, or by anyone claiming by or through him, of final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release to the City from any and all claims of and liability to the Contractor, or anyone claiming by or through him, for anything theretofore done or furnished for or relating to or arising out of this Contract and the Work done hereunder, and for any prior act, neglect or default on the part of the City or any of its officers, agents or employees, excepting only a claim against the City for the amounts deducted or retained in accordance with the terms and provisions of this Agreement or by law, and excepting a claim, not otherwise waived, which is contained in the verified statement filed with the Contractor's final requisitions for any work performed hereunder.

44.2 The Contractor is warned that the execution by him of a release, in connection with the acceptance of any final payment hereunder, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article, or those for amounts deducted by the Commissioner from the final requisition or by the Comptroller from the final payment as certified by the Commissioner's Representative and approved by the Commissioner, shall not be effective to reserve such claims, anything stated to the Contractor orally or in writing by any officer, agent or employee of the City to the contrary notwithstanding.

44.3 Should the Contractor refuse to accept any final payment hereunder as tendered by the Comptroller, it shall constitute a waiver of any right to interest thereon.

44.4 The Contractor, however, shall not be barred from commencing an action for breach of contract under this provision, provided that a detailed and verified statement of claim is served upon the Department and Comptroller not later than forty (40) days after the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

44.5 The provisions of this Article 44 shall apply to final payment(s) for work performed pursuant to subcontracts hereunder.

ARTICLE 45 - RIGHTS OF COMMISSIONER TO POSTPONE AND TERMINATE AGREEMENT

45.1 The Commissioner shall have the right, upon ten (10) calendar days prior written notice to the Contractor, to postpone, delay, suspend or terminate all or any portion of the Work to be performed by the Contractor under the Agreement, or any additions thereto or modifications thereof, at any time and for any reason deemed to be in the City's interest. In such event, the Contractor shall be paid such part of the payment items set forth in Article 42 as shall have become due and payable hereunder for the work done by him prior thereto, or for non-cancelable orders for material and/or equipment that is not capable of use except in the performance of this Agreement and has

been specifically fabricated for the sole purpose of this Agreement and not incorporated into the Work, subject to audit by the Department and post-audit by the Comptroller. Such postponement, delay, suspension or termination shall not give rise to any cause of action for damages or extra remuneration against the City other than that provided for herein.

ARTICLE 46 - TERMINATION OF THIS AGREEMENT FOR CAUSE

46.1 If in the sole determination of the Commissioner: (1) the Contractor fails to perform any of the terms, covenants or provisions of this Agreement on its part to be performed, or (2) the Contractor fails to progress with the Work called for under this Agreement in a satisfactory manner, or (3) the conduct of the Contractor is such that the interests of the City are likely to be impaired or prejudiced, or (4) the Contractor shall violate any of the terms, covenants or provisions of this Agreement, then the Commissioner may, upon written notice to the Contractor, immediately terminate this Agreement for cause.

46.2 Upon such termination, the Contractor shall be entitled to payment of such amount, to be determined by the Commissioner, and subject to post-audit by the Comptroller, as shall fairly compensate him for the work satisfactorily performed prior to the termination date; provided, however, that the Commissioner shall deduct from such amount and from any amount due and payable to the Contractor prior to the termination date, but withheld or not paid, the total amount of additional expenses incurred by the City in order satisfactorily to complete the Work required to be performed by the Contractor under this Agreement, including the expense of engaging another Contractor for this purpose. If such additional expense shall exceed the amounts otherwise due and payable to the Contractor hereunder, the Contractor shall pay the City the full amount of such excess incurred by the City.

46.3 The Commissioner's determination upon which the termination of this Agreement for cause is based, as set forth in Article 46.1, shall be conclusive, final and binding on the parties and such a finding shall preclude the Contractor from commencing a plenary action for any damages relating to the Contract. If the Contractor protests the determination of the Commissioner, the Contractor may commence a lawsuit in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 47 - ACTIONS UPON TERMINATION

47.1 In the event of termination with or without cause, the Contractor shall, upon receipt of such notice, take the following actions:

- 47.1.1 Stop Work on the date specified in the notice;
- 47.1.2 Take such action as may be necessary for the protection and preservation of the City's materials and property;
- 47.1.3 Cancel all cancelable orders for material and equipment;
- 47.1.4 Assign to the City and deliver to the Site or any other location designated by the Commissioner, any non-cancelable orders for material and/or equipment that is not capable of use except in the performance of this Agreement and has been specifically fabricated for the sole purpose of this Agreement and not incorporated in the Work;
- 47.1.5 Take no action which will increase the amounts payable by the City under this Agreement.

ARTICLE 48 - CLAIMS AND ACTIONS THEREON

48.1 No claim against the City for damages for breach of contract or compensation for Extra Work shall be made or asserted in any action or proceeding at law or in equity, unless the Contractor shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims all as herein before provided.

48.2 Nor shall any such action or proceeding be instituted or maintained on any such claims unless such action or proceeding be commenced within one year after the date of the filing in the office of the Comptroller of the final payment voucher pursuant to Article 42; except that an action or proceeding on a claim for moneys deducted, retained or withheld under the provisions of this Agreement or by law, must be commenced within one year after the date of final payment hereunder or after such moneys become due and payable hereunder, whichever is later, and further except that an action or proceeding on a claim based upon the Commissioner's exercise of the right to terminate this Agreement for cause must be commenced within six months after the date the Commissioner exercises such right to terminate for cause.

ARTICLE 49. TAX

49.1 Pursuant to this Contract, the Contractor agrees to sell all tangible personal property, other than consumable supplies and other tangible personal property that the Contractor is required to remove from the Site during or upon completion of the Work, that is required, necessary or proper for or incidental to the construction and rehabilitation Work covered by this Contract. The purchase by Subcontractors or Materialmen of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the Contractor (either directly or through other Subcontractors). The sum paid under this Contract for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

49.2 The Contractor may include in its bid the cost to the Contractor of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on tangible personal property incorporated into the Dwellings. The Contractor and its Subcontractors shall be responsible for and pay any and all applicable taxes, including Sales and Compensation Use Taxes, on tangible personal property and leased tools, machinery, equipment or other property.

49.3 The Contractor shall not charge taxes to the City for services, including but not limited to, labor and profit.

ARTICLE 50 - NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES

50.1 No claim whatsoever shall be made by the Contractor against any officer, agent or employee of the City for, or on account of, anything done or omitted to be done in connection with this Agreement.

50.2 The Contractor shall require each Subcontractor or consultant to agree in its subcontract not to make any claim against the City, its officers, agents or employees, by reason of such subcontract, or any acts or omissions of the Contractor; provided however, such restrictions shall not apply to (a) demands filed by Subcontractors pursuant to Article 10.6 hereof, or (b) disputes submitted by Subcontractors pursuant to dispute resolution provisions contained in the subcontract, as described in Article 10.2.2 (g) hereof.

ARTICLE 51 - LOCALLY BASED ENTERPRISE PROGRAM

NOTE: If goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the Locally Based Enterprise Program ("LBE").

51.1 This Contract is subject to the requirements of Administrative Code Section 6-108.1 and regulations promulgated thereunder. The Contractor shall not award any subcontract for Work hereunder unless and until these requirements have been complied with in their entirety.

51.2 The provisions set forth below shall apply to all subcontracts for Work hereunder entered into by the Contractor. The Contractor shall include the provisions set forth below in all subcontracts for Work hereunder.

51.2.1 Unless specifically waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, if any portion of the subcontract is sub-subcontracted, not less than ten percent of the total dollar amount of the subcontract shall be awarded to locally based enterprises ("LBEs"); except that where less than ten percent of the total dollar amount of the subcontract is sub-subcontracted, such lesser percentage shall be so awarded.

51.2.2 The Subcontractor shall not require performance and payment bonds from LBE sub-subcontractors.

51.2.3 If the Subcontractor has indicated prior to award that no Work will be sub-subcontracted, no Work shall be sub-subcontracted without the prior approval of the Commissioner, which shall be granted only if the Subcontractor makes a good faith effort beginning at least six weeks before the work is to be performed to obtain LBE sub-subcontractors to perform the work.

51.2.4 If the Subcontractor has not identified sufficient LBE sub-subcontractors prior to award, it shall sign a letter of compliance stating that it complies with Administrative Code §6-108.01, recognizes that achieving the LBE requirement is a condition of its subcontract, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the Subcontractor shall begin to solicit LBE's to perform sub-subcontracted work at least six weeks before the date such work is to be performed and shall demonstrate that a good faith effort has been made to obtain LBE's on each sub-subcontract until it meets the required percentage.

51.3 Failure of the Contractor to comply with the requirements of Administrative Code §6-108.01 and the regulations promulgated thereunder shall constitute a material breach of contract. Remedy for such breach of contract may include the imposition of any or all of the following sanctions:

51.3.1 Reducing the Contractor's compensation by an amount equal to the dollar value of the percentage of the LBE sub-subcontracting requirement not complied with;
51.3.2 Declaring the Contractor in default;
51.3.3 Where non-compliance is by an LBE, de-certifying and declaring the LBE ineligible to participate in the LBE program for a period of up to three years.

ARTICLE 52 - PARTICIPATION IN AN INTERNATIONAL BOYCOTT

52.1 The Contractor agrees that neither the Contractor nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce promulgated thereunder.

52.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the Contractor or a substantially-owned affiliated company thereof, participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the Comptroller may, at his option, render forfeit and void this Contract.

52.3 The Contractor shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code of the City of New York and the rules and regulations issued by the Comptroller thereunder.

ARTICLE 53 - INVESTIGATIONS

53.1 The parties to this agreement agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a State

of New York (State) or City of New York (City) governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

53.1.1 If any person who has been advised that his or her statement, and any information from such statement, will not be used against him or her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the City, or any public benefit corporation organized under the laws of the State of New York, or;

53.1.2 If any person refuses to testify for a reason other than the assertion of his or her privilege against self-incrimination in an investigation, audit or inquiry conducted by a City or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under, any transaction, agreement, lease permit, contract, or license entered into with the City, the State, or any political subdivision thereof or any local development corporation within the City then;

53.1.3 The Commissioner or agency head whose agency is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon no less than five (5) days written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

53.1.4 If any non-governmental party to the hearing requests an adjournment, the commissioner or agency head who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license pending the final determination pursuant to Article 53.3 below without the City incurring any penalty or damages for delay or otherwise.

53.2 The penalties which may attach a final determination by the commissioner or agency head may include but shall not exceed:

53.2.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City; and/or

53.2.2 The cancellation or termination of any and all such existing City contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this agreement, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the City.

53.3 The Commissioner or agency head shall consider and address in reaching his or her determination and in assessing an appropriate penalty the factors in Articles 53.3.1 and 53.3.2 below. He or she may also consider, if relevant and appropriate, the criteria established in Articles 53.3.3 and 53.3.4 below in addition to any other information which may be relevant and appropriate;

53.3.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

53.3.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including, but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

53.3.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

53.3.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under 53.2 above, provided that the party or entity has given actual notice to the commissioner or agency head upon the acquisition of the interest, or at the hearing called for in 53.1.3 above gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity must present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

53.4 Definitions Used in this Article

53.4.1 The term "license" or "permit" as used herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.

53.4.2 The term "person" as used herein shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

53.4.3 The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives monies, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.

53.4.4 The term "member" as used herein shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

53.5 In addition to and not withstanding any other provision of this agreement the Commissioner or Agency Head may in his or her sole discretion terminate this agreement upon not less than three (3) days written notice in the event consultant fails to promptly report in writing to the Commissioner of Investigation of the City of New York any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or other person, firm corporation or entity for any purpose which may be related to the procurement or obtaining of this agreement by the consultant, or affecting the performance of this contract.

ARTICLE 54 - ALL PRIOR WRITTEN OR ORAL AGREEMENTS EXCLUDED

54.1 The written agreement contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 55 - HEADINGS NOT BINDING

55.1 Article, Section and Chapter headings and the Table of Contents are inserted for convenience only and are not to be considered in the construction or interpretation of any provision hereof.

ARTICLE 56 - ERRORS

56.1 If this Agreement contains any errors, inconsistencies, ambiguities or discrepancies, including typographical errors, the Contractor shall request a clarification of same by writing to the Commissioner whose decision shall be binding on the parties.

ARTICLE 57 - UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

57.1 If this Agreement contains any unlawful provision not an essential part of the Agreement and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the Agreement without affecting the binding force of the remainder.

ARTICLE 58 - ALL LEGAL PROVISIONS DEEMED INCLUDED

58.1 It is the intent and understanding of the parties to this Agreement that each and every provision of law required to be inserted in this Agreement shall and is inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this Agreement shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the law and without prejudice to the rights of either party hereunder.

ARTICLE 59 - WAIVER

59.1 Waiver by the City of a breach of any provision of this Agreement shall not be deemed to be a waiver of any other subsequent breach and shall not be construed to be a modification of the terms of the Agreement unless and until the same be agreed to in writing by the Commissioner.

ARTICLE 60 - ALL DEFENSES RESERVED

60.1 Each and every defense, right and remedy that the City has under this Agreement is not exclusive and it is in addition to and concurrent with all other defenses, right and remedies which the City has under this Agreement and which the City otherwise has, will have, or may have under law, equity, or otherwise.

ARTICLE 61 - CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

61.1 This Agreement shall be deemed to be executed in the City of New York, State of New York, regardless of the domicile of the Contractor, and shall be governed by and construed in accordance with the laws of the State of New York.

61.2 The parties agree that any and all claims asserted by or against the City arising under this Agreement or related thereto shall be heard and determined either in the courts of the United States located in New York City ("Federal Courts") or in the courts of the State of New York ("New York State Courts") located in the City and County of New York. To effect this agreement and intent, the Contractor agrees:

61.2.1 If the City initiates any action against the Contractor in Federal Court or in New York State Court, service of process may be made on the Contractor either in person, wherever such Contractor may be found, or by registered mail addressed to the Contractor at its address as set forth in this Agreement, or to such other address as the Contractor may provide to the City in writing; and

61.2.2 With respect to any action between the City and the Contractor in New York State Court, the Contractor hereby expressly waives and relinquishes any rights it might otherwise have (1) to move to dismiss on grounds of forum non conveniens; (2) to remove to Federal Court, and (3) to move for a change of venue to a New York State Court outside New York County.

61.2.3 With respect to any action between the City and the Contractor in Federal Court located in New York City, the Contractor expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a United States Court outside the City of New York.

61.2.4 If the Contractor commences any action against the City in a court located other than in the City and State of New York, upon request of the City, the Contractor shall either consent to a transfer of the action to a court of competent jurisdiction located in the City and State of New York or, if the court where the action is initially brought will not or cannot transfer the action, the Contractor shall consent to dismiss such action without prejudice and may thereafter reinstitute the action in a court of competent jurisdiction in New York City.

61.3 If any provision(s) of this Article is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 62 - SERVICES OF NOTICES

62.1 The Contractor hereby designates the business address on page 1 of this Agreement as the place where all notices, directions or other communications to the Contractor may be delivered, or to which they may be mailed. Actual delivery of any such notice, direction or communication to the aforesaid place or deposit of the same in a postpaid wrapper addressed thereto in any post office box regularly maintained by the United States Post Office Department shall be conclusively deemed to be sufficient service thereof upon the Contractor as of the date of such delivery or deposit.

62.2 Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the Commissioner.

62.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the Contractor personally, or, if the Contractor is a corporation, upon any officer or director thereof.

62.3 The City hereby designates the following as its address for the service of any notice hereunder:

Department of Design and Construction
30-30 Thomson Avenue
Long Island City, New York 11101
Attention: David Resnick, Deputy Commissioner

ARTICLE 63 - MODIFICATION

63.1 In addition to the authority of the Commissioner to order Extra Work pursuant to Article 26 hereof or omit certain Work pursuant to Article 33 hereof, this Agreement may be modified from time to time in a writing signed by both parties in order to carry out and complete more fully and perfectly the Work agreed to be performed under this Agreement, provided, however, in no event shall such modification exceed the cost limitation approved by the Bureau of the Budget.

ARTICLE 64 - MacBRIDE PRINCIPLES PROVISIONS

64.1 Notice to all Prospective Contractors: Local Law No. 34 of 1991 became effective on September 10, 1991 and added section 6-115.1 to the Administrative Code of the City of New York. The local law provides for certain restrictions on City contracts to express the opposition of the people of the City of New York to employment discrimination practices in Northern Ireland and to encourage companies doing business in Northern Ireland to promote freedom of work place opportunity.

64.2 Pursuant to Section 6-115.1, prospective contractors for contracts to provide goods or services involving an expenditure of an amount greater than ten thousand dollars, or for construction involving an amount greater than fifteen thousand dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their contract, that any business operations in Northern Ireland conducted by the contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

64.3 Prospective contractors are not required to agree to these conditions. However, in the case of contracts let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five percent of the lowest responsible bid for a contract to supply goods, services or construction of comparable quality, the contracting entity shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable law and rules, that it is in the best interest of the city that the contract be awarded to other than the lowest responsible bidder pursuant to Section 313(b)(2) of the City Charter.

64.4 In the case of contracts let by other than competitive sealed bidding, if a prospective contractor does not agree to these conditions, no agency, elected official or the Council shall award the contract to that bidder unless the entity seeking to use the goods, services or construction certifies in writing that the contract is necessary for the entity to perform its functions and there is no other responsible contractor who will supply goods, services or construction of comparable quality at a comparable price.

64.5 In accordance with section 6-115.1 of the Administrative Code of the City of New York, the Contractor stipulates that such Contractor and any individual or legal entity in which the Contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the Contractor either (a) have no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

64.6 For purposes of this section, the following terms shall have the following meanings: "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work place opportunity which require employers doing business in Northern Ireland to:

64.6.1 increase the representation of individuals from under represented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
64.6.2 take steps to promote adequate security for the protection of employees from under represented religious groups both at the work place and while traveling to and from work;
64.6.3 ban provocative religious or political emblems from the work place;
64.6.4 publicly advertise all job openings and make special recruitment efforts to attract applicants from under represented religious groups;
64.6.5 establish layoff, recall and termination procedures which do not in practice favor a particular religious group;
64.6.6 abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
64.6.7 develop training programs that will prepare substantial numbers of current employees from underrepresented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from underrepresented religious groups;
64.6.8 establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement; and
64.6.9 appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

64.7 The Contractor agrees that the covenants and representations in Article 64.5 above are material conditions to this contract. In the event the contracting entity receives information that the Contractor who made the stipulation required by this section is in violation thereof, the contracting entity shall review such information and give the Contractor an opportunity to respond. If the contracting entity finds that a violation has occurred, the entity shall have the right to declare the Contractor in default and/or terminate this Contract for cause and procure the supplies, services or work from another source in any manner the entity deems proper. In the event of such termination, the Contractor shall pay to the entity, or the entity in its sole discretion may withhold from any amounts otherwise payable to the Contractor, the difference between the Contract price for the uncompleted portion of this Contract and the cost to the contracting entity of completing performance of this Contract either itself or by engaging another contractor or contractors. In the case of a requirement contract, the Contractor shall be liable for such difference in price for the entire amount of supplies required by the contracting entity for the uncompleted term of its Contract. In the case of a construction contract, the contracting entity shall also have the right to hold the Contractor in partial or total default in accordance with the default provisions of this Contract, and/or may seek debarment or suspension of the Contractor. The rights and remedies of the entity hereunder shall be in addition to, and not in lieu of, any rights and remedies the entity has pursuant to this Contract or by operation of law.

ARTICLE 65 – ULTRA LOW SULFUR DIESEL FUEL

Ultra Low Sulfur Diesel Fuel: In accordance with the provision of Section 24-163.3 of the New York City Administrative Code, the Contractor specifically agrees as follows:

I. Definitions: For the purpose of this Article, the following definitions apply:

A. “Contractor” means any person or entity that enters into a Public Works Contract with a City agency, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

B. “Lower Manhattan” means the area of New York County consisting of the area to the south of and within Fourteenth Street.

C. “Motor Vehicle” means any self-propelled vehicle designed for transporting persons or property on a street or highway.

D. “Nonroad Engine” means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United

States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

E. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

F. "Public Works Contract" means a contract with a City agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a City agency for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a City agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

G. Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

II. Ultra Low Sulfur Diesel Fuel

A. All Contractors shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this contract.

B. Notwithstanding the requirements of paragraph A, Contractors may use diesel fuel that has a sulfur content of no more than thirty parts per million to fulfill the requirements of this Part II, where the Commissioner of the New York City Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of City agencies and Contractors. Any determination made pursuant to this subdivision shall expire after six months unless renewed.

C. Contractors shall not be required to comply with this Part II where the agency letting this contract makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such Contractor in its fulfillment of the requirements of this contract, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Part II shall be in full force and effect unless the agency renews the finding in writing and such renewal is approved by the DEP Commissioner.

D. Contractors may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.nyc.gov/dep or by contacting the Department issuing this solicitation.

E. The requirements of this Part II do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

F. The requirements of this Part II do not apply to Public Works Contracts entered into or renewed prior to June 19, 2004.

III. BEST AVAILABLE TECHNOLOGY

A. All Contractors shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this contract. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, Contractors shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The Contractor shall fully document all steps in the best available technology selection process and shall furnish such documentation to the Department or the DEP Commissioner upon request. The Contractor shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

B. No Contractor shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Part III within three years of having first utilized such technology for such vehicle.

C. This Part III shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty calendar days.

D. The Contractor shall not be required to comply with this Part III with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

1. Where the agency makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by those paragraphs is unavailable for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.
2. Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.
3. In determining which technology to use for the purposes of subsections (D)(1) and (D)(2) above, Contractor shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.
4. Contractors shall submit requests for a finding or a waiver pursuant to this subsection (D) in writing to the DEP Commissioner, with a copy to the ACCO of the Department issuing the solicitation. Any finding or waiver made or issued pursuant to subsections (D)(1) and (D)(2) above shall expire after one hundred eighty days, at which time the requirements of subsection A shall be in full force and effect unless the agency renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

E. The requirements of this Part III do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

IV. Section 24-163 of the Administrative Code. Contractors shall comply with Section 24-163 of the New York City Administrative Code related to the idling of the engines of motor vehicles while parking.

V. COMPLIANCE

A. Contractor's compliance with these provisions may be independently monitored. If it is determined that the Contractor has failed to comply with any provision of this rider, any costs associated with any independent monitoring incurred by the City shall be reimbursed by the Contractor.

B. Any Contractor who violates any provision of this Article, except as provided in subsection (C) below, shall be liable for a civil penalty between the amounts of one thousand and ten thousand dollars, in addition to twice the amount of money saved by such Contractor for failure to comply with this Article.

C. No Contractor shall make a false claim with respect to the provisions of this Article to a City agency. Where a Contractor has been found to have done so, such Contractor shall be liable for a civil penalty of twenty thousand dollars, in addition to twice the amount of money saved by such Contractor in association with having made such false claim.

VI. REPORTING

A. For all Contracts covered by this Article, the Contractor shall report to the Department the following information:

1. The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;
2. The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;
3. The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;
4. The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Part III, including a breakdown by vehicle model and the type of technology used for each such vehicle;
5. The locations where such Nonroad Vehicles were used; and
6. Where a determination is in effect pursuant to Part II.B or II.C, detailed information concerning the Contractor's efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million.

B. The Contractor shall submit the information required by Paragraph A at the completion of work under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover work performed the preceding fiscal year (July 1- June 30).

ARTICLE 66 – ULTRA LOW SULFUR DIESEL FUEL COORDINATED CONSTRUCTION ACT FOR LOWER MANHATTAN

In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

I. DEFINITIONS: For purposes of this Article, the following definitions apply:

A. "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson river as it exists now or may be extended would intersect with the southerly line of West Houston street in the borough of Manhattan extended, thence easterly along the southerly side of West Houston street to the southerly side of Houston

street, thence easterly along the southerly side of Houston street to the southerly side of East Houston street, thence northeasterly along the southerly side of East Houston street to the point where it would intersect with the United States pierhead line in the East river as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

B. "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City of New York known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

C. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

D. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

E. "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

II. REQUIREMENTS: Contractors and Subcontractors are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine horsepower (HP) rating of 50 HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

ARTICLE 67 Vendex Questionnaires

67.1 Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, the Contractor may be obligated to complete and submit VENDEX Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed Subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal or the Consultant, disapproval of a Subcontractor, subsequent withdrawal of approval for the use of an approved Subcontractor, or the cancellation of the contract after its award.

67.2 Submission: Vendex Questionnaires must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007. In addition, the Contractor must submit a Confirmation of Vendex Compliance to the Department.

67.3 Obtaining Forms: Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The Contractor may also obtain Vendex forms and instructions by contacting the ACCO or the contact person for this contract.

ARTICLE 68: PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

M/WBE Participation: Requirements for the participation of M/WBEs apply to Work for the Project performed by Subcontractors under the supervision and control of the Contractor. Prior to the commencement of each type of Work, the City shall provide applicable M/WBE requirements to the Contractor in a form entitled "Schedule B: M/WBE Utilization Plan." The Schedule B: M/WBE Utilization Plan shall be included by the Contractor in Bid Documents for subcontracts for Work for the Project, as directed by the City. Work includes required Work for various Projects, including pre-design services and any related construction and/or remediation Work. Such Work is paid for from the Allowance for Construction/Remediation Work. Bids that do not comply with the requirements for M/WBE participation, as set forth below, shall be deemed non-responsive.

Subcontracts: The Contractor shall include the language set forth below in all subcontracts for Work for the Project.

Locally Based Enterprise (LBE) Program: If Participation Goals have been established for the participation of M/WBEs in the subcontracted Work, the Subcontractor is not required to comply with the LBE Program.

NOTICE TO ALL PROSPECTIVE CONTRACTORS

PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority- owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A: PARTICIPATION GOALS FOR CONSTRUCTION, STANDARDAND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, ("Participation Goals"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The Participation Goals represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If Participation Goals have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the Participation Goals, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If Participation Goals have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant Participation Goal, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct Subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant Participation Goal. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct Subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If Participation Goals have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct Subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre- award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE Participation Goals, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the Participation Goals that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) Participation Goals on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If Participation Goals have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct Subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the Participation Goals as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct Subcontractors to indirect Subcontractors (as defined in Section 6-129(c)(22)). PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below $3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended Subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended Subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more Subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a Subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate Subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the Participation Goals. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to,: the total amount the Contractor paid to its direct Subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct Subcontractors paid to indirect Subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a Subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct Subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to Subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct Subcontractors paid directly to their indirect Subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each Subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's M/WBE Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its M/WBE Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an M/WBE Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or $500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the Participation Goals should be modified.

10. Pre-award waiver of the Participation Goals. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the Participation Goals in accordance with Section 6-129, which requests that Agency change one or more

Participation Goals on the grounds that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the Participation Goals, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the Participation Goals are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the Participation Goals to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its M/WBE Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the Participation Goals. In making such determination, Agency may consider whether the M/WBE Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below $3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended Subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
(ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
(iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
(iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
(v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
(vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
(vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
(viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the Participation Goals when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its M/WBE Utilization Plan would be awarded to Subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an M/WBE Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the Participation Goals, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE Subcontractors and the payments the Contractor made to such Subcontractors.

14. If Participation Goals have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an M/WBE Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the M/WBE Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an M/WBE Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as Subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required Participation Goals.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a Subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any M/WBE Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or Subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any M/WBE Utilization Plan, Agency may determine that one of the following actions should be taken:

(a) Entering into an agreement with the Contractor allowing the Contractor to cure the violation;
(b) Revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
(c) Making a finding that the Contractor is in default of the Contract;
(d) Terminating the Contract;
(e) Declaring the Contractor to be in breach of Contract;
(f) Withholding payment or reimbursement;
(g) Determining not to renew the Contract;
(h) Assessing actual and consequential damages;
(i) Assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
(j) Exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
(k) Taking any other appropriate remedy.

4. If an M/WBE Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its Participation Goals contained in its M/WBE Utilization Plan or the Participation Goals as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the Participation Goals and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the Participation Goals, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may

deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6- 129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

ARTICLE 69. LIMITED DEFENSE AND INDEMNIFICATION; ESCALATION

69.1 The rehabilitation of Dwellings, which are privately owned, is not a “public work” as that term is used in Labor Law section 220. The Contractor shall not be required to pay its workers prevailing wages for the Work unless there is a final judicial determination that Labor Law section 220 applies to the Work.

69.2 If a court makes a final determination, not subject to appeal, that Labor Law section 220 requires the Contractor to pay prevailing wages and that Article 8 of the Labor Law is applicable to this Work, the ACCO shall issue a change order, pursuant to Article 25, that (i) increases the prices paid to the Contractor in order to pay workers covered by Labor Law section 220 the amount required by prevailing wage schedule issued by the Comptroller and in effect at the time the Work was or is performed and (ii) requires compliance with Article 8 of the Labor Law. The Contractor shall pay workers covered by Labor Law section 220 the difference between wages paid and the amount required pursuant to the Labor Law. Based on the employment and payroll records required by Article 39, the City shall reimburse the Contractor for the difference between the hourly rate paid and the amount required by such prevailing wage schedule and shall pay such difference as is applicable for the remainder of the Term.

69.3 The City shall defend and indemnify the Contractor for all losses, judgments, settlements, and expenses, including reasonable attorneys’ fees, arising out of any dispute concerning the applicability of Labor Law section 220 to the Work. For the avoidance of doubt, the defense and indemnification in this Article 70.3 shall not apply to any claim that the Contractor has failed to act in accordance with applicable Law, including that the Contractor has failed to comply with Labor Law section 220 subsequent to a final judicial determination that Labor Law section 220 applies.

ARTICLE 70 CONFIDENTIALITY

70A.1 The Contractor agrees to hold confidential, both during and after the completion or termination of this Contract, all of the reports, information, or data, furnished to, or prepared, assembled or used by, the Contractor under this Contract. The Contractor agrees that such reports, information, or data shall not be made available to any person or entity without the prior written approval of the Department. The Contractor agrees to maintain the confidentiality of such reports, information, or data by using a reasonable degree of care, and using at least the same degree of care that the Contractor uses to preserve the confidentiality of its own confidential information. In the event that the data contains social security numbers or other Personal Identifying Information, as such term is defined in Article 70A.2, the Contractor shall utilize best practice methods (e.g., encryption of electronic records) to protect the confidentiality of such data. The obligation under this Article to hold reports, information or data confidential shall not apply where the City would be required to disclose such reports, information or data pursuant to the State Freedom of Information Law (“FOIL”), provided that the Contractor provides advance notice to the City, in writing or by e-mail, that it intends to disclose such reports, information or data and the City does not inform the contractor, in writing or by e-mail, that such reports, information, or data are not subject to disclosure under FOIL.

70A.2 The Contractor shall provide notice to the Department within three (3) calendar days of the discovery by the Contractor of any breach of security, as defined in Admin. Code § 10-501(b), of any data, encrypted or otherwise, in use by the Contractor that contains social security numbers or other personal identifying information as defined in Admin. Code § 10-501 (“Personal Identifying Information”), where such breach of security arises out of the acts or omissions of the Contractor or its employees, Subcontractors, or agents. Upon the discovery of such security breach, the Contractor shall take reasonable steps to remediate the cause or causes of such breach, and shall provide notice to the Department of such steps. In the event of such breach of security, without limiting any other right of the City, the City shall have the right to withhold further payments under this Contract for the purpose of set-off in sufficient sums to cover the costs of notifications and/or other actions mandated by any Law, or administrative or judicial order, to address the breach, and including any fines or disallowances imposed by the State or federal government as a result of the disclosure. The City shall also have the right to withhold further payments hereunder for the purpose of set-off in sufficient sums to cover the costs of credit monitoring services for the victims of such a breach of security by a national credit reporting agency, and/or any other commercially reasonable preventive measure. The Department shall provide the Contractor with written notice and an opportunity to comment on such measures prior to implementation.

Alternatively, at the City's discretion, or if monies remaining to be earned or paid under this Contract are insufficient to cover the costs detailed above, the Contractor shall pay directly for the costs, detailed above, if any.

70A.3 The Contractor shall restrict access to confidential information to persons who have a legitimate work related purpose to access such information. The Contractor agrees that it will instruct its officers, employees, and agents to maintain the confidentiality of any and all information required to be kept confidential by this Contract.

70A.4 The Contractor, and its officers, employees, and agents shall notify the Department, at any time either during or after completion or termination of this Contract, of any intended statement to the press or any intended issuing of any material for publication in any media of communication (print, news, television, radio, Internet, etc.) regarding the services provided or the data collected pursuant to this Contract at least twenty-four (24) hours prior to any statement to the press or at least five (5) business days prior to the submission of the material for publication, or such shorter periods as are reasonable under the circumstances. The Contractor may not issue any statement or submit any material for publication that includes confidential information.

70A.5 At the end of six years from the date of final payment or the date of earlier termination, Contractor shall return to the Department any and all confidential information in the possession of the Contractor or its Subcontractors. If the Contractor or its Subcontractors are legally required to retain any confidential information, the Contractor shall notify the Department in writing and set forth the confidential information that it intends to retain and the reasons why it is legally required to retain such information. The Contractor shall confer with the Department, in good faith, regarding any issues that arise from the Contractor retaining such confidential information.

70A.6 A breach of this Article shall constitute a material breach of this Contract for which the Department may terminate this Contract. The Department reserves any and all other rights and remedies in the event of unauthorized disclosure.

ARTICLE 71 **BONUS AND LIQUIDATED DAMAGES**

Liquidated damages may be applied on a Work Order by Work Order basis at the sole discretion of HRO/DDC. In the event the Contractor fails to complete the Scope and Design or Construction for a Work Order within the Contract Schedule plus authorized time extensions, or if the Contractor, in the sole determination of HRO/DDC, has abandoned the Work, the Contractor shall pay to the City $500.00 for each and every Calendar Day that the time consumed in completing the Work exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of delay in the completion of the Work hereunder, is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such delay, and not as a penalty. This article shall apply to the Contractor whether or not it is defaulted pursuant to this Contract. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the City may have against the Contractor for either actual or liquidated damages.

Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the City's right to indemnification, or the Contractor's obligation to indemnify the City, or to any other remedy provided for in this Contract or by Law.

The City may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

The City shall make a bonus payment to the Contractor if the Contractor satisfactorily completes the Scoping and Design and Construction for a Work Order earlier than the Contract Schedule. The bonus shall be $500 per day for each day the Work is completed before the Work Order Completion Time up to 21 days early. The maximum bonus payment allowed per Work Order is $10,500.

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK:

By:_____
Deputy Commissioner

CONTRACTOR:

By: _____

Print Name: _____

Title:_____

EIN: _____

APPROVED AS TO FORM AND CERTIFIED
AS TO LEGAL AUTHORITY

_____
Acting Corporation Counsel

DATE _____

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this ____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____, that he/she is the _____ of _____, the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

_____

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, to me known and known to me to be the Deputy Commissioner of the Department of Design and Construction of the City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

_____

Notary Public or Commissioner of Deeds

AFFIRMATION

The undersigned proposer or bidder affirms and declares that said proposer or bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the proposer or bidder to receive public contract except
_____.

Full name of Proposer or Bidder *[below]*

_____

Address_____

City_____ State_____ Zip Code_____

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

☐ A - Individual or Sole Proprietorships

SOCIAL SECURITY NUMBER _____

☐ B - Partnership, Joint Venture or other unincorporated organization

EMPLOYER IDENTIFICATION NUMBER _____

☐ C - Corporation

EMPLOYER IDENTIFICATION NUMBER _____

By_____

Signature

_____

Title

If a corporation place seal here

Must be signed by an officer or duly authorized representative.

* Under the Federal Privacy Act, the furnishing of Social Security numbers by bidders or proposers on City contracts is voluntary. Failure to provide a Social Security number will not result in a bidder's/proposer's disqualification. Social Security numbers will be used to identify bidders, proposers or vendors to ensure their compliance with laws, to assist the City in enforcement of laws, as well as to provide the City a means of identifying businesses seeking City contracts.

EXHIBIT A: CONTRACT INFORMATION

(1) TYPE OF SERVICES: Construction Management / design / build services on a Work Order basis for the type of projects described below. The Commissioner shall, by written directive, assign various Projects consisting of single or groups of various types of homes to the CM for performance of the required services, as enumerated in the Scope of Work and the Work Order . Such projects will be located in _____[Borough]_____ .

(2) TOTAL NOT TO EXCEED AMOUNT: $To Be Determined

(3) KEY DESIGN AND CONSTRUCTION MANAGEMENT PERSONNEL

List of Key Personnel:

- **Program Executive**
- **Project Executive**
- **Project Manager**
- **Lead Design Manager**
- **Design Project Manager**
- **Project Controls Manager**

(4) SCOPE OF SERVICES

The scope of work for this contract includes construction management, scoping and design services, and construction for the rehabilitation, elevation, and reconstruction of detached, semi-attached and fully attached, one- to four-family homes, and common spaces and individual units in one to four-family buildings in three boroughs of New York City (Brooklyn, Queens, and Staten Island).

- ***Construction Management***: The CM will be required to provide all services necessary and required for the quality, management, coordination, and administration of the work, including management of the M/WBE utilization plan, from commencement at the packaging of projects after the homeowners' engagement through substantial completion, final acceptance, project close-out, and homeowners' acceptance, including monitoring of the construction one year warranty period.

- ***Scoping and Design Services:*** The CM will be responsible for creating a comprehensive Scope of Work that falls within the parameters of the HRO provided feasibility study for each home as per Exhibit L of the attached contract. Additional design work through architectural, engineering, and technical expertise shall, as necessary, be provided for complex design and infrastructure issues.

- ***Construction***: The CM will be required to procure all construction contracts from a Pre-Qualified List of contractors (PQL) that will be provided and maintained by HRO/DDC. The CM must ensure that the approved scope of work is bid out and executed at the high level of quality standards and completed in a timely manner.

- ***Post Construction***: The CM will be required to request a Final Inspection, resolve outstanding issues, receive a written determination of Final Acceptance, perform any necessary tasks to obtain a permanent Certificate of Occupancy as well as submit all documents and records including, but not limited to, warranty certificates, manuals, and drawings.

Based upon the Project Schedules below, HRO/DDC is looking for CM teams to find innovative and efficient ways to manage and complete large volumes of homes through design and construction as quickly as possible.

Project Schedules					
Phase	**Type of Construction**	**Contract Schedule**	**Accelerated Schedule**	**Defined Start of Phase**	**Defined Completion of Phase**
Scoping and Design	Rehabilitation	28 days	21 days	Work Order from DDC	Completed
Construction	Rehabilitation	56 days	28 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Elevation (No BSA or DEC approval)	84 days	56 days	Work Order from DDC	Completed
Construction	Elevation (No BSA or DEC approval)	140 days	84 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Elevation (BSA and/or DEC approval)	168 days	140 days	Work Order from DDC	Completed
Construction	Elevation (BSA and/or DEC approval)	140 days	84 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Reconstruction (No BSA or DEC approval)	140 days	84 days	Work Order from DDC	Completed
Construction	Reconstruction (No BSA or DEC approval)	252 days	168 days	Signed Grant Agreement	Final Inspection
Scoping and Design	Reconstruction (BSA and/or DEC approval)	224 days	168 days	Work Order from DDC	Completed
Construction	Reconstruction (BSA and/or DEC approval)	252 days	168 days	Signed Grant Agreement	Final Inspection

A. CONSTRUCTION MANAGEMENT:

The CM shall provide Construction Management Services in accordance with Article 11 of the attached contract.

Task A.1 Construction Management

The CM must provide and manage all services necessary during all phases of each concurrent project including quality, management, coordination, and administration of the work, so that the required design and construction work is properly executed, completed in a timely fashion and conforms to all applicable requirements and to good design and construction practice. This includes, but is not limited to:

- **Tracking issues to resolution;**
- **Management and coordination of sub-consultants, contractors and subcontractors;**
- **Homeowner communication and coordination;**
- **Manage and monitor project compliance with MWBE participation goals on a weekly basis and take corrective action to ensure that project goals are met;**
- **Perform regular Quality Assurance and Quality Control checks;**
- **Monitor safety and security and compliance with safety and security plans;**
- **Document management and records retention; and**
- **Ensure compliance with all applicable City, State, and Federal requirements.**

Task A.2 Implementation Plan:

At the onset of the contract, the CM will meet with HRO and DDC to review the scope of Borough(s) assigned to the CM. The CM will be provided detailed information about the homeowners who are active in the program, their status with Build It Back, and their projected pathway. The CM will work with HRO and DDC to establish an Implementation Plan for design and construction of all potential homes. The Implementation Plan will include plans to:

- **Facilitate the timely design and construction of all homes;**
- **Minimize impact to the neighborhoods;**
- **Coordinate with other planned and on-going community construction projects;**
- **Identify and target homeowners who have not been able to return to their home;**
- **Cooperate and coordinate with local elected officials and civic leaders in partnership with HRO;**
- **Take into account any on-going Build It Back work being performed by other contractors, including Choose Your Own Contractors program;**
- **Focus on solutions for complex zoning, infrastructure, wetland, and other environmental issues and plans for coordination with other agencies for necessary approvals;**
- **Identify all attached homes, and other homes that have design and construction issues that need to be coordinated; and**

- **Plan for communicating with homeowners throughout design and construction.**

Full implementation of the plan will be dependent on homeowners' engagement in the Build It Back program, the case management process, and the selection of their individual pathway. HRO will work with the CM to prioritize homeowners through case management based on the Implementation Plan developed by the CM for their Borough(s).

The Commissioner shall, by written Work Order(s), assign to the CM and their Design Consultant(s) a list or lists of impacted homes for the performance of required services. All homeowners must complete their case management process and eligibility review, select a pathway, and complete Quality Assurance and Control before they will be assigned by written Work Order to the CM.

The CM will develop a project schedule for design and construction as part of the Implementation Plan. The implementation plan is to be completed within 3 weeks of the Notice to Proceed and updated at the issuance of each Work Order.

Task A.3 Project Office(s):

The CM shall be required to set up and operate for the duration of the project, a Project Office dedicated to the activities of personnel in connection with Projects assigned in the RFP. Requirements for Project Office are set forth in Exhibit D of the attached contract.

Task A.4: Program and Project Reporting, Compliance Reporting and Meetings

Project Reporting: Each CM will be required to record, track, manage and report on a bi-weekly and monthly basis the key milestones of all projects assigned according to a uniform reporting structure set forth by HRO/DDC. On a monthly basis, each CM will be required to provide monthly budget updates. Each CM will also be required to prepare and provide reports in real-time and other communications as directed for HRO/DDC to evaluate Program performance. Each CM shall also undertake the responsibilities with respect to Project and Program reports as per Article 11.6.14 of the attached contract.

Because of the critical and time-sensitive nature of this assignment, the CM will be required to utilize IT/web-based systems developed by HRO which allow information to be recorded in a timely and transparent manner to ensure the integrity and timeliness of project data. Details of the IT system are prescribed in Task A.5.

- **Compliance Reporting: The CM is required, in collaboration with HRO/DDC, to develop the format and frequency of delivery of compliance reports, including M/WBE goals, Safety and Security monitoring and all City, State and Federal requirements.**

- **Meetings: Each CM will be required to schedule and conduct standing meetings with representatives from DDC and HRO, the CM and/or sub-consultant(s). Each CM will also schedule and conduct meetings with regulatory agencies and any other entities or individuals including other Program vendors involved as directed to advance the projects in a timely fashion.**

Task A.5 IT Database Administration

The CM must coordinate, track, monitor and report on a high volume of concurrently active projects during design, construction and closeouts in its selected region(s). The firm must interface with existing databases and software platforms/packages operated and maintained by HRO. HRO is running the Case Management System hosted in the Microsoft Azure Cloud.

The technologies deployed in the Microsoft Azure cloud are as follows:

- **Barracuda Web Application Firewall "WAF" firmware v7.9.0.19 - Application Firewall - www.barracuda.com**
- **MS Windows 2008/2012 Server Active Directory - User Authentication**
- **MS SQL 2012 Server - Dynamics CRM and SharePoint DBs**
- **MS ADFS 2.0 Server - Federation services**
- **MS Dynamics CRM 2011 Server - CRM Server/Client**
- **MS SharePoint 2013 Server - Document management**
- **Scribe Insight 7.6.1.36092 - CRM automation and data integration - www.scribesoft.com**
- **MS System Center 2012 Operations Manager - Systems Monitoring**
- **MS System Center 2012 Configuration Manager - Patch management**
- **MS Team Foundation Server 2013 - Development / Versioning**

The project controls manager from the CM will be required to assist and work with program and IT staff in the development of new interfaces including developing business requirements, job aids, and trainings.

Task A.6 Compliance with Sandy Recovery Hiring Plan

CMs are encouraged to work with local Community Based Organizations, pre-apprenticeship and apprenticeship programs, and voluntary groups engaged in rebuilding efforts. The selected CM must provide one full-time staff dedicated to daily tracking compliance with the Sandy Recovery Hiring Plan, set forth in Exhibit H of the attached contract, to ensure the successful implementation of the Plan.

Task A.7 Homeowner Services

The CM will require direct interactions with homeowners before assignment, during scoping and design, and during construction, close out, and one year warranty period. The CM will receive customer service referrals from the HRO Customer Call Center and the Build it Back Centers. The CM will work closely with HRO/DDC to ensure the highest quality of customer service to homeowners. Proposers should include in the proposal a plan for assisting in the management of homeowner relations throughout the project, potentially including leveraging community based organizations or other organizations familiar with housing, relocation services, disaster recovery, and the local community.

The CM will work with HRO/DDC, and the local community, and engage potential homeowners as necessary in learning more about the pathways and process, and encourage homeowners to finalize their pathway decisions. Where homeowners' pathway decisions are linked with other homeowners, such as homeowners of attached homes or row houses, the CM may work with a group of homeowners to discuss potential design options and pathways for the entire group.

B. SCOPING AND DESIGN SERVICES PHASE:

Task B.1 Develop Scope of Work, Provide Design Solutions, and Determine Final Pathway and Services During Construction

The CM shall provide Design services in accordance with Article 9 of the attached contract. For each home, a current HRO contractor will perform a Preliminary Damage Assessment and generate Feasibility and Tier II Environmental Reports that determine whether or not a home is Substantially Damaged and the applicable environmental impacts to that home. A home that is deemed to be Substantially Damaged is one in which the cost of repairing the home to its pre-storm condition exceeds 50% of the pre-storm value of the home. The pre-storm value of the home is determined by taking the total value of the property in the 2012 tax year and subtracting the value of the land, all from the Department of Finance database. This Substantial Damage calculation will be provided to the CM. The CM will review the Preliminary Damage Assessment, Feasibility, and Tier II Environmental Reports. Samples of these reports are attached in Appendix 12. Using those reports, the CM does a preliminary determination to assign a pathway for the repair among Rehabilitation, Elevation, or Reconstruction alternatives.

The scoping and design functions are then staged.

Scoping

For each home, the CM and Design subconsultants engage the home owner, inspect existing conditions, prepare layout drawings and do all related work towards obtaining the scope of work and preliminary cost estimate. Pathways may change after this scoping effort.

Preliminary Design

Upon approval by HRO/DDC, the design efforts move to the Preliminary design stage. The Preliminary design is a solution to all issues identified in the Scope and after the design consultation with the homeowner, a final cost estimate is prepared. The documents go to HRO for review and preparation of the homeowner agreement.

Final Design

Upon approval the of the Preliminary design and homeowner agreement, CM designer gets required regulatory approvals and prepares the construction bid documents, The Homeowner is then engaged for a final sign off.

Services During Construction

CM designers attend meetings, respond to Request for Information, review submittals, and issue bulletins to ensure that construction matters related to the design are resolved.

Specific Design Requirements

The CM will be required to provide safe and efficient designs solutions; ensure compliance with all local, state and federal laws, rules and regulations, including without limitation, compliance with all protocols required by the U.S Department of Housing and Urban Development, NYC Department of Buildings, New York City Department of Housing Preservation and Development, Board of Standards and Appeals, NYC Department of City Planning, New York State Department of Environmental Conservation, and Department of Interior National Fish & Wildlife; and services include pre-design investigation including title search services, site specific investigation, site surveying, cost estimating, zoning analysis, sewer and septic connections, wetland delineations, all other land use and zoning approvals, schematic design, design development, and regulatory approvals.

Rehabilitation – For those homes preliminarily determined to be in the Rehabilitation pathway, the CM will be required to review the preliminary reports and assign a team to perform a Design Consultation (DC). The DC team will create the scope of work required to repair the remaining storm damage and identify any life safety issues in the home.

The results of the DC for Rehabilitation will be used by the CM to create the Substantial Improvement calculation, which adds the amount of completed work indicated in the Feasibility Report to the work scoped in the DC. Should the Substantial Improvement percentage go over 50% of the pre-storm home value, the home will move into the Elevation pathway. Should it remain below 50%, the home will remain in the Rehabilitation pathway.

Elevation - For homes determined to be in the Elevation pathway, the CM will be required to review the preliminary reports and assign a team to perform an Elevation Design Consultation. In addition, the CM must research each home to determine compliance with rules, regulations, and policies from the Department of Buildings and the Department of Finance in regard to the existing building footprint and size and requirements, such as sprinklers, that will be imposed by the required elevation. Survey and geotechnical reports must be ordered and the Elevation Design Consultation team will then be sent to the site to document existing conditions, confirm the feasibility of elevation, and discuss potential solutions with the homeowner. Following satisfactory results from the above investigations, the architectural or engineering sub-consultant will begin the design process for the home elevation.

Homes remaining in the Elevation pathway will require submission to the Department of Buildings of the plans for the elevation along with partial demolition plans for approval. The design of the home elevation must incorporate zoning considerations, wetland compliance with NYS DEC where the home is adjacent to or in a wetland, required Green Building Standards, BSA approval requirements (if needed), location factors including unmapped streets, homes located in the bed of mapped streets, homes on "courts" without direct access to public streets, street widening lines, substandard streets, attached or semi-attached homes, varying requirements of different flood zones and program standards, among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the Department of Buildings. The CM will be expected to obtain all necessary signatures from homeowners, pull all applicable permits, issue required notices, schedule required utility mark-outs and disconnections, and schedule all required pre-lift and lift inspections prior to elevation. HRO/DDC will provide any required Special Inspections.

Upon completion of Schematic Design for homes in the Elevation pathway, the CM will provide a Cost Reasonableness Analysis performed by a qualified cost estimator to compare the actual costs of elevation to the costs of reconstruction. Should the cost of Elevation exceed 100% of the cost of Reconstruction, or should the Elevation Consultation determine that the home cannot feasibly be lifted, the home will be moved to the Reconstruction pathway. Should the cost of Elevation exceed 75% of the cost of Reconstruction, the homeowner will be given the option to move their home to the Reconstruction pathway.

Reconstruction - For homes whose initial pathway or subsequent examination puts them into the Reconstruction pathway, a number of factors will need to be decided. The design of the home must incorporate the determination of eligible components of the home to be replaced, including square footage, number of units, number and type of rooms, zoning considerations, wetland compliance with NYS DEC where home is adjacent to or in a wetland, required Green Building Standards, Board of Standard and Appeals approval requirements (if needed), location factors including unmapped streets, homes located in the bed of mapped streets, homes on "courts" without direct access to public streets, street widening lines, substandard streets, attached or semi-attached homes, varying requirements of different flood zones and program standards among others. Plans will be reviewed by HRO/DDC for compliance with program standards prior to submission to the NYC Department of Buildings.

Task B.2 Preparation of Construction Bid Documents

The CM will bundle homes in its assigned borough in groups of projects for release of requests for bids for construction according to location, pathways, and other criteria so as to best expeditiously deliver a high volume of completed projects. Bid documents for the scope of work for the repair of the homes shall be packaged according to these projects and are subject to HRO/DDC approval prior to bidding.

The CM will ensure, prior to commencement of the bidding process, that all necessary permits, certificates, licenses, or approvals required for performance of the Work have been obtained. Pre-bid meeting with contractors shall be held as necessary.

There are no limits to the number of homes to be packaged for bid. DDC will have developed and maintained the following eight PQL at the execution of the CM/Design contracts:

General Construction for 1 to 4 Unit Residential Structures over $300,000

Electrical Rehabilitation for 1 to 4 Unit Residential Structures over $300,000

Plumbing Rehabilitation for 1 to 4 Unit Residential Structures over $300,000

Mechanical Rehabilitation for 1 to 4 Unit Residential Structures over $300,000

General Construction for 1 to 4 Unit Residential Structures $300,000 or less

Electrical Rehabilitation for 1 to 4 Unit Residential Structures $300,000 or less

Plumbing Rehabilitation for 1 to 4 Unit Residential Structures$300,000 or less

Mechanical Rehabilitation for 1 to 4 Unit Residential Structures $300,000 or less

Bid tabulation must be broken down by homes. The CM must ensure that the construction contract is to be awarded to the lowest responsive and responsible bidder. Bids may have an allowance for Time and Material (T&M) not to exceed 2%of the bid amount. T&M payment structure must be based on bid hourly rates for normal, and premium hours.

The CM may not prepare bid scopes that require Alternate Bids without pre-approval in writing from DDC/HRO. Alternate Bid is defined as a bid that states an amount which may change from the quoted price if alternate methods and materials are chosen.

C. CONSTRUCTION PHASE

The CM shall provide Construction Services in accordance with Article 10 of the attached contract.

Task C.1 Construction Procurement

The CM will be responsible for the management of all bidding, design, permitting, scheduling of subcontractors, scheduling of inspections and construction related to each home. The CM shall use a form of subcontract that is in compliance with the provisions of Article 10 of the Contract. The form of subcontract must be approved in advance by the Commissioner. HRO/DDC will complete a full due diligence review of construction contractors before they are allowed to be included in the PQL. However the CM will be required to undertake their own due diligence review at the 2nd tier subcontractors.

The CM will be required to comply with the procedures provided by the City in the attached Information for Bidders (Appendix 2) and procure all construction services from PQLs provided and maintained by HRO/DDC. The contracts awarded to the PQL contractors must have include a Schedule B: M/WBE Utilization that aligns with the goals in Attachment 7.

The CM bid documents must include a bid sheet which in addition to presenting the bid price for the Scope of Work must include labor rates for normal hours, premium and holiday hours to be applied if change orders are required on T & M. All the labor rates shall meet Labor Law Requirements in the Article 38 of the attached contract.

Task C.2 Services during the Construction Phase

The CM will provide the following services during the Construction Phase without limitation:

1. **Manage and supervise the performance of the work by the Construction contractors described in each Scope of Work;**
2. **Communicate and coordinate the work with Construction contractors, homeowners, and any other relevant regulatory agencies or community partners;**
3. **Ensure Construction contractors are providing all necessary materials and equipment to perform the work in a timely manner; and**
4. **Communicate and coordinate with design sub-consultants and other Program vendors as necessary.**

Anticipated Time Frames:

- **Construction will commence for Rehabilitation projects within 1 months of a homeowner's final design sign-off, and construction shall be completed 6 months, thereafter.**
- **Construction will commence for Elevate projects within 3 months of a homeowner's final design sign-off, and construction shall be completed 12 months thereafter.**
- **Construction will commence for Reconstruction projects within 3 months of a homeowner's final design sign-off, and construction shall be completed 15 months thereafter.**
- **For Attached and Semi-Attached homes, the timeframe for milestones will be determined on a case by case basis.**

Homes will not be determined to be complete until all work is completed and all required inspections have been performed and certificates (if any) issued by any and all appropriate oversight agencies and handover to the homeowner.

In order to maximize work efficiencies, HRO/DDC reserves the following rights:

(i) To determine the order of priority for the performance of the required services at the assigned sites;

(ii) To increase or decrease the sites assigned to the CM depending on performance, including assigning sites outside the current region;

(iii) To increase or decrease the value of the CM and transfer that contract capacity to another CM;

(iv) To solicit separate design proposals from selected Design Consultants for unique resilient developments which require greater innovation and creativity; and

(v) To assign sites that have completed designs done by another firm for construction only to the CM.

D. EMERGENCY REPAIRS

Should critical life safety issues related to Sandy damage arise, HRO/DDC will issue Change Order to the CM for inspecting and ensuring that critical life safety issues in the home are repaired on an emergency basis in compliance with HRO's Minimum Program Standards in Exhibit I of the attached contract. The CM will set up an after-hours point of contact person (weekdays between 5pm-9am and 24/7 on weekends/holidays) to be on-call to respond to HRO/DDC-related emergency calls. Upon receiving such a call or a notification during regular business hours, the CM will dispatch an emergency team to assess the situation. Examples of emergency repairs include, but are not limited to, a lack of heat/hot water, frozen pipes, and/or minor roof repairs threatening life/safety. The CM will share its findings and repair scope of work with the HRO/DDC program and case management leads immediately upon completion. The HRO/DDC program lead will approve/reject/modify the recommendations for the emergency repairs and authorize an emergency work order prior to repair commencement within 24 hours.

The CM will then provide the requisite crews of qualified personnel to perform the work, i.e., plumbers, electricians, mechanics, and general tradesmen within 24 hours.

For homes already awarded to a PQL contractor, the CM must instruct the PQL contractors to make repairs on an emergency basis. For payment purpose, the work will be treated as Extra Work according to Article 26 and 28 of the attached contract.

For homes not yet awarded to PQL contractors, the CM must contact a minimum of three contractors on the appropriate PQL list, issue to each of them the same scope and opportunities for site visits and request bids for the completion of the work. The bid must be returned, evaluated and awarded within 48 hours.

5 Fee Schedule

The estimated quantities are based on the case study offered in the RFP and are solely for the determination of a price for peocurement. No quantity is guaranteed.. The CM must incorporate the rates for the entire staff and administrative costs which are indicated in the. Scope of Work and Contract Conditions included in Article 42.

FEE SCHEDULE - Borough of Queens

	List of Services **Borough of Queens**	**Estimated Quantity of Homes** **(a)**	**Unit Price per Home** **(b)**

1	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Support homeowner customer service (assume 2 hours per home for bidding purposes)** • **All meetings with homeowner to review and agree on scope of work.** • **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**	**1,250**	
2.	**All required scoping and design services for elevation of one- to four-family homes attached and non-attached including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Utility Markout** • **Land Survey** • **Zoning Analysis** • **Borings and Geotech Analysis**	**950**	

	• **Landscape design to comply with program standards** • **Preparation of construction drawings (including submittal and approval by DOB)** • **Homeowner meeting to review construction documents.** • **Preparation of permit applications** • **Pre-bid meeting with contractors** • **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**		
3.	**All required scoping and design services reconstruction of one- to four-family homes attached and non-attached including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Utility Markout** • **Land Survey** • **Zoning Analysis** • **Borings and Geotech Analysis** • **Landscape design to comply with program standards** • **Preparation of construction drawings (including submittal and approval by DOB)** • **Homeowner meeting to review construction documents** • **Preparation of permit applications**	**20**	

	• **Pre-bid meeting with contractors** • **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**		
4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	**500**	
	Early Engineering (any pathway)	**500**	
	Emergency Construction Services	**500**	
	Wetlands	**500**	
	Septics	**500**	
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	**500**	
	Demolition Plans	**500**	
	Post Approval Amendments	**500**	
	SJO/RFI's	**500**	
	Marine Engineering	**500**	
5.	**Base Fee**	**Year One**	

	The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal: • **Quality personnel to develop and insure compliance with the CM Quality Management Plan** • **Production Staff required to track and maintain** • **Supervisory staff** • **Administrative support staff** ***Note: This include overhead, reimbursable expenses, and any other associated costs.***	**Lump Sum** **Year Two** **Lump Sum** **Year Three** **Lump Sum** **Year Four** **Lump Sum** **Year Five** **Lump Sum**	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**	
7.	**Project Office Operation for 60 months**	**Lump Sum**	
8.	**Fee for Profit** **CM firms are required to submit a Fee for Profit for each home pathway in increments of 50 homes. Upon being issued a Work Order from DDC (in increments of 50 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 50 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 50 Homes, the CM shall receive 25% of the Fee for Profit.**	**EstimatedQty of Groups of 20 Homes** **(a)**	**Unit Price per 20 Homes** **(b)**
	20 Rehabilitations	**62.5**	
	20 Elevations	**47.5**	
	20 Reconstructions	**1**	

9.	**Base Price for Incentive/Damage**	**Qty of Homes (a)**	**Unit Price per Home (b)**
		2,220	

FEE SCHEDULE Borough of Brooklyn

	List of Services **Borough of Brooklyn**	**Estimated Quantity of Homes (a)**	**Unit Price per Home (b)**
2	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Support homeowner customer service (assume 2 hours per home for bidding purposes)** • **All meetings with homeowner to review and agree on scope of work**	**2,500**	

	• **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**		
2.	**All required scoping and design services for elevation of one- to four-family homes attached and non-attached including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Utility Markout** • **Land Survey** • **Zoning Analysis** • **Borings and Geotech Analysis** • **Landscape design to comply with program standards** • **Preparation of construction drawings (including submittal and approval by DOB)** • **Homeowner meeting to review construction documents,** • **Preparation of permit applications** • **Pre-bid meeting with contractors** • **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**	**800**	

3.	**All required scoping and design services reconstruction of one- to four-family homes attached and non-attached including:** • **Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions** • **All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work** • **Utility Markout** • **Land Survey** • **Zoning Analysis** • **Borings and Geotech Analysis** • **Landscape design to comply with program standards** • **Preparation of construction drawings (including submittal and approval by DOB)** • **Homeowner meeting to review construction documents** • **Preparation of permit applications** • **Pre-bid meeting with contractors** • **Preparation of bid documents for construction** • **Review and approval of bids (including cost reasonableness and constructability analysis)**	**25**	
4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**
	More Complex Structural Designs for Rehabilitation and Elevation	**500**	

	Pathway as in the Case of Attached and Semi-attached Homes		
	Early Engineering (any pathway)	**500**	
	Emergency Construction Services	**500**	
	Wetlands	**500**	
	Septics	**500**	
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	**500**	
	Demolition Plans	**500**	
	Post Approval Amendments	**500**	
	SJO/RFI's	**500**	
	Marine Engineering	**500**	
5.	**Base Fee** **The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal:** • **Quality personnel to develop and insure compliance with the CM Quality Management Plan** • **Production Staff required to track and maintain** • **Supervisory staff** • **Administrative support staff** ***Note: This include overhead, reimbursable expenses, and any other associated costs.***	**Year One** **Lump Sum** **Year Two** **Lump Sum** **Year Three** **Lump Sum** **Year Four** **Lump Sum** **Year Five** **Lump Sum**	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**	

7.	**Project Office Operation for 60 months**	**Lump Sum**	
8.	**Fee for Profit** **CM firms are required to submit a Fee for Profit for each home pathway in increments of 50 homes. Upon being issued a Work Order from DDC (in increments of 50 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 50 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 50 Homes, the CM shall receive 25% of the Fee for Profit.**	**Estimated Qty of Groups of 20 Homes (a)**	**Unit Price per 20 Homes (b)**
	20 Rehabilitations	**125**	
	20 Elevations	**40**	
	20 Reconstructions	**1.25**	
9.	**Base Price for Incentive/Damage**	**Qty of Homes (a)**	**Unit Price per Home (b)**
		3,325	

FEE SCHEDULE - Borough of Staten Island

	List of Services **Borough of Staten Island**	**Estimated Quantit**	**Unit Price per**

		y of Homes (a)	Home (b)
3	**All required scoping and design services for rehabilitation of one-to four-family homes including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, and open permit research • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Support homeowner customer service (assume 2 hours per home for bidding purposes) • All meetings with homeowner to review and agree on scope of work (and generate a TPA?) • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)	1,200	
2.	**All required scoping and design services for elevation of one- to four-family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey	950	

	• Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB) • Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)		
3.	**All required scoping and design services reconstruction of one- to four-family homes attached and non-attached including:** • Review of feasibility documents/damage assessments/Tier 2/available environmental reports, open permit research, and compliance of existing site with historically documented conditions • All site visits required to verify as built site conditions, prepare basic floor plans, obtain measurements, development of a program compliant scope of work • Utility Markout • Land Survey • Zoning Analysis • Borings and Geotech Analysis • Landscape design to comply with program standards • Preparation of construction drawings (including submittal and approval by DOB)	30	

	• Homeowner meeting to review construction documents • Preparation of permit applications • Pre-bid meeting with contractors • Preparation of bid documents for construction • Review and approval of bids (including cost reasonableness and constructability analysis)		
4.	**As needed Architectural and Engineering Services (Paid on a T&M Basis):**	**Estimated Hours (a)**	**Hourly Rate (b)**
	More Complex Structural Designs for Rehabilitation and Elevation Pathway as in the Case of Attached and Semi-attached Homes	500	
	Early Engineering (any pathway)	500	
	Emergency Construction Services	500	
	Wetlands	500	
	Septics	500	
	Fire Sprinkler System Designs (inclusive of Hydrant Flow test and backflow preventer)	500	
	Demolition Plans	500	
	Post Approval Amendments	500	
	SJO/RFI's	500	
	Marine Engineering	500	
5.	**Base Fee**	**Year One**	

	The Base Fee covers the professional staffing for the key CM team over the period of time for the successful accomplishment of the tasks listed in Construction Management and Construction Procurement unless otherwise itemized in the Fee Proposal: • Quality personnel to develop and insure compliance with the CM Quality Management Plan • Production Staff required to track and maintain • Supervisory staff • Administrative support staff *Note: This include overhead, reimbursable expenses, and any other associated costs.*	**Lump Sum** **Year Two** **Lump Sum** **Year Three** **Lump Sum** **Year Four** **Lump Sum** **Year Five** **Lump Sum**	
6.	**Project Office Setup (Mobilization and Demobilization)**	**Lump Sum**	
7.	**Project Office Operation for 60 months**	**Lump Sum**	
8.	**Fee for Profit** CM firms are required to submit a Fee for Profit for each home pathway in increments of 50 homes. Upon being issued a Work Order from DDC (in increments of 50 homes, preliminary assessments and related documents prepared by HRO) the CM shall receive 25% of their Fee for Profit. Upon commencing construction of 50 homes, the CM shall receive 50% of the Fee for Profit. Upon Closeout of 50 Homes, the CM shall receive 25% of the Fee for Profit.	**Estimated Qty of Groups of 20 Homes** **(a)**	**Unit Price per 20 Homes** **(b)**
	20 Rehabilitations	60	
	20 Elevations	47.5	
	20 Reconstructions	1.5	

9.	**Base Price for Incentive/Damage**	**Qty of Homes (a)**	**Unit Price per Home (b)**
		2,180	

[E every Certificate of Insurance must be accompanied by either the following certification by the broker setting forth the following text and required information and signatures or complete copies of all policies referenced in the Certificate of Insurance. In the absence of completed policies, binders are acceptable.]

CERTIFICATION BY BROKER

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects, and that the described insurance is effective as of the date of this Certification.

_____
[Name of broker (typewritten)]

_____
[Address of broker (typewritten)]

_____
[Signature of authorized officer of broker]

_____
[Name of authorized officer (typewritten)]

_____
[Title of authorized officer (typewritten)]

_____
[Contact Phone Number for Broker (typewritten)]

_____
[Email Address of Broker (typewritten)]

Sworn to before me this

_____ day of _____, 201_

_____

NOTARY PUBLIC

EXHIBIT B

STAFFING REQUIREMENTS A

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FMS ID: TBD

PROJECT: Construction Management/Design/Build for the rehabilitation, elevation and/or rebuilding of substantially damaged and non-substantially damaged residential homes
Overall staffing requirements for design and construction management personnel for the Project have been establish by the Commissioner and are set forth below. Such staffing requirements specify the titles of design and construction management personnel that may be required for the Project. A staffing plan for the project shall be established in accordance with the procedure set forth in Article 11 of the contract.

List of Key Personnel:

- **Program Executive**
- **Project Executive**
- **Project Manager**
- **Lead Design Manager**
- **Design Project Manager**
- **Project Controls Manager**

Minimum Qualification Requirements Per Title

Any personnel provided by the CM and/or its Design Subconsultants must satisfy the Minimum Requirements Per Title set forth below.

Minimum Qualification Requirements Per Title

Any personnel provided by the CM and/or its Design Consultants must satisfy the Minimum Requirements Per Title set forth below.

ARCHITECTURAL PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License
Project Architect	7	Professional License
Project Manager (Architecture)	7	
Senior Architectural Designer	5	
Junior Architectural Designer	3	
Architectural Technician	1	
Senior Interior Designer	5	
Junior Interior Designer	3	
Interiors Technician	1	
Programming Specialist	3	
Senior Landscape Architect	5	Professional License
Junior Landscape Architect	3	
Senior Landscape Architectural Designer	5	
Junior Landscape Architectural Designer	3	
Landscape Technician	1	
Senior Draftsperson/CAD	5	
Junior Draftsperson/CAD	1	

ENGINEERING PERSONNEL

Title	Number of Years of Experience	Professional License or Certification
Principal	10	Professional License

Project Engineer	**7**	**Professional License**
Project Manager (Engineer)	**7**	
Senior Structural Engineering Designer	**5**	
Senior Electrical Designer	**5**	
Senior Plumbing Designer	**5**	
Senior HVAC Designer	**5**	
Junior Structural Engineering Designer	**3**	
Junior Electrical Designer	**3**	
Junior Plumbing Designer	**3**	
Junior HVAC Designer	**1**	
Engineering Technician	**1**	
Senior Engineering Draftsperson/CAD	**5**	
Junior Engineering Draftsperson/CAD	**1**	

PERSONNEL FOR ESTIMATING

Title	Number of Years of Experience	Professional License or Certification
Principal	**7**	**Professional Certification**
Senior Estimator	**7**	
Junior Estimator	**3**	

PERSONNEL FOR VARIOUS SPECIALTIES

Title	Number of Years of Experience	Professional License or Certification
Principal	**7**	**Professional Certification**
Fire Protection Specialist	**5**	
Geotechnical Specialist	**5**	
Marine Engineer	**10**	**Professional License**
Environmental Conservationist	**5**	
Arborist	**3**	**ISA Certified**
Expediter	**5**	
Clerical	**0**	

CONSTRUCTION MANAGEMENT PERSONNEL

TITLES	Academic Qualification (Minimum)	Licensure	Number of Years of Experience	Number of Years in Relevant Supervising Experience
Program Executive	**BS**		**10**	**7**
Project Executive	**BS**		**10**	**7**
Project Manager	**BS in Engineering, Architecture, Construction related degree**	**PE, RA, CCM**	**10**	**5**
Assistant Project Manager	**BS in Engineering, Architecture, Construction related degree**	**PE, RA, CCM**	**7**	**5**
Construction Inspector/ Resident Engineer	**BS in Engineering (CE, EE or ME, BS in Arch.)**	**PE**	**5**	**3**
Project Controls Manager	**BS in Engineering, Architecture, Construction related degree**		**10-15**	**5 years of leadership in projects of the similar size and complexity**
Contract Manager/Local Hiring Manager	**BS**		**5**	**3**
Office Engineer/Utilities Coordinator/Operational Logistics Coordinator	**BS in Engineering (CE, EE or ME)**		**5**	**3**
Clerical	**12th Grade**	**Computer**	**0**	

TITLES	Academic Qualification (Minimum)	Licensure	Number of Years of Experience	Number of Years in Relevant Supervising Experience
		Skill		

EXHIBIT C

PARTIAL PAYMENT FOR STORED MATERIAL

The Commissioner may authorize partial payment for certain materials, fixtures and equipment, prior to their incorporation in the Work, but only in strict accordance with and subject to all the terms and conditions set forth in Paragraphs 1 through 16 below. The Contractor may request such partial payment on behalf of its Subcontractors.

1. The Contractor shall submit to the Commissioner a written request, in quadruplicate, for payment for materials purchased or to be purchased for which it desires to be paid prior to their actual incorporation in the Work. The request shall be accompanied by a schedule of the types and quantities of materials, and shall state whether such materials are to be stored on or off the site.
2. Where the materials are to be stored off the site, they shall be stored at a place other than the Contractor's or Subcontractor's premises (except with the written consent of the Commissioner) and under the conditions prescribed or approved by the Commissioner. The Contractor shall set apart and separately store at the place or places of storage all materials and shall clearly mark same "PROPERTY OF THE CITY OF NEW YORK", and further, shall not at any time move any of said materials to another off-site place of storage without the prior written consent of the Commissioner. Materials may be removed from their place of storage off the site for incorporation in the work upon approval of the Commissioner's Representative.
3. Where the materials are to be stored at the site, they shall be stored at such locations as shall be designated by the Commissioner's Representative and only in such quantities as, in the opinion of the Commissioner's Representative, will not interfere with the proper performance of the Work by the Contractor or by other contractors then engaged in performing work on the site. Such materials shall not be removed from their place of storage on the site except for incorporation in the Work, without the approval of the Commissioner's Representative.

4. INSURANCE

   a. STORAGE OFF-SITE: Where the materials are stored off the site and until such time as they are incorporated in the Work, the Contractor shall fully insure such materials against any and all risks of destruction, damage or loss including but not limited to fire, theft, and any other casualty or happening. The policy of insurance shall be payable to the City of New York. It shall be in such terms and amounts as shall be approved by the Commissioner and shall be placed with a company duly licensed to do business in the State of New York. The Contractor shall deliver the original and one copy of such policy or policies marked "Fully Paid" to the Commissioner.
   b. STORAGE ON THE SITE: Where the materials are stored at the site, the Contractor shall furnish satisfactory evidence to the Commissioner that they are properly insured against loss, by endorsements or otherwise, under the policy or policies of insurance obtained by the Contractor to cover losses to materials owned or installed by him. The policy of insurance shall cover fire and extended coverage against windstorm, hail, explosion and riot attending a strike, civil commotion, aircraft, vehicles and smoke.
   c. Subject to approval by the Commissioner, the above described insurance may be provided by the Contractor's Subcontractor.

5. All costs, charges and expenses arising out of the storage of such materials, shall be paid by the Contractor and the City hereby reserves the right to retain out of any partial or final payment made under the Contract an amount sufficient to cover such costs, charges and expenses with the understanding that the City shall have and may exercise any and all other remedies at law for the recovery of such cost, charges and expenses. There shall be no increase in the Contract price for such costs, charges and expenses and the Contractor shall not make any claim or demand for compensation therefor.
6. The Contractor shall pay any and all costs of handling and delivery of materials, to the place of storage and from the place of storage to the site of the work; and the City shall have the right to retain from any partial or final payment an amount sufficient to cover the cost of such handling and delivery.
7. In the event that the whole or any part of these materials are lost, damaged or destroyed in advance of their satisfactory incorporation in the Work, the Contractor at his own cost, shall replace such lost, damaged or destroyed materials of the same character and quality. The City will reimburse the Contractor for the cost of the replaced materials to the extent, and only to the extent, of the moneys actually received by the City under the policies of insurance hereinbefore referred to. Until such time as the materials are replaced, the City will deduct from the value of the stored materials or from any other money due under the Contract, the amount paid to the Contractor for such lost, damaged or destroyed materials.
8. Should any of the materials paid for the City hereunder be subsequently rejected or incorporated in the Work in a manner or by a method not in accordance with the Contract Documents, the Contractor shall remove and replace such defective or improperly incorporated material with materials complying with the Contract Documents. Until such materials are replaced, the City will deduct from the value of the stored materials or from any other money due the Contractor, the amount paid by the City for such rejected or improperly incorporated materials.
9. Payments for the cost of materials made hereunder shall not be deemed to be an acceptance of such materials as being in accordance with the Contract Documents, and the Contractor always retains and must comply with his duty to deliver to the site and properly incorporate in the Work only materials which comply with the Contract Documents.
10. The Contractor shall retain any and all risks in connection with the damage, destruction or loss of the materials paid for hereunder to the time of delivery of the same to the site of the Work and their proper incorporation in the Work in accordance with the Contract Documents.
11. The Contractor shall comply with all laws and the regulations of any governmental body or agency pertaining to the priority purchase, allocation and use of the materials.

12. When requesting payment for such materials, the Contractor shall submit with the partial estimate duly authenticated documents of title, such as bills of sale, invoices or warehouse receipts, all in quadruplicate. The executed bills of sale shall transfer title to the materials from the Contractor to the City (in the event that the invoices state that the material has been purchased by a Subcontractor, bills of sale in quadruplicate will also be required transferring title to the materials from Subcontractor to the Contractor).
13. Where the Contractor, with the approval of the Commissioner has purchased unusually large quantities of materials in order to assure their availability for the Work, the Commissioner at his option, may waive the requirements of paragraph "12" provided the Contractor furnishes evidence in the form of an affidavit of the Contractor in quadruplicate, and such other proof as the Commissioner may require, that he is the sole owner of such materials and has purchased them free and clear of all liens and other encumbrances. In such event, the Contractor shall pay for such materials and submit proof thereof, in the same manner as provided in paragraph "12" hereof, within seven (7) days after receipt of payment therefor from the Comptroller. Failure on the part of the Contractor to submit satisfactory evidence that he has paid in full for all such materials shall preclude him from payments under the Contract.
14. The Contractor shall include in each succeeding partial estimate requisition a summary of materials stored which shall set forth the quantity and value of materials in storage, on or off the site, at the end of each preceding estimate period; the amount removed for incorporation in the Work; the quantity and value of materials delivered during the current period and the total value of materials on hand for which payment thereof will be included in the current payment estimate.
15. Upon proof to the satisfaction of the Commissioner of the actual cost of such materials and upon submission of proper proof of title as required under paragraph "12" or "13" hereof, payment will be made therefore to the extent of 85%, provided however, that the cost so verified, established and approved shall not exceed the estimated cost of such materials included in the approved detailed breakdown estimate submitted in accordance with Article 42 of the Contract; if it does, the City will pay only 85% approved estimated cost.
16. Upon the incorporation in the Work of any such materials, which have been paid for in advance of such incorporation in accordance with the foregoing provisions, payment will be made for such materials incorporated in the Work pursuant to Article 42 of the Contract, less any sums paid pursuant to paragraph "15" herein.

EXHIBIT D: REQUIREMENTS FOR PROJECT OFFICE

1) General: Throughout the term of this Contract, the Contractor shall be required to provide and maintain a Project Office, dedicated to the activities of personnel in connection with Projects assigned under this Contract. Such Project Office shall be in accordance with the requirements set forth in this Exhibit D. The Project Office shall be located within the assigned borough.

(2) Cost Included in Schedule A

(3) Ownership of Components: In the event the Contractor elects to purchase any of the components of the Project Office to be provided hereunder, such components shall remain the sole property of the Contractor.

(4) Risk of Loss: The entire risk of loss with respect to the Project Office shall remain solely and completely with the Contractor. The Contractor shall be responsible for the cost of any insurance coverage determined by the Contractor to be necessary for the Project Office.

(5) Replacement: In the event the Project Office or any component(s) thereof is lost, damaged, or determined by the Commissioner to be defective or noncompliant with the requirements set forth in this Exhibit D, the Contractor shall be responsible, at its sole cost and expense, to replace such component(s) within two weeks from the date of such loss or damage, or written notice from the Commissioner that the component is defective or noncompliant.

(6) Compliance: The Project Office provided by the Contractor in accordance with this Exhibit D shall comply with all applicable federal, state and local laws, rules and regulations, including without limitation, the New York City Building Code.

(7) Project Office Requirements: The required Project Office shall be sufficient in size to accommodate all personnel assigned to the Project and shall, at a minimum, have the following square footage: (a) 800 square feet of usable office space, and (b) 200 square feet of usable storage space. The Project Office shall have sufficient toilet facilities for all assigned personnel.

(8) Utilities: The Contractor shall be responsible for providing all necessary utilities for the Project Office, including without limitation, water, heat, air conditioning, electricity and telephone service. Cellular telephone service shall include both incoming and outgoing calls.

(9) Maintenance Services: The Contractor shall be responsible for providing all cleaning and maintenance services in connection with the Project Office, including without limitation maintenance of equipment.

(10) Office Supplies: The Contractor shall be responsible for providing all office supplies, including without limitation, pens, pencils, stationery, filtered drinking water and sanitary supplies.

(11) Office Furniture and Equipment: The Project Office provided by the Contractor shall include the offices, furniture, accessories and equipment specified below. All items and /or equipment furnished hereunder shall be in excellent condition and functioning properly. All equipment furnished hereunder shall be the most current model.

(a) Office furniture, cubicles and/or desks for all personnel assigned to the Project

(b) Shared private office for the Project Manager and Assistant Project Manager.

(c) Conference room for at least twelve (12) people.

(d) Flex type multi line telephone system, including modem and fax lines with voice mail

(e) One (1) high volume copier (50 copies per minute)

(f) One (1) fax machine

(g) Minimum of four (4) networked computers, plus file server and all associated computer software, in accordance with Paragraph 13 below

(h) Minimum of one (1) heavy duty laser printer

(i) Mobile communication system (cellular telephones or two way radios) for all personnel assigned to the Project

(12) File Transfer Protocol Site: The contractor shall furnish a File Transfer Protocol (FTP) site for the exchange of electronic project data. The FTP site shall include the ability to create multiple secure folders with unique usernames and access passwords. The storage capacity of the FTP site shall be a minimum of 300 megabytes. It shall be accessible using either Microsoft Windows or Apple Macintosh operating systems. The Contractor shall verify and ensure that the FTP site is compliant with the "client" security and network access restrictions.

(13) Requirements for Computer Equipment: Any personal computers ("PCS") required in this Exhibit D must meet the following specifications.

(a) Personal Computer(s) – Workstation Configuration

(1) Acceptable Models: Dell, Gateway, Toshiba, HP, IBM, or an approved equal. (Note: an approved equal requires written approval of the Assistant Commissioner of ITS.)

(2) Processor: Pentium i5 or i7

(3) System RAM: 8GB SDRAM or DDR

(4) Hard Disk Drive(s): 500GB (Gigabytes) or larger.

(5) CD-RW: Internal CD-RW, 48x Speed or faster.

(6) 16xDVD+/-RWDVD Burner (with double layer write capability) 16x Speed or faster

(7) I/O Ports: Must have at least one (1) Serial Port one, (1) Parallel Port, 2 USB Ports. Serial Ports must consist of UART 16550 Chip or better.

(8) Video Display Card: PCI Interface with a minimum of 1GB of RAM.

(9) Monitor: 17" TFT LCD monitor.

(10) Available Exp. Slots: System as configured above shall have at least two (2) full size PCI Slots available.

(11) NA

(12) Other Peripherals: Optical scroll Mouse, 101 Key Keyboard, Mouse Pad and all necessary cables.

(13) Software Requirements: Microsoft Windows Professional Windows 7, Microsoft Office 2012 or higher Professional; Microsoft Project 2012 or higher Professional, Adobe Acrobat Professional, Anti-Virus with one year updates subscription, Auto Cad 2014.

(b) Computers shall be provided with the following:

(1) One (1) broad-band internet service account. This account will be active for the life of the project.

(2) One (1) 600 DPI HP Laser Jet Printer (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size).

(3) All necessary Cabling.

(4) Storage Boxes for and Blank CDs/DVDs.

(5) Printer Table.

(6) UPS/Surge Surpressor combo.

(c) All Computer Hardware shall come with a three (3) year warranty for on-site repair or replacement. Additionally, and notwithstanding any terms of the warranty to the contrary, the Contractor is responsible for rectifying all computer problems or equipment failures within one (1) business day.

(d) An adequate supply of blank CD's/DVD's, and paper and toner cartridges for the printer shall be provided by the Contractor, and shall be replenished by the Contractor as required.

(e) It is the Contractor's responsibility to ensure that electrical service and phone connections are also available at all times.

(f) Broadband connectivity is preferred at each field office location. Please take into consideration that an extra phone line dedicated to the modem must be ordered as part of the contract unless Internet broadband connectivity, via Cable or DSL, is available at the planned field office location. Any questions regarding this policy should be directed to Raul Canabal, Assistant Commissioner of Information Technology Services at 718-391-1668.

EXHIBIT E

CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

SAFETY REQUIREMENTS

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

I. POLICY ON SITE SAFETY

II. PURPOSE

III. DEFINITIONS

IV. RESPONSIBILITIES

V. SAFETY QUESTIONNAIRE

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW

VIII. EVALUATION DURING WORK IN PROGRESS

IX. SAFETY PERFORMANCE EVALUATION

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC jobsites must, at a minimum, comply with applicable federal, state and city laws, rules and regulations, including without limitation:

- U. S. Department of Labor 29 Code of Federal Regulations (CFR) Part 1926 and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA) including, but not limited to "Respiratory Protection" (29 CFR 1910.134), "Permit-Required Confined Spaces" (29 CFR 1910.146), and "Hazard Communication" (29 CFR 1910.1200);
- New York State Department of Labor Industrial Code Rule 23 – Protection in Construction, Demolition and Excavation;
- New York City Construction Codes, Title 28
- NYC Department of Transportation Title 34 Chapter 2 – Highway Rules
- New York State Department of Labor Industrial Code Rule 753
- NYC Local Law No. 113 (2005) Noise Control Code

In addition, all regulations promulgated by the NYC Department of Transportation, including requirements for Maintenance and Protection of Traffic (MPT), are applicable when contained in contract specifications. While MPT is a significant component of work in our Infrastructure Division, it does not supersede or exempt Contractors from complying with other applicable health and safety standards (for example, excavating and trenching standards, operation of heavy equipment and compliance with City environmental and noise regulations).

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazard, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO shall mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them.

Construction Safety Auditor: A representative of the QACS Construction Safety Unit who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site surveys, reviewing health and safety plans, reviewing construction permits, and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

Construction Safety Unit: A part of QACS within the Division of Technical Support that assesses contractor safety on DDC jobsites and advises responsible parties of needed corrective actions.

Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term "Contractor" shall mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term "Contractor" shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System ("JOCS Contract"), and (3) a subcontract with a CM/Builder ("First Tier Subcontract").

Director - Quality Assurance and Construction Safety (QACS): Responsible for the operations of the QACS Construction Safety Unit and the DDC Site Safety management programs.

Job Hazard Assessment (JHA): A process of identifying site-specific hazards that may be present during construction and establishing the means and methods to reduce or eliminate those hazards.

Jobsite Safety Coordinator: A person designated by the Contractor to be onsite during all activities. This individual shall have received, at a minimum, the OSHA 10-hour construction safety program. Other examples of acceptable training are the 30-hour OSHA Safety and

Health Standards for the Construction Industry training program (OSHA 510) or a degree/certificate in a safety and health from a college-level curriculum. This person does not necessarily have to be dedicated full-time to site safety, but must have sufficient experience and authority to undertake corrective action and must qualify to be a competent person. For certain projects, as defined in NYC Construction Codes – Title 28, this person may be required to have a Site Safety Manager's License issued by the NYC DOB.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a CM, retained by DDC.)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to award and is subject to review and acceptance by the Construction Safety Unit.

Safety Questionnaire: Used by DDC to evaluate Contractor's current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to award and is subject to review and acceptance by the Construction Safety Unit.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer / Construction Project Manager / Construction Manager

- Monitors the issuance of safety- related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with DDC policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meeting.
- Notifies the Construction Safety Unit and the ACCO's Insurance and Risk Management Unit of project- related accidents and emergencies, as per DDC's Construction Safety Emergency Protocol.
- Gathers facts related to all accidents and prepares DDC Accident Reports.
- Notifies the Construction Safety Unit of outside regulatory agency inspections and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the Site Safety Plan and DDC construction documents.
- Notifies the contractor and DDC in the event that any condition or activity exists that is not in compliance with the Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies DDC of any emergency condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Reports gross safety violations to the Construction Safety Unit immediately.

B. Contractors

- Complete a Safety Questionnaire and submit with its bid or as part of a pre-qualification package.
- Provide a Written Job Hazard Assessment (JHA) that identifies expected safety issues of the work to be performed. JHA shall be included with the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 10 business days of notification from DDC that it has been identified as the low bidder. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to an award of contract. The Site Safety Plan shall be revised and updated as necessary.

- Ensure that all employees are aware of the hazards associated with the project through formal and informal training and/or other communications. Conduct and document weekly safety meetings for the duration of the project. Documentation to be provided to the RE/CPM/CM on a monthly basis.
- Name a Construction Superintendent, if required.
- Name a Job Site Safety Coordinator. The Contractor will be required to identify the Job Site Safety Coordinator in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- As part of the Site Safety Plan, prepare a site specific MPT (if not otherwise provided in the contract documents) and comply with all of its provisions.
- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Job Site Safety Coordinator will conduct this training prior to mobilization and provide documentation to the RE/CPM/CM.
- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe conditions or hazards to the DDC RE/CPM/CM as soon as practical, but no more than 24 hours after discovery, and take action to remove or abate such conditions.
- Report any accident involving injuries to workers or the general public, as well as property damage, to the DDC RE/CPM/CM within two (2) hours.
- Notify the DDC RE/CPM/CM within two (2) hours of the start of an inspection by any regulatory agency personnel, including OSHA.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Respond to DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety and environmental performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor must submit a completed DDC Safety Questionnaire listing their workers' compensation experience modification rating and OSHA Incidence Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor must provide the requested update within 30 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three years; and
Criteria 4: A fatality (worker or member of public) experienced on or near Contractor's worksite within the last three (3) years; and
Criteria 5: An unacceptable rating by QACS based on past performance on DDC projects; and
Criteria 6: Contractor has in place an acceptable corporate safety program and its employees shall have completed all documented relative safety training; and
Criteria 7: Contractor shall provide OSHA Injury Records (currently OSHA 300 Log) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more detail concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, OSHA records, OSHA and DOB citations, EPA citations and written Safety Programs.

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

The Contractor shall submit the following within 10 days of notification from DDC that it has been identified as the low bidder: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standard, and the Site Safety Plan shall identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to an award of contract.

The Site Safety Plan shall apply to all Contractor and Subcontractor operations, and shall have at a minimum, the following elements. Each element shall be described in a separate section in the written document. It may be necessary to modify the basic format for certain unique or high-risk projects (such as tunnels or high-rise construction). The basic elements are as follows:

1. Responsibility and Organization: Identify the person or persons with authority and responsibility for implementing the Site Safety Plan. Provide an organization chart and define levels of authority and responsibility. Identify the Competent Person, the Construction Superintendent (if required), the Job Safety Coordinator and the Qualified Person required for this project.

2. Communication: Establish a system for communicating with employees and Subcontractors on matters relating to worker and public safety and health and environmental protection, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. An emergency response notification protocol is to be established that also includes after hours contact numbers. The plan must also include provisions for weekly safety meetings held by the Job Site Safety Coordinator.

3. Job Hazard Assessment: A written document submitted by the contractor, used to identify expected job hazards and public safety risks and state the specific means and methods to reduce, control or eliminate those hazards. This part of the Site Safety Plan must also include how on-going evaluations of those risks and hazards will be carried out, including plans for periodic inspections to identify unsafe conditions, work practices and public safety hazards.

4. Accident/Exposure Investigation: Establish a procedure to investigate and report occupational and public injury or illness, property damage, vehicle accidents or other mishaps.

5. Hazard Correction: Establish means, methods and/or procedures for correcting unsafe or unhealthy conditions that might be exposing both the public and workers to hazards. Corrective actions must be taken immediately when observed or discovered. Should an imminent hazard exist which cannot be immediately abated without endangering employees, the public and/or property, remove or restrict all exposed persons from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. When corrective actions cannot be taken immediately, temporary measures should be taken until such time permanent measures are taken to eliminate the potential risks or hazards

6. Training: Describe site-specific hazard training programs. In addition to the required safety orientation, additional site specific training, in the form of required weekly safety meetings, will be required. Contractors must also initiate training when: a) new employees are hired; b) employees are given new job assignments for which training has not been previously received; c) new substances, processes, procedures or equipment are introduced that might represent a new public or worker hazard; d) the employee is made aware of a new or previously unrecognized hazard; e) new supervisors are assigned to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed; and f) after a jobsite incident or accident has occurred.

7. Recordkeeping: Establish procedures to maintain records of scheduled and periodic inspections, weekly safety meetings, and training records. Updated records shall be maintained at the jobsite, accessible to the Construction Safety Auditors and/or Quality Assurance Auditors/RE/CPM, and retained in accordance with DDC policy.

The most critical component of the Site Safety Plan is the Job Hazard Assessment section. This section must address specific hazards that are anticipated throughout the project. Each Site Safety Plan must address, at a minimum:

- Public and pedestrian safety
- Fall protection
- Electrical hazards
- Scaffolding
- Fire protection
- Emergency notification & response
- Housekeeping / debris removal
- Dust control
- Maintenance and protection of traffic
- Trenching and excavating
- Heavy equipment operations
- Material / equipment storage
- Environmental contamination
- Sheeting and shoring
- Alcohol and Drug Abuse Policy

The following additional hazards must be addressed, if applicable, based on the contract safety specifications and/or the results of the JHA (the list is not all-inclusive):

- Basic Personal Protective Equipment
- Compressed Air
- Compressed Gas Cylinders
- Cranes, Derricks and Hoists
- Demolition
- Electrical safety
- Excavations and Trenching
- Fall Protection – Floor openings/Stairways
- Fall Protection – Guardrails Toe boards etc.
- Fall Protection – Leading Edge
- Fall Protection – Personal Fall Protection Devices
- Fire Protection and Fire Prevention
- Hazard Communication (RIGHT TO KNOW)
- Hazardous Energy & Lock Out / Tag Out

- Housekeeping/ Sanitation
- Maintenance and Protection of Traffic (MPT)
- Man Lifts /Aerial Lifts
- Marine Operations
- Motor Vehicle Safety
- Overhead Power lines
- Permit Required Confined Space
- Portable Ladders
- Powered Actuated Tools
- Powered Material Handling Equipment
- Scaffolds – Mobile
- Scaffolds – Stationary
- Scaffolds – Suspended
- Slings
- Steel Erection
- Welding and Cutting (Hot Work)
- Airborne Contaminants – Particulates – General
- Asbestos
- Blood borne Pathogens
- Hearing Protection
- Lead in Construction
- Mercury in Construction
- PCB's
- Respiratory Protection
- Silica
- Thermal Stress
- West Nile Virus
- Rodents and Vermin
- Noise Mitigation Plan

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor will be required to submit a Safety Program. In addition, certain DDC Operating Units may establish program or client-specific safety requirements. The contractor's Site Safety Plan must address such program or client specific safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

As part of the construction kick-off meeting, a Site Safety Plan review will be part of the agenda. A QACS representative will participate in this meeting with the contractor prior to the start of the project for the purpose of:

A. Reviewing the safety issues detailed in the contract.
B. Reviewing the Site Safety Plan.
C. Reviewing any new issues or information that was not previously addressed.
D. Discussing planned inspections and audits of the site by DDC personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Superintendents or Safety Representatives.

B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and forward them to the Construction Safety Unit on a weekly basis. Any critical deficiencies shall be immediately reported to QACS phone# (718) 391-1624 or (718) 391-1911.

C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director- QACS, or designee will meet with the Contractor's safety representative, the DDC project manager, the RE/CPM, or the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.

D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.

E. The contractor shall inform the Construction Safety Unit and ACCO Insurance and Risk Management Unit of all medical injuries or illnesses that require doctors' treatment resulting from an on-the-job incident within 24 hours of the occurrence. The Construction Safety Unit shall also be immediately informed of all fatalities, catastrophic accidents with more than one employee hospitalized, any injuries to members of the general public and major equipment damage (e.g., property damage, equipment rollovers, loads dropped from crane). QACS shall maintain a record of all contractor injuries and illnesses during the project and provide regular reports to the Agency.

F. The Construction Safety Unit shall be immediately notified at the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections. The Director of Quality Assurance & Construction Safety shall maintain a log of all contractor OSHA/EPA inspections and citations during the project.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including all DDC inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which will be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

EXHIBIT F

FORM OF PERFORMANCE AND PAYMENT BONDS

PERFORMANCE BOND

KNOW ALL MEN BY THESES PRESENTS; That we; _____

hereinafter referred to as the "Principal", and_____
_____
_____
_____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to
_____

hereinafter referred to as the "CM", or to its successors, or to its assigns in the penal sum of
_____
_____

($_____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the CM for
_____
_____
_____
_____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and/or replacement of defective Work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the CM from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the CM for all outlay and expense which the CM may incur in making good any such default, and shall protect the said CM against, and pay any and all amounts, damages, costs and judgments which may or shall be recovered against said CM or any of its officers or agents of which the said CM may be called upon to pay any person or corporation by reason of any damages arising or growing out of the doing of said Work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the said PRINCIPAL, or his (their, its) agents or servants, or the improper performance of the said Work by the said PRINCIPAL, or his (their, its) agents or servants, or the infringement of any patent or patent rights by reason of the use of any materials furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, if requested to do so by the CM, to fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, if the CM determines that the Principal, for any cause, has failed or neglected to fully perform and complete such Work. The Surety (Sureties) further agrees to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the

CM and to complete all Work within such time as the CM may fix. The Surety and the CM reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or Work to be performed thereunder, or by any payment thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any assignment by the CM of its rights, title and interest in and to such bond, and said Surety (Sureties) hereby waives notice of any such assignment by the CM.

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By:_____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came_____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____
to me known, and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

_____
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, That we,_____
_____
_____
_____

hereinafter referred to as the "Principal", and_____
_____
_____
_____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to
_____,

hereinafter referred to as the “CM”, or to its successors, or to its assigns in the penal sum of
_____
_____

$_____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the CM for
_____
_____
_____
_____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the Project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any Subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the CM.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the CM liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the CM to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including Subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the CM to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal. The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any assignment by the CM of its rights, title and interest in and to such bond, and said Surety (Sureties) hereby waives notice of any such assignment by the CM.

PAYMENT BOND 3

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____(L.S.)
Principal

By:_____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came_____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

_____
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

_____
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

THIS AGREEMENT made and entered into this_____day of _____ , _____, by and between _____ (hereinafter the "CM"), located at _____, and the City of New York, Department of Design and Construction (hereinafter the "City"), located at 30-30 Thomson Avenue, Long Island City, New York.

W I T N E S S E T H:

WHEREAS the City has entered into a certain contract with the CM, bearing Comptroller's Registration Number _____ (hereinafter the "Contract"); and

WHEREAS pursuant to the Contract, the CM is obligated to subcontract certain work and to obtain payment and performance bonds from the subcontractors; and

WHEREAS pursuant to the Contract, the CM has agreed to assign all its rights, title and interest under the subject bonds, in the manner set forth herein;

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the parties hereto do hereby agree as follows:

The CM hereby makes an irrevocable assignment to the City of all its rights, title and interest in and to the below described performance and payment bonds, including any subrogation or other right of the CM to receive any payments that may become due and owing by the Surety thereunder:

Performance and Payment Bonds (Bond # _____) issued to _____,
by _____, designating _____
as Obligee, with respect to a contract for_____
_____

provided, however, this assignment shall become effective only upon the happening of one or more of the events set forth below:

(1) The Commissioner of the Department of Design and Construction, or his authorized designee, in his sole and absolute discretion, determines in writing that:

(a) The CM has been terminated for cause with respect to the Contract; or
(b) The CM has been terminated without cause with respect to the Contract; or
(c) The CM has abandoned the Contract; or
(d) The CM has failed to make demand upon the Surety to perform its obligations under the above described bond(s), when circumstances have warranted that such action should be taken and the City has so notified the CM in writing.

(2) A voluntary or involuntary petition in bankruptcy has been filed by or against the CM, or, in the event the CM is a joint venture, a voluntary or involuntary petition in bankruptcy has been filed by or against either or both of the joint venture partners acting as the CM.

IN WITNESS WHEREOF, the parties hereto do set their hands and agree as follows.

CM: _____

By: _____

Title: _____

City of New York, Department of Design and Construction:

By: _____

_____
Deputy Commissioner

ACKNOWLEDGMENT BY CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

_____

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of _____ County of _____ ss:

On this _____ day of _____, _____ before me personally came _____, to me known and known to me to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

_____

Notary Public or Commissioner of Deeds

EXHIBIT G

HUD Requirements
HURRICANE SANDY CDBG-DR APPENDIX

N O T I C E

THIS DOCUMENT CONTAINS CONDITIONS FOR USE WITH PROCUREMENT CONTRACTS AND SUBRECIPIENT AGREEMENTS, ALONG WITH APPENDIX B, WHICH PROVIDE FOR AN ELIGIBLE ACTIVITY FUNDED IN WHOLE OR IN PART BY CDBG-DR FUNDS APPROPRIATED PURSUANT TO THE DISASTER RELIEF APPROPRIATIONS ACT OF 2013 (P.L. 113-2). IT MUST BE ANNEXED TO ALL SUCH CONTRACTS ALONG WITH A LINK TO HUD DOCKET NO. FR056960-N-01 (MAR. 5, 2013) AND APPENDIX B, AND EXPRESSLY MADE A PART OF, AND INCORPORATED BY REFERENCE INTO THOSE CONTRACTS.

ARTICLE 1. DEFINITIONS

The definitions in Article 1 of Appendix B apply to this Hurricane Sandy CDBG-DR Appendix.

ARTICLE 2. ADMINISTRATIVE CAP

Pursuant to the Disaster Relief Appropriations Act of 2013 (P.L. 113-2) and Section VI(A)(10)(b) of HUD Docket No. FR056960-N-01, attached, a Subrecipient shall not be reimbursed for general administration costs that exceed five percent.

ARTICLE 3. FLOOD INSURANCE

Subrecipients shall implement procedures and mechanisms to ensure that assisted property owners comply with all flood insurance requirements set forth in Section VI(B)(31) of HUD Docket No. FR056960-N-01.

ARTICLE 4. CIVIL RIGHTS REQUIREMENTS

Subrecipients shall comply with all civil-rights related requirements, pursuant to 24 CFR § 570.503(b)(5).

ARTICLE 5. RELIGIOUS ORGANIZATIONS

In addition to the provisions in Article 2(m)(iv) of Appendix B, which cover a religious or denominational institution or organization operated for religious purposes which is supervised or controlled by or in connection with a religious or denominational institution or organization, payment may be authorized for a portion of eligible rehabilitation or construction costs attributable to the non-religious use of a facility that is not used exclusively for religious purposes, pursuant to Section VI(A)(4)(c) of HUD Docket No. FR056960-N-01.

ARTICLE 6. QUARTERLY REPORTS

The reports required by Article (5)(b) of Appendix B shall be provided by the Contractor or Subrecipient to the City on a quarterly basis, pursuant to Section VI(A)(2)(e) of HUD Docket No. FR056960-N-01.

ARTICLE 7. CONSTRUCTION STANDARDS

The Contractor or Subrecipient shall comply with the construction standards concerning energy efficiency set forth in section VI(A)(1)(a)(5) of HUD Docket No. FR-5696-N-01.

ARTICLE 8. PROGRAM INCOME

To the extent deemed necessary by the City, the Program Income provisions set forth in Article 2(1) of Appendix B may be waived and instead the City may apply the alternative program requirements set forth in Section VI(A)(17)(a)-(b) of Docket No. FR056960-N-01, which concern the definition of program income. In such event, the alternative requirements shall be set forth in the Subrecipient Agreement.

ARTICLE 9. PERFORMANCE REQUIREMENTS AND LIQUIDATED DAMAGES

Contractor and or Subrecipient shall be subject to the performance requirements and liquidated damages set forth in the Agreement.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR-5696-N-01]

Allocations, Common Application, Waivers, and Alternative Requirements for Grantees Receiving Community Development Block Grant (CDBG) Disaster Recovery Funds in Response to Hurricane Sandy

Available On-line at
http://portal.hud.gov/hudportal/documents/huddoc?id=CDBG-FR_Sandy_Notice.PDF

APPENDIX B

N O T I C E

THIS PACKAGE CONTAINS SUPPLEMENTARY GENERAL CONDITIONS FOR USE WITH PROCUREMENT CONTRACTS AND SUBRECIPIENT AGREEMENTS WHICH PROVIDE FOR AN ELIGIBLE ACTIVITY FUNDED IN WHOLE OR IN PART UNDER TITLE I OF THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974 (P.L. 93-383) AS AMENDED. IT MUST BE ANNEXED TO ALL SUCH CONTRACTS, AND EXPRESSLY MADE A PART OF, AND INCORPORATED BY REFERENCE INTO THOSE CONTRACTS.

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ARTICLE 1

DEFINITIONS

As used in this Contract:

(a) "Act" means Title 1 of the Housing and Community Development Act of 1974 (P.L. 93-383) as amended.

(b) "Agency" and/or "Recipient" means the entity, or entities, executing this Agreement on behalf of the City of New York.

(c) "City" means the City of New York.

(d) "Construction" means the building, rehabilitation, alteration, conversion, extension, demolition, painting or repair of any improvement to real property.

(e) "Contractor" and/or "Subrecipient" means the entity or entities executing this Agreement, other than the Agency.

(f) "Grant" means Community Development Block Grant Program funds provided to the Contractor through the City of New York and by the Federal Department of Housing and Urban Development.

(g) "HUD" means the Secretary of Housing and Urban Development or a person authorized to act on his or her behalf.

(h) "Program" means the New York City Community Development Block Grant Program approved by HUD as the same may from time to time be amended.

(i) "Subcontractor" means any person, firm or corporation, other than employees of the Contractor, or another Subcontractor who is engaged by the Contractor to furnish labor or labor and materials at the site of the work performed under this agreement.

ARTICLE 2

FEDERAL CONDITIONS

This Agreement is subject to:

(a) Title 1 of the Housing and Community Development Act of 1974 (P.L. 93-383) as amended (The Act) and all rules, regulations and requirements now issued or hereafter issued pursuant to the Act; the Agreement may be suspended and/or terminated without liability to the City if the Grant to the City pursuant to the Act is suspended or terminated, and unless and until the City or Agency receives Community Development funds in an amount that is deemed sufficient to enable it to fund this Agreement, the City or Agency is under no obligation to make any payments to the Contractor. In this regard, the Agency is under no obligation to make any payments to the Contractor, and shall not make any such payment, and the Contractor shall not commence performance, until:

(i) the Agency has received from the City's Office of Management and Budget instructions to proceed, evidencing compliance with the National Environmental Policy Act, as amended, and with regulations of the U.S. Department of Housing and Urban Development, related thereto, found at 24 CFR Part 58, and;

(ii) the Contractor has been notified of such instructions by the Agency. Furthermore, the Contractor and the City mutually agree that the Contractor shall not advance any funds, from any source without limitation, to pay for costs intended to be paid for under this Agreement prior to the receipt and notification described in this paragraph (a), and the City shall not reimburse the Contractor for any costs incurred in violation of this provision.

(b) Title VIII of the Civil Rights Act of 1968 (P.L. 90-284; 42 U.S.C. §§ 3602-3620), as amended, which prohibits discrimination in the sale or rental of housing and in the provision of brokerage services based on race, color, religion, sex, national origin, disability, or familial status, and which requires affirmative action in the furtherance of Fair Housing objectives.

(c) Executive Order 11063, as amended by Executive Order 12259, pursuant to regulations issued at 24 CFR Part 107 which prohibits discrimination on the basis of race, color, religion, sex or national origin and requires equal opportunity in housing constructed, operated or provided with federal funds.

(d) Title VI of the Civil Rights Act of 1964 (P.L. 88-352; 42 U.S.C. §§ 2000d *et seq.*) and implementing regulations in 24 CFR Part 1, which states that no person shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subject to discrimination under any Program or activity made possible by, or resulting from, this agreement. The provisions of this Article 2(d) shall be incorporated in and made a part of all subcontracts executed in connection with this agreement.

(e) Section 3 of the Housing and Urban Development Act of 1968 (P.L. 90-448). Pursuant to 24 CFR § 135.38, the Contractor agrees to the following:

A. The work to be performed under this Agreement is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701 u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this Agreement agree to comply with HUD'S regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this Agreement, the parties to this Agreement certify that they are under no contractual or other impediments that would prevent them from complying with the Part 135 regulations.

C. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the

qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the Subcontractor is in violation of the regulations in 24 CFR Part 135. The Contractor will not subcontract with any Subcontractor where the Contractor has notice or knowledge that the Subcontractor has been found in violation of the regulations in 24 CFR Part 135.

E. The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the Agreement is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR Part 135.

F. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this Agreement for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with Section 3 covered Indian Housing Assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this Agreement. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Agreement that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with Section 7(b).

(f) Lead-Based Paint Poison Prevention provisions found in 24 CFR § 570.608, the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4821-4846), the Residential Lead Based Paint Hazard Reduction Act of 1992 (U.S.C. §§ 4851-4856, and 24 CFR Part 35, subparts A, B, J, K, and R. This Article 2(f) is to be included in all subcontracts, for work in connection with this Agreement, which relate to residential structures.

(g) Pursuant to the provisions in 24 CFR § 570.605, Section 202(a) of the Flood Disaster Protection Act of 1973 (42 U.S.C. § 4106), and the regulations in 44 CFR Parts 59-79 apply to this Agreement.

(h) Consistent with 24 CFR § 570.614, the Contractor warrants that all services, programs, and/or Construction (including design and alteration) under this Agreement shall be performed in accordance with all federal, state and local laws and regulations regarding accessibility standards for persons with disabilities including, but not limited to, the following: Section 504 of the Rehabilitation Act, the Architectural Barriers Act of 1968 (42 U.S.C. § 4151-4157), the Uniform Federal Accessibility Standards (Appendix A to 24 CFR Part 40 and Appendix A to 41 CFR Part 101-19, subpart 101-19.6), and the Americans with Disabilities Act (42 U.S.C. § 12131; 47 U.S.C. §§ 155, 201, 218, and 225).

(i) The Historic Preservation Act of 1966 (P.L. 89-665; 16 U.S.C. §§ 470 *et seq.*), the Archeological and Historic Preservation Act of 1974 (P.L. 93-291; 16 U.S.C. §§ 469-469c), Executive Order 11593 and regulations at 36 CFR Part 800. In general, this requires concurrence from the State Historic Preservation Officer for all rehabilitation and demolition of historic properties that are fifty years old or older or that are included on a Federal, state, or local historic property list.

(j) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. §§ 4601-4655) and regulations at 49 CFR Part 24.

(k) <u>Uniform Administrative Requirements.</u>

(i) Subrecipients that are governmental entities, including those that are public agencies or authorities, shall comply with the following:

a. Federal Office of Management and Budget (OMB) circular A-87, Cost Principles for State, Local and Indian Tribal Governments;

b. Federal Office of Management and Budget (OMB) circular A-133, Audits of States, Local Governments, and Non-Profit Organizations (rev. 6/27/03);

c. The sections of 24 CFR Part 85, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments, that are set forth in 24 CFR § 570.502(a).

(ii) Subrecipients, except those which are governmental entities, public agencies or authorities, shall comply with the following:

a. Federal Office of Management and Budget (OMB) circular A-122, Cost Principles Non-Profit Organizations;

b. In the event that the Contractor is an educational institution, Federal Office of Management and Budget (OMB) circular A-21, Cost Principles for Educational Institutions;

c. The sections of 24 CFR Part 84, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and other Non-Profit Organizations, that are set forth in 24 CFR § 570.502(b). The provisions of 24 CFR Part 84 implement OMB circular A-110;

d. Federal Office of Management and Budget (OMB) Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations (rev. 6/27/03).

e. Execution of a subrecipient agreement.

(iii) Contractors shall comply with the provisions of 24 CFR Part 85 and 48 CFR Part 31, as applicable.

(l) The Contractor agrees that if any income is generated from the Community Development Block Grant Program funded activities, Contractor shall return such income to the City's Community Development Block Grant Program unless expressly authorized by the City. Such funds are subject to all applicable requirements governing the use of Community Development Block Grant funds, including 24 CFR § 570.503(b)(3), which provides that, at the end of the program year, the City may require remittance of all or part of any program income balances (including investments thereof) held by the Subrecipient (except those needed for immediate cash needs, cash balances of a revolving loan fund, cash balances from a lump sum drawdown, or cash or investments held for section 108 security needs).

(m) If the Contractor is, or may be deemed to be, a religious or denominational institution or organization operated for religious purposes which is supervised or controlled by or in connection with a religious or denominational institution or organization, the Contractor agrees that in connection with services to be provided under this Agreement:

(i) of it shall not discriminate against any employee or applicant for employment on the basis religion and shall not limit employment or give preference in employment to persons on the basis of religion.

(ii) it shall not discriminate against any person applying for such public services on the basis of religion or religious belief and shall not limit such services or give preference to persons on the basis of religion or religious belief.

(iii) it shall provide no religious instruction or counseling, conduct no religious worship or services, engage in no religious proselytizing, and exert no other religious influence in the provision of such public services.

(iv) it shall not use CDBG funds for the acquisition, construction, or rehabilitation of structures to the extent that those structures are used for inherently religious activities. CDBG funds may be used for the acquisition, construction, or rehabilitation of structures only to the extent that those structures are used for conducting eligible activities under 24 CFR Part 570. Where a structure is used for both eligible and inherently religious activities, CDBG funds may not exceed the cost of those portions of the acquisition, construction, or rehabilitation that are attributable to eligible activities in accordance with the cost accounting requirements applicable to CDBG funds in 24 CFR Part 570. Sanctuaries, chapels, or other rooms that a CDBG-funded religious congregation uses as its principal place of worship, however, are ineligible for CDBG-funded improvements. Disposition of real property is subject to 24 CFR § 570.200(j)(5).

(n) Executive Order 11246, as amended, and the implementing regulations contained in 41 CFR Chapter 60, as amended, prohibit discrimination in employment due to race, color, religion, sex or national origin during the performance of all Federal or federally assisted contracts.

(i) During the performance of this Agreement the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, sex, religion or national origin.

c. The Contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other Agreement or understanding, a notice to be provided by the Agency contracting officer, advising the labor union or worker's representatives of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, as amended, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.

e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the Department and the Secretary of Labor for purposes of investigations to ascertain compliance with such rules, regulations, and orders.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted Construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

g. The Contractor will include the provisions of this Article 2(n) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended, so that provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for non-compliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

(o) The Contractor agrees that if it enters a Construction subcontract as part of its Agreement with the City, and this Construction subcontract is for an amount more that $10,000, the notice found at FEDERAL EXHIBIT 1 of this Agreement must be included in that Construction subcontract.

ARTICLE 3 ADDITIONAL FEDERAL CONDITIONS FOR CONSTRUCTION

In the event that this Agreement involves Construction work, design for Construction or Construction services, all such work or services performed or administered by the Contractor shall be subject to the following requirements in addition to those set forth in Article 2.

(a) Federal Labor Standards: The Contractor will comply with the following:

(i) The Davis-Bacon Act (40 U.S.C. §§ 3141 *et seq.*): In Construction contracts involving an excess of $2000, unless exclusively in connection with the rehabilitation of residential property containing fewer than 8 units, all laborers and mechanics must be paid at a rate not less than those determined by the Secretary of Labor to be prevailing for the City, which rates are to be provided by the Agency. These wage rates are a federally mandated minimum only, and will be superseded by any State or City requirement mandating higher wage rates. The Contractor also agrees to comply with Department of Labor Regulations pursuant to the Davis-Bacon Act found in 29 CFR Parts 1, 3, 5 and 7 which enforce statutory labor standards provisions.

(ii) Sections 103 and 107 of the Contract Work Hours and Safe Standards Act (40 U.S.C. §§ 3701 *et seq.*), which provides that no laborer or mechanic shall be required or permitted

to work more than eight hours in a calendar day or in excess of forty hours in any workweek, unless such laborer or mechanic is paid at an overtime rate of 1½ times his/her basic rate of pay for all hours worked in excess of these limits, under any Construction Agreement costing in excess of $2000. In the event of a violation of this provision, the Contractor shall not only be liable to any affected employee for his/her unpaid wages, but shall be additionally liable to the United States for liquidated damages.

(iii) The Copeland "Anti-Kickback" Act (18 U.S.C. § 874), as supplemented by the regulations contained in 29 CFR Part 3, requiring that all laborers and mechanics shall be paid unconditionally and not less often than once a week, and prohibiting all but "permissible" salary deductions.

(iv) The more complete detailed statement of Federal Labor Standards annexed hereto as FEDERAL EXHIBIT 2.

(v) The provisions of Article 3(a) of this Agreement shall be included in all subcontracts for work in connection with this Agreement.

(b) Executive Order 11246, as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR chapter 60) for Construction contracts or subcontracts in excess of $10,000.

Standard Federal Equal Employment Opportunity Construction Contract Specifications for Contracts and Subcontracts in Excess of $10,000.

1. As used in these specifications:
   a. "Covered area" means the geographical area described in the solicitation from which this Agreement resulted;
   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any Construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Agreement resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan.

Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this Agreement resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each Construction trade in which it has employees in the covered area. Covered Construction Contractors performing Construction work in geographical areas where they do not have a Federal or federally assisted Construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each Construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor,

this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where Construction work is performed.
g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of Construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female Construction contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the Program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246 or suspended or is otherwise excluded from or ineligible for participation in federal assistance programs.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, Construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours

worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for hiring of local or other areas residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ARTICLE 4

NONDISCRIMINATION

(a) The Contractor shall not, in any Program or activity receiving funds under this Agreement, discriminate against any person on the grounds of race, color, national origin, religion, sex, age, or disability. The Contractor agrees to comply with provisions of 24 CFR Part 6, 8, and 146.

ARTICLE 5

RECORDS AND AUDITS

(a) Records shall be maintained in accordance with requirements prescribed by HUD and/or the City with respect to all matters covered by this Agreement and retained for at least three years after the City makes final payments and all other pending matters concerning this Agreement are closed.

(b) At such times on such forms as HUD and/or the City may require, there shall be furnished to HUD and/or the City such statements, records, reports, data and information, as HUD and/or the City may request pertaining to matters covered by this Agreement. At a minimum, such forms will include the following:

(i) Annual Data Collection Report forms for the purpose of including specific Program description, accomplishment, expenditure and beneficiary information in the City's Annual Performance Report.

(ii) Annual Property Register forms for the purpose of tracking the use of CDBG purchased real property.

(c) At any time during normal business hours and as often as the City, the Agency, HUD, Inspector General, U.S. General Accounting Office, and/or the Comptroller General of the United States may deem necessary, the Contractor shall make available for examination to the City, HUD, Inspector General, U.S. General Accounting Office and/or representatives of the Comptroller General all of its books, accounts, records, reports, files, and other papers or property with respect to all matters covered by this Agreement and shall permit the City, HUD and/or representatives of the Comptroller General and the U.S. General Accounting Office to audit, examine, make excerpts of, and make transcriptions from such books, accounts, records, reports, files, and other papers or property and to make audits of all contracts, invoices, materials, payrolls, records or personnel, conditions of employment and other data relating to all matters covered by this Agreement.

ARTICLE 6

UNEARNED PAYMENTS

Unearned payments under this Agreement may be suspended or terminated upon refusal to accept any additional conditions that may be imposed by HUD at any time, or if the Grant to the City under the Act is suspended or terminated. Unearned payments received by the Contractor will be returned to the City. All interest on funds advanced to the Contractor will be returned to the City.

ARTICLE 7

DISBURSEMENT RESTRICTIONS

No money under this Agreement shall be disbursed by the Agency to any Contractor except pursuant to a written contract which incorporates the applicable Supplementary General Conditions and unless the Contractor is in compliance with HUD requirements with regard to accounting and fiscal matters, to the extent they are applicable, and provided that the Agency has completed HUD requirements, including but not limited to environmental certifications pursuant to 24 CFR 58.

ARTICLE 8

DOCUMENTATION OF COSTS

All costs shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers, or other official documentation evidencing in proper detail the nature and propriety of the charges. All checks, payrolls, invoices, contracts, vouchers, orders or other accounting documents, pertaining in whole or in part to the Contract, shall be clearly identified and readily accessible.

ARTICLE 9

BONDING

The Agency must receive a statement from the Contractor's chief fiscal officer or their insurer assuring that all persons handling funds received or disbursed under this Agreement are covered by fidelity insurance in an amount and manner consistent with the coverage deemed necessary by the City of New York for its own employees. If the bond is cancelled or coverage is substantially reduced, the Contractor shall promptly notify the Agency of this fact in every case not later than 48 hours. In such event, the Agency shall not disburse any more funds to the Contractor until it has received assurance that adequate coverage has subsequently been obtained.

ARTICLE 10

ACCOUNTING SYSTEM

The Contractor shall submit to the Agency a detailed description of its accounting, reporting and internal control systems, including but not limited to the procedures for cash receipts, cash disbursements, payrolls, personnel policies, fixed petty cash controls and other systems which are necessary under the circumstances. The Agency shall evaluate and document all systems and only upon acceptance and approval of the accounting, reporting and internal control systems by the Agency, shall funds be disbursed to the Contractor, other provisions of the Agreement notwithstanding.

ARTICLE 11

COPYRIGHTS

(a) Any reports, documents, data, photographs, deliverables, and/or other materials produced pursuant to this Agreement and any and all drafts and/or other preliminary materials in any format related to such items produced pursuant to this Agreement, shall upon their creation become the exclusive property of the City.

(b) Any reports, documents, data, photographs, deliverables, and/or other materials, including software, produced pursuant to this Agreement ("Copyrightable Materials"), shall be considered "work-made-for-hire" within the meaning and purview of Section 101 of the United States Copyright Act, 17 U.S.C. § 101, and the City shall be the copyright owner thereof and of all aspects, elements and components thereof in which copyright protection might subsist. To the extent that the Copyrightable Materials do not qualify as "work-made-for-hire," the Contractor hereby irrevocably transfers, assigns and conveys exclusive copyright ownership in and to the Copyrightable Materials to the City, free and clear of any liens, claims, or other encumbrances. The Contractor shall retain no copyright or intellectual property interest in the Copyrightable Materials. The Copyrightable Materials shall be used by the Contractor for no purpose other than in the performance of this Agreement without the prior permission of the City. The Department may grant the contractor a license to use the Copyrightable Materials on such terms as determined by the Department and set forth in the license.

(c) The Contractor acknowledges that the City may, in its sole discretion, register copyright in the Copyrightable Materials with the U.S. Copyright Office or any other government agency authorized to grant copyright registrations. The Contractor shall cooperate in this effort, and agrees to provide any further documentation necessary to accomplish this.

(d) The Contractor represents and warrants that the Copyrightable Materials: (i) are wholly original material not published elsewhere (except for materials that is in the public domain); (ii) do not violate any copyright law; (iii) do not constitute defamation or invasion of the right of privacy or publicity; and (iv) are not infringement, of any kind, of the rights of any third party. To the extent that the Copyrightable Materials incorporate any non-original material, the Contractor has obtained all necessary permissions and clearances in writing, for the use of such non-original material under this Agreement, copies of which shall be provided to the city upon execution of this Agreement.

(e) HUD reserves a royalty-free, nonexclusive, perpetual and irrevocable license to reproduce, publish, display, perform, distribute, or otherwise use, and to authorize others to use, for Federal or State government purposes, the copyright in any Copyrightable Materials developed under or the rights to which are purchased under this Agreement.

(f) If the Contractor publishes a work dealing with any aspect of performance under this Agreement, or with the results of such performance, the City shall have a royalty-free, non-exclusive irrevocable license to reproduce, publish or otherwise use such work for City governmental purposes.

ARTICLE 12

PATENTS

The Contractor shall promptly and fully report to the City any discovery or invention arising out of or developed in the course of performance of this Agreement. In addition, any discovery or invention arising out of or developed in the course of work aided by this Agreement shall be promptly and fully reported to HUD for determination by HUD as to whether patent protection on such invention or discovery, including rights under any patent issued thereon, shall be disposed of and administered, in order to protect the public interest.

ARTICLE 13

SUBCONTRACTORS

(a) The provisions of this Agreement shall apply to Subcontractors and their officers, agents and employees in all respects as if they were employees of the Contractor. The Contractor shall not be discharged from its obligations and liabilities, but shall be liable for all acts and negligence of Subcontractors, and their officers, agents and employees, as if they were employees of the Contractor.

(b) Employees of the Subcontractor shall be subject to the same provisions as employees of the Contractor.

(c) The services furnished by Subcontractors shall be subject to the provisions hereof as if furnished directly by the Contractor, and the Contractor shall remain responsible therefor.

ARTICLE 14

SUSPENSION AND TERMINATION

(a) Where the Contractor fails to perform the work satisfactorily as enumerated in the part of this Agreement known as the scope of work, the City may withhold payment, in addition to any other remedy provided for by this Agreement. Where there is failure to comply with the Agreement terms, the City reserves the right to terminate the Agreement. The City further reserves the right to terminate the Agreement for convenience.

(b) The Contractor certifies that neither it nor its principals is currently in a state of debarment, suspension or other ineligible status as a result of prior performance, failure, fraud, or violation of City laws. The Contractor further

certifies that neither it nor its principals is debarred, suspended, otherwise excluded from or ineligible for participation in Federal assistance programs. The City reserves the right to terminate this Agreement if knowledge of debarment, suspension or other ineligibility has been withheld by the Contractor.

(c) If this Agreement is between the City and a subrecipient, the City may suspend or terminate the Agreement if Subrecipient materially fails to comply with any terms of this Agreement, pursuant to 24 CFR § 85.43, and for convenience, pursuant to 24 CFR § 85.44.

ARTICLE 15

REVERSION OF ASSETS

(a) At the Contract's expiration, the Contractor shall transfer to the City all Community Development funds on hand at the time of expiration and any accounts receivable attributable to the use of Community Development funds.

(b) Any real property under the City's or the Contractor's control that was acquired in whole or in part with Community Development funds in excess of $25,000 will be used to meet the national objectives in Section 570.208 or disposed in a manner which results in the Program being reimbursed in the amount of the current fair market value of the property less any portion thereof attributable to expenditures of non-Community Development funds for acquisition of, or improvements to, the property.

(c) Any real property under the City's control that was improved in whole or in part with Community Development funds in excess of $25,000 will be used to meet the national objectives in Section 570.208 for a period equal to the life of those improvements. The term shall be determined by the Office of Management and Budget's Office of Community Development. If the City decides to dispose of or change the use of that property so that it no longer continues to meet a national objective, the Program shall be reimbursed in the amount of the current replacement cost of those improvements, divided by the number of years of the life of the improvements, multiplied by the number of years that remain in the life of the improvements.

(d) Any real property under the Contractor's control that was improved in whole or in part with Community Development funds in excess of $25,000 will be used to meet the national objectives in Section 570.208 for a period of five years after the date of completion of those improvements or disposed in a manner which results in the Program being reimbursed in the amount of the current replacement cost of those improvements.

(e) Title to all equipment in excess of $150 purchased or leased pursuant to this Agreement with Community Development funds or furnished by the City shall vest in the City and the same shall be conspicuously labeled as such.

ARTICLE 16

SMALL FIRMS, M/WBE FIRMS, AND LABOR SURPLUS AREA FIRMS

The Contractor shall take the following affirmative steps in the letting of subcontracts, if subcontracts are to be let, in order to ensure that minority firms, women's business enterprises, and labor surplus area firms are used when possible:

(a) Placing qualified small minority businesses and women's business enterprises on solicitation lists;

(b) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(d) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and

(e) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

ARTICLE 17

ENVIRONMENTAL PROTECTION

For agreements, subcontracts, and subgrants of amounts in excess of $100,000, the Contractor shall comply with all applicable standards, orders, or requirements issued under the Clean Air Act (42 U.S.C. § 7401, Federal Water Pollution control Act (33 U.S.C. §§ 1251, *et seq.*) Section 508 of the Clean Water Act (33 U.S.C. § 1368), Executive Order 11738, and Environmental Protection Agency regulations (provisions of 40 CFR Part 50 and 2 CFR Part 1532 related to the Clean Air Act and Clean Water Act).

ARTICLE 18

ENERGY EFFICIENCY

The Contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in the New York State energy conservation plan issued in compliance with the Energy Policy Conservation Act (Pub. L. 94-163).

ARTICLE 19

HATCH ACT; LOBBYING; CONFLICT OF INTEREST

(a) Hatch Act: The Subrecipient agrees that no funds provided, nor personnel employed under this Agreement, shall be in any way or to any extent engaged in the conduct of political activities in violation of Chapter 15 of Title V of the U.S.C.

(b) Lobbying: The Subrecipient agrees that no funds provided will be used by it or its subcontractors in violation of 24 CFR § 87.100.

(c) Conflict of Interest: The Subrecipient agrees to abide by the provisions of 24 CFR §§ 84.42, 85.36, and 570.611.

ARTICLE 20

CONFLICTS; EXHIBITS; SUBCONTRACT PROVISIONS

If any provision in this Appendix B directly conflicts with any other provision in the Contract, the provision in Appendix B shall be controlling.

Federal Exhibits 1 and 2, are attached to, and made a part of this Appendix B.

Any subcontracts entered into pursuant to this Agreement shall incorporate the following City of New York provisions by reference, which shall be binding on every Subcontractor:

- Investigations;
- Executive Order 50; and
- Conflicts of Interest

FED. EXHIBIT 1

NOTICE TO BIDDERS

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246, as amended) FOR ALL CD FUNDED CONSTRUCTION CONTRACTS AND SUB-CONTRACTS IN EXCESS OF $10,000.

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all Construction work in the covered area, are as follows:

Goals and Timetables for Minorities

Trade	Goal (percent)		
Electricians	9.0	to	10.2
Carpenters	27.6	to	32.0
Steamfitters	12.2	to	13.5
Metal Lathers	24.6	to	25.6
Painters	28.6	to	26.0
Operating Engineers	25.6	to	26.0
Plumbers	12.0	to	14.5
Iron Workers (structural)	25.9	to	32.0
Elevator Constructors	5.5	to	6.5
Bricklayers	13.4	to	15.5
Asbestos Workers	22.8	to	28.0
Roofers	6.3	to	7.5
Iron Workers (ornamental)	22.4	to	23.0
Cement Masons	23.0	to	27.0
Glazers	16.0	to	20.0
Plasterers	15.8	to	18.0
Teamsters	22.0	to	22.5
Boilermakers	13.0	to	15.5
All Other	16.4	to	17.5

Goals and Timetables for Women

From April 1, 1980 until the present 6.9

These goals are applicable to all the Contractor's Construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs Construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved Construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall made a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any Construction subcontract in excess of $10,000 at any tier for Construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Agreement, the "covered area" is the City of New York.

EXHIBIT H

Sandy Recovery Hiring Plan

SANDY RECOVERY HIRING PLAN

The Contractor is required to develop and implement a Sandy Recovery Hiring Plan for low-income and very low-income persons, Sandy-impacted residents, minorities, and women in accordance with the provisions set forth below.

Requirements

The following requirements are part of this Contract and will be passed on to all applicable Subcontractors and Subconsultants, and all Contractors chosen off the Pre-Qualified lists:

- For all construction contracts above $300,000, the contractors and subcontractors must demonstrate apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the NYS Commissioner of Labor, and that have a demonstrated success in graduating apprentices.

- For all construction contracts above $300,000, the contractors and subcontractors awarded this work shall be subject to the Building and Construction Trades Council of Greater New York and Vicinity (BCTC) Outer Borough Residential PLA, which provides efficiencies and labor costs savings sufficient to justify its use pursuant to federal and state law.

- Section 3 of the HUD Act of 1968, which requires, to the greatest extent feasible, economic opportunities for 30 percent of new hires be given to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing; see Appendix 1.

- Executive Order 11246, which prohibits discrimination in employment due to race, color, religion, sex or national origin, and requires the implementation of goals for minority and female participation for work involving any Construction trade; see Appendix 1.

- Contractor and subcontractors are encouraged to employ 20 percent Sandy-impacted residents on the construction projects.

- Contractor and all subcontractors agree to register all job opportunities arising from the work under this Contract with Sandy Recovery Workforce1, managed by NYC Department of Small Business Services, and comply with the provisions set forth below.

This section does not limit Contractor's or its Subcontractors' ability to assess the qualifications of prospective workers, and to make final hiring and retention decisions. No provision of this section shall be interpreted so as to require a Contractor or Subcontractor to employ a worker not qualified for the position in question, or to employ any particular worker.

Strategies and Methods

The Sandy Recovery Hiring Plan shall demonstrate the proposer’s capability and plan for ensuring compliance with the hiring requirements.

In an effort to provide pathways for hiring of persons impacted by Sandy, Contractors are encouraged to work with local community-based organizations, pre-apprenticeship and apprenticeship programs, and voluntary groups engaged in rebuilding efforts.

The Contractor will work with Workforce1 and the City on specific outreach events including Sandy Recovery Opportunity and Resource Fairs and Hire on the Spot events, connecting Sandy-impacted residents with Sandy Recovery opportunities.

The Sandy Recovery Hiring Plan should show plans to work with organizations to create a pathway and opportunities on these projects and a plan to show compliance with the hiring requirements.

Management and Compliance

The Contractor will develop a Sandy Recovery Hiring Plan for approval by HRO and DDC. Proposers should include in the proposal a Sandy Recovery Hiring Plan that, if adopted, would serve as the basis for determining Contractor's and its Subcontractors' compliance with the hiring requirements specified herein.

The Contractor must provide at least one full-time staff dedicated to tracking hiring daily at the job sites and ensuring implementation of the requirements of the Plan. The Contractor must comply with monthly reporting requirements set forth by HRO, which include, but are not limited to, data that HRO is required to report under Local Law 140 of the City of New York and Section 3 of the Housing and Urban Development Act of 1968, as well as data collection related to Executive Order 11246.

Specific Requirements

A. APPRENTICESHIP PROGRAM REQUIREMENT

Please be advised that, pursuant to the authority granted to the City under Labor Law §816-b, HRO/ DDC hereby requires that for all construction contracts awarded above $300,000 as a result of this Contract, the contractors and subcontractors must have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor, and have a demonstrated success in graduating apprentices.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontractor not being approved. Please be further advised that, pursuant to Labor Law §220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

B. SANDY IMPACTED Resident Hiring Commitment

Contractor and subcontractors are encouraged to employ 20 percent Sandy-impacted residents on the construction projects.

C. Job Posting Requirements

Contractor and all subcontractors agree to inform Sandy Recovery Workforce1, managed by NYC Department of Small Business Services, of all job opportunities arising from this Contract. The Contractor must inform Sandy Recovery Workforce1 of any hiring need, and the requirements of the

jobs to be filled, no less than three weeks prior to the intended first day of employment for each new position, unless otherwise approved by the City. Sandy Recovery Workforce1 will work with Contractor to develop a recruitment plan which will outline clear instructions as to when, where, and how interviews will take place. Sandy Recovery Workforce1 will screen applicants based on employer requirements and refer applicants whom it believes are qualified to the Contractor for interviews. The Contractor must interview referred applicants whom it believes are qualified, and must provide feedback on all interviewed candidates within two business days and report new hires to Sandy Recovery Workforce1 once confirmed.

Sandy-impacted residents will be given first priority to register for opportunities with the rebuilding effort on-line and at Workforce1 and Build it Back centers.

This requirement does not apply when obtaining labor through the BCTC Outer Borough PLA. The City and the BCTC will work together with the Contractor and community based organizations to recruit and train New York City residents, with an emphasis on Sandy-impacted low income residents, through existing apprenticeship programs and pre-apprenticeship programs with direct entry agreements with BCTC affiliated unions approved by the New York State Department of Labor.

D. Workforce Recordkeeping Requirements

The Contractor must provide at least one full-time staff dedicated to tracking local hiring daily at the job sites and ensuring implementation of the requirements of this Rider.

The Contractor must comply with monthly reporting requirements set forth by HRO, which include, but are not limited to, data that HRO is required to report under Local Law 140 of the City of New York and Section 3 of the Housing and Urban Development Act of 1968, as well as data collection related to Executive Order 11246. The Contractor must provide HRO with a Monthly Report of such data by the fifteenth of every month for the prior month using the paper and/ or electronic reporting format provided by HRO, and must complete all applicable fields. In the situation that reporting particular information is impossible for the Contractor, the Contractor may apply for an exemption. Any application for an exemption must be made before the expiration of thirty (30) days after the commencement date of this Agreement, and shall be in the form specified by HRO. Exemption may be granted upon a showing that the operation of this Section will constitute a hardship, within the sole discretion of the Department. The content of this Monthly Report may change at any time as the City's reporting needs change. Furthermore, the Contractor must complete weekly Certified Payroll reports using the WH-347 form, available from the U.S. Department of Labor, Wage and Hour Division, which may be submitted each month concurrent with the aforementioned Monthly Report.

EXHIBIT I
NYC Build It Back Minimum Standards

EXHIBIT J
FEMA Elevation Certificate Instructions

FEMA

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

National Flood Insurance Program

ELEVATION CERTIFICATE

Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at http://www.fema.gov/library/viewRecord.do?id=1727.

U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
National Flood Insurance Program

ELEVATION CERTIFICATE

IMPORTANT: Follow the instructions on pages 1–9.

OMB No. 1660-0008
Expiration Date: July 31, 2015

SECTION A – PROPERTY INFORMATION

	FOR INSURANCE COMPANY USE
A1. Building Owner's Name	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Company NAIC Number:
City State ZIP Code	

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____

A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number _____

A8. For a building with a crawlspace or enclosure(s):
- a) Square footage of crawlspace or enclosure(s) _____ sq ft
- b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____
- c) Total net area of flood openings in A8.b _____ sq in
- d) Engineered flood openings? ☐ Yes ☐ No

A9. For a building with an attached garage:
- a) Square footage of attached garage _____ sq ft
- b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
- c) Total net area of flood openings in A9.b _____ sq in
- d) Engineered flood openings? ☐ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☐ No
Designation Date: _____ / _____ / _____ ☐ CBRS ☐ OPA

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: _____ Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below. ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____
Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	_____ . _____	☐ feet	☐ meters
b) Top of the next higher floor	_____ . _____	☐ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____ . _____	☐ feet	☐ meters
d) Attached garage (top of slab)	_____ . _____	☐ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____ . _____	☐ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	_____ . _____	☐ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	_____ . _____	☐ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____ . _____	☐ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

☐ Check here if comments are provided on back of form.
☐ Check here if attachments.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☐ Yes ☐ No

Certifier's Name		License Number	
Title	Company Name		
Address	City	State	ZIP Code
Signature	Date	Telephone	

PLACE SEAL HERE

See reverse side for continuation.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	State	ZIP Code	Company NAIC Number:

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments

Signature Date

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8–9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

☐ Check here if attachments.

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G9) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ . _____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ . _____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____ . _____ ☐ feet ☐ meters Datum _____

Local Official's Name Title

Community Name Telephone

Signature Date

Comments

☐ Check here if attachments.

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	State	ZIP Code	Company NAIC Number:

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; “Front View” and “Rear View”; and, if required, “Right Side View” and “Left Side View.” When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

BUILDING PHOTOGRAPHS

Continuation Page

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:
City	State	ZIP Code	Company NAIC Number:

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; “Front View” and “Rear View”; and, if required, “Right Side View” and “Left Side View.” When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Instructions for Completing the Elevation Certificate

OMB No. 1660-0008
Expiration Date: July 31, 2015

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form. For Zones AO and A (without BFE), a community official, a property owner, or an owner's representative may provide information on this certificate, unless the elevations are intended for use in supporting a request for a LOMA or LOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA or LOMR-F.

The property owner, the owner's representative, or local official who is authorized by law to administer the community floodplain ordinance can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner's representative to ensure that this certificate is complete.

In Puerto Rico only, elevations for building information and flood hazard information may be entered in meters.

SECTION A – PROPERTY INFORMATION

Items A1–A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address, and the lot and block numbers. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home.

A map may be attached to this certificate to show the location of the building on the property. A tax map, FIRM, or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.5043°, -110.7585°) or degrees, minutes, seconds (e.g., 39° 30' 15.5", -110° 45' 30.7") format. If decimal degrees are used, provide coordinates to at least 4 decimal places or better. When using degrees, minutes, seconds, provide seconds to at least 1 decimal place or better. The latitude and longitude coordinates must be accurate within 66 feet. When the latitude and longitude are provided by a surveyor, check the "Yes" box in Section D and indicate the method used to determine the latitude and longitude in the Comments area of Section D. If the Elevation Certificate is being certified by other than a licensed surveyor, engineer, or architect, this information is not required. Provide the type of datum used to obtain the latitude and longitude. FEMA prefers the use of NAD 1983.

Item A6. If the Elevation Certificate is being used to obtain flood insurance through the NFIP, the certifier must provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" × 3". Digital photographs are acceptable.

Item A7. Select the diagram on pages 7–9 that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a–h. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawlspace or enclosure(s). Examples of elevated buildings constructed with crawlspace and enclosure(s) are shown in Diagrams 6–9 on pages 8–9. Diagram 2, 4, or 9 should be used for a building constructed with a crawlspace floor that is below the exterior grade on all sides.

Items A8.b–d Enter in Item A8.b the number of permanent flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. Estimate the total net area of all such permanent flood openings in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A8.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A8.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the crawlspace or enclosure(s) have no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "0" (zero) in Items A8.b–c.

Item A9.a Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage.

Items A9.b–d Enter in Item A9.b the number of permanent flood openings in the attached garage that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. (A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention.) If the interior grade elevation is used, note this in the Comments area of Section D. This includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. Estimate the total net area of all such permanent flood openings in square inches and enter the total in Item A9.c. If the net area cannot be reasonably estimated, provide the size of the flood openings without consideration of any covers and indicate in the Comments area the type of cover that exists in the flood openings. Indicate in Item A9.d whether the flood openings are engineered. If applicable, attach a copy of the Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES), if you have it. If the garage has no permanent flood openings, or if the openings are not within 1.0 foot above adjacent grade, enter "0" (zero) in Items A9.b–c.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate on the basis of the FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIRM panel that includes the building's location. Information about the current FIRM is available from the Federal Emergency Management Agency (FEMA) by calling 1-800-358-9616. If a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR-F) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that has been annexed by one community but is shown on another community's FIRM, enter the community name and 6-digit number of the annexing community in Item B1, the name of the county or new county, if necessary, in Item B2, and the FIRM index date for the annexing community in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

If the map in effect at the time of the building's construction was other than the current FIRM, and you have the past map information pertaining to the building, provide the information in the Comments area of Section D.

Item B1. NFIP Community Name & Community Number. Enter the complete name of the community in which the building is located and the associated 6-digit community number. For a newly incorporated community, use the name and 6-digit number of the new community. Under the NFIP, a "community" is any State or area or political subdivision thereof, or any Indian tribe or authorized native organization, that has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's web site at http://www.fema.gov/fema/csb.shtm, or call 1-800-358-9616.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county, enter "unincorporated area." For an independent city, enter "independent city."

Item B3. State. Enter the 2-letter state abbreviation (for example, VA, TX, CA).

Items B4–B5. Map/Panel Number and Suffix. Enter the 10-character "Map Number" or "Community Panel Number" shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the "Map Number" is the letter "C" followed by a 4-digit map number. For maps not in a county-wide format, enter the "Community Panel Number" shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the map effective date or the map revised date shown on the FIRM panel. This will be the latest of all dates shown on the map. The current FIRM panel effective date can be determined by calling 1-800-358-9616.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas. The flood zones are A, AE, A1–A30, V, VE, V1–V30, AH, AO, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. Each flood zone is defined in the legend of the FIRM panel on which it appears.

Item B9. Base Flood Elevation(s). Using the appropriate Flood Insurance Study (FIS) Profile, Floodway Data Table, or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site. If the building is located in more than 1 flood zone in Item B8, list all appropriate BFEs in Item B9. BFEs are shown on a FIRM or FIS Profile for Zones A1–A30, AE, AH, V1–V30, VE, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO; flood depth numbers are shown for Zone AO. Use the AR BFE if the building is located in any of Zones AR/A, AR/AE, AR/A1 A30, AR/AH, or AR/AO. In A or V zones where BFEs are not provided on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources for the building site. For subdivisions and other developments of more than 50 lots or 5 acres, establishment of BFEs is required by the community's floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. In an A Zone where BFEs are not available, complete Section E and enter N/A for Section B, Item B9. Enter the BFE to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Item B10. Indicate the source of the BFE that you entered in Item B9. If the BFE is from a source other than FIS Profile, FIRM, or community, describe the source of the BFE.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). (OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection.) Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. Information about CBRS areas and OPAs may be obtained on the FEMA web site at http://www.fema.gov/business/nfip/cbrs/cbrs.shtm.

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO, or if this certificate is being used to support a request for a LOMA or LOMR-F. If the building is located in Zone AO or Zone A (without BFE), complete Section E instead. To ensure that all required elevations are obtained, it may be necessary to enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or machinery and equipment).

Surveyors may not be able to gain access to some crawlspaces to shoot the elevation of the crawlspace floor. If access to the crawlspace is limited or cannot be gained, follow one of these procedures.

- Use a yardstick or tape measure to measure the height from the floor of the crawlspace to the "next higher floor," and then subtract the crawlspace height from the elevation of the "next higher floor." If there is no access to the crawlspace, use the exterior grade next to the structure to measure the height of the crawlspace to the "next higher floor."
- Contact the local floodplain administrator of the community in which the building is located. The community may have documentation of the elevation of the crawlspace floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawlspace floor to the next higher floor, try to verify this by looking inside the crawlspace through any openings or vents.

In all 3 cases, provide the elevation in the Comments area of Section D on the back of the form and a brief description of how the elevation was obtained.

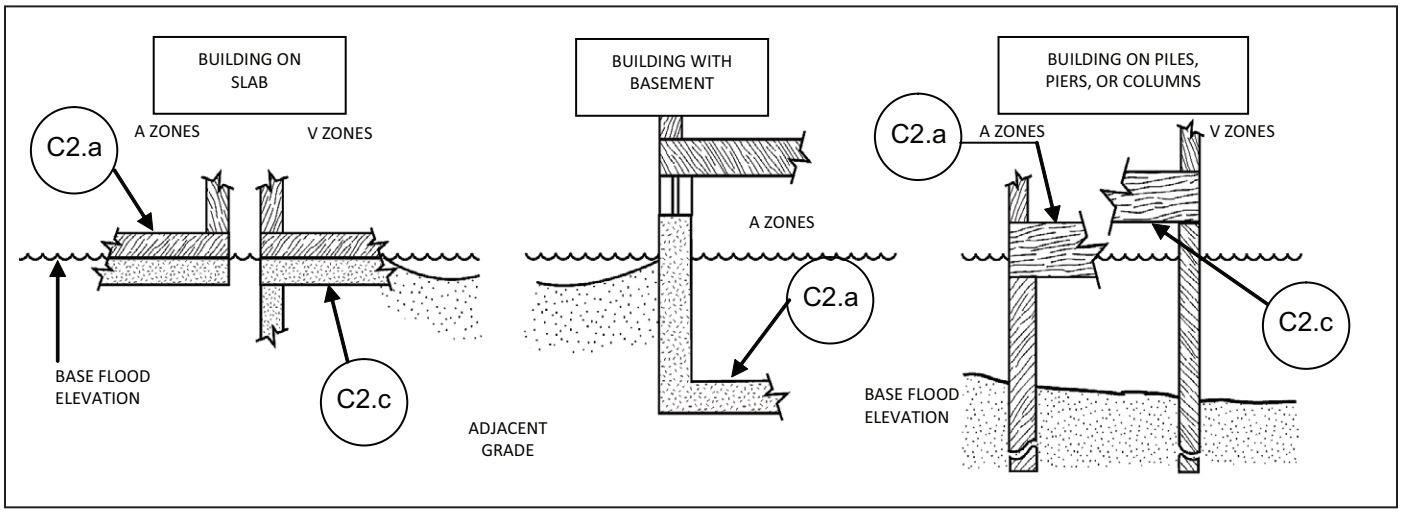
Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first 2 choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a–h. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select "Finished Construction" only when all machinery and/or equipment such as furnaces, hot water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a–h. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other unique identifier assigned by the maintainer of the benchmark. For GPS survey, indicate the benchmark used for the base station, the Continuously Operating Reference Stations (CORS) sites used for an On-line Positioning User Service (OPUS) solution (also attach the OPUS report), or the name of the Real Time Network used.

Also provide the vertical datum for the benchmark elevation. All elevations for the certificate, including the elevations for Items C2.a–h, must use the same datum on which the BFE is based. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. Show the datum conversion, if applicable, in the Comments area of Section D.

For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted. Enter elevations in Items C2.a–h to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items C2.a–d Enter the building elevations (excluding the attached garage) indicated by the selected building diagram (Item A7) in Items C2.a–c. If there is an attached garage, enter the elevation for top of attached garage slab in Item C2.d. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) If the building is located in a V zone on the FIRM, complete Item C2.c. If the flood zone cannot be determined, enter elevations for all of Items C2.a–h. For buildings in A zones, elevations a, b, d, and e should be measured at the top of the floor. For buildings in V zones, elevation c must be measured at the bottom of the lowest horizontal structural member of the floor (see drawing below). For buildings



elevated on a crawlspace, Diagrams 8 and 9, enter the elevation of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents). *If any item does not apply to the building, enter "N/A" for not applicable.*

Item C2.e Enter the lowest platform elevation of at least 1 of the following machinery and equipment items: elevators and their associated equipment, furnaces, hot water heaters, heat pumps, and air conditioners in an attached garage or enclosure or on an open utility platform that provides utility services for the building. Note that elevations for these specific machinery and equipment items are required in order to rate the building for flood insurance. Local floodplain management officials are required to ensure that <u>all</u> machinery and equipment servicing the building are protected from flooding. Thus, local officials may require that elevation information for all machinery and equipment, including ductwork, be documented on the Elevation Certificate. If the machinery and/or equipment is mounted to a wall, pile, etc., enter the platform elevation of the machinery and/

or equipment. Indicate machinery/equipment type and its general location, e.g., on floor inside garage or on platform affixed to exterior wall, in the Comments area of Section D or Section G, as appropriate. *If this item does not apply to the building, enter "N/A" for not applicable.*

Items C2.f–g Enter the elevation of the ground, sidewalk, or patio slab immediately next to the building. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

Item C2.h Enter the lowest grade elevation at the deck support or stairs. For Zone AO, use the natural grade elevation, if available. This measurement must be to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico) if this certificate is being used to support a request for a LOMA or LOMR-F.

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

Complete as indicated. This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by law to certify elevation information. Place your license number, your seal (as allowed by the State licensing board), your signature, and the date in the box in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D, on the back of the certificate, to provide datum, elevation, openings, or other relevant information not specified on the front.

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO or Zone A (without BFE). Otherwise, complete Section C instead. Explain in the Section F Comments area if the measurement provided under Items E1–E4 is based on the "natural grade."

Items E1.a and b Enter in Item E1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG). Enter in Item E1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the applicable diagram) above or below the lowest adjacent grade (LAG). For buildings in Zone AO, the community's floodplain management ordinance requires the lowest floor of the building be elevated above the highest adjacent grade at least as high as the depth number on the FIRM. Buildings in Zone A (without BFE) may qualify for a lower insurance rate if an engineered BFE is developed at the site.

Item E2. For Building Diagrams 6–9 with permanent flood openings (see pages 8–9), enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the next higher floor or elevated floor (as indicated in the applicable diagram) above or below the highest adjacent grade (HAG).

Item E3. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E4. Enter the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico), in relation to the highest adjacent grade next to the building, of the platform elevation that supports the machinery and/or equipment servicing the building. Indicate machinery/equipment type in the Comments area of Section F. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements taken by a property owner or property owner's representative when responding to Sections A, B, and E. The address entered in this section must be the actual mailing address of the property owner or property owner's representative who provided the information on the certificate.

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

Complete as indicated. The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Section C may be filled in by the local official as provided in the instructions below for Item G1. If the authorized community official completes Sections C, E, or G, complete the appropriate item(s) and sign this section.

Check **Item G1** if Section C is completed with elevation data from other documentation, including elevations obtained from the Community Rating System Elevation Software, that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by law to certify elevation information, and you performed the actual survey for a building in Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/A1–A30, AR/AE, AR/AH, or AR/AO, you must also complete Section D.

Check **Item G2** if information is entered in Section E by the community for a building in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

Check **Item G3** if the information in Items G4–G10 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G4–G10 provide a way to document these determinations.

Item G4. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G5. Date Permit Issued. Enter the date the permit was issued for the building.

Item G6. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G7. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement. The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G8. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9. BFE. Using the appropriate FIRM panel, FIS Profile, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

Item G10. Community's design flood elevation. Enter the elevation (including freeboard above the BFE) to which the community requires the lowest floor to be elevated. Indicate the elevation datum used.

Enter your name, title, and telephone number, and the name of the community. Sign and enter the date in the appropriate blanks.

Building Diagrams

The following diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7, the square footage of crawlspace or enclosure(s) and the area of flood openings in square inches in Items A8.a–c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a–c, and the elevations in Items C2.a–h.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).

DIAGRAM 1A

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

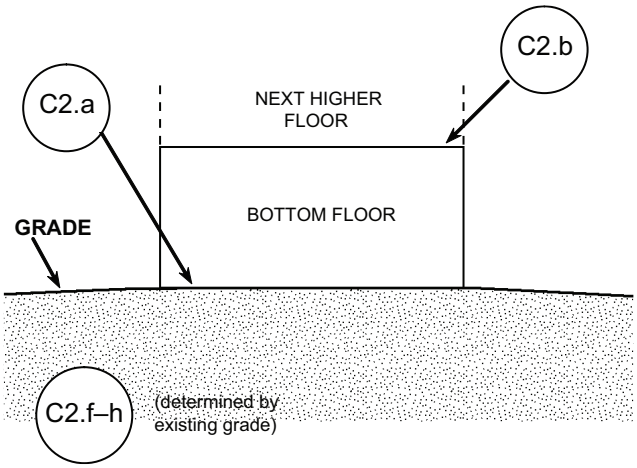


DIAGRAM 1B

All raised-slab-on-grade or slab-on-stem-wall-with-fill single- and multiple-floor buildings (other than split-level), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least 1 side.*

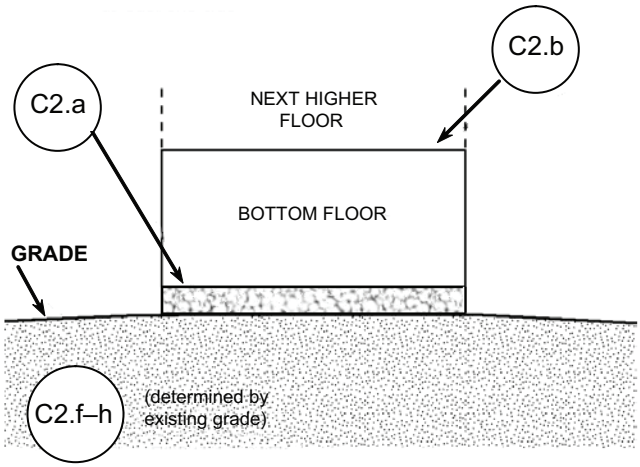
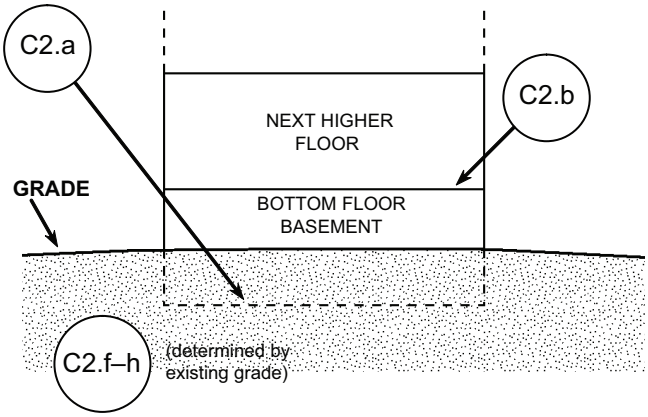


DIAGRAM 2

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.*

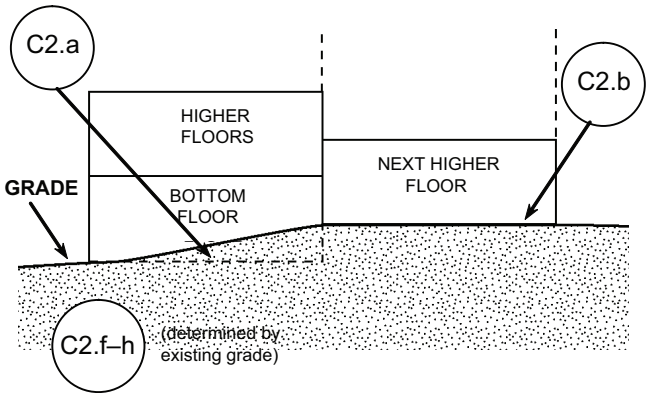


DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

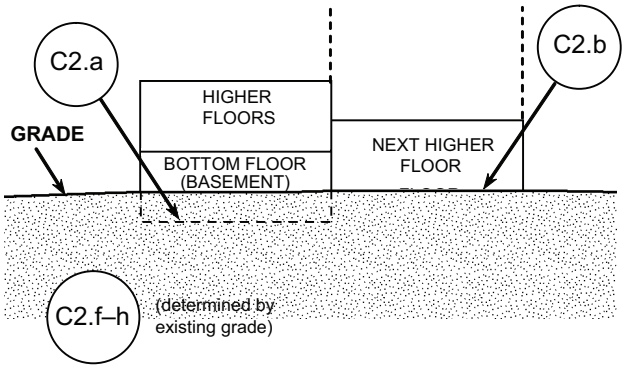


DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).

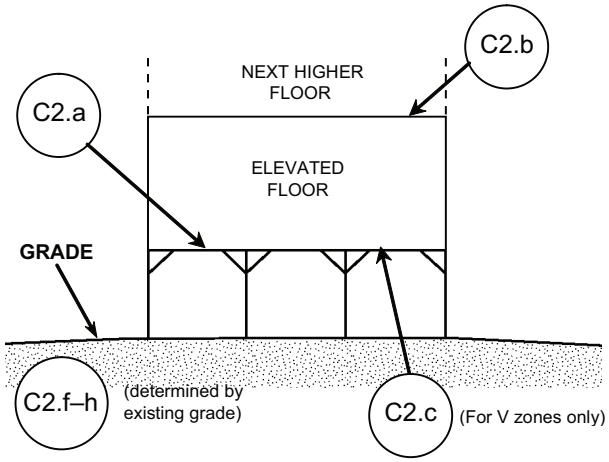
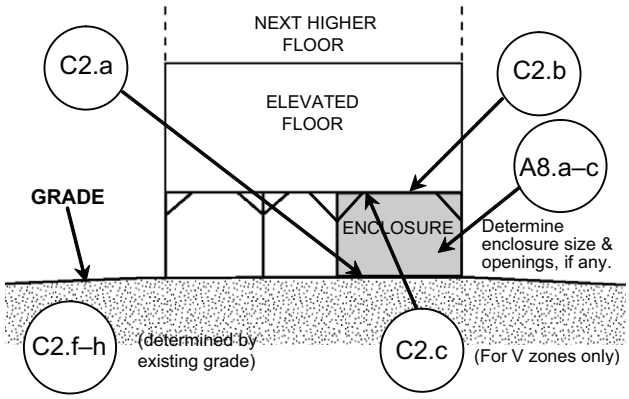


DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

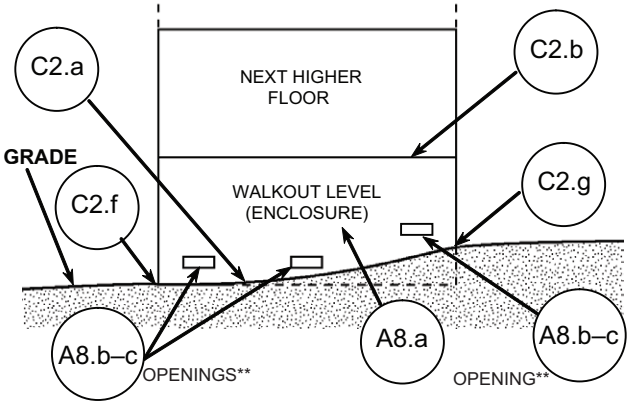


DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.

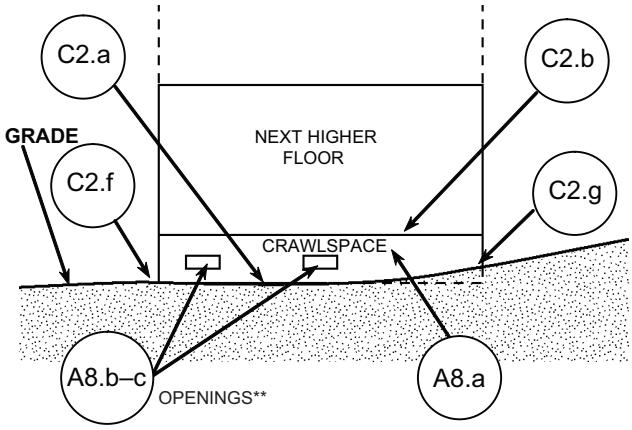
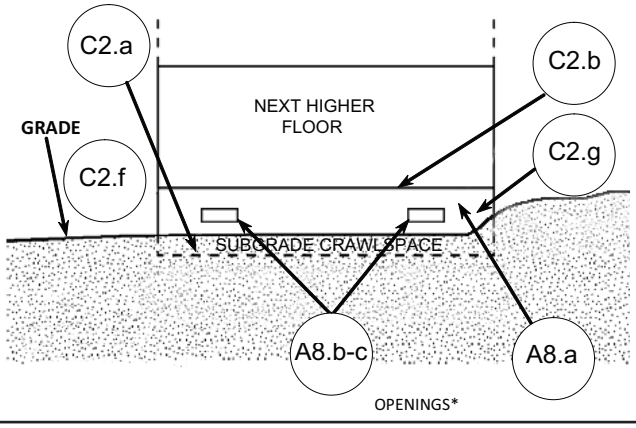


DIAGRAM 9

All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2.)



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

EXHIBIT K
2012 Enterprise Green Communities Checklist

Enterprise green communities™

2011 ENTERPRISE GREEN COMMUNITIES CRITERIA

INTEGRATIVE DESIGN. LOCATION + NEIGHBOR HOOD FABRIC. ENERGY EFFICIENCY. MATERIALS BENEFICIAL TO THE ENVI RONMENT. WATER CONS ERVATION. SITE IMPROVE MENTS. HEALTHY LIVING ENVIRONMENT. OPERA TIONS + MAINTENANCE.

ACKNOWLEDGMENTS Enterprise Green Communities thanks the following individuals and organizations for their insights and assistance with the 2011 Enterprise Green Communities Criteria:

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Southface

Sunshine Mathon
Foundation Communities

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Brian Ng
U.S. Environmental Protection Agency

Katie Swenson and the Enterprise Rose Architectural Fellows
Enterprise Community Partners

Holly Todd
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Rebecca Warntz
Enterprise Homes

The Criteria review, revision, and comment process was overseen by the Enterprise Green Communities team. Special thanks to all the Enterprise staff who provided valuable input to the 2011 Criteria.

We also thank the hundreds of developers now integrating the Enterprise Green Communities Criteria into affordable housing developments across the country.

Special thanks to Nicole Gudzowsky and Catherine Hyde for editorial oversight. Any errors in this document are the sole responsibility of Enterprise Green Communities.

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Design: Landesberg Design

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Introduction

Enterprise Green Communities is transforming the way America thinks about, designs, builds, and rehabilitates affordable housing. Green building integrates materials and methods that promote environmental quality, economic vitality, and social benefits through design, construction, and operation of the built environment. Enterprise Green Communities aligns affordable housing investment strategies with environmentally responsive building practices.

As a community of affordable housing providers, we have an opportunity to advance green building strategies that significantly reduce the impact on water quality, air pollution, and global warming, and the depletion of natural resources, while simultaneously lowering operating costs and maintenance needs. Adopting green building practices will contribute to the physical health and well-being of individuals and communities.

HOW TO USE THIS DOCUMENT

The Enterprise Green Communities Criteria were developed collaboratively by a number ofleading national organizations and experts for the purpose of providing a clear, cost-effective framework for all affordable housing development types, including New Construction and Rehabilitation in both multifamily and single-family projects.

The 2011 Enterprise Green Communities Criteria are grouped into the following eight categories:

1. Integrative Design
2. Location + Neighborhood Fabric
3. Site Improvements
4. Water Conservation
5. Energy Efficiency
6. Materials Beneficial to the Environment
7. Healthy Living Environment
8. Operations+ Maintenance

All measures for all project types (single-family, low-rise multifamily, and mid-/high-rise multifamily) and construction types (New Construction, Moderate Rehab, and Substantial Rehab) are located within this set of criteria. Exemptions based on location or project or construction type are identified within each criterion as appropriate.

DEFINITIONS OF CONSTRUCTION TYPE

A Substantial Rehab (or Gut Rehab) is defined as a project that includes the replacement and/or improvement of all the major systems of the building, including its envelope. The building envelope is defined as the air barrier and thermal barrier separating exterior from interior space. For Substantial Rehab projects, this could include either removing materials down to the studs or structural masonry on one side of the exterior walls and subsequently improving the building envelope to meet the whole-building energy performance levels for the project type, or creating a new thermal and air barrier around the building that allows the project to achieve Enterprise Green Communities Criteria whole-building energy performance levels for the project type.

A Moderate Rehab is defined as a project that does not include major systems or building envelope work as described for a Substantial Rehab. Moderate Rehab projects must meet the mandatory

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measures applicable to this construction type and achieve a requisite number of optional points based on the project's scope.

Due to constraints inherent with Rehab projects, Substantial and Moderate Rehab projects are not required to complete the ENERGY STAR requirements and instead must comply with the guidelines under Criteria 5.1c and 5.1d.

CERTIFICATION

Enterprise Green Communities offers an online process for certifying green affordable housing developments that meet the Criteria. The process is available for any affordable housing project that meets the eligibility parameters outlined on the Certification website:
www.greencommunitiesonline.org/tools/certification/

To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.

Enterprise Green Communities Certification is a two-step process, with Step 1 occurring during the design phase and Step 2 occurring after the construction end date. In the first step, projects are required to submit an online certification request form and upload related documentation. These documents include a project overview, a project site plan, a context map, the energy modeling form, and the intended methods of meeting the Criteria. All documents must be submitted before the expected construction start date. Upon submission, Enterprise Green Communities conducts a review of the materials and provides feedback to the project team as necessary.

Step 2 of certification requires the project team to complete the final certification form online within 60 days of construction completion and to submit the following additional documentation: compliance report, utility release form, ENERGY STAR certificate, cost development form, and project photos. Following Step 2, Enterprise Green Communities conducts a final review and determines whether the project can be certified under the Criteria.

More information on the Enterprise Green Communities Certification process is available in Appendix A of this document.

WEBLINKS

Enterprise Green Communities Criteria website:
www.greencommunitiesonline.org/tools/criteria/

Mailbox to email questions on the 2011 Criteria:
greencommunities@enterprisecommunity.org

Enterprise Green Communities Online Discussion Forum:
forum.greencommunitiesonline.org/

Enterprise Green Communities Certification website:
www.greencommunitiesonline.org/tools/certification/

Mailbox to email questions on Enterprise Green Communities Certification:
certification@enterprisecommunity.org

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

2011 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. **To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.**

O YES O NO O MAYBE	M	**1.1a Green Development Plan: Integrative Design Meeting(s)** Conduct one or more integrative design meetings and submit a Green Development Plan or equivalent documentation.
O YES O NO O MAYBE	M	**1.1b Green Development Plan: Criteria Documentation** Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.
O YES O NO O MAYBE	2	**1.2a Universal Design** *(New Construction only)* Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines.
O YES O NO O MAYBE	2 or 3	**1.2b Universal Design** *(Substantial and Moderate Rehab only)* Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines *[2 points]* and, for an additional point, the remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances.
		SUBTOTAL OPTIONAL POINTS
O YES O NO O MAYBE	M	**2.1 Sensitive Site Protection** *(New Construction only)* Do not locate new development, including buildings, built structures, roads, or other parking areas, on portions of sites that meet any of the following provisions: • Land within 100 feet of wetlands, including isolated wetlands or streams • Land on slope greater than 15% • Land with prime soils, unique soils, or soils of state significance • Public parkland • Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists • Land with elevation at or below the 100-year floodplain
O YES O NO O MAYBE	M	**2.2 Connections to Existing Development and Infrastructure** *(New Construction only, except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000)* Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development. Connect the project to the pedestrian grid.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

O YES O NO O MAYBE — M

2.3 Compact Development *(New Construction only)*

Design and build the project to a density of at least:

- *Urban/Small Cities:* 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- *Suburban/Mid-Size Towns:* 7 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- *Rural/Tribal/Small Towns:* 5 units per acre for detached or semi-detached housing; 10 units per acre for townhomes; 15 units per acre for apartments

O YES O NO O MAYBE — 5 or 6

2.4 Compact Development

Design and build the project to a density of at least:

- *Urban/Small Cities:* 15 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater *[5 points]*
- *Suburban/Mid-Size Towns:* 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater *[6 points]*
- *Rural/Tribal/Small Towns:* 7.5 units per acre for detached or semi-detached housing; 12 units per acre for townhomes; 20 units per acre for apartments *[6 points]*

O YES O NO O MAYBE — M

2.5 Proximity to Services *(New Construction only)*

Locate the project within:

- *Urban/Small Cities:* a 0.25-mile walk distance of at least two ***OR*** a 0.5-mile walk distance of at least four of the list of facilities
- *Suburban/Mid-Size Towns:* a 0.5-mile walk distance of at least three ***OR*** a 1-mile walk distance of at least six of the list of facilities
- *Rural/Tribal/ Small Towns:* two miles of at least two of the list of facilities

O YES O NO O MAYBE — M

2.6 Preservation of and Access to Open Space: Rural/Tribal / Small Towns Only *(New Construction only)*

Set aside a minimum of 10% of the total project acreage as open space for use by residents ***OR*** locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres

O YES O NO O MAYBE — 3 max

2.7 Preservation of and Access to Open Space

Set aside a percentage of the total project acreage as open space for use by residents: 20% *[1 point];* 30% *[2 points];* and 40% + written statement of preservation/conservation policy for set-aside land *[3 points]*

O YES O NO O MAYBE — 5

2.8 Access to Public Transportation

Locate the project within:

- *Urban/Small Cities:* a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday and 32 or more transit rides on the weekend
- *Suburban/Mid-Size Towns:* a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 60 or more transit rides per weekday and some type of weekend ride option
- *Rural/Tribal/Small Towns:* S-mile distance of either a vehicle share program, a dial-a-ride program, an employer van pool, or public-private regional transportation

O YES O NO O MAYBE — 5

2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhood-Rural/Tribal/Small Towns

Connect the project to public spaces, open spaces, and adjacent development by providing at least three separate connections from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

IO

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

O YES O NO O MAYBE — **7 max**

2.10 Smart Site Location: Passive Solar Heating/ Cooling

Demonstrate a building with a passive solar design, orientation, and shading that meet specified guidelines. *Select one:*

- Single building-New Construction *[7points]*
- Multiple buildings-New Construction *[7points]*
- Moderate or Substantial Rehab *[7 points]*

O YES O NO O MAYBE — **2**

2.11 Brownfield or Adaptive Reuse Site

Locate the project on a brownfield or adaptive reuse site. *Select either:* adaptive reuse site *[2 points]* or brownfield remediation *[2 points]*

O YES O NO O MAYBE — **6**

2.12 Access to Fresh, Local Foods

Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; proximity to farmers market.

O YES O NO O MAYBE — **4**

2.13 LEED for Neighborhood Development Certification

Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — **M**

3.1 Environmental Remediation

Conduct an environmental site assessment to determine whether any hazardous materials are present on site.

O YES O NO O MAYBE — **M**

3.2 Erosion and Sedimentation Control *(Exceptfor infill sites with buildable area smaller than one acre)*

Implement EPA's Best Management Practices for erosion and sedimentation control during construction.

O YES O NO O MAYBE — **M**

3.3 Low-Impact Development *(New Construction only)*

Projects located on greenfields must meet the list of low-impact development criteria.

O YES O NO O MAYBE — **M**

3.4 Landscaping

Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site's soil and microclimate, and none of the new plants is an invasive species.

O YES O NO O MAYBE — **M**

3.5 Efficient Irrigation and Water Reuse

If irrigation is utilized, install an efficient irrigation or water reuse system.

O YES O NO O MAYBE — **2 or 6**

3.6 Surface Stormwater Management

Retain, infiltrate, and/or harvest stormwater on site. *Select only one:* partial stormwater retention *[2 points]* or full stormwater retention *[6 points]*

SUBTOTAL OPTIONAL POINTS

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

O YES O NO O MAYBE | M

4.1 Water-Conserving Fixtures

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.28 gpf; Urinals-0.5 gpf; Showerheads-2.0 gpm; Kitchen faucets-2.0 gpm; Bathroom faucets-1.5 gpm

O YES O NO O MAYBE | 6 max

4.2 Advanced Water-Conserving Appliances and Fixtures

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.2 gpf; Showerheads-1.5 gpm; Kitchen faucets-1.5 gpm; Bathroom faucets-0.5 gpm. *Select any, or all, of the options:*

- Toilets *[2 points]*
- Showerheads *[2 points]*
- Faucets-kitchen and bathroom *[2 points]*

O YES O NO O MAYBE | 4 max

4.3 Water Reuse

Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.

- 10% reuse *[1 point]*
- 20% reuse *[2 points]*
- 30% reuse *[3 points]*
- 40% reuse *[4 points]*

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE | M

5.1a Building Performance Standard: Single family and Multifamily (three stories or fewer)
(New Construction only)

Certify the project under ENERGY STAR New Homes.

O YES O NO O MAYBE | M

5.1b Building Performance Standard: Multifamily (four stories or more)
(New Construction only)

Demonstrate compliance with EPA's Multifamily High-Rise program (MFHR) using either the prescriptive or the performance pathway.

O YES O NO O MAYBE | M

5.1c Building Performance Standard: Single family and Multifamily (three stories or fewer)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 85.

O YES O NO O MAYBE | M

5.1d Building Performance Standard: Multifamily (four stories or more)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to ASHRAE 90.1-2007.

O YES O NO O MAYBE | 15 max

5.2 Additional Reductions in Energy Use

Improve whole-building energy performance by percentage increment above baseline building performance standard for additional points.

O YES O NO O MAYBE | M

5.3 Sizing of Heating and Cooling Equipment

Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.

O YES O NO O MAYBE | M

5.4 ENERGY STAR Appliances

If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

ENERGY EFFICIENCY (CONTINUED)

O YES O NO O MAYBE	M	**5.5a Efficient Lighting: Interior Units** Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; ***OR*** if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.
O YES O NO O MAYBE	M	**5.5b Efficient Lighting: Common Areas and Emergency Lighting** Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; ***OR*** if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.
O YES O NO O MAYBE	M	**5.5c Efficient Lighting: Exterior** Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEOs with a minimum efficacy of 45lumens/watt; ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; ***OR*** if replacing, install ENERGY STAR compact fluorescents or LEOs with a minimum efficacy of 45lumens/watt.
O YES O NO O MAYBE	M	**5.6a Electricity Meter** *(New Construction and Substantial Rehab only)* Install individual or sub-metered electric meters in all dwelling units.
O YES O NO O MAYBE	3	**5.6b Electricity Meter** *(Moderate Rehab only)* Install individual or sub-metered electric meters in all dwelling units.
O YES O NO O MAYBE	12 max	**5.7a Renewable Energy** Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand.
O YES O NO O MAYBE	1 or 2	**5.7b Photovoltaic/Solar Hot Water Ready** Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.
O YES O NO O MAYBE	5	**5.8 Advanced Metering Infrastructure** Site, design, engineer, and wire the development to accommodate installation of smart meters and/or be able to interface with smart grid systems in the future.
		SUBTOTAL OPTIONAL POINTS

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

O YES O NO O MAYBE	M	**6.1 Low/No VOC Paints and Primers** All interior paints and primers must be less than or equal to the following VOC levels: Flats-50 giL; Non-flats-50 g/L; Floor-100 giL
O YES O NO O MAYBE	M	**6.2 Low/No VOC Adhesives and Sealants** All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.
O YES O NO O MAYBE	M	**6.3 Construction Waste Management** Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

MATERIALS BENEFICIAL TO THE ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE — 5 max

6.4 Construction Waste Management: Optional

Determine percentage of waste diversion and earn all points below that threshold:

- 35% waste diversion *[1 point]*
- 45% waste diversion *[1 point]*
- 55% waste diversion *[1 point]*
- 65% waste diversion *[1 point]*
- 75% waste diversion *[1 point]*

O YES O NO O MAYBE — 5

6.5 Recycling Storage for Multifamily Project

Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.

O YES O NO O MAYBE — 5 max

6.6 Recycled Content Material

Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. *Select from the following:*

- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

O YES O NO O MAYBE — 5 max

6.7 Regional Material Selection

Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). *Select any or all of these options:*

- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

O YES O NO O MAYBE — 5

6.8 Certified, Salvaged, and Engineered Wood Products

Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.

O YES O NO O MAYBE — 1 or 3

6.9a Reduced Heat-Island Effect: Roofing

Use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. *Select only one:* cool roof *[3 points]* or green roof *[1 point]*

O YES O NO O MAYBE — 2

6.9b Reduced Heat-Island Effect: Paving

Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — M

7.1 Composite Wood Products that Emit Low/No Formaldehyde

All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE | M

7.2 Environmentally Preferable Flooring

Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, ***OR*** in compliance with the Scientific Certification System's FloorScore program criteria.

O YES O NO O MAYBE | 4

7.3 Environmentally Preferable Flooring: Alternative Sources

Use non-vinyl, non-carpet floor coverings in all rooms of building.

O YES O NO O MAYBE | M

7.4a Exhaust Fans: Bathroom *(New Construction and Substantial Rehab only)*

Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).

O YES O NO O MAYBE | 6

7.4b Exhaust Fans: Bathroom *(Moderate Rehab only)*

Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).

O YES O NO O MAYBE | M

7.Sa Exhaust Fans: Kitchen *(New Construction and Substantial Rehab only)*

Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.

O YES O NO O MAYBE | 6

7.Sb Exhaust Fans: Kitchen *(Moderate Rehab only)*

Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.

O YES O NO O MAYBE | M

7.6a Ventilation *(New Construction and Substantial Rehab only)*

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.

O YES O NO O MAYBE | 5

7.6b Ventilation *(Moderate Rehab only)*

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.

O YES O NO O MAYBE | M

7.7 Clothes Dryer Exhaust

Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.

O YES O NO O MAYBE | M

7.8 Combustion Equipment

Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.

O YES O NO O MAYBE | M

7.9a Mold Prevention: Water Heaters

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

O YES O NO O MAYBE | M

7.9b Mold Prevention: Surfaces

In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

O YES O NO O MAYBE | M

7.9c Mold Prevention: Tub and Shower Enclosures

Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

IS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE — M

7.10 Vapor Barrier Strategies *(New Construction and Rehab Projects with foundation work only)*
Install vapor barriers that meet specified criteria appropriate for the foundation type.

O YES O NO O MAYBE — M

7.11 Radon Mitigation *(New Construction and Substantial Rehab only)*
For New Construction in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in those Zones, test for the presence of radon and mitigate if elevated levels exist.

O YES O NO O MAYBE — M

7.12 Water Drainage *(New Construction and Rehab projects replacing assemblies called out in Criterion only)*
Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.

O YES O NO O MAYBE — M

7.13 Garage Isolation
Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage *and* outside all sleeping areas.

O YES O NO O MAYBE — M

7.14 Integrated Pest Management
Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.

O YES O NO O MAYBE — M

7.15 Lead-Safe Work Practices *(Substantial and Moderate Rehab only)*
For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.

O YES O NO O MAYBE — 9

7.16 Smoke-Free Building
Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.

SUBTOTAL OPTIONAL POINTS

8: OPERATIONS+ MAINTENANCE

O YES O NO O MAYBE — M

8.1 Building Maintenance Manual *(All Multifamily Projects)*
Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.

O YES O NO O MAYBE — M

8.2 Resident Manual
Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.

O YES O NO O MAYBE — M

8.3 Resident and Property Manager Orientation
Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.

O YES O NO O MAYBE — 12

8.4 Project Data Collection and Monitoring System
Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years.

SUBTOTAL OPTIONAL POINTS

TOTAL OPTIONAL POINTS

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INTEGRATIVE DESIGN

An integrative design process facilitates the design and development team's achievement of green objectives throughout the project life cycle.

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1.1a

Mandatory

Green Development Plan: Integrative Design Meeting(s)

REQUIREMENTS

Conduct one or more integrative design meeting(s) as appropriate for your project and submit a Green Development Plan or equivalent documentation that outlines the integrative design approach used for this development that demonstrates involvement of the entire project team throughout the design and development process.

RATIONALE

An integrative design process facilitates the design and development team's achievement of green objectives throughout the project life cycle. The outcomes of an integrative design process can include substantially lower development costs and greater health, economic, and environmental benefits for residents, property owners, and communities.

RECOMMENDATIONS

- Conduct a green design charrette with the full development team, including participants from the following disciplines or interests:
  - Prospective or current residents
  - Architecture or residential building design
  - Mechanical or energy engineering
  - Building science or performance testing
  - Green building or sustainable design
  - Civil engineering, landscape architecture, habitat restoration, or land-use planning
  - Building management and maintenance
  - Environmental science
  - Public health
- Best practices in documenting the integrative design charrette process required of project teams submitting for Certification include:
  - A roster of the name and role of each member of the professional design and development team
  - A statement of the overall green development goals of the project and the expected intended outcomes from addressing those goals
  - A summary of the process that was used to select the green building strategies, systems, and materials that will be incorporated into the project
  - A description of how each of the mandatory and optional items will be included in the project
  - Identification of which members of the design and development team are responsible for implementing the green features

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- A description of follow-up measures to be taken through the completion of design, permitting, construction, and operation to ensure that the green features are included and correctly installed, and that the owners or tenants receive information about the function and operation of the features
- Meeting minutes or other documentation that captures and summarizes components of the integrative design process

- Consider revisiting the "Intended Methods" tab of the Certification Workbook, required under Step 1 of the Enterprise Green Communities Certification process, as the construction documents are developed to ensure that methods outlined early in the process are followed through the construction phase.
- If the project team is not seeking Enterprise Green Communities Certification, they should reference the above-mentioned information within an internal Green Development Plan.
- Project performance and durability can be dramatically affected by decisions and processes established during the integrative design phase. Advanced Energy developed the following list of recommendations for project teams to consider during integrative design, based on an evaluation of Enterprise Green Communities projects:
  - Consider adding specific energy consumption thresholds or goals for each project that will be evaluated after project completion.
  - Document your process for approaching and complying with the Criteria for use in your future green projects. Include specific options for complying with Criteria, contact information for useful resources (organizations, websites, product distributors, etc.), and lessons learned.
  - Adjust the scopes of all of the projects in your portfolio to match the Criteria in order to avoid confusion with changing expectations.
  - Add building envelope and mechanical installation details to your plans and specifications for the most critical project components, paying particular attention to: air handler closet air sealing, floor system and band air sealing, party wall air sealing, proper insulation installation, ventilation system installation, and duct sealing with "bucket" mastic. Also provide the construction team with installation guides for the measures above.
  - Consider creating incentives for your construction team based on the performance of various building components.
  - Add self-verification requirements for your construction team for certain project items that demand proper installation (e.g., testing of water fixtures, testing of bath fans, air sealing of air handler closets). Self-verification for product-based measures (submitting cut-sheets for appropriate paints, carpets, etc.) is most likely unnecessary.

RESOURCES

- Enterprise Green Communities offers a variety of resources to support the integrative design process: www.greencommunitiesonline.orgltools/funding!grants/charrette.asp
- Enterprise Green Communities maintains a comprehensive registry of qualified green affordable housing TA providers that are available for support on the design, construction, rehabilitation, and operations of green affordable housing. To find a Green technical assistance (TA) provider near you, search the list found at www.greencommunitiesonline.org/tools/resources/technical_assistance.asp

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- Whole Building Design Guide: www.wbdg.org/wbdg_approach.php
  This website describes the core elements of "whole building design," which includes the combination of an integrative design approach and an integrative team process. This site helps users identify design objectives and organize their processes to meet those objectives.
- *The Integrative Design Guide to Green Building: Redefining the Practice of Sustainability.* ?group and Bill Reed (2009).This book provides guidance to building professionals on incorporating integrative design into every phase of a project.

1.1b

Mandatory

Green Development Plan:Criteria Documentation

REQUIREMENTS

Create design and construction documentation (e.g., plans, details, specifications) to include information on implementation of appropriate Enterprise Green Communities Criteria.

RATIONALE

Projects that explicitly address accountability among project team members and implementation details for Enterprise Green Communities Criteria in design and construction documentation tend to successfully implement the Criteria on site during the construction phase.

RECOMMENDATIONS

Using the chart on pages 21 and 22 for guidance, incorporate all Enterprise Green Communities Criteria mandatory and optional measures that the project intends to meet as indicated in the Green Development Plan.

1.2a

Optional | 2 points

Universal Design: New Construction

REQUIREMENTS

Design a minimum of lSo/o of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. The remainder of the ground-floor units and elevator-reachable units should be designed in accordance with ICC/ANSI A117.1, Type B.

RATIONALE

Universal design features result in a building that is sensitive to a wide range of resident needs, including those who have temporary or permanent disabilities. The creation of comfortable environments for a diverse population increases the likelihood of dynamic, diverse communities.

RECOMMENDATIONS

Universal design features should be considered during the integrative design process.

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- For more information about the ICC/ANSI A117.1 standard: webstore.ansi.org!RecordDetail.aspx?sku= ICC%2FANSI+A117.1-2003 and www.iccsafe.org/store/Pages/Product.aspx?id=9033X03#longdesc
- Enterprise Green Communities offers a variety of resources to support the integrative design process, during which universal design concepts should be considered: www.greencommunitiesonline.org/tools/funding/grants/charrette.asp

1.2b

Optional | 2 or 3 points

Universal Design: Substantial and Moderate Rehab

REQUIREMENTS

- Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. *[2 points]*

AND, for 1 additional point:

- The remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances (designed to accommodate wheelchair-bound people). *[1 point]*

RATIONALE

Universal design features result in a building that is sensitive to a wide range of resident needs, including those who have temporary or permanent disabilities. The creation of comfortable environments for a diverse population increases the likelihood of dynamic, diverse communities.

RECOMMENDATIONS

Universal design features should be considered during the integrative design process, based on the sustainability goals of the project.

RESOURCES

- For more information about the ICC/ANSI A117.1 standard: webstore.ansi.org/RecordDetail.aspx?sku=ICC%2FANSI+A117.1-2003 and www.iccsafe.org/store/Pages/Product.aspx?id=9033X03#longdesc
- Enterprise Green Communities offers a variety of resources to support the integrative design process, during which universal design concepts should be considered: www.greencommunitiesonline.org/tools/funding/grants/charrette.asp

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CRITERION		PROJECT PLANS	SPEC BOOK
1.1a-b	Green Development Plan: Integrative Design Meeting(s)		
1.2a-b	Universal Design	X	X
2.1	Sensitive Site Protection	X	
2.2	Connections to Existing Development and Infrastructure	X	
2.3	Compact Development (Mandatory)		
2.4	Compact Development (Optional)		
2.5	Proximity to Services		
2.6	Preservation of and Access to Open Space: Rural/Tribal/Small Towns	X	
2.7	Preservation of and Access to Open Space	X	
2.8	Access to Public Transportation		
2.9	Walkable Neighborhoods: Connections to Surrounding Neighborhoods	X	
2.10	Smart Site Location-Passive Solar Heating / Cooling	X	X
2.11	Brownfield or Adaptive Reuse Site	X	
2.12	Access to Fresh, Local Foods	X *(if meeting Option 1)*	
2.13	LEED for Neighborhood Development Certification		
3.1	Environmental Remediation		X
3.2	Erosion and Sedimentation Control	X	X
3.3	Low Impact Development	X	X
3.4	Landscaping	X	X
3.5	Efficient Irrigation and Water Reuse		X
3.6	Surface Stormwater Management	X	X
4.1	Water-Conserving Appliances and Fixtures	X	X
4.2	Advanced Water-Conserving Appliances and Fixtures	X	X
4.3	Water Reuse	X	X
5.1a-d	Building Performance Standards	X	X
5.2	Additional Reductions in Energy Use	X	X
5.3	Sizing of Heating and Cooling Equipment	X	X
5.4	ENERGY STAR Appliances		X
5.5a-c	Efficient Lighting		X
5.6a-b	Electricity Meter	X	X
5.7a	Renewable Energy	X	X
5.7b	Photovoltaic/ Solar Hot Water Ready	X	X
5.8	Advanced Metering Infrastructure	X	X

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CRITERION (CONTINUED)		PROJECT PLANS	SPEC BOOK
6.1	Low/No VOC Paints and Primers		X
6.2	Low/No VOC Adhesives and Sealants		X
6.3	Construction Waste Management		X
6.4	Construction Waste Management: Optional		X
6.5	Recycling Storage for Multifamily Building	X	X
6.6	Recycled Content Material		X
6.7	Regional Material Selection		X
6.8	Certified, Salvaged, and Engineered Wood Products		X
6.9a-b	Reducing Heat-Island Effect		X
7.1	Composite Wood Products that Emit Low/No Formaldehyde		X
7.2	Environmentally Preferable Flooring	X	X
7.3	Environmentally Preferable Flooring: Alternative Sources	X	X
7.4	Exhaust Fans: Bathroom	X	X
7.5	Exhaust Fans: Kitchen	X	X
7.6	Ventilation	X	X
7.7	Clothes Dryer Exhaust	X	X
7.8	Combustion Equipment	X	X
7.9	Mold Prevention	X	X
7.10	Vapor Barrier Strategies	X	X
7.11	Radon Mitigation	X	X
7.12	Water Drainage	X	X
7.13	Garage Isolation	X	
7.14	Integrated Pest Management	X	X
7.15	Lead-Safe Work Practices		X
7.16	Smoke-Free Building		X
8.1	Maintenance Manual		
8.2	Resident Manual		
8.3	Resident and Property Manager(s) Orientation		
8.4	Project Data Collection and Monitoring System		

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LOCATION + NEIGHBORHOOD FABRIC

Locating a project within an existing neighborhood and in close proximity to infrastructure encourages more resource-efficient development of land, reduces development costs, conserves energy, and adds to the vitality of the overall community.

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INSTRUCTIONS

The Location+ Neighborhood Fabric category offers three pathways for projects, based on the location of the project and the surrounding development patterns. Project teams should first determine the appropriate category-Urban/Small Cities, Suburban/Mid-Size Towns, or Rural/Tribal/Small Towns-using the methodologies described below.

Projects Seeking Certification

If the project team determines that the project should be placed in a category other than that resulting from the analysis below, the team can provide a more detailed analysis that demonstrates the rationale for inclusion within a different category. Project teams should email certification@enterprisecommunity.org to provide this information prior to submitting under Step 1 of the Enterprise Green Communities Certification process.

Guidance for Moderate and Substantial Rehab Projects

Moderate and Substantial Rehab projects are exempt from all mandatory measures in the Enterprise Green Communities Location + Neighborhood Fabric Criteria category. These project types are eligible for any optional points that are applicable to their particular classification (either Urban/Small Cities, Suburban/Mid-Size Towns, or Rural/Tribal/Small Towns) and any optional points that are applicable to all classifications. For a Rehab project, project teams should follow the methodologies described below to determine the project's classification in one of the three pathways, and then determine whether there are optional criteria for which the project can achieve points.

CALCULATING DENSITY

There are different ways to calculate density, and using one methodology may produce dramatically different net residential density results than another. For the purposes of this categorization exercise, Enterprise Green Communities Criteria uses the Center for Neighborhood Technology's (CNT) net residential density calculation that underlies its Housing +Transportation (H+T) Affordability Index (htaindex.cnt.org/). This calculation uses U.S. Census data to aggregate residential acreage and number of households from all blocks deemed "residential" within a census block group.

Urban/Small Cities

Projects located within a place where the surrounding residential density is 7 dwelling units per acre or more should follow the Urban/Small Cities pathway through the Location + Neighborhood Fabric category. Surrounding net residential density must be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing + Transportation Affordability Index and multiplying that density by 1.5.

Suburban/Mid-Size Towns

Projects located within a place where the surrounding residential density is fewer than 7 dwelling units per acre should follow the Suburban/Mid-Size Towns pathway through the Location + Neighborhood Fabric category. Surrounding net residential density must be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing + Transportation Affordability Index and multiplying that density by 1.5.

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Rural/Tribal/Small Towns

Projects that meet one or more of the criteria below qualify for the Rural!Tribal!Small Towns pathway:

- Projects classified as rural as defined in Section 520 of the Housing Act of 1949 (42 U.S.C. 1490)
  - Any open country or any town, village, city, or place that is not part of or associated with an urban area, and that:
    1. has a population in excess of 2,500 but not in excess of 10,000 if it is rural in character, or
    2. has a population in excess of 10,000 but not in excess of 20,000 and is not contained within a standard metropolitan statistical area
- Projects eligible for funding under USDA Rural Housing Services programs
- Projects located on Native American Reservations and land owned by Native Alaskans
- Projects located in colonias communities as defined by HUD and certified by one of the four border states: Texas, New Mexico, Arizona, and California

Projects located on tribal lands in urban or suburban locations, as per the Enterprise Green Communities pathway classifications, are required to meet the Criteria in that particular pathway, rather than the Rural/Tribal/Small Towns pathway.

METHODOLOGY TO DETERMINE CLASSIFICATION

Urban/Small Cities and Suburban/Mid-Size Towns Classifications

Projects within the Urban/Small Cities and Suburban/Mid-Size Towns categories (i.e., any projects that do not meet the Rural/Tribal/Small Towns definition) should use the expanded Housing + Transportation Affordability Index online at htaindex.cnt.org/residential-density.php. This tool was custom-developed for Enterprise Green Communities projects by CNT to determine net residential density. The tool builds on CNT's original H+T Affordability Index to provide the net residential density by census block group for the entire country.

Within the CNT tool, residential density represents household density of residential areas, in contrast to population density on land area. Blocks (within block groups) are selected on the criteria that gross density (households per land acre) must be greater than one. From these selected blocks, both households and land acres are aggregated to the block group level, at which level residential density is calculated as households per residential acre.

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Instructions: Determining the surrounding residential density of your project location

Note: If you are unsure if your project falls under the USDA definition of "rural," you should follow the instructions below.

1. Go to CNT's Housing + Transportation Index at: htaindex.cnt.org/residential-density.php
2. In the text box, type in the address of your project. Separate the street address, city, state, and ZIP code with commas. Press the "Enter" key on your keyboard.
3. The map will refresh and show the project location identified by address in Step 2 above. Under the map, the residential density of your census block group will be displayed.
4. Once you have the residential density for your project, multiply that number by 1.5 to bring the residential density in line with traditional density calculations. That calculation is described here:

Net Residential Density (using CNT tool) x 1.5 = Surrounding Net Residential Density

Rural/Tribal/Small Towns

If a project is not eligible for USDA RHS funding, located on Federally Recognized Tribal Trust Land, or within a colonias as defined in the Glossary, then the project team should use the following instructions to determine whether the Rural/Tribal/Small Towns pathway is appropriate.

Instructions: Determining USDA RHS funding eligibility

Obtain information on your project site at the USDA Rural Development web page that identifies USDA RD-eligible areas, as determined by USDA's housing programs: eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do

- Under *Property Eligibility*, select the program type. Once the page refreshes, do one of these things:
  1. Enter the project address in the appropriate fields *or* select a state from the map.
  2. Click the Text Description button for information on eligibility by state.
  3. Click on your county.

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2.1

Mandatory

Sensitive Site Protection

See exemptions in Criterion

REQUIREMENTS

Do not locate new projects, including buildings, built structures, roads, or parking areas, on portions of sites that meet any of the following provisions:

1. Land within 100 feet of wetlands, including isolated wetlands or streams. Maintain or establish riparian buffer using native vegetation where possible. Bike and foot paths are allowed if at least 25 feet from the wetlands boundary.
2. Land on slope greater than 15%
3. Land with prime soils, unique soils, or soils of state significance
4. Public parkland
5. Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists
6. Land with elevation at or below the 100-year floodplain

EXEMPTIONS

- Infill sites are exempt from provisions 2 and 3 above. (See Glossary for detail on what can be classified as an infill site.)
- Projects on previously developed sites are exempt from provision 1 above.
- Infill projects in the International Energy Conservation Code (IECC) Climate Zone 2 (hot/humid climates) that follow the National Flood Insurance Program requirements (www.fema.gov/plan/prevent/floodplain/index.shtm) are exempt from provision 6 above.

RATIONALE

Proper site selection avoids damage to or loss of fragile and scarce environmental resources. It also reduces the risk of building damage from flooding.

RECOMMENDATIONS

Protect habitat of potential endangered species. Use state and local lists to identify these habitats.

RESOURCES

- U.S. Department of Energy, Building Technologies Program: www.eere.energy.gov/buildings/info/design/buildingsiting/index.html
  Addresses methods that can help to minimize impacts to the site.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
  A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.
- U.S. Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey: websoilsurvey.nrcs.usda.gov/app/

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- Digital Q3 Flood Data Availability, States Map, Federal Emergency Management Agency (FEMA), FEMA's national flood information maps: msc.fema.gov/webapp/wcs/stores/servlet/info?storeld=10001&catalogld =10001&langld =-1&content=productQ3Map&title=Q3o/o20Availability%20-o/o20Stateo/o20Map&parent= prod uctlnfo&parentTitle=Prod ucto/o20 Information

2.2 *Mandatory*

Connections to Existing Development and Infrastructure

Except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000

REQUIREMENTS

Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous (having at least 25o/o of the perimeter bordering) to existing development.

Connect the project to the pedestrian grid by creating new or enhancing existing sidewalks or other all-weather pathways to link the project to public spaces, open spaces, and adjacent development.

Do not build on tracts of land that require installing a septic tank within 1,000 feet or more from the property line of the tract being developed or a sanitary sewer line extension of 2,500 feet or more from the property line of the tract being developed.

RATIONALE

Locating a project within an existing neighborhood and in close proximity to infrastructure encourages more resource-efficient development of land, reduces development costs, conserves energy, and adds to the vitality of the overall community.

2.3 *Mandatory*

Compact Development

REQUIREMENTS

Design and build the project to the density required for the location type, using the calculation for project net density described below.

Density Requirements by Development Type:

- **Urban/Small Cities:** A minimum of at least 10 dwelling units per acre or at least 75% of surrounding net residential density, whichever is greater.
- **Suburban/Mid-Size Towns:** A minimum of at least 7 dwelling units per acre or at least 75% of surrounding net residential density, whichever is greater.
- **Rural/Tribal/Small Towns:** A minimum net density of 5 units per acre for detached or semi-detached houses; 10 units per acre for townhomes; 15 units per acre for apartments.

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RECOMMENDATIONS

- Calculate project net density by taking the total dwelling units after construction, divided by the acreage of the entire tract down to one decimal point, minus the dedicated acreage of public street rights of way, riparian and wetland buffers, open space that has been dedicated through a conservation program, and other non-buildable areas.
- Net density calculations do not include land that is set aside for future building phases or development. For multi-phased projects, the project net density should include only the portion of the parcel that is being used for that particular phase.
- If the project has a mix of development types, then the project team should calculate net density using a weighted average.
- Surrounding net residential density should be calculated by determining the net residential density of the census block group in which it is located using CNT's Housing+ Transportation Affordability Index and multiplying that density by 1.5.

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RESOURCES

- Congress for New Urbanism: www.cnu.org
  This nonprofit organization provides tools and resources for promoting walkable, neighborhood-based development as an alternative to sprawl.
- Smart Growth Network: www.smartgrowth.org
  This website outlines smart growth principles, provides a guide through smart growth terms and technical concepts, and hosts a searchable catalogue of reports, websites, tools, and case studies.
- Urban Land Institute: www.washington.uli.org
  This nonprofit organization promotes the responsible use of land to enhance the total environment. ULI's online bookstore includes numerous publications regarding compact and higher-density development.

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2.4

Optional | 5 or 6 points

Compact Development

REQUIREMENTS

Design and build the project to the density required for the location type, using the calculation for project net density described below.

Density Requirements by Development Type:

- Urban /Small Cities: A minimum of atleast 15 dwelling units per acre *[5 points]*
- Suburban/ Mid-Size Towns: A minimum of at least 10 dwelling units per acre *[6 points]*
- Rural/Tribal/Small Towns: A minimum net density of 7.5 units per acre for detached or semi-detached houses; 12 units per acre for townhomes; 20 units per acre for apartments *[6 points]*

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RECOMMENDATIONS

- Calculate project net density by taking the total dwelling units after construction, divided by the acreage of the entire tract down to one decimal point, minus the dedicated acreage of public street rights of way, riparian and wetland buffers, open space that has been dedicated through a conservation program, and other non-buildable areas.
- Net density calculations do not include land that is set aside for future building phases or development. For multi-phased projects, the project net density should include only the portion of the parcel that is being used for that particular phase.
- If the project has a mix of development types, then the project team should calculate net density using a weighted average.

RESOURCES

- Congress for New Urbanism: www.cnu.org
  This nonprofit organization provides tools and resources for promoting walkable, neighborhood-based development as an alternative to sprawl.
- Smart Growth Network: www.smartgrowth.org
  This website outlines smart growth principles, provides a guide through smart growth terms and technical concepts, and hosts a searchable catalogue of reports, websites, tools, and case studies.
- Urban Land Institute: www.washington.uli.org
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2.5 *Mandatory* Proximity to Services

REQUIREMENTS

Locate the project within these set distances from the designated number of facilities in the table below:

- Urban /Small Cities: a 0.25-mile walk distance of at least two *or* a 0.5-mile walk distance of at least four facilities
- Suburban/ Mid-Size Towns: a 0.5-mile walk distance of at least three, *or* a 1-mile walk distance of at least six facilities
- Rural/Tribal/Small Towns: 2 miles of at least two facilities *(except for projects located on tribal lands, in colonias communities, or in communities of population less than 10,000)*

RETAIL	SERVICES	CIVIC AND COMMUNITY FACILITIES
Supermarket	Bank	Adult or senior care (licensed)
Other food store with produce	Gym, health club, exercise studio	Child care (licensed)
Farmers market	Hair care Laundry, dry	Community or recreation center
Clothing store or department store selling clothes	cleaner Restaurant,	Cultural arts facility (museum, performing arts)
Hardware store	cafe, diner	Educational facility (including K-12 school, university, adult education center, vocational school, community college)
Pharmacy		Entertainment venue (theater, sports)
Other retail		G01ernment office that serves public on-site
		Place of worship
		Medical clinic or office that treats patients
		Police or fire station
		Post office
		Public library
		Public park
		Social services center

List taken frcrn LEED 2009 Netghbcrhood Devebp-nent Rating System

RATIONALE

Compact development encourages more resource-efficient development of land, reduces project costs, and conserves energy. Additionally, it supports demand for other infrastructure such as public transportation and commercial development.

RECOMMENDATIONS

Provide a context map demonstrating that the center of the site is within the required walk distances of an adequate number of services. Google Maps offers a function to demonstrate walk distance. On Google Maps, go to "Directions" and select "Walk Directions" to obtain this information.

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EXAMPLE OF CONTEXT MAP DEMONSTRATING PROXIMITY TO SERVICES

1. Restaurant
2. Place of Worship
3. supermarket
4. Educational facility (college)
5. Hospital
6. Adult and senior care (licensed)

RESOURCES

- Safe Routes to School National Partnership: www.saferoutespartnership.org/home
  This network of more than 300 nonprofit organizations, government agencies, schools, and professionals works to advance the Safe Routes to School (SRTS) movement in the United States. SRTS can provide a variety of important benefits to children and their communities, including increasing physical activity, reducing traffic congestion, improving air quality, and enhancing neighborhood safety.

2.6

Mandatory

Preservation of and Access to Open Space: Rural/Tribal/Small Towns

REQUIREMENTS

Set aside a minimum of 10% of the total project acreage as open space for use by residents.

OR

Locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres. The open space requirement maybe met by either one large open space or two smaller spaces totaling 0.75 acre.

RATIONALE

Access to open space and natural resources improves quality of life and provides the opportunity to better understand the importance of the natural environment.

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RECOMMENDATIONS

- Consider providing a site plan with total acres and the number of acres of the proposed open space and a narrative for a security, maintenance, and operations plan for the preservation of the open space.
- To calculate open space, deduct buildings, private outdoor areas, streets, and roadways. Open space calculations should not include streets, roadways, or private outdoor areas.
- Good design for open space should include at least one pedestrian trail or walkway, and should be improved to the extent necessary for safety.

RESOURCES

- U.S. Environmental Protection Agency, Smart Growth and Open Space Conservation: www.epa.gov/smartgrowth/openspace.htm
- Trust for Public Land: www.tpl.org/tier2_kad.cfm?folder_id=3133
  This organization conducts research to acquire knowledge about conservation issues and to improve conservation practices.
- Embrace Open Space, Citizens Resources: www.embraceopenspace.nonprofitoffice.com/index.asp?Type=B_LIST&SEC=o/o7B6FSB2EF3-C9B6-49B2-989B-DE2FBA9F4Fl3o/o7D

2.7

Optional | 3 points maximum

Preservation of and Access to Open Space

Available for all projects

REQUIREMENTS

Set aside additional open space in the total project acreage for use by residents.

PERCENTAGE OF OPEN SPACE SET ASIDE	NUMBER OF OPTIONAL POINTS
20%	1 point
30%	2 points
40% +written statement of preservation/ conservation policy for set-aside land	3 points

RATIONALE

Access to open space and natural resources improves quality of life and provides the opportunity to better understand the importance of the natural environment.

RECOMMENDATIONS

- Consider providing a site plan with total acres and the number of acres of the proposed open space and a narrative for a security, maintenance, and operations plan for the preservation of the open space.
- To calculate open space, deduct buildings, private outdoor areas, streets, and roadways. Open space calculations should not include streets, roadways, or private outdoor areas.

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- Good design for open space should include at least one pedestrian trail or walkway, and should be improved to the extent necessary for safety.

RESOURCES

- U.S. Environmental Protection Agency, Smart Growth and Open Space Conservation: www.epa.gov/smartgrowth/openspace.htm
- Trust for Public Land: www.tpl.org/tier2_kad.cfm?folder_id=3133
  This organization conducts research to acquire knowledge about conservation issues and to improve conservation practices.
- Embrace Open Space, Citizens Resources: www.embraceopenspace.nonprofitoffice.com/index.asp?Type=B_LIST&SEC=o/o7B6FSB2EF3-C9B6-49B2-989B-DE2FBA9F4F13o/o7D

2.8

Optional | 5 points

Access to Public Transportation

REQUIREMENTS

- **Urban /Small Cities:** locate project within a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday, and 32 or more transit rides on the weekend
- **Suburban/Mid-Size Towns:** locate project within a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting at least 60 or more transit rides per weekday, and some type of weekend ride option
- **Rural/Tribal/Small Towns:** locate project within a S-mile distance of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; or 4) public-private regional transportation

RATIONALE

Projects located near transit reduce residents' need to own a car, thereby eliminating or lowering the costs of auto ownership. Transit use reduces related emissions of air pollutants and carbon dioxide.

RECOMMENDATIONS

Use a context map to demonstrate that the center of the site is within the required walk distance of combined transit options that provide an adequate number of rides per weekday.

RESOURCES

- Google Maps offers a function to demonstrate walk distance. On Google Maps, go to "Directions" and select "Walk Directions" to obtain this information.
- Reconnecting America: www.reconnectingamerica.org
  This national nonprofit organization provides both the public and the private sectors with a fact-based perspective on development-oriented transit and transit-oriented development. The organization seeks to reinvent the planning and delivery system for building regions and communities around transit and walking rather than solely around the automobile.

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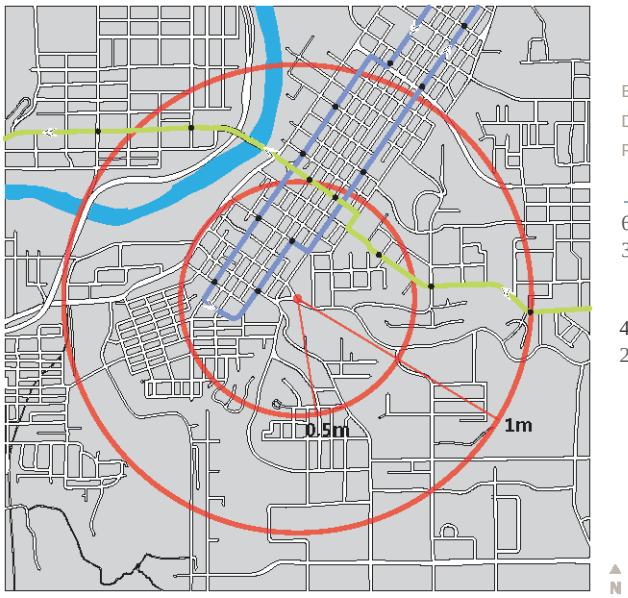

EXAMPLE OF CONTEXT MAP DEMONSTRATING ACCESS TO PUBLIC TRANSPORATION

— Downtown Loop Bus
60 stops/weekday
35 stops/weekend day

Bridge Loop Bus W
40 stops/weekday
24 stops/weekend day

- Victoria Transportation Policy Institute: www.vtpi.org
  This independent research organization provides consulting and publicly available research about solutions to emerging transportation issues, such as transportation demand management.
- Community Transportation Association of America, "Profiles of Innovative Rural Vanpool Programs": web1.ctaa.org/webmodules/webarticles/articlefiles/Profiles_of_Innovative_Rural_Vanpool_Programs.pdf
  This paper describes several exceptional vanpool programs around the country.

2.9

Optional | 5 points

Walkable Neighborhoods: Connections to Surrounding Neighborhoods - Rural/Tribal/Small Towns Only

REQUIREMENTS

Connect the project to public and open spaces and adjacent development by providing at least three separate connections (excluding entrances/exits from a single building) from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.

Types of connections can include roadways, bike trails, sidewalks, footpaths, and the like.

RATIONALE

Connections to adjacent development and public and open spaces promote walking, biking, and other healthy lifestyles.

RECOMMENDATIONS

- Pedestrian activity and improved safety can be encouraged by placing parking underground or locating the garage in the rear or on the side of a home, creating a more traditional residential streetscape.

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- Consider using porous pavement for sidewalks and other paved surfaces to reduce stormwater runoff and the distribution of pollutants to streams, rivers, and water bodies. Design sidewalks to distribute stormwater to open space for recharge and to prevent flooding.
- Integrate pedestrian and bicycle connections from the new project to the surrounding neighborhoods through sidewalks, bike lanes, or paths.
- Where possible, wait until project is occupied before laying out paved pathways/sidewalks from the project to the surrounding neighborhood. Build the pathways/sidewalks where there is visible evidence of pedestrian and bicycle use.

2.10

Optional | 7 points maximum

Smart Site Location: Passive Solar Heating/Cooling

Available for all projects

REQUIREMENTS

Demonstrate a project with a passive solar design, orientation, and shading that meets the following guidelines. Documentation must include sun angles and a wall section showing compliance with the project's Climate Zone (see map on next page), and a site plan indicating true north.

PROJECT TYPE	POTENTIAL POINTS	REQUIREMENTS
Stand-alone building	7	Meet all guidelines
Projects with multiple buildings	2	25% of the homes meet all guidelines
	4	50% of the homes meet all guidelines
	6	75% of the homes meet all guidelines
	7	100% ofthe homes meet all guidelines
Moderate or Substantial Rehab projects	2	All new windows must comply with the windows guidelines by climate zone (Item 3)
	2	All south-facing elevations must comply with shading guidelines (Item 4)

Guidelines

1. Building orientation

Elongate the building on an east-west axis with a minimum ratio of width to depth of 2:1 and orient the east-west axis of the building to be within 20 degrees of true east-west.

2. Glazing

Climate Zones 1-3: The glazing area on the north- and south-facing fac;:ade should be 50% greater than the sum of the glazing areas on the east- and west-facing walls.

Climates Zones 4-7: The glazing area on the south-facing fac;:ade should be 30% greater than the sum of the glazing areas on the east-, west-, and north-facing fac;:ades.

3. **Glazing type**

Provide windows with U-values and solar heat gain coefficients (SHGC) by orientation and Climate Zone that meet the requirements in the following table and map.

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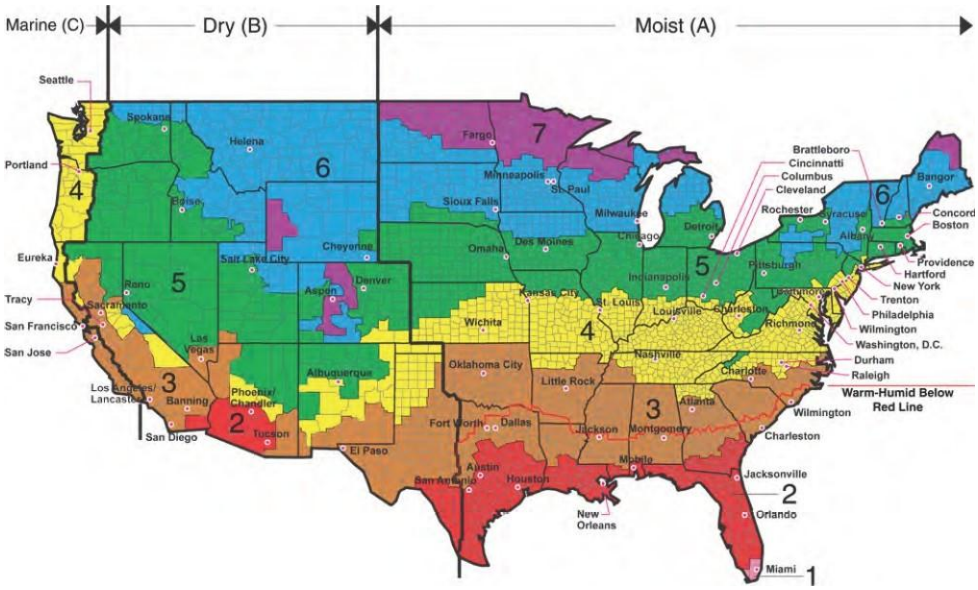
4. Shading

For south-facing windows, follow the shading requirements in the following table and map.

REQUIREMENTS FOR GLAZING AND SHADING

CLIMATE ZONE	U-FACTOR	MINIMUM SOLAR HEAT GAIN COEFFICIENT	PERCENTAGE OF WINDOW THAT NEEDS TO BE SHADED BY JUNE 21
1, 2	[illegible]	[illegible]	100%
3,4	0.30	0.40	75%
5, 6, 7	0.25	0.50	50%

2009 IECC CLIMATE ZONES



All of Alaska is Zone 7 except for the following Boroughs in Zone 8, Bethel, Dellingham, Fairbanks, N. Star, Nome North Slope, Northwest Arctic, Southeast Fairbanks, Wade Hampton, and Yukon-Kdyukuk. Zone 1 includes Hawaii, Guam, Puerto Rico, and the Virgin Islands

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RATIONALE

The utilization of passive solar energy through design minimizes reliance on mechanical heating, lowers the cooling load, and provides more residents with access to daylight.

RECOMMENDATIONS

- Interior spaces requiring the most lighting, heating, and cooling should be along the south face of the building.
- A narrow floor plate (less than 40 feet), single-loaded corridors, and an open floor plan optimize daylight and natural ventilation.
- Thermal Massing, Climate Zones 2-7
  - Locate a material with high thermal mass on the southern portion of the house where sunlight hits during the heating season.
  - Materials with thermal mass include brick, concrete, stone, water, and any other material of a similar high density and specific heat capacity.
  - The thermal mass location must be shown in the schematic wall section of the southern fa ades.
- Additional Potential Passive Cooling Strategies
  - Plant deciduous shade trees on the south fa ades.
  - Maximize cross ventilation by installing operable windows at the leeward and windward sides of the building.

RESOURCES

- U.S. Department of Energy, "Passive Solar Design," Technology Fact Sheet: ap ps1.eere.energy.gov/buildings/publications/pdfs/building_america/29236.pdf
  This fact sheet includes tips and techniques for passive solar heating, passive solar cooling, thermal storage, and daylighting.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
  A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.
- U.S. Department of Energy, National Renewable Energy Laboratory, "Passive Solar Design for the Home," Report #DOE/G0-102001-1105, February 2001: www.nrel.gov/docs/fyOlostV27954.pdf
- U.S. Department of Energy, Passive Solar Design-Roof Overhangs: www.energysavers.gov/your_home/designing_remodeling/index.cfm/mytopic=10280

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2.11

Optional | 2 points

Brownfield or Adaptive Reuse Site

Available for all project types

REQUIREMENTS

Locate the project on a brownfield or adaptive reuse site.

For brownfields, locate the project on a site, part or all of which is documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local Voluntary Cleanup Program), or on a site defined as a brownfield by a local, state, or federal government agency; and remediate site contamination such that the controlling public authority approves the protective measures and/or cleanup as effective, safe, and appropriate for the future use of the site.

RATIONALE

Use of brownfields or adaptive reuse sites reduces pressure on undeveloped land. Reuse of existing structures reduces the need for new materials.

RESOURCES

- U.S. Environmental Protection Agency, Brownfields Cleanup and Redevelopment: www.epa.gov/brownfields/index.html
  There is information on this site about EPA's Brownfields Program, including the brownfields law, EPA Brownfields Grants, technical tools and resources, and brownfield projects across the country.
- Municipal Research and Services Center of Washington, Infill Development Strategies for Shaping Livable Neighborhoods: www.mrsc.org/Publications/textfill.aspx
  This site contains an overview of strategies for encouraging and implementing infill development patterns.
- National Vacant Properties Campaign: www.vacantproperties.org
  This website provides information, resources, tools, and assistance to support vacant property revitalization efforts.

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2.12

Optional | 6 points

Access to Fresh, Local Foods

Available for all project types

REQUIREMENTS

Option 1: Neighborhood Farms and Gardens *[6 points]*

a) Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the project equal or greater in size to 50 square feet per dwelling unit of the project. Provide solar access, fencing, watering systems, garden bed enhancements (such as raised beds), secure storage space for tools, and pedestrian access for these spaces. Ensure that the spaces are owned and managed by an entity that includes occupants of the project in its decision making, such as a community group, homeowners' association, or public body.

Established community gardens outside the project boundary but within a 0.5-mile walk distance of the project's geographic center can satisfy this option if the garden otherwise meets all of the option requirements.

b) Dedicate permanent and viable growing space and/or related facilities (such as greenhouses) within the project equal or greater in size to 50 square feet per dwelling unit of the project, and establish an agreement with a local farming operation to farm the land. Ensure in the agreement that at least 50% of the produce is made available for purchase by the project's residents. Provide solar access, fencing, watering systems, garden bed enhancements (such as raised beds), and secure storage space for tools.

OR

Option 2: Community-Supported Agriculture *[6 points]*

Offer a specified location within the project boundaries for delivery of community-supported agriculture (CSA) program shares for residents, project staff, and surrounding community members, as appropriate. The farm(s) supplying the CSA shares must be within 150 miles of the project site. Shares must be delivered to the specified delivery point on a regular schedule at least twice a month for at least four months of the year.

OR

Option 3: Proximity to Farmers Market *[6 points]*

Locate the project's geographic center within a 0.5-mile walk distance of an existing or planned farmers market that is open or will operate at least once a week for at least five months of the year. Farmers market vendors may sell only items grown within 150 miles of the project site. A planned farmers market must have firm commitments from farmers and vendors that the market will meet all of the above requirements and be in full operation by the time there is 50% occupancy of the project's dwelling units.

RATIONALE

Access to fresh produce offers healthy food options for residents. This measure also supports local economic development that increases the economic value and production of farmlands and community gardens.

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RECOMMENDATIONS

- For projects pursuing Option 1a, consider bringing in an individual or group (e.g., master gardener(s) or a garden club) to work with the residents to establish the garden and maintain productivity.
- For projects pursuing Option 2 or 3, encourage the farms supplying the produce to accept food stamps.

RESOURCES

- Local Harvest: www.localharvest.org
  This website offers a search function to find farmers markets, family farms, and other sources of local, sustainably grown food in a given area.
- U.S. Department of Agriculture, National Agricultural Library, Food and Nutrition Information Center, Community Food Systems: fnic.nal.usda.gov/nal_display/index.php?infocenter=4&tax level=2&tax subject=276&topic id=1344&placement default=O
  This website links to dozens of publications, programs, and other sites.

2.13

Optional | 4 points

LEED for Neighborhood Development Certification

Available for all project types

REQUIREMENTS

Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.

RATIONALE

Projects located in LEED for Neighborhood Development Certified Developments have taken steps to minimize the environmental impact of land development practices. LEED for Neighborhood Development is designed to certify exemplary development projects that perform well in terms of smart growth, urbanism, and green building.

RESOURCES

- U.S. Green Building Council, LEED for Neighborhood Development:
  www.usgbc.org/DisplayPage.aspx?CMSPageiD=148
  This page has links to the LEED rating system, a project checklist, and information on certification.

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SITE IMPROVEMENTS

Low impact design and development principles minimize the site's environmental footprint.

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3.1 *Mandatory*
Environmental Remediation

REQUIREMENTS

Conduct a Phase I Environmental Site Assessment, a Tier II Environmental Review Assessment per HUD funding requirements, an environmental site assessment approved by HUD through the Part 50 or Part 58 process, or an environmental site assessment approved by USDA through the 1940-G or 1794 process, and any additional assessments required to determine whether any hazardous materials are present on-site.

If an environmental site assessment reveals that mitigation is necessary, perform the appropriate mitigation steps as required.

RATIONALE

The environmental site assessment determines the potential environmental liabilities associated with property acquisition and ownership.

RESOURCES

- HUD, Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities (24 CFR Part 58 process): www.hud.gov/offices/pih/ih/codetalk!onap/docs/24cfr58.pdf
- HUD, Part 50 process: www.hud.gov/offices/pih/ih/codetalk/docs/24cfr50.pdf
- USDA, Environmental Review Process, 1940-G and 1794 processes: www.rurdev.usda.gov/pa/environmental.htm

3.2 *Mandatory*
Erosion and Sedimentation Control

Except for infill sites with buildable area smaller than one acre

REQUIREMENTS

Implement EPA's Best Management Practices for erosion and sedimentation control during construction, referring to the EPA document "Storm Water Management for Construction Activities" (EPA 832-R-92-005), or state or local requirements, whichever is more stringent.

RATIONALE

Erosion and sedimentation control during site development keeps valuable topsoil on-site and reduces pollution, stormwater runoff, and sedimentation associated with construction activities into local waterways. Soils compacted from construction activities are less able to absorb water, resist plant root penetration, and lack the porosity needed for adequate aeration.

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RECOMMENDATIONS

Common erosion control measures include:

- Stockpile and protect disturbed topsoil from erosion for reuse.
- Control the path and velocity of runoff with silt fencing or comparable measures.
- Protect on-site storm sewer inlets, streams, and lakes with straw bales, silt fencing, silt sacks, rock filters, or comparable measures.
- Provide swales to divert surface water from hillsides.
- If soil in a sloped area is disturbed during construction, use tiers, erosion blankets, compost blankets, filter socks and berms, or some comparable approach to keep soil stabilized.
- Consider opting for one of the following methods-phasing, seeding, grading, protecting on-site vegetation, directing runoff to on-site depressions, or swales-instead of using silt fencing. Additionally, the measures that are employed should result in no visible off-site discharge.

RESOURCES

- U.S. Environmental Protection Agency, "Storm Water Management for Construction Activities" (EPA 832-R-92-005) maybe downloaded from the National Service Center for Environmental Publications at www.epa.gov/nscep/ or purchased as item PB 922 359 51 from the National Technical Information Service at yosemite.epa.gov/water/owrccatalog.nsf
- CPESC'M Inc.: www.cpesc.net
  Search the directory on this website to find certified erosion and sedimentation control professionals in your state.
- U.S. Environmental Protection Agency, Erosion and Sediment Control Model Ordinances: www.epa.gov/owow/nps/ordinance/erosion.htm
  This resource is geared toward helping municipalities draft ordinances for erosion and sedimentation control and might serve as a helpful tool in developing company policies for meeting this measure.

3.3

Mandatory

Low-Impact Development

Mandatory for New Construction projects located on greenfield development

REQUIREMENTS

Projects located on greenfields must meet the following low-impact development criteria:

- Achieve **Option 1** of Criterion 3.6, Surface Stormwater Management.
- Design roadways to be along topographic contours and ridge lines so as to avoid erosion and unnecessary cut and fill.
- Do not locate projects on sites with a grade of lSo/o or more.
- Design roadway plans to utilize the minimum necessary pavement required by code, such as narrower roads, minimized parking, and thoughtful road layout. Consult with local fire department(s) regarding roadway sizing as needed.

- Design roadway sections with localized retention such as swales, retention basins, plantings, and permeable paving to convey, capture, infiltrate, and/or reuse stormwater. This can be demonstrated through achieving Criterion 3.6, Surface Stormwater Management.
- For projects located in Rural/Tribal/Small Towns as defined in the Location + Neighborhood Fabric category, do not implement a curb and gutter system. Minimize sidewalks or pathways to one side of the road where people would naturally travel. Projects located in municipalities that require curb and gutter infrastructure for all developments are exempt from this sub-requirement.

EXEMPTIONS

Projects built on greyfields or brownfields (previously developed sites) or infill sites, defined as those that have at least 75% of the perimeter bordering existing development or roads and with access to existing infrastructure, are not required to meet this measure.

RATIONALE

Low impact design and development principles minimize the site's environmental footprint.

RECOMMENDATIONS

Keep existing trees and vegetation to the extent feasible.

RESOURCES

- U.S. Environmental Protection Agency, *Low-Impact Development Design Strategies: An Integrated Design Approach:* www.epa.gov/owow/NPS/lidnatl.pdf

3.4 *Mandatory* Landscaping

Only if providing landscaping

REQUIREMENTS

Provide plants (including trees, shrubs, and groundcover) such that at least 50% of the area available for landscaping is planted with native or adaptive species. Also, all new plants must be appropriate to the site's soil and microclimate, and none of the new plants should be invasive species.

RATIONALE

Native and adaptive plants are well suited to the climate and provide excellent erosion, sediment, dust, and pollution control. Native and adaptive plants are more resistant to naturally occurring disease, insects, and low levels of nutrients, thereby reducing or eliminating the need for fertilizers, pesticides, or herbicides.

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RECOMMENDATIONS

- Consider "naturescaping," a landscaping strategy that conserves water and reduces runoff while providing habitat for beneficial insects, birds, and other wildlife. In areas where water shortages are common, consider "xeriscaping," a landscaping strategy that uses drought-resistant plants to significantly reduce or eliminate the need for irrigation.
- Consult a local arborist and consider involving a landscape architect in the architectural design process to identify appropriate areas for landscaping and shading.
- Consider integrating the landscape plan with the stormwater management plan to provide water and drainage that is complementary with plants.
- While turf may be appropriate for some landscaping, such as for play areas, it should be minimized wherever possible, except in climates where no irrigation is needed. Non-native turf needs about 35 inches of water per year to thrive, whereas native turf needs much less. Turf grass also requires mowing, and the cumulative effects of electric and gas mowing equipment contribute to the deterioration of local air quality.
- The project team should strive to use only organic and non-toxic fertilizers, pesticides, herbicides, fungicides, and pre-emergents.

RESOURCES

- U.S. Environmental Protection Agency, GreenScapes: www.epa.gov/epawaste/conserve/rrr/greenscapes/index.htm
  This "naturescaping" program provides cost-efficient and environmentally friendly solutions for landscaping. Designed to help preserve natural resources and prevent waste and pollution, GreenScapes encourages holistic decisions regarding waste generation and disposal and the associated impacts on land, water, air, and energy use.
- USDA Agricultural Cooperative Extension System: www.csrees.usda.gov/Extension,/index.html
  Lists of local drought-tolerant plants may be available from local USDA Agricultural Cooperative Extension System offices, as well as through numerous online resources.
- Native Plant Information Network: www.wildflower.org/explore/
  The site, maintained by the Lady Bird Johnson Wildflower Center, includes a database of native wildflowers, plants, and landscapes throughout North America. The website also includes a National Suppliers Directory.
- USDA National Invasive Species Information Center: www.invasivespeciesinfo.gov/plants/main.shtml
  As part of the USDA's National Agricultural Library, NISIC serves as a reference gateway to information, organizations, and services about invasive species.
- U.S. Forest Service "Celebrating Wildflowers": www.fs.fed.us/wildflowers/nativegardening/instructions.shtml
  This site has extensive information on native gardening, selecting appropriate native plants, and invasive plant species, and has basic instructions for restoration and native landscaping projects.

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3.5 *Mandatory*

Efficient Irrigation and Water Reuse

If irrigation is utilized

REQUIREMENTS

If irrigation is utilized, install an efficient irrigation or water reuse system. These irrigation requirements are mandatory only for permanent landscaping that requires regular irrigation.

Option 1

An efficient irrigation system must include the following at a minimum:

- a drip irrigation system for at least 50% of landscape planting beds
- separately zoned turf and each type of bedding area, based on watering needs
- a timer/controller that activates the valves for each watering zone at the best time of day to minimize evaporative losses while maintaining healthy plants and obeying local regulations and water-use guidance
- a moisture sensor controller or rain delay controller

Option 2

Reuse water for irrigation from one of the following sources:

- treated greywater
- rainwater, collected from the roof or site
- water from a municipal recycled water system

For all projects, watering tubes for trees are allowed for a period of two years.

RATIONALE

Accurate delivery of water reduces evaporation and eliminates overspray. Proper scheduling eliminates fluctuations between wet and dry states that stress plants.

RECOMMENDATIONS

Use high-efficiency irrigation nozzles with an average distribution uniformity (DU) of at least 0.70. This may include conventional rotors, multi-stream rotors, or high-efficiency spray heads, but the DU must be verified by manufacturer documentation or third-party tests.

RESOURCES

- American Society of Landscape Architects (ASLA): www.asla.org
  ASLA is the national professional association representing landscape architects. Their site provides information about members, products, services, publications, and events.
- U.S. Environmental Protection Agency, WaterSense: Efficiency Made Easy: www.epa.gov/watersense/indeX/html
  This site provides information on the EPA WaterSense labeling program for water-efficient landscape irrigation products, plus tips and recommendations for water-efficient irrigation. Follow the link to *Weather- or Sensor-Based Irrigation Control Technologies* for related information on high-efficiency irrigation controllers.

- U.S. Environmental Protection Agency, *Water-Efficient Landscaping: Preventing Pollution and Using Resources Wisely:* www.epa.gov/owm/water-efficiency/docs/water-efficient_landscaping_508.pdf
  This manual provides information about reducing water consumption through creative landscaping techniques.
- American Water Works Association, WaterWiser®: The Water Efficiency Clearinghouse: www.awwa.org/waterwiser/
  This clearinghouse provides articles, reference materials, and papers on all forms of water efficiency.

3.6

Optional | 2 or 6 points

Surface Stormwater Management

REQUIREMENTS

Option 1 *[2 points]*

Retain, infiltrate, and/or harvest the first 0.5 inch of rain that falls on the entire site in a 24-hour period.

Option 2 *[6 points]*

Retain, infiltrate, and/or harvest all stormwater, as calculated for a one-year storm event, on-site or on adjacent site(s), so that no stormwater is discharged to drains/inlets.

For either option, assure that the project plans and specifications call for permanent labeling of all storm drains or storm inlets to clearly indicate where the drain or inlet leads.

RATIONALE

Reducing or eliminating stormwater runoff through design and management techniques increases on-site filtration, reduces total suspended solids (TSS) and other pollutants from entering waterways, and reduces soil erosion. Water storage and nutrient collection processes reduce the need for irrigation and contribute to forming a healthier ecological community within the landscape.

RECOMMENDATIONS

- This criterion may be met by using a combination of multiple strategies and technologies, as long as there exists the capacity to retain the first 0.5 inch of rainfall that falls on the entire site. Stormwater management strategies could include disconnected downspouts, permeable paving, swales, retention basins, green roofs, sidewalk planters, xeriscaping, and nature-scaping. See Criteria 3.4-3.6 for synergistic measures.
- For Option 2, local resources can be used to determine the projected rainfall for a one-year storm event at the project site.
- If a rainwater harvesting and storage strategy is considered in addition to infiltration, check with state and local governments to verify that capture and/or reuse of rainwater is permitted. If not, consider appealing local rules.

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- Attempt to make use of innovative, low-impact techniques such as disconnected downspouts, permeable paving, swales, retention basins, rain gardens, ecoroofs, rain barrels, and cisterns to convey, capture, infiltrate, and /or reuse stormwater.
- Strive to minimize impervious areas (surfaces that do not allow stormwater infiltration), including roofs, driveways, sidewalks, and streets, or use porous materials for such areas. Water-permeable materials include pervious interlocking concrete paving blocks, concrete grid pavers, perforated brick pavers, and compacted gravel.
- To provide a visual reminder that storm sewer inlets connect to area waterways and ground-water storages, use a plaque, tile, painted, or pre-cast message such as "No Dumping. Drains to [name of water source]." If project is unable to label storm inlets due to jurisdictional constraints, the project team must provide documentation.

RESOURCES

- U.S. Environmental Protection Agency, Storm Drain Marking: cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp = 15
- U.S. Environmental Protection Agency, *Low-Impact Development Design Strategies: An Integrated Design Approach:* www.epa.gov/owow/NPS/lidnatl.pdf
- National Association of Home Builders Research Center ToolBase Services: Permeable Pavement: www.toolbase.org/Technology-Inventory/Sitework/permeable-pavement In a resource provided through a partnership with the Department of Housing and Urban Development, the Partnership for Advancing Technology in Housing, and the National Association of Home Builders Research Center, this site provides details, lists of manufacturers, and related information on permeable paving options.

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WATER CONSERVATION

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

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4.1

Mandatory

Water-Conserving Fixtures

For all projects

REQUIREMENTS

Install water-conserving fixtures in all units and any common facilities with the following specifications:

- Toilets-1.28 gpf (gallons per flush) or less, including dual-flush toilets and pressure-assisted toilets (Note that there are both dual-flush and single-flush models of 1.28 gpftoilets available.)
- Urinals-O.Sgpforless
- Showerheads-2.0 gpm (gallons per minute) or less
- Kitchen faucets-2.0 gpm or less
- Bathroom faucets-1.5 gpm or less

Substantial and Moderate Rehab projects must replace or retrofit all fixtures to meet the flow rates above.

RATIONALE

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

RECOMMENDATIONS

- Certain existing fixtures, such as bathroom faucets, can be retrofitted with an aerator to reduce water flow to the requisite level.
- Dual-flush toilets typically have an average flow rate calculated and provided by the manufacturer. However, if this information is not available, use a 2:1 ratio to determine the average flow rate.

  For example, with a dual-flush toilet that has a 0.8 low-volume flush to a 1.6 high-volume flush, the calculation would be:

$$\frac{(0.8 \times 2) + (1.6 \times 1)}{3} \quad \textbf{1.067 average gpf}$$

- For senior projects, consider using single-flush toilets that meet the criterion flow rates, rather than dual-flush toilets. Feedback from past Enterprise Green Communities projects suggests that senior populations maybe unsure of the dual-flush technology, which may lead to their having difficulty in operating the toilets in an effective and appropriate way.
- For projects using bathtubs rather than showers, the tub faucet is exempt from this measure.
- Consider conducting a WaterSense water pressure test at the street level, given that a project's water pressure and the distance between the source of water and the fixture(s) may allow a fixture to release more or less water than its rating indicates.

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- Not all high-efficiency toilets operate equally well, and poor design can lead to ineffective flushing and the need for multiple flushes. The EPA's WaterSense program certifies toilets that achieve both water efficiency and operational effectiveness. The WaterSense label identifies high-efficiency products that have been verified for performance. WaterSense currently has a specification for high-efficiency toilets and bathroom faucets, and specification for showerheads is under development. Information is available at: www.epa.gov/owm/water-efficiency
- Maximum Performance (MaP'M) Testing California Urban Water Conservation Council: www.cuwcc.org/maptesting.lasso
  The MaP'M testing project was initiated in 2003 to test toilet models' performance. This testing protocol simulates real-world use to help consumers identify high-efficiency toilets that not only save water but also work well. The current MaP testing report provides performance information on 470 toilet models. This site provides access to the complete listings of the tested toilets.

4.2

Optional | 6 points maximum

Advanced Water-Conserving Appliances and Fixtures

REQUIREMENTS

Install water-conserving fixtures in all units and any common space bathrooms with the following specifications. Inclusion of each type of fixture is worth two optional points.

- **Option 1** *[2 points]:* All toilets-1.2 gpf (gallons per flush) or less
- **Option 2** *[2 points]:* All showerheads-1.5 gpm (gallons per minute) or less
- **Option** 3 *[2 points]:* All faucets for kitchens and bathrooms
  - Kitchen faucets -1.5 gpm or less
  - Bathroom faucets-0.5 gpm or less

Substantial and Moderate Rehab projects can replace or retrofit all fixtures to meet the flow rates above to achieve these optional points.

RATIONALE

Water conservation translates into direct utility savings for residents and building owners and lowers infrastructure costs associated with stormwater management and water treatment facilities.

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- Certain existing fixtures, such as bathroom faucets, can be retrofitted with an aerator to reduce water flow to the requisite level.
- Dual-flush toilets typically have an average flow rate calculated and provided by the manufacturer. However, if this information is not available, use a 2:1 ratio to determine the average flow rate.

$$\frac{(\text{low flow volume rate} \times 2) + (\text{high flow volume rate} \times 1)}{3} \quad \text{average flow rate}$$

For example, with a dual-flush toilet that has a 0.8 low-volume flush to a 1.6 high-volume flush, the calculation would be:

$$\frac{(0.8 \times 2) + (1.6 \times 1)}{3} \quad \text{1.067 average gpf}$$

- For senior projects, consider using single-flush toilets that meet the criterion flow rates, rather than dual-flush toilets. Feedback from past Enterprise Green Communities projects suggests that senior populations maybe unsure of the dual-flush technology, which may lead to their having difficulty in operating the toilets in an effective and appropriate way.
- For projects using bathtubs rather than showers, the tub faucet is exempt from this measure.
- Consider conducting a WaterSense water pressure test at the street level, given that a project's water pressure and the distance between the source of water and the fixture(s) may allow a fixture to release more or less water than its rating indicates.

RESOURCES

- Not all high-efficiency toilets operate equally well, and poor design can lead to ineffective flushing and the need for multiple flushes. The EPA's WaterSense program certifies toilets that achieve both water efficiency and operational effectiveness. The WaterSense label identifies high-efficiency products that have been verified for performance. WaterSense currently has a specification for high-efficiency toilets and bathroom faucets, and specification for shower-heads is under development. Information is available at: www.epa.gov/owm/water-efficiency
- Maximum Performance (MaP'M) Testing California Urban Water Conservation Council: www.cuwcc.org/maptesting.lasso
  The MaP'M testing project was initiated in 2003 to test toilet models' performance. This testing protocol simulates real-world use to help consumers identify high-efficiency toilets that not only save water but also work well. The current MaP testing report provides performance information on 470 toilet models. This site provides access to the complete listings of the tested toilets.

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4.3

Optional | 4 points maximum

Water Reuse

REQUIREMENTS

Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.

To achieve optional points, provide the defined percentage of the project's total water needs through rainwater and/or greywater (using either one or a combination of both strategies). Total water needs include all exterior and interior water use.

TOTAL WATER NEEDS SUPPLIED BY RAINWATER AND/OR GREYWATER	NUMBER OF OPTIONAL POINTS
10%	1 point
20%	2 points
30%	3 points
40%	4 points

RATIONALE

Rainwater and greywater reuse strategies reduce the need for municipal water supplies and sewage treatment.

RECOMMENDATIONS

- Rainwater can be harvested from impervious surfaces such as roofs and carried via gutters and downspouts to a storage tank or cistern where it can be treated or filtered for potable uses. Untreated rainwater may be used for non-potable uses.
- Greywater may be stored and treated for non-potable uses such as toilet flushing and irrigation.
- Rainwater and greywater systems are subject to state and local regulations and special requirements. In some jurisdictions, rainwater or greywater systems may not be allowed. Check with your local building code officials for requirements.
- Consider striving for rainwater and greywater utilization beyond 20%. In some cases, employing rainwater and greywater harvesting, treatment, and reuse can provide for all of a project's water needs.

RESOURCES

- American Water Works Association, WaterWiser®: The Water Efficiency Clearinghouse: www.awwa.org/waterwiser/
  This clearinghouse provides articles, reference materials, and papers on water recycling, greywater, and rainwater reuse.
- International Living Building Institute, Achieving Water Independence in Buildings: ilbi.org/resources/reports/water/oregon
  This downloadable publication explains water reuse systems and regulatory barriers, and provides information for those wishing to explore the possibilities of water reuse in buildings and to reform limiting regulation.

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ENERGY EFFICIENCY

Improvements in building energy performance result in utility cost savings from more efficient heating, cooling, hot water, lights and appliances, which improves residents' comfort and lowers operating costs.

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5.1a

Mandatory

Building Performance Standard

New Construction:Single-family and multifamily buildings,three stories or fewer

REQUIREMENTS

Certify the project under ENERGY STAR New Homes Version 2, 2.5, or 3 depending on when the project is permitted. See the "Recommendations" section for additional information on the registration timeline and pathways for projects to achieve ENERGY STAR.

The following project types are subject to this requirement:

- Single-family detached homes (includes detached homes, townhomes, rowhomes, duplexes, and triplexes)
- Units in multifamily buildings that are three stories or fewer
- Units in multifamily buildings that are four or five stories and have their own heating, cooling, and hot water systems, separate from other units

Projects in Oregon, Washington state, Idaho, and Montana must meet the performance requirements of Northwest ENERGY STAR Homes Program.

For other states with an energy code exceeding the 2009 IECC, EPA regional program requirements have been developed. Go to www.energystar.gov/homes for the latest list.

RATIONALE

ENERGY STAR-qualified homes are independently verified to be energy efficient and durable. These high-performance homes achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

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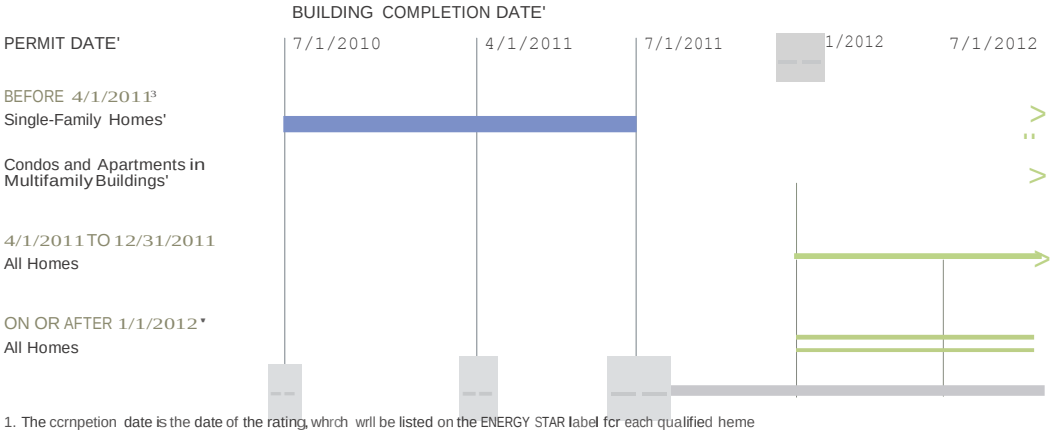
RECOMMENDATIONS

ENERGY STAR FOR NEW HOMES PROGRAM IMPLEMENTATION



1. The ccrnpetion date is the date of the rating, whrch wrll be listed on the ENERGY STAR label fcr each qualified heme
2. The permit date IS the date of the perm1t or the date of the contra ct on the horne
3. Homes can be qualified under the Versioo 2.5 guidelines in advance of the dates above at the discretioo of b.Jilders and their raters. Howe er, homes may not be qualified as Version 3 until January 1, 2012.
4. Single-family hornes include detached homes, townhcmes, roW'homes, d u pexes, and tripexes.
S. All multi-famtly homes financed th rough low-income houSing agenoes may earn the ENERGY STAR under the bst tteratton of the gutdelmes, Version 2, until January 1, 2013 as long as the appliot1on for funding for those homes was received by the low income housing agency before April I, 2011. If the applicatiOn for fundtng is recetved between Apnll,2011 and December 31, 2011, then the homes must earn the ENERGY STAR under the Version 2 S guidelines p g if completed befcre January 1, 2012, and under the Version 3 gutdehnes 1f completed after January 1, 2012 If the awlication for funding ts received oo or after January 1, 2012 then the homes must earn the ENERGY STAR under the Version 3 guidelines
6. Where a utility cr state sponsor is mandating cr incentivizing early adoption of Version 3 in their area, EPA \Mil allow the labeling of ENERGY STAR Version 3 prior to January 1, 2012 on a plot program basis, provided that the sponsor meets certain requirements

Version 2
2006 Guidelines

Version 2.5
Version 3 ENERGY STAR Reference Design with Air Barriers and Air Sealing sections of Thermal Enclosure Checklist. other Checklists completed but not enforced

Version 3
Version 3 ENERGY STAR Reference Design with All Checklists

- Projects permitted before April1, 2011 can certify under ENERGY STAR New Homes Version 2 or higher using either the performance or prescriptive pathway.
- Projects permitted between April1, 2011and December 31,2011 must certify under ENERGY STAR New Homes Version 2.5 or higher using either the performance or prescriptive pathway.
- Projects permitted on or after January 1, 2012 must certify under ENERGY STAR New Homes Version 3.
- ENERGY STAR New Homes Version 2.5 and 3 are designed to be at least 15o/o more stringent than the 2009 IECC for all new single-family detached and low-rise multifamily residential structures under four stories. Multifamily residential buildings that are four or five stories and have their own heating, cooling, and hot water systems, separate from other units, may also qualify for ENERGY STAR. Residential buildings can achieve this by using a prescriptive or a performance path.
- For the prescriptive path, projects must meet the ENERGY STAR Reference Design, a set of design specifications compiled by ENERGY STAR.

- For the performance path, projects will utilize the ENERGY STAR Reference Design and a Size Adjustment Factor to determine an ENERGY STAR HERS Index Target for each home.
  - The baseline building performance standard can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems. Other "renewable" technologies such as solar domestic hot water collectors and geothermal H/AC systems (ground source heat pumps) can be included.
- Under ENERGY STAR Version 2.5, both paths are required to complete sections 3 and 5 of the "Thermal Enclosure System Rater Checklist." The other checklists must be completed, but are not enforced.
- Under ENERGY STAR Version 3, both paths are required to complete the "Thermal Enclosure System Rater Checklist," as well as:
  - HVAC System Quality Installation Contractor Checklist
  - HVAC System Quality Installation Rater Checklist
  - Water Management System Building Checklist (or Indoor airPLUS Verification Checklist)
- During the design phase, work with a qualified Home Energy Rater to set energy efficiency goals that comply with ENERGY STAR Version 2.5 and 3. After the project team has decided on an "energy package," build the finalized building performance threshold and measures into the project plans and specs, work with the HERS Rater to create and implement a verification plan during the construction processes, and conduct building performance tests post-construction.
- ENERGY STAR Version 2.5 and 3 offers a sampling protocol that allows a builder with a large volume of projects to qualify a group of new homes to meet ENERGY STAR guidelines based on pre-analysis of building plans and subsequent random testing and inspections of a sample set of the homes as-built. For more information on the U.S. EPA sampling protocols, see the adopted 2006 Enhancements to National Home Energy Ratings Standards at www.resnet.us/standards/sampling_standard.pdf

RESOURCES

- For more information regarding ENERGY STAR standards: www.energystar.gov/homes
- For more information regarding Pacific Northwest ENERGY STAR for New Homes, visit www.northwestenergystar.com/partner-resources/index.html
- To identify a Home Energy Rater in your area visit www.energystar.gov/index.cfm?fuseaction=new_homes_partners.locator or call the ENERGY STAR toll-free hotline: 888.STAR.YES
- New guidelines for ENERGY STAR Version 2.5 and 3.0 prescriptive and performance path: www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_2011_comments
- The EPA provides additional guidance for qualifying units in multifamily buildings (including buildings with four or five stories): www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_units
- The California Advanced Homes Program (CAHP) offers California projects financial incentives and best-practice resources at www.californiaadvancedhomes.com/
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
  A detailed map that shows climate zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each climate zone.

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5.1b

Mandatory

Building Performance Standard

New Construction: Multifamily buildings, four stories or more

REQUIREMENTS

- Meet the ENERGY STAR Multifamily High-Rise program (MFHR) guidelines. Projects permitted on or after January 1, 2012 must be certified through the ENERGY STAR MFHR program. See the "Recommendations" section for the Enterprise Green Communities implementation timeline for the ENERGY STAR MFHR program.

  OR

- Multifamily buildings that are four or five stories, in which all units have their own heating, cooling, and hot water systems, separate from other units, may choose to comply with Criterion 5.1a and meet the requirements of ENERGY STAR New Homes Version 2.5 or 3.
- Projects in California, regardless of size, must exceed by 15o/o the version of Title 24 under which the project is permitted.

RATIONALE

Buildings meeting the Multifamily High-Rise program guidelines are designed to be energy efficient and durable. These high-performance buildings achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

ENERGY STAR MULTIFAMILY HIGH-RISE PROGRAM IMPLEMENTATION

	PERMIT DATE•	
	BEFORE 01/01/2011	ON OR AFTER 01/01/2012
MULTIFAMILY MID-RISE OR HIGH-RISE BUILDINGS	Project must meet the ENERGY STAR MFHR guidelines, but does not need to certify through the MFHR program	Project must certify through the ENERGY STAR MFHR program

The permit date is the date of the permit or the date of the contract on the building

- Projects participating in the ENERGY STAR MFHR program are designed to perform at least 15o/o better than ASHRAE 90.1-2007. A project can achieve this by using a prescriptive or a performance path.
  - Prescriptive Path: The project must meet the MFHR Mandatory Prescriptive Path Requirements, and be verified and field-tested according to the ENERGY STAR MFHR Testing and Verification Protocols.
  - Performance Path: The project must meet the MFHR Mandatory Requirements, a 15o/o energy performance target over ASHRAE 90.1-2007, and be verified and field-tested in accordance with the ENERGY STAR Testing and Verification Protocols.

- To calculate the energy performance target required to meet the Performance Path requirements, the project team must:

  Identify a qualified professional with experience performing energy modeling per ASHRAE Standard 90.1, Appendix G. In the early design stage, the qualified professional should prepare the energy model and work with the integrative design team to identify cost-effective strategies for meeting the performance target.

  – Calculate the baseline building performance rating according to the EPA's Multifamily High-Rise Simulation Guidelines building performance rating method, which is based on Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda).

- Appendix G of Standard 90.1-2007 is the method for calculating the baseline and projected energy consumption of a building. This method includes all energy costs associated with the building project.

  – The baseline building performance standard (5.1b) can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems. Other "renewable" technologies such as solar domestic hot water collectors and geothermal H/AC systems (ground source heat pumps) can be included.

Software approved by the EPA's Mutlifamily High-Rise program includes:

- DOE2
- eQuest
- VisualDOE
- EZDOE
- TRACE
- HAP
- TRNSYS
- EnergyPlus

California projects following Title 24 must use the approved list of energy modeling software:

- Energy Pro 5.1
- Micropas 8.1
- CALRES 2008 v1.1

RESOURCES

- EPA's Multifamily High-Rise program details, including the prescriptive and performance path guidelines and the testing and verification protocols: www.energystar.gov

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5.1c

Mandatory

Building Performance Standard

Substantial and Moderate Rehab: Single-family and multifamily, three stories or fewer

REQUIREMENTS

Demonstrate that the energy performance of the completed building is equivalent to a HERS Index of 85 through energy modeling that generates a Home Energy Rating certificate.

RATIONALE

Buildings rehabilitated to a HERS Index of 85 will achieve approximately 2009 IECC energy performance levels in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, reduce operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

- To demonstrate energy performance equivalent to a HERS Index 85, contract with a certified Home Energy Rater (HERS). The HERS rater will perform energy modeling and generate the HERS certificate.
- The HERS rater will be responsible for:
  - creating an energy model to the building plans and specified building plans and specifications to show the building's projected energy performance in the design stage
  - conducting a mid construction pre-drywall thermal enclosure, using the ENERGY STAR version 3 "Thermal Enclosure System Rater Checklist"
  - verifying the final performance of the building with post-construction performance testing, including a blower door and duct blaster test of the home and/or units
- The energy rating software used must be accredited by either RESNET or the California Energy Commission.
- Any method or strategy (except for electric-generating renewable energy systems) can be implemented to satisfy the targeted minimum energy performance.
- If rehabilitating a multifamily low-rise building, generate a HERS certificate for each unique floorplan within the project or subdivision.

RESOURCES

- U.S. Department of Energy, Air Sealing, Technology Fact Sheet: ap ps1.eere.energy.gov/buildings/publications/pdfs/building_america/26290.pdf
  This fact sheet describes the importance of sealing air leaks and providing controlled ventilation.
- To identify a Home Energy Rater in your area, call the ENERGY STAR toll-free hotline: 888.STAR.YES or www.energystar.gov/indeX/cfm?fuseaction= new_homes_partners.locator

- Enterprise Green Communities Single-Family Rehabilitation Specifications: www.greencommunitiesonline.org
  A set of green single-family specifications for insulation, air-sealing, and other details that can be customized to your project.
- Enterprise Green Communities Neighborhood Stabilization Program: www.greenbuildingadvisor.com/green-communities-nsp
  Enterprise and BuildingGreen have partnered to offer technical resources that build on Enterprise's Green Rehabilitation Specifications. These resources are largely focused on the application of building science concepts that are critical to a building's performance.
- The city of Fort Collins, Colorado, provides audit standards for their Home Efficiency Program: www.fcgov.com/conservation/res-horne-efficiency.php
- Building Performance Institute, Combustion Safety Procedures: www.bpi.org/tools_downloads.aspx?selectedTypeiD= 1&selectediD= 2
  This site provides a set of guidelines regarding combustion safety when conducting audits and diagnostic testing.
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
  A detailed map that shows Climate Zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each Climate Zone.
- Residential Energy Services Network (RESNET): www.resnet.us
  A resource where residents can learn about the energy audit and rating process and search the RESNET directory to find certified energy auditors and raters.

5.1d

Mandatory

Building Performance Standard

Substantial and Moderate Rehab: Multifamily, four stories or more

REQUIREMENTS

Demonstrate that the energy performance of the completed building will be equivalent to ASHRAE 90.1-2007 using an energy model created by a qualified energy services provider.

This performance requirement can only be met through building performance improvements, and not through the addition of electric-generating renewable energy systems.

RATIONALE

Buildings rehabilitated to ASHRAE 90.1-2007 energy performance levels achieve energy savings in heating, cooling, hot water, lighting, and appliance efficiencies, which improve resident comfort, lower operating costs, and decrease greenhouse gas emissions.

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RECOMMENDATIONS

- To demonstrate energy performance equivalent to ASHRAE 90.1-2007, contract with an energy services provider. The energy services provider will be responsible for:
  - creating an energy model with the building plans and specifications to show the building's projected energy performance in the design stages
  - conducting a mid-construction pre-drywall thermal enclosure inspection
  - verifying the final performance of the building with performance testing
- The energy services provider must use an energy rating software approved through EPA's MFHR program.
  - The project does not have to follow the code requirements of the ASHRAE 90.1 2007; it is only required to meet the minimum energy performance target that was calculated from the energy model. Any method or strategy (except for electric-generating renewable energy systems) can be implemented to satisfy the targeted minimum energy performance.
  - Projects in California must use the version of Title 24 under which the project is permitted to calculate the targeted minimum energy performance.

Software approved by the EPA's Mutlifamily High-Rise program includes:

- DOE2
- eQuest
- VisuaslDOE
- EZDOE
- TRACE
- HAP
- TRNSYS
- EnergyPlus

California projects following Title 24 must use the approved list of energy modeling software:

- Energy Pro 5.1
- Micropas 8.1
- CALRES 2008 v1.1

RESOURCES

- U.S. Department of Energy, Air Sealing, Technology Fact Sheet:
  ap ps1.eere.energy.gov/buildings/publications/pdfs/building_america/2 6290.pdf
  This fact sheet describes the importance of sealing air leaks and providing controlled ventilation.
- Enterprise Green Communities Multifamily Rehabilitation Specifications:
  www.greencommunitiesonline.org
  A set of model green building specifications for Moderate Rehab projects that includes details on insulation, air sealing, and performance testing that can be customized for your project.
- For more information onASHRAE 90.1-2007: www.ashrae.org or 800.527.4723

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5.2

Optional | 15 points maximum

Additional Reductions in Energy Use

REQUIREMENTS

5.2a. New Construction-Single-Family and Multifamily Buildings (three stories or fewer): 1 point for each additional 1 point decrease in the targeted HERS Index as outlined in Criterion 5.1a

5.2b. New Construction-Multifamily Buildings (four stories or more): 1 point for each additional 1% energy improvement from the required energy performance target calculated in Criterion 5.1b

5.2c. Substantial and Moderate Rehab -Single-Family and Multifamily Buildings (three stories or fewer): 1 point for each additional 1 point decrease in the targeted HERS Index as outlined in Criterion 5.1c

5.2d. Substantial and Moderate Rehab -Multifamily Buildings (four stories or more): 1 point for each additional 1% energy improvement from the required energy performance target calculated in Criterion 5.1d

RATIONALE

Improvements in building energy performance result in utility cost savings from more efficient heating, cooling, hot water, lights and appliances, which improve residents comfort, lower operating costs, and decrease greenhouse gas emissions.

RECOMMENDATIONS

- Using the baseline energy model created in Criteria 5.1a-5.1d, analyze and adopt energy improvements to achieve additional energy reductions beyond the mandatory levels.
- Projects that use a prescriptive path for Criteria 5.1a-5.1d will not be able to obtain points under this credit.
- Additional reductions in energy use must be captured by energy conservation measures associated with improved building component systems, and not through the addition of electric-generating renewable energy systems. See Criterion 5.7 for renewable energy points.

RESOURCES

- Projects can reference the Passive House Institute US standard as a means to go above and beyond in energy performance. Information about Passive House concepts and standards can be found at: www.passivehouse.us
- The Building America program offers free research publications, webinars, and newsletters on cost-effective, energy efficient building strategies: wwwl.eere.energy.gov/buildings/building_america/

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5.3 *Mandatory* Sizing of Heating and Cooling Equipment

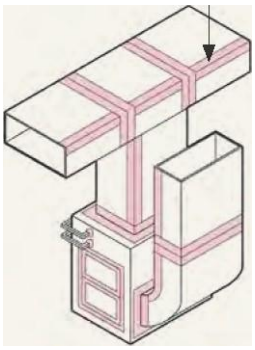
REQUIREMENTS

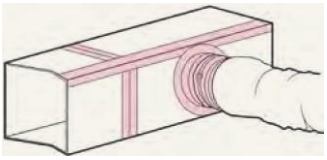
Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.

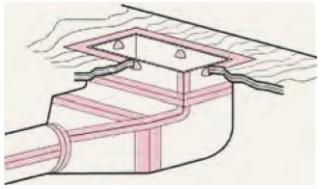
RATIONALE

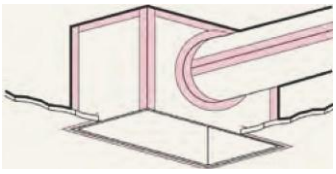
Appropriately sized equipment can save money, ensure adequate dehumidification, and prevent short-cycling that can lead to excess moisture in the air.

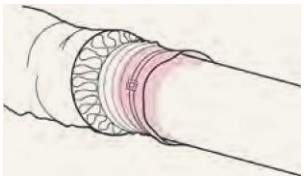
Mastic











RECOMMENDATIONS

- The HVAC contractor generates a Manual J load calculation to ensure proper sizing of the cooling system. This calculation accounts for factors such as the home's orientation with respect to the sun, window design and insulation R-value, installation quality, and building air leakage. The contractor can use one of the HVAC industry-adopted software programs, based upon Manual J, which assists with these designs. Consult www.acca.org for a list of software programs to perform Manual J calculations.
- Consider locating air handler and ductwork within the building envelope. Do not locate air handler or ductwork within the garage space (see Criterion 7.14 for more information).

RESOURCES

- Air Conditioning Contractors of America, Manual J: Residential Load Calculation: www.acca.org/store/product.php?pid = 286
- Air Conditioning Contractors of America, "HVAC Quality Installation Specification: Residential and Commercial Heating, Ventilating, and Air Conditioning Applications": www.acca.org/tech The site also includes links to various articles and other ANSI and ACCA standards.
- California Energy Commission, Procedures for HVAC System Design and Installation: www.energy.ca.gov/efficiency/qualityhomes/procedures.html This site provides an overview of good practices for designing and installing the HVAC system, as well as detailed strategies and measures for the "house as a system" approach to construction.
- For additional information on duct sealing details: www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_ducts

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5.4

Mandatory

ENERGY STAR Appliances

If providing appliances

REQUIREMENTS

If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

RATIONALE

ENERGY STAR products meet strict energy-efficiency criteria set by EPA. These products reduce utility costs and greenhouse gas emissions.

RECOMMENDATIONS

The specifications of the installed appliances should be reflected in the energy modeling building input data report.

RESOURCES

- For bulk orders of ENERGY STAR products, use the web-based purchasing tool "Quantity Quotes": www.quantityquotes.net
  This site connects purchasing groups with suppliers.
- When preparing project specifications, find ENERGY STAR product information, including model numbers, at www.energystar.gov/index.cfrn?c=products.pr

5.5a

Mandatory

Efficient Lighting: Interior Units

REQUIREMENTS

New Construction-Single-Family and Multifamily Buildings (three stories or fewer): Install the ENERGY STAR Advanced Lighting Package (ALP) in all buildings. ENERGY STAR-qualified LED fixtures can qualify in the place of ENERGY STAR-labeled fixtures. Fixtures with screw-base lamps are permitted only in uninhabited spaces such as closets and storage areas.

New Construction-Multifamily Buildings (four stories or more): Projects must follow the ENERGY STAR MFHR program guidelines, which require that 80o/o of installed light fixtures within units must be ENERGY STAR qualified or have ENERGY STAR-qualified lamps installed. Fixtures with screw-base lamps are permitted only in uninhabited spaces such as closets and storage areas.

Substantial and Moderate Rehab: If being replaced, new fixtures and ceiling fans are required to meet or exceed ENERGY STAR efficiency levels. If reusing existing fixtures in a rehab, projects must install screw-in compact fluorescent light bulbs (CFLs).

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RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

RECOMMENDATIONS

- The ENERGY STAR ALP requires that a minimum of 60o/o ENERGY STAR-qualified fixtures and lOOo/o ENERGY STAR-qualified ceiling fans and ceiling fans with lighting are installed.
- Screw-in adapters that convert incandescent light sockets into pin-type sockets can be used to meet the requirement.

RESOURCES

- ENERGY STAR Advanced Lighting Package (ALP) specifications: www.energystar.gov/index.cfm?c=bldrs_lenders_raters.ALP_Builder
  This site includes complete information on EPA's ALP specifications and requirements, along with extensive technical resources, qualified product and manufacturer lists and locators, case studies, and marketing support resources.
- For more information on lighting: www.energystar.gov
- The Lighting Research Center: www.lrc.rpi.edu/
  This university-based, independent lighting research and education group provides objective and timely information about lighting technologies and applications, and about human response to light.

5.5b

Mandatory

Efficient Lighting: Common Areas and Emergency Lighting

Multifamily buildings

REQUIREMENTS

Common Area lighting

New Construction-Multifamily Buildings: Projects should use ENERGY STAR-labeled fixtures, LEDs, *TB* fixtures with electronic ballasts or better, or any equivalent high-performance lighting fixtures and bulbs in all common areas. Non-apartment spaces, except those intended for 24-hour operation, or where automatic shutoff would endanger the safety of the occupants, must have occupancy sensors or automatic bi-levellighting controls.

Projects following the ENERGY STAR MFHR prescriptive path must install fixtures that meet the following requirements: 80o/o of installed fixtures in common spaces must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed.

Substantial and Moderate Rehab-Multifamily Buildings: If being replaced, new common space and emergency lighting fixtures must be ENERGY STAR-labeled fixtures, LEDs, *TB* fixtures with electronic ballasts or better, or any equivalent high-performance lighting fixtures and bulbs. If reusing existing fixtures in a rehab, projects must install screw-in compact fluorescent light bulbs (CFLs) where applicable.

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Emergency Lighting

All Multifamily Buildings: If installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes; fixtures located above stairwell doors and other forms of egress shall contain a battery backup feature. Photoluminescent exit signs may be used as an alternative to LED signs only if all local code requirements are satisfied.

RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

5.5c *Mandatory* Efficient Lighting: Exterior

REQUIREMENTS

New Construction-Single-Family and Multifamily Buildings (three stories or fewer): Install ENERGY STAR qualified fixtures or LEDs with a minimum efficacy of 45lumens/watt, equipped with daylight sensors on all outdoor lighting, including front and rear porch lights in single-family homes.

- Fixtures should include automatic switching on timers or photocell controls for all lighting not intended for 24-hour operation or required for security.
- All fixtures must be full cut-off fixtures that shield light pollution from the night sky.

New Construction-Multifamily Buildings (four stories or more): Projects must follow the ENERGY STAR MFHR program guidelines, which require that 80o/o of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed. Fixtures must include automatic switches on timers or photocell controls except fixtures intended for 24-hour operation, required for security or located on apartment balconies.

Substantial and Moderate Rehab- Single-Family and Multifamily Buildings: If being replaced, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45lumens/watt, equipped with daylight sensors on all outdoor lighting, including front and rear porch lights in single-family homes.

- Fixtures should include automatic switching on timers or photocell controls for all lighting not intended for 24-hour operation or required for security.
- All fixtures must be full cut-off fixtures that shield light pollution from the night sky.

RATIONALE

Energy reductions through efficient lighting products contribute to lower utility costs and lower greenhouse gas emissions.

RECOMMENDATIONS

Design outdoor lighting to eliminate light trespass from the project site and to minimize impact on nocturnal environments.

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RESOURCES

- Illuminating Engineering Society of North America's Recommended Practice Manual: Lighting for Exterior Environments
- Full Cut-off Dark Sky Approved Fixtures: www.darksky.org

5.6a

Mandatory

Electricity Meter

For New Construction and Substantial Rehab,except for single-room occupancy and designated supportive housing dwelling units

REQUIREMENTS

Install individual or sub-metered electric meters in all dwelling units.

RATIONALE

Providing information to residents on the cost and usage associated with the electricity consumption in their unit may reduce energy use.

RECOMMENDATIONS

Individual metering and /or sub-metering should be specified in the Integrative Design stage.

5.6b

Optional | 3 points

Electricity Meter

For Moderate Rehab projects

REQUIREMENTS

Install individual or sub-metered electric meters in all dwelling units.

RATIONALE

Providing information to residents on the cost and usage associated with the electricity consumption in their unit may reduce energy use.

RECOMMENDATIONS

Individual meters or sub-meters should be specified in the Integrative Design stage.

5.7a

Optional | 12points maximum

Renewable Energy

REQUIREMENTS

Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand. Refer to the table below for the point structure.

	1 S%	1.0%	2 0%	1.0%	10%
Single-Family	—	—	4	8	12
Low-Rise (2-3 stories)	—	4	8	12	—
Mid-Rise / High-Rise (4 stories or more)	4	8	12	—	—

RATIONALE

Renewable energy reduces environmental impacts such as greenhouse gas emissions that are associated with energy sourced and produced from fossil fuels. Use of on-site renewable energy technologies can also result in energy cost savings.

RECOMMENDATIONS

- When calculating points for Criterion 5.7a, use the total energy consumption ofthe building(s) estimated in the energy model for Criteria 5.1a-5.1d.
- Projects that use a prescriptive path for Criteria 5.1a-5.1d will not be able to obtain points under Criterion 5.?a.
- To provide a higher percentage of the project's estimated annual energy consumption with electric-generating renewable energy sources, focus on reducing the building's overall energy consumption in Criteria 5.1a-5.1d and 5.2 with energy-efficiency measures. Energy-efficiency measures are generally more cost-effective than renewables.

RESOURCES

- American Solar Energy Society: www.ases.org
  ASES is a nonprofit organization committed to a sustainable energy economy. ASES accelerates the development and use of solar and other renewable energy resources through advocacy, education, research, and collaboration among professionals, policymakers, and the public.
- American Wind Energy Association: www.awea.org
  AWEA is a national trade association representing wind power plant developers, wind turbine manufacturers, utilities, consultants, insurers, financiers, researchers, and others involved in the wind industry.
- Database of State Incentives for Renewable Energy: www.dsireusa.org
  The North Carolina Solar Center developed this database to collect information on state financial and regulatory incentives (e.g., tax credits, grants, and special utility rates) designed to promote the application of renewable energy technologies. DSIRE also offers additional features, such as preparing and printing reports that detail the incentives on a state-by-state basis.

- Florida Solar Energy Center: www.fsec.ucf.edu/en/consumer/solar_electricity/index.htm
  This is a resource for basic information on types of photovoltaic solar electric systems, sizing, installation, and system ratings. FSEC also has an industry resources page that includes its *Photovoltaic System Design Course Manual*, available at www.fsec.ucf.edu/en/education/cont_ed/manuals/orderform_pvmanual.htm
- National Renewable Energy Laboratory: www.nrel.gov/ncpv
  NREL photovoltaic research provides a clearinghouse on all aspects of photovoltaic solar cell systems.
- National Renewable Energy Laboratory: www.nrel.gov
  NREL is a leader in the U.S. Department of Energy's effort to create a secure energy future for the nation that is environmentally and economically sustainable.
- U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy: www.eere.energy.gov
  This website provides information on renewable energy technologies and energy efficiency.

5.7b

Optional | 1 or 2points

Photovoltaic / Solar Hot Water Ready

REQUIREMENTS

Site, design, engineer, and /or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.

Minimum required south-facing exposure:

- **Single-Family and Low-Rise Buildings:** 250 square feet of unobstructed roof area that is oriented within 15 degrees of true south
- **Mid- and High-Rise Multifamily Buildings:** >/= 30o/o of unobstructed roof area or maximum that is oriented within 15 degrees of true south

RATIONALE

Designing for the future installation of photovotaics or solar hot water systems allows a building owner the flexibility to transition to increased energy generation through renewable energy sources, as resources become available. Installation of renewable energy systems is a hedge against rising costs for purchased energy.

RECOMMENDATIONS

- When designing a photovoltaic or solar hot water ready system, include the following in the project plans and specifications (as applicable to each technology):
  - Site map showing that the building(s) have a southern orientation and unobstructed access to sunlight
  - A design schematic of the future solar array, indicating the south face, slope, and any rooftop equipment that could obstruct the array
  - The type of roof to be installed (e.g., asphalt, standing seam metal, tile)
  - The future location within the building for the inverter

- For solar hot water, run piping from the designed or current location of the water heater up to the prospective solar hot water collectors.
- Check the local zoning laws to ensure that future buildings will not be able to shade your array.
- Work with an engineer to calculate that the roof can carry the dead load of the solar equipment and withstand the wind loads.
- Determine if the roof has a warranty and if the placement of the solar equipment voids the warranty.
- General contractor, PV, and/or solar hot water contractor must document the information on the roof load, location of conduit, piping, and the potential location of the dash box. GC, PV, and solar hot water contractor should provide documentation to building owner and manager.
- The first cost of PV can be high, but grants and subsidies are available in many states.

RESOURCES

- National Renewable Energy Laboratory, "Solar Ready Buildings Planning Guide," NREL Technical Report (NREI/TP-7A2-46078): www.nrel.gov/docs/fylOosti/46078.pdf
  A paper published by NREL in December 2009 that details design guidelines and checklists for designing solar-ready buildings.
- Database of State Incentives for Renewables & Efficiency: www.dsireusa.org
  The North Carolina Solar Center developed this database to collect information on state financial and regulatory incentives (e.g., tax credits, grants, and special utility rates) designed to promote the application of renewable energy technologies. DSIRE also offers additional features, such as preparing and printing reports that detail the incentives on a state-by-state basis.

5.8

Optional | 5 points

Advanced Metering Infrastructure

REQUIREMENTS

Site, design, engineer, and wire the development to accommodate installation of smart meters and /or be able to interface with smart grid systems in the future.

RATIONALE

Installation of smart meters allows for more control over a project's electricity use, to realize savings associated during off-peak times. Education on energy consumption habits will allow residents, building staff, and owners to fully realize the environmental and economic benefits that green housing offers.

RESOURCES

- Smart Grid Information Clearinghouse: www.sgiclearinghouse.org/
- U.S. Department of Energy, "The Smart Grid: An Introduction":
  www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages(1).pdf

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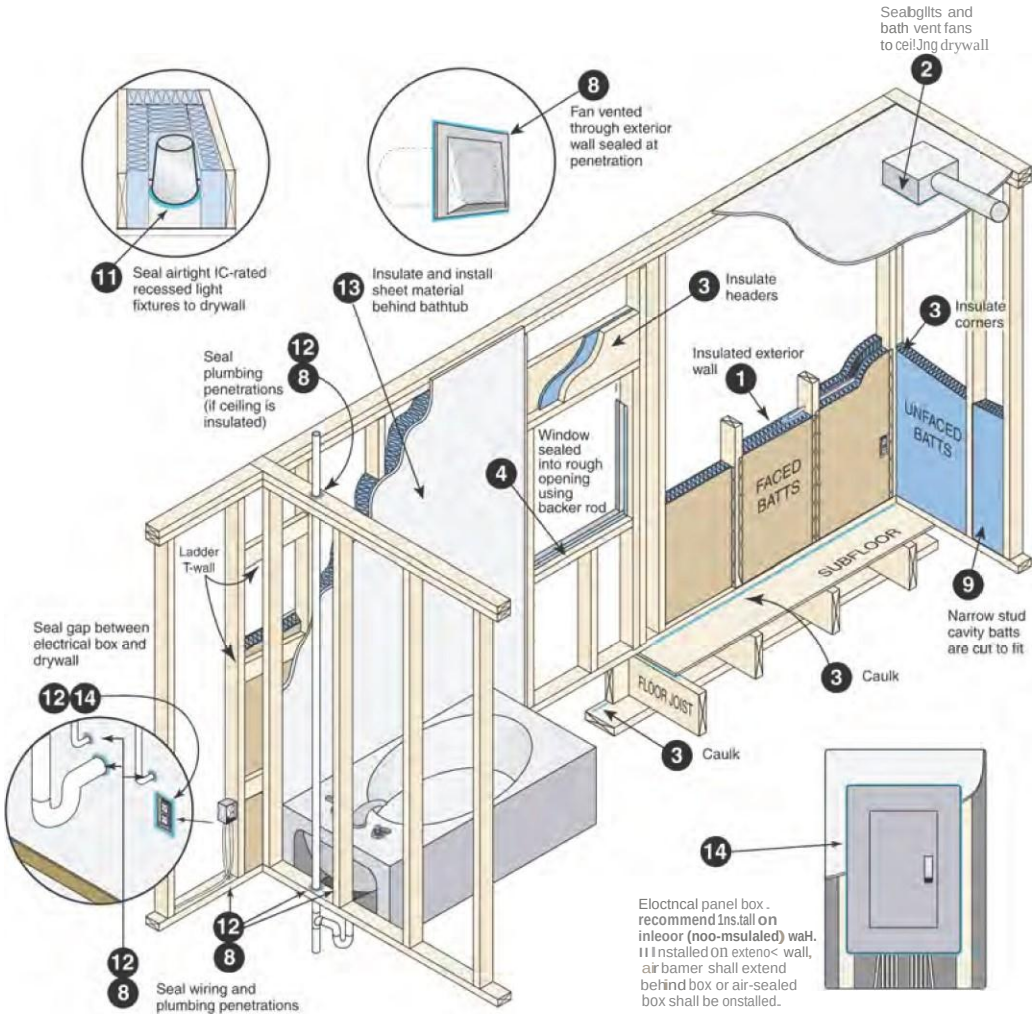
AIR SEALING KEY POINTS

Note: Additional air sealing details are available in Appendix B



Disclaimer: This document is intended solely to help graplically demonstrate the atr leakage proviSions of sectton 402.4 of the 2009 IECC It does not cover all air sealing locations or technlques, Other code prOVISIOOS may be applc3ble as well

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AIR BARRIER AND INSULATION INSPECTION COMPONENT GUIDE

COMPONENT	CRITERIA
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier
	Breaks or joints in the air barrier are filled or repaired
	Air-permeable insulation is not used as a sealing material
	Air-permeable insulation is inside of an air barrier
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed
	Attic access (except unvented attic), knee-wall door, or drop-down stair is sealed
Walls	Corners and headers are insulated; junction of foundation and sill plate is sealed
Windows and doors	Space between window/door jambs and framing is sealed
Rim joists	Rim joists are insulated and include an air barrier
Floors (including above-garage cantilevered floors)	Insulation is installed to maintain permanent contact with underside of and subfloor decking
	Air barrier is installed at any exposed edge of insulation
Crawl space walls	Insulation is permanently attached to walls
	Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped
Shafts, penetrations	Duct shafts, utility penetrations, knee walls, and flue shafts opening to exterior or unconditioned space are sealed
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled with sprayed/blown insulation
Garage separation	Air sealing is provided between the garage and conditioned spaces
Recessed lighting	Recessed light fixtures are airtight, IC rated, and sealed to drywall
	Exception-fixtures in conditioned space
Plumbing and wiring	Insulation is placed between outside and pipes
	Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall
Electrical/phone box	Air barrier extends behind boxes or air-sealed-type boxes are installed exterior walls
Common wall	Air barrier is installed in common wall between dwelling units
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall
Fireplace	Fireplace walls include an air barrier

Disclaimer: This document is intended solely to help graphically demonstrate the air leakage provisioos of section 402.4 of the 2009 IECC.

It does not cover all air sealing locations or techniques. Other code provisions may be applicable as well

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MATERIALS BENEFICIAL TO THE ENVIRONMENT

Purchasing green construction materials, diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs.

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6.1

Mandatory

Low / No VOC Paints and Primers

REQUIREMENTS

All interior paints and primers must be less than or equal to the following VOC levels, in grams per liter, based on a combination of the MPI and GreenSeal standards.

PAINT TYPE	MAXIMUM VOC LIMIT
Flats	50 g/L
Non-flats	50 g/L
Floor	100 g/L
Anti-corrosive	250 g/L

RATIONALE

Interior paints and primers may release VOCs, particularly when wet. Exposure to individual VOCs and mixtures ofVOCs can cause or aggravate health conditions, including allergies, asthma, and irritation of the eyes, nose, and airways; however, no health-based standards for indoor non-occupational exposure have been set.

RECOMMENDATIONS

Avoid epoxy-based paints, even those that comply with VOC standards, as these contain the chemical Bisphenol A. Bisphenol A was identified by the EPA on March 29, 2010, as a "chemical of concern." See www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

Products do not have to meet MPI or Green Seal standards per this criterion, but these standards may be helpful in locating products that meet the maximum VOC levels.

- The MPI Green Performance Standard for Paints & Coatings GPS-2-08 list of products: www.specifygreen.com/APl/Introduction.html
- Green Seal standard and locator for finding products: www.greenseal.org/certification/standards/GS-ll_paints_and_coatings_standard.pdf and www.greenseal.org/findaproduct/index.cfm

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6.2 *Mandatory*
Low/No VOC Adhesives and Sealants

REQUIREMENTS

All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with Regulation 8, Rule 51, of the Bay Area Air Quality Management District (BAAQMD).

VOC limits

South Coast Air Quality Management District (AQMD), Rule 1168, establishes VOC limits for adhesives: www.aqmd.gov/rules/reg!reg11/r1168.pdf

AQMD ARCHITECTURAL APPLICATIONS CURRENT VOC LIMIT
Less water and less exempt compounds in grams per liter

PRODUCT TYPE	VOC LIMIT (G /L)
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet adhesives	150
Wood flooring adhesives	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250

Bay Area Air Quality Management District Regulation 8, Rule 51, establishes VOC limits for sealants: www.baaqmd.gov/

Bay Area Air Quality Management District Regulation 8, Rule 51, establishes VOC limits for sealants: www.baaqmd.gov/

8-51-301 Adhesive Product, Application Limits: Except as provided in Section 8-51-305, a person shall not use in the following applications any adhesive product with a VOC content, as defined in Section 8-51-226, that exceeds the following VOC limits (expressed as grams of VOC per liter):

BAAQMD VOC STANDARDS

Indoor floor covering installation	150
Multipurpose construction	200
Nonmembrane roof installation / repair	300
Outdoor floor covering installation	250
Single-ply roof material installation/repair	250
Structural glazing	100
Ceramic tile installation	130
Cove base installation	150
Perimeter bonded sheet vinyl flooring installation	660

More information can be found online at www.baaqmd.gov/ /media/Files/Planningo/o20 ando/o20Research/Ruleso/o20ando/o20Regs/reg%2008/rgO851.ashx

RATIONALE

Interior adhesives and sealants may release VOCs, particularly when wet. Exposure to individual VOCs and mixtures of VOCs can cause or aggravate health conditions, including allergies, asthma, and irritation of the eyes, nose, and airways; however, no health-based standards for indoor non-occupational exposure have been set.

RECOMMENDATIONS

- Many construction adhesives are not capable of adhering at temperatures below 40°F. Projects located in cold climates only (Climate Zones 6 and 7, based on IECC 2006) may be exempted from the required low-VOC adhesives and sealants if they prove problematic due to the above reason. In this instance, please identify in the project submittal documents if other adhesives and/or sealants were needed and at what stage of construction the project team was unable to use required low-VOC products.
- Avoid epoxy-based caulks and epoxy-based sealants, as these contain Bisphenol A. Bisphenol A was listed on March 29, 2010 by the EPA as a "chemical of concern." See: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

- U.S. Department of Energy, National Renewable Energy Laboratory, "Weatherize Your Home-Caulk and Weather Strip": www.nrel.gov/docs/fyOlostV28039.pdf
- 2009 IECC Climate Zones Map: energycode.pnl.gov/EnergyCodeReqs/
  A detailed map that shows Climate Zones zoomed into each state and county as well as the basic 2009 IECC Building Code requirements for each Climate Zone.

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6.3 *Mandatory* Construction Waste Management

REQUIREMENTS

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

RATIONALE

Diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs. In addition, construction waste management reduces the project's impact on landfills.

RECOMMENDATIONS

- Investigate and document local options for recycling or reusing all anticipated major constituents of the project waste stream, including cardboard packaging and "household" recyclables (e.g., beverage containers).
- Consider creating detailed framing plans or scopes of work and accompanying architectural details for use on the job site. Consider creating a detailed cut list and lumber order prior to construction.
- For projects with limited access to recycling centers, consider waste diversion strategies such as using panelized walls and roof trusses to minimize total materials.
- Consider recycling carpet for rehab projects when carpeting is being removed. The specification language below may be customized and included to determine whether carpet recycling is feasible and cost-effective in your locale.
  - Vendor shall supply a price quote to recycle carpet and carpet components at 100%, 50%, and 30% of product tonnage.
  - Property manager shall identify the carpet product and polymer, nylon, polypropylene (which is documented on carpet specification). This will enable the carpet vendor to ascertain the recyclability of the product.
- Some manufacturers of drywall and certain types of ceiling tiles will accept the return of old materials for re-processing.

RESOURCES

- NAHB Research Center, Toolbase.org, Best Practices for Construction Waste Management:
  www.toolbase.org/Best-Practices/Construction-Waste/waste-mgmt-field-guide
  This site includes frequently asked questions, case studies, reports, and various links. It includes *A Builder's Field Guide,* which includes guidance for creating a step-by-step construction waste management and recovery plan.
- U.S. Environmental Protection Agency, WasteWise Program:
  www.epa.gov/wastewise/targeted/challenge/cbres.htm
  This site has information about the WasteWise Building Challenge program, including articles, publications, and various links and resources for more information.

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- U.S. Environmental Protection Agency, Construction and Demolition Debris: www.epa.gov/epaoswer/non-hw/debris-new/index.htm
  This site includes basic information on construction and demolition debris disposal practices, regional and state programs, publications, and links.
- Construction Materials Recycling Association: www.cdrecycling.org
  This site includes links to websites on recycling concrete, asphalt roof shingles, and drywall, as well as a state-by-state listing of construction waste reusers and recyclers.

6.4

Optional | 5 points maximum

Construction Waste Management

REQUIREMENTS

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by more than 25o/o by weight through recycling, salvaging, or waste diversion strategies.

RATIONALE

Diverting construction debris and recycling and reusing materials whenever possible reduces waste and disposal costs. In addition, construction waste management reduces the project's impact on landfills.

RECOMMENDATIONS

The following tables provides the point calculations for construction waste management:

PERCENTAGE OF CONSTRUCTION WASTE RECYCLED, SALVAGED,OR DIVERTED	POINTS AWARDED
25%	Mandatory
35%	1
45%	2
55%	3
65%	4
75%	5

- Investigate and document local options for recycling or reuse of all anticipated major constituents of the project waste stream, including cardboard packaging and "household" recyclables (e.g., beverage containers).
- Consider creating detailed framing plans or scopes of work and accompanying architectural details for use on the job site. Consider creating a detailed cut list and lumber order prior to construction.
- For projects with limited access to recycling centers, consider waste diversion strategies such as using panelized walls and roof trusses to minimize overall material use.

- Consider recycling carpet for rehab projects when carpeting is being removed. The specification language below may be customized and included to determine whether carpet recycling is feasible and cost-effective in your locale.
- Vendor shall supply a price quote to recycle carpet and carpet components at 100%, 50%, and 30% of product tonnage.
- Property manager shall identify the carpet product and polymer, nylon, polypropylene (which is documented on carpet specification). This will enable the carpet vendor to ascertain the recyclability of the product.

RESOURCES

- NAHB Research Center, Toolbase.org, Best Practices for Construction Waste Management: www.toolbase.org/Best-Practices/Construction-Waste/waste-mgmt-field-guide
  This site includes frequently asked questions, case studies, reports, and various links. It includes *A Builder's Field Guide,* which includes guidance for creating a step-by-step construction waste management and recovery plan.
- U.S. Environmental Protection Agency, WasteWise Program: www.epa.gov/wastewise/targeted/challenge/cbres.htm
  This site has information about the WasteWise Building Challenge program, including articles, publications, and various links and resources for more information.
- U.S. Environmental Protection Agency, Construction and Demolition Debris: www.epa.gov/epaoswer/non-hw/debris-new/index.htm
  This site includes basic information on construction and demolition debris disposal practices, regional and state programs, publications, and links.
- Construction Materials Recycling Association: www.cdrecycling.org
  This site includes links to websites on recycling concrete, asphalt roof shingles, and drywall, as well as a state-by-state listing of construction waste reusers and recyclers.

6.5

Optional | 5 points

Recycling Storage for Multifamily Project

REQUIREMENTS

Provide one or more easily accessible, permanent, and dedicated areas for the collection and storage of materials for recycling for the entire project. Materials must include, at a minimum, paper, corrugated cardboard, glass, plastics, and metals.

RATIONALE

Recycling prevents usable materials from entering the waste stream.

RECOMMENDATIONS

- Ensure that the recycling program has management support.
- Designate an area for recyclable collection and storage that is appropriately sized and located in a convenient area.

- Identify local waste handlers and buyers for glass, plastic, metals, office paper, newspaper, cardboard, and organic wastes.
- Instruct occupants on recycling procedures through clear and visible signs that include pictures and/or languages of residents. Also, include the recycling plan in the Resident Manual.
- Ensure that the recycling program is monitored and improved to address contamination, low participation, and the like.
- Ensure that project staff follow procedures for collecting recyclables for your recycling hauler, and include those procedures in the project maintenance manual.

6.6

Optional | 5 points maximum

Recycled Content Material

REQUIREMENTS

A building material must make up at least 90% of the project component either by weight or by volume to qualify under this measure.

A qualifying building material must be composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content to achieve 1 point.

The following table lists the project components and example materials that a team can incorporate for optional points. Each material that meets the requirements of this Criterion is worth 1 point.

PROJECT COMPONENT	BUILDING MATERIAL (EXAMPLES)
Framing	Wood, concrete, steel, aluminum
Siding or masonry	Wood, metal, masonry
Flooring (non-structural)	Linoleum, cork, bamboo, reclaimed wood, sealed concrete, carpet
Concrete/cement and aggregate	Urbanite
Roofing	Wood shingles, asphalt shingles, tile, metal
Insulation	Fiberglass batt, cellulose, rigid panel
Sheathing	Plywood, OSB

RATIONALE

Use of building materials with recycled content reduces the negative environmental impact resulting from extraction and processing of virgin materials.

RECOMMENDATIONS

Consider the incorporation of recycled content building materials from the early stages of project design.

RESOURCES

- Federal Trade Commission, "Guides for the Use of Environmental Marketing Claims," 16 CFR 260.7(e): www.ftc.gov/bcp/grrrrule/guides980427.htm
  Many commonly used products, such as metals, concrete, masonry, acoustic tile, drywall, carpet, ceramic tile, and insulation, are now available with recycled content.
- GreenSpec Directory, Building Green: www.buildinggreen.com
  The online GreenSpec® Directory lists product descriptions for more than 2,000 environmentally preferable products.
- Pharos Project, Healthy Building Network: www.pharosproject.net
  The Pharos Project provides health and environmental data about the manufacture, use, and end of life of building materials specified in a web-based tool.

6.7

Optional | 5 points maximum

Regional Material Selection

REQUIREMENTS

Use products that were extracted, processed, and manufactured within 500 miles of the project for a minimum of 50%, based on cost, of the building materials' value.

Building material types that can qualify for these points include the following *(each material can qualify for 1 point):*

- Framing materials
- Exterior materials-siding, masonry, roofing
- Concrete/cement and aggregate
- Drywall/interior sheathing
- Flooring materials

RATIONALE

Building materials that are extracted, processed, and manufactured locally to the project site minimize the energy embedded in their transportation and contribute to the local economy.

RECOMMENDATIONS

Natural building materials that are approved by HUD or USDA can qualify for points under this measure.

RESOURCES

- GreenSpec Directory, Building Green: www.buildinggreen.com
  The online GreenSpec® Directory lists product descriptions for more than 2,000 environmentally preferable products.
- Pharos Project, Healthy Building Network: www.pharosproject.net
  The Pharos Project provides health and environmental data about the manufacture, use, and end of life of building materials specified in a web-based tool.

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6.8

Optional | 5 points

Certified, Salvaged, and Engineered Wood Products

REQUIREMENTS

Commit to using wood products and materials of at least 25%, by cost, that are either:

- Certified in accordance with the Forest Stewardship Council
- Salvaged products
- Engineered framing materials that do not include urea formaldehyde-based binders (see Criterion 7.1)

The percentage of certified, salvaged, and engineered wood products is based on cost or value.

RATIONALE

Less than 10% of the old growth forest remains in the United States. The use of salvaged wood and engineered wood products precludes the need to use old-growth lumber. Forest Stewardship Council-certified wood encourages forestry practices that are environmentally responsible.

EQUATION

Sum of the value of all certified, salvaged, or engineered wood products	The value of all wood products as structural components	Percentage of total wood products that meet this criterion

RESOURCES

- For help in locating FSC-certified products, fill out the form found at www.fscus.org/faqs/fsc_products.php and at www.findfsc.org
  FSC will circulate it to certified companies, and these companies will contact you if they have the desired product(s) available.
- Rainforest Alliance, "SmartGuide to Green Building Wood Sources": www.rainforestalliance.org!smartguides
  This site lists U.S. suppliers, manufacturers, and distributors of FSC-certified building products.

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6.9a

Optional | 1 or 3 points

Reduced Heat-Island Effect: Roofing

REQUIREMENTS

Option 1 *[3 points]*

Use ENERGY STAR-compliant roofing, which requires:

	ROOF SLOPE	INITIAL SOLAR REFLECTANCE	MAINTAINED SOLAR REFLECTANCE	EMISSIVITY
Low slope	≤ 2:12	0.65	0.50	0.8
Steep slope	> 2:12	0.25	0.15	0.8

Emissivity should be greater than or equal to 0.8 when tested in accordance with ASTM 408. For Option 1, 100% of the roof area must meet the requirements above to achieve optional points.

OR

Option 2 *[1 point]*

Install a "green" (vegetated) roof for at least 50% of the roof area.

Combinations of ENERGY STAR-compliant and vegetated roofing can be used, providing they collectively cover 75% of the roof area.

RATIONALE

Urban heat islands increase local air temperatures due to the absorption of solar energy by the built environment. Reducing the heat island effect decreases energy consumption by decreasing loads on cooling systems.

RECOMMENDATIONS

Avoid PVC membrane roofing, which is manufactured using phthalates, a chemical listed on December 30, 2009 by EPA as a "chemical of concern" to human health: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

RESOURCES

- Cool Roof Rating Council, Directory of Rated Products: www.coolroofs.org/products/search.php
  CRRC maintains a third-party rating system of radiative properties of roof surfacing materials.
- U.S. Environmental Protection Agency, Heat Island Effect: www.epa.gov/heatisland
  This site contains information about heat island effect, its social and environmental costs, and strategies to minimize its prevalence, including shading and coloration of hardscapes.
- Lawrence Berkeley National Laboratory, Heat Island Group: eetd.lbl.gov/Heatisland The Lawrence Berkeley National Laboratory conducts research to find, analyze, and implement solutions to minimizing heat island effects; its current efforts focus on the study and development of more reflective surfaces for roadways and buildings.

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6.9b

Optional | 2 points

Reducing Heat-Island Effect: Paving

REQUIREMENTS

Use light colored, high albedo materials and/or an opengrid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

RATIONALE

Urban heat islands increase local air temperatures due to the absorption of solar energy by the built environment. Reducing the heat island effect decreases energy consumption by decreasing loads on cooling systems.

RESOURCES

- U.S. Environmental Protection Agency, Heat Island Effect: www.epa.gov/heatisland
  This site contains information about heat island effect, its social and environmental costs and strategies to minimize its prevalence, including shading and coloration ofhardscapes.
- Lawrence Berkeley National Laboratory, Heat Island Group: www.eetd.lbl.gov/Heatisland
  The Lawrence Berkeley National Laboratory conducts research to find, analyze, and implement solutions to minimizing heat island effects. Its current efforts focus on the study and development of more reflective surfaces for roadways and buildings.

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HEALTHY LIVING ENVIRONMENT

Optilllal ventilation hnproves indoor air quality and the flow of fresh air throughout the hollle, contributing to a healthier living environlllent.

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7.1

Mandatory

Composite Wood Products that Emit Low or No Formaldehyde

REQUIREMENTS

All composite wood products (plywood, OSB, MDF, cabinetry) must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants, per Criterion 6.2.

RATIONALE

Composite wood products using formaldehyde-based binders will emit formaldehyde, which is a volatile organic compound. Symptoms of exposure vary widely and include a host of bodily reactions. Avoiding products that emit formaldehyde will reduce the quantity of harmful indoor air contaminants.

RECOMMENDATIONS

- Make this requirement part of the specifications for sub-contractor submittals. Obtain the manufacturer's specifications to determine whether materials meet this requirement. Seek composite wood products compliant with California 93120. California 93120 is a regulation issued by the California Air Resources Board (CARB) limiting allowable formaldehyde emissions from composite wood products.
- Seek composite wood products with no added formaldehyde-based compounds in the contents. Seek composite wood products with CARB No Added Formaldehyde (NAF) certification. Also, Scientific Certification Systems offers a Formaldehyde Free certification, and product listings are available at www.scscertified.com/products/index.php
- Iffeasible, specify formaldehyde-free hardwood, plywood, particleboard, or medium-density fiberboard.

RESOURCES

- In July 2010, the U.S. Congress passed Public Law No: 111-199, the S. 1660: Formaldehyde Standards for Composite Wood Products Act, which updates the Toxic Substances Control Act of 1976 to align with the recent California legislation 93120. More information on Public Law No: 111-199 S.1660 can be found online at www.govtrack.us/congress/bill.xpd?bill =s111-1660. A summary of the Toxic Substances Control Act of 1976 can be found online at the EPA's website at www.epa.gov/lawsregs/laws/tsca.html
- The California Air Resources Board approved an Airborne Toxic Control Measure in April2007 to reduce formaldehyde emissions from composite wood products including hardwood plywood, medium-density fiberboard, and particleboard (Title 17, California Code of Regulations 93120-93120.12). California 93120. More information can be found at: www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf

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7.2

Mandatory

Environmentally Preferable Flooring

If project scope includes provision of flooring

REQUIREMENTS

Prohibited Locations

Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, or any rooms of ground-connected floors.

Products

Any hard surface flooring products used must be either ceramic tile *or* unfinished hardwood floors *or* meet the Scientific Certification System's FloorScore program criteria (including pre-finished hardwood flooring).

The use of reclaimed flooring is encouraged, and such flooring need not meet the FloorScore certification. Reclaimed wood flooring should be free oflead-based paint, and tiles should be free of asbestos.

Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives.

RATIONALE

Carpets have a short lifespan (studies suggest 3-5 years), and thus may need frequent replacement. More durable flooring options that last longer and wear better than carpet promote resource conservation through their longevity. New carpets, padding, and adhesives also release VOCs that may pose health hazards to residents and workers. In addition, carpets trap dust and other allergens.

RECOMMENDATIONS

- Throughout the home, consider non-carpet flooring alternatives such as natural linoleum; Forest Stewardship Council (FSC)-certified or salvaged hardwoods; cork; bamboo; ceramic or stone tile; or sealed concrete.
- Make this requirement part of the specifications for sub-contractor submittals.

RESOURCES

- The SCS FloorScore program website includes information about the program, as well as a list of certified products that is updated regularly: www.scscertified.com/iaq/floorscore.html and www.rfci.com/index.php?option=com_content&view=article&id=lOl&Itemid=lOO
- The Carpet and Rug Institute maintains a list of manufacturers and products meeting the Green Label Plus standard: www.carpet-rug.org!residential-customers/selecting-the-right-carpet-or-rug/green-label.cfrn
- For online comparison of flooring alternatives, see the Healthy Building Network's Pharos Project: www.pharosproject.net

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7.3

Optional | 4 points

Environmentally Preferable Flooring: Alternative Sources

REQUIREMENTS

Use non-vinyl, non-carpet floor coverings in all rooms of the building.

RATIONALE

Natural and renewable alternative flooring materials have demonstrated environmental benefits, including low levels of VOC emissions and environmentally friendly production methods. These products are good substitutes for standard products linked with certain health hazards.

RECOMMENDATIONS

- Whenever possible, select resilient flooring that has passed a California 01350 test (FloorScore, CHPS) or NSF/ANSI 332. For California 01350, give highest preference to those that pass the residential version of the test, as the residential test is more stringent.
- Use alternative flooring materials such as natural linoleum, ceramic tile, bamboo, cork, or hardwood (especially salvaged wood).
- For basements, leave the slab exposed and stained with low-VOC material rather than providing any floor treatments.

RESOURCES

- BuildingGreen, "Green Building Products: The GreenSpec Guide to Residential Building Materials": www.buildinggreen.com/ecommerce/gbp.cfm
- For online comparison of flooring alternatives, see the Healthy Building Network's Pharos Project: www.pharosproject.net
- The U.S. Environmental Protection Agency identified phthalates, a chemical used to make sheet vinyl pliable, as a "chemical of concern" on December 30, 2009: www.epa.gov/oppt/existingchemicals/pubs/ecactionpln.html

7.4a

Mandatory

Exhaust Fans: Bathroom

New Construction and Substantial Rehab

REQUIREMENTS

Install ENERGY STAR-labeled intermittent bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller). Intermittent bathroom fans should operate at an exhaust rate of 50 cubic feet per minute (cfm) to the outdoors, per ASHRAE 62.2-2010.

OR

Install ENERGY STAR-labeled continuous bathroom fans that exhaust to the outdoors and operate continuously at a rate of 20 cfm, per ASHRAE 62.2-2010.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and electronically commutated motors (ECM), with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in bathrooms reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. ENERGY STAR-qualified fans use 65o/o less energy on average than standard models and move more air per unit of energy used with less noise. Timers and humidistat sensors help ensure that fans regularly remove moisture and provide increased ventilation.

RECOMMENDATIONS

- If the continuous bathroom fan option is used to meet the ventilation requirements for whole house ventilation under Criterion 7.6 or 7.7, project teams should be careful not to exceed the cfm requirements for whole building/unit ventilation (i.e., the fan should have the capability to be set to a low-speed condition or controlled by a cycle timer to meet the requirement).
- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance ofthru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010.
- Consider performing the following test to determine if an installed bathroom exhaust fan is pulling roughly the appropriate amount of air. Tear off single squares of toilet paper, hold the toilet paper square up to the fan grill, and turn the fan on. If a bathroom fan can hold one square of toilet paper, then it is pulling about 25 cfm; if a bathroom fan can hold two squares on top of each other, then it is pulling about 50 cfm.

RESOURCES

- ENERGY STAR: www.energystar.gov/index.cfm?c=vent_fans.pr_vent_fans
  This website describes the advantages of ENERGY STAR-labeled bathroom, utility room, and kitchen exhaust fans, and provides product and manufacturer lists.
- Home Ventilating Institute, Ventilation Systems and Controls: www.hvi.org/ and www.hvi.org/assets/pdfs/Ventilation_Controls_for_Life-Styles.pdf
  The HVI provides consumers an assurance of product performance. It also works to increase public awareness of the need for good ventilation and provides resources for selecting the proper ventilation products.

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- Building Science Information, "Review of Residential Ventilation Technologies": www.buildingscience.corn/documents/guides-and-manuals/gm-review-residential-ventilation-technologies/view?searchterm= Residentialo/o20Ventilationo/o20Technologies
  This page provides a link to a report that reviews current and potential ventilation technologies for residential buildings with particular emphasis on North American climates and construction.

7.4b

Optional | 6 points

Exhaust Fans: Bathroom

Moderate Rehab

REQUIREMENTS

Install ENERGY STAR-labeled intermittent bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller). Intermittent bathroom fans should operate at an exhaust rate of 50 cfm to the outdoors, per ASHRAE 62.2-2010.

OR

Install ENERGY STAR-labeled continuous bathroom fans that exhaust to the outdoors and operate continuously at a rate of 20 cfm, per ASHRAE 62.2-2010.

OR

Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and ECM, with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in bathrooms reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. ENERGY STAR-labeled fans use 65o/o less energy on average than standard models and move more air per unit of energy used with less noise. Timers and humidistat sensors help ensure that fans regularly remove moisture and provide increased ventilation.

RECOMMENDATIONS

- If the continuous bathroom fan option is used to meet the ventilation requirements for whole house ventilation under Criterion 7.6 or 7.7, project teams should be careful not to exceed the cfm requirements for whole project ventilation (i.e., the fan should have the capability to be set to a low-speed condition or controlled by a cycle timer to meet the requirement).

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- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance ofthru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010.
- Consider performing the following test to determine if an installed bathroom exhaust fan is pulling roughly the appropriate amount of air. Tear off single squares of toilet paper, hold the toilet paper square up to the fan grill, and turn the fan on. If a bathroom fan can hold one square of toilet paper, then it is pulling about 25 cfm; if a bathroom fan can hold two squares on top of each other, then it is pulling about 50 cfm.

RESOURCES

- For more information on bathroom fans, go to the products section of the ENERGY STAR homepage: www.energystar.gov/index.cfm?c=vent_fans.pr_vent_fans
  This website describes the advantages of ENERGY STAR-labeled bathroom, utility room, and kitchen exhaust fans, and provides product and manufacturer lists.
- Home Ventilating Institute, Ventilation Systems and Controls: www.hvi.org/ and www.hvi.org/assets/pdfs/Ventilation_Controls_for_Life-Styles.pdf
  The HVI provides consumers an assurance of product performance. It also works to increase public awareness of the need for good ventilation and provides resources for selecting the proper ventilation products.
- Building Science Information, "Review of Residential Ventilation Technologies": www.buildingscience.com/documents/guides-and-manuals/gm-review-residential-ventilation-technologies/view?searchterm= Residential%20Ventilation%20Technologies
  This page provides a link to a report that reviews current and potential ventilation technologies for residential buildings with particular emphasis on North American climates and construction.

7.5a

Mandatory

Exhaust Fans: Kitchen

New Construction and Substantial Rehab

REQUIREMENTS

Install power-vented fans or range hoods that exhaust to the outdoors at an intermittent rate of 100 cfm, per ASHRAE 62.2-2010.

OR

Install power-vented fans or range hoods that exhaust to the outdoors at a continuous rate of five air changes per hour based on kitchen volume.

OR

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Install central ventilation systems to meet ASHRAE requirements (see Criteria 7.6a and 7.6b) with rooftop fans that meet the following criteria:

- Roof fans up to 300 design cfm must be direct-drive and variable-speed control with speed controller mounted near the fan.
- Roof fans between 300-2000 design cfm must be direct-drive, variable-speed control, and ECM with speed controllers mounted near the fan.

RATIONALE

Properly sized and controlled exhaust fans in kitchens reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. Besides helping to reduce moisture, kitchen fans also help remove carbon dioxide and carbon monoxide over fuel-burning appliances and other air contaminants that may be by-products of cooking.

RECOMMENDATIONS

- There is currently no ENERGY STAR labeling program for kitchen range fans. Avoid oversized range fans, which can depressurize homes and cause back-drafting of combustion appliances.
- Placing a single multi-port, in-line fan in each apartment to exhaust air from the kitchen and bathroom(s) is an acceptable ventilation strategy. In addition to meeting local code requirements for the minimum distance ofthru-wall exhaust vents from windows, the in-line fan must be ENERGY STAR-labeled, and the kitchen and bathroom exhaust ventilation rates must comply with ASHRAE 62.2-2010. Ensure that the placement of the exhaust grill meets code requirements for kitchen ventilation.

RESOURCES

- For more information on kitchen fans or range hoods, go to the products section of the ENERGY STAR homepage: www.energystar.gov

7.5b

Optional | 6 points

Exhaust Fans: Kitchen

Moderate Rehab

REQUIREMENTS

Install power-vented fans or range hoods that exhaust to the exterior at an intermittent rate of 100 cfm, per ASHRAE 62.2-2010.

OR

Install power-vented fans or range hoods that exhaust to the exterior at a continuous rate of five air changes per hour based on kitchen volume.

OR

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Properly sized and controlled exhaust fans in kitchens reduce moisture condensation, lowering the potential for indoor mold growth that may yield odors and pose health hazards to residents. Besides helping to reduce moisture, kitchen fans also help remove carbon dioxide and carbon monoxide over fuel-burning appliances and other air contaminants that may be by-products of cooking.

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RESOURCES

- For more information on kitchen fans or range hoods, go to the products section of the ENERGY STAR homepage: www.energystar.gov

7.6a

Mandatory

Ventilation

New Construction and Substantial Rehab

REQUIREMENTS

Single-Family and Low-Rise Multifamily

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE 62.2-2010 requirements for single-family and low-rise multifamily dwellings.

Use the following formula, or refer to the table on the next page as a reference for calculating the ventilation rate.

[7.5 cfm per(# of bedrooms +1)] + [1dm per 100ft'of floor area] = (ASHRAE 62.2-2010)

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Multifamily, four stories or more

Install a ventilation system capable of providing adequate fresh air per ASHRAE 62.2-2010 for all dwelling units, and ASHRAE 62.1-2010 for all hallways and common spaces.

[7.5 cfm per(# of bedrooms +1)] + [1dm per 100ft' of floor area] = (ASHRAE 62.2-2010)

AND

[0.06 cfm per 1ft^2 of common corridors]= (ASHRAE 62.1-2010)

Alternatively, project teams can use the table below from ASHRAE 62.2-2010 to determine required ventilation rates. Note that the table provides ventilation air requirements for a single-family or a multifamily unit. Thus, the floor area and number of bedrooms listed should be used to derive the required cfm for each unit. Then the units should be aggregated along with the required cfm for the common space to reach the total required cfm for the project.

VENTILATION AIR REQUIREMENTS (IN CFMS)

	BEDROOMS (BY UNIT)				
FLOOR AREA (BY UNIT) FT'	0-1				> 7
< 1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150

For Substantial Rehab projects, consult Appendix A of ASHRAE 62.2-2010, which provides options relevant to existing buildings.

Multifamily Projects with Central Ventilation Systems

Establish ventilation rates for bathrooms, kitchens, and units based on ASHRAE 62.2-2010 requirements. Using these ventilation levels, install a centralized ventilation system that is balanced to run at the required ASHRAE 62.2-2010 levels for each unit and 62.1-2010 levels for common spaces. Provide Enterprise Green Communities with information on the central systems and controls used to achieve the residential in-unit ventilation requirements per ASHRAE 62.2-2010.

RATIONALE

Optimal ventilation improves indoor air quality and the flow of fresh air throughout the home, contributing to a healthier living environment.

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RECOMMENDATIONS

- With continuous, demand-controlled, or other centralized ventilation systems, the project team (specifically, the designer, installer, and maintenance staff) should ensure that the systems are balanced from unit to unit to meet the requirements of ASHRAE 62.2-2010. Also, consider the following guidance:
  - For fans designed to exhaust more than 250 cfm, consider using ECM with speed controllers mounted near the fan for ease of balancing.
  - For fans designed to exhaust less than 250 cfm, consider using direct drive with speed controller mounted near the fan for ease of balancing.
- For climate-specific strategies, project teams should consult ASHRAE 62.2-2010.
- For projects located in hot and humid climates, systems should be designed to be capable of ASHRAE 62.2 ventilation levels. Supplemental dehumidification is likely necessary for compliance in these climates to maintain comfort during times of high ambient relative humidity. Additionally, the goal should be to design a system to meet ASHRAE requirements and then provide for additional accommodations to adjust the amount of outside air flow being introduced.
- Consider the following controls for introducing outside air:
  - Flow control/butterfly damper to allow for control over the amount of air being introduced through the outside air intake.
  - Shut-off damper (electronic or barometric) to close off the outside air intake when the HVAC system is not calling for air.
  - Fan timer /cycler on the system that allows for control over how many minutes of a "system run cycle" the outside air intake remains open.
  - Per ASHRAE ventilation requirements, reliance on operable windows is not permitted as a strategy to meet ASHRAE 62.2 whole-project ventilation requirements.

RESOURCES

- Specify a mechanical whole-house ventilation system per ASHRAE 62.2-2010 and the EPA ENERGY STAR with Indoor Air Package Specifications.
- ASHRAE Standard 62.2-2010: www.ashrae.org/technology/page/548
  This site provides a viewable version of ASHRAE Standard 62.2-2010. The online version cannot be printed or saved but can be previewed.
- University of Minnesota, Common Questions about Heat and Energy Recovery Ventilators: www.extension.umn.edu/distribution/housingandclothing/DK7284.html
  This site provides a brief, easy-to-understand overview of heat- and energy-recovery ventilators.
- Building Science.com, Review of Residential Ventilation Technologies: www.buildingscience.corn/documents/reports
  This page provides a link to "Review of Residential Ventilation Technologies," a report that reviews current and potential ventilation technologies for residential projects, with particular emphasis on North American climates and construction.

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7.6b

Optional | 5 points

Ventilation

Moderate Rehab

REQUIREMENTS

Single-Family and Low-Rise Multifamily

Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE 62.2 requirements for single-family and low-rise multifamily dwellings.

[7.5 cfm per(# of bedrooms+1)) + [1dm per 100ft' offloor area]= (dm requirements per ASHRAE 62.2-2010)

Multifamily, four stories or more

Install a ventilation system capable of providing adequate fresh air per ASHRAE 62.2 for all dwelling units, and ASHRAE 62.1 for all hallways and common spaces.

[7.5 cfm per(# of bedrooms+1)] + [1dm per 100 ft• offloor area]= (dm requirements per ASHRAE 62.2-2010)

AND

[0.06 cfm per 1 ft^2 of common corridors]= (ASHRAE 62.1-2010)

For Moderate Rehab projects, consult Appendix A of ASHRAE 62.2, which provides options relevant to existing buildings that enable owners to take credit for existing ventilation.

Multifamily Projects with Central Ventilation Systems

Establish ventilation rates for bathrooms, kitchens, and units, based on ASHRAE 62.2-2010 requirements. Using these ventilation levels, install a centralized ventilation system that is balanced to run at the required ASHRAE 62.2-2010 levels for each unit and 62.1-2010 levels for common spaces. Provide Enterprise Green Communities with information on the central systems and controls used to achieve the residential in-unit ventilation requirements per ASHRAE 62.2-2010.

RATIONALE

Optimal ventilation improves indoor air quality and the flow of fresh air throughout the home, contributing to a healthier living environment.

RECOMMENDATIONS

- With continuous, demand-controlled, or other centralized ventilation systems, the project team (specifically, the designer, installer, and maintenance staff) should ensure that the systems are balanced from unit to unit to meet the requirements of ASHRAE 62.2-2010. Also, consider the following guidance:
  - For fans designed to exhaust more than 250 cfm, consider using ECM with speed controllers mounted near the fan for ease of balancing.
  - For fans designed to exhaust less than 250 cfm, consider using direct drive with speed controller mounted near the fan for ease of balancing.

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- For climate-specific strategies, project teams should consult ASHRAE 62.2-2010.
- For projects located in hot and humid climates, systems should be designed to be capable of ASHRAE 62.2 ventilation levels. Supplemental dehumidification is likely necessary for compliance in these climates to maintain comfort during times of high ambient relative humidity. Additionally, the goal should be to design a system to meet ASHRAE requirements and then provide for additional accommodations to adjust the amount of outside air flow being introduced.
- Consider the following controls for introducing outside air:
  - Flow control/butterfly damper to allow for control over the amount of air being introduced through the outside air intake.
  - Shut-off damper (electronic or barometric) to close off the outside air intake when the HVAC system is not calling for air.
  - Fan timer/cycler on the system that allows for control over how many minutes of a "system run cycle" that the outside air intake remains open.
  - Per ASHRAE ventilation requirements, reliance on operable windows is not permitted as a strategy to meet ASHRAE 62.2 whole-building ventilation requirements.

RESOURCES

- National Center for Healthy Housing, Ventilation Fact Sheets: www.nchh.org/Training!Green-and-Healthy-Housing.aspx
  - Improving Ventilation in Multifamily Buildings that Do Not Have Fan-Powered Ventilation
  - Improving Ventilation in Existing or New Buildings with Central Roof Exhaust
  - Improving Ventilation in New and Existing Multifamily Unit Buildings with Individual Unit Ventilation Systems

7.7 *Mandatory* Clothes Dryer Exhaust

REQUIREMENTS

Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.

RATIONALE

Outdoor venting of clothes dryers substantially reduces air moisture that can lead to mold growth.

RECOMMENDATIONS

- It is important to minimize the duct run to avoid buildup of moisture and particles that can inhibit the flow of air through the duct. Rigid duct materials are preferred to help ensure clean ducts and reduce buildup of particles and moisture.
- Locating the dryer on an exterior wall will allow a minimized duct run for the exhaust.

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7.8

Mandatory

Combustion Equipment

For projects with combustion equipment

REQUIREMENTS

Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.

Projects should install one hard-wired carbon monoxide (CO) alarm for each sleeping area, minimum one per floor. Multifamily projects should follow state law requirements for location of CO alarms, if respective state law addresses CO alarm placement in multifamily projects and conflicts with the Enterprise Green Communities requirement.

Projects without combustion equipment (i.e., space and water heating equipment, cook tops, and any other combustion equipment) or attached garages are exempt from this measure. Also, projects with combustion equipment located in detached utility building(s) or open-air facilities are exempt from this measure.

RATIONALE

Direct-vent systems draw all the air needed directly from the outside so there is no risk of spilling combustion contaminants into the residence. Power-vented equipment uses a fan or blower to create the pressure difference that causes air to flow from inside the house, through the combustion device, and out an approved chimney or vent system, to the outdoors.

RESOURCES

- U.S. Environmental Protection Agency, Combustion Products and Carbon Monoxide: www.epa.gov/iaq!combust.html and www.epa.gov/iaq!co.html
  These two extensive EPA sites describe the sources of carbon monoxide and other combustion gases, their health effects, steps to reduce exposure, related standards and guidelines, and additional resources and links.
- Canada Mortgage and Housing Corporation: www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/inaiqu/inaiqu_004.cfm
  This site is part ofCMHC's "About Your House" series of educational articles. It includes information about combustion gases, the effects of exposure, and strategies for limiting exposure.
- Underwriters Laboratories, Product Safety Tips: CO Alarms: www.ul.corn/globaVeng/pages/corporate/newsroom/storyideas/carbonmonoxide/tips/
  This site provides a basic overview of the problems associated with carbon monoxide, as well as tips about purchasing and installing carbon monoxide alarms.
- U.S. Consumer Product Safety Commission: "Carbon Monoxide Questions and Answers": www.cpsc.gov/cpscpub/pubs/466.html

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7.8

Mandatory

Mold Prevention: Water Heaters

REQUIREMENTS

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

Water heaters should be located in rooms with non-water sensitive floor coverings. Drain pans should be sloped and corrosion resistant (e.g., stainless or plastic) with drains at the low point. Condensate lines should be drained to a drainage system, and not just deposited under slab.

RATIONALE

The use of heaters with drains and catch pans prevents moisture problems caused by leakage or overflow. This prevents water from sitting idle, creating excess moisture and allowing mold to germinate.

RECOMMENDATIONS

- Tankless water heaters, by virtue of the product type, meet the intent of this measure.
- If local code does not permit draining to the exterior of the project, water heaters can be drained directly to the sewer line.

RESOURCES

- American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Standard 62.1-2007 User's Manual:
  www.techstreet.com/cgi-bin/detail?product_id=1571685
- International Code Council, "Mold: Tips on Prevention and Control":
  www.iccsafe.org/Store/Pages/Product.aspx?id = 7310S
- Canada Mortgage and Housing Corporation's "Fighting Mold":
  www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
  For information on mold identification and remediation in existing homes.

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7.9b

Mandatory

Mold Prevention: Surfaces

REQUIREMENTS

In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

RATIONALE

The use of moisture-resistant materials in wet areas reduces moisture buildup, diminishing the potential for indoor mold growth that may yield odors and pose health hazards to residents.

RECOMMENDATIONS

When possible, avoid materials that facilitate the growth of mold spores, such as vinyl wallpaper and unsealed grout.

RESOURCES

- BuildingGreen: www.buildinggreen.com
  Resources on product composition and performance.
- Canada Mortgage and Housing Corporation, Fighting Mold-The Homeowners' Guide:
  www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
  For information on mold identification and remediation in existing homes.

7.9c

Mandatory

Mold Prevention: Tub and Shower Enclosures

Except for projects that do not have shower or bathroom work in scope

REQUIREMENTS

Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

RATIONALE

The use of moisture-resistant materials in wet areas reduces moisture buildup, diminishing the potential for indoor mold growth that may yield odors and pose health hazards to residents.

RESOURCES

- Canada Mortgage and Housing Corporation, Fighting Mold-The Homeowners' Guide:
  www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_OOS.cfm
  For information on mold identification and remediation in existing homes.

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7.9b

Mandatory

Vapor Barrier Strategies

For all New Construction and any Rehab projects with foundation work in scope

REQUIREMENTS

Beneath Concrete Slabs, Including Basements

- Provide vapor barriers under all slabs.
- Install a capillary break as follows:
  - Install a 4-inch layer of V2-inch diameter or greater clean aggregate, covered with 6 mil (or thicker) polyethylene sheeting, overlapped 6 to 12 inches at the seams, and in direct contact with the concrete slab above.

    OR

  - Install a 4-inch uniform layer of sand, overlain with a layer or strips of geotextile drainage matting installed according to the manufacturer's instructions, and covered with polyethylene sheeting overlapped 6 to 12 inches at the seams.
- On interior below-grade walls, avoid using separate vapor barrier or a below-grade vertical insulation (such as polyethylene sheeting, vinyl wallpaper, or foil faced), which can trap moisture inside wall systems. Semi-vapor- permeable rigid insulation is not considered a vapor barrier.

Beneath Crawl Spaces

- InstallS-mil minimum thickness cross-laminated polyethylene on the crawl floor, extended at least 12 inches up on piers and foundation walls, and with joints overlapping at least 12 inches. (The 8-mil polyethylene and the cross-lamination ensure longevity of the poly.)
- Line the likely "high-traffic" areas of the crawl space with foam board, so the polyethylene beneath will not be disturbed.

RATIONALE

Water can migrate through concrete and most other masonry materials. Proper foundation drainage prevents water from saturated soils from being pushed by hydrostatic pressure through small cracks. Vapor barriers and waterproofing materials can greatly reduce the migration of moisture that can occur even in non-saturated soils.

RECOMMENDATIONS

Ensure that other trades' work does not puncture the vapor barrier.

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RESOURCES

- Advanced Energy: www.crawlspaces.org/
- Building Science Corporation: www.buildingscience.com/resources/cond-crawlspaces
  Features a good article on conditioned crawl spaces.
- The Energy & Environmental Building Alliance: www.eeba.org/resources/climate/index.html
  This organization provides links to building science topics by climate.
- U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Building America: wwwl.eere.energy.gov/buildings/building_america/about.html
  Free downloads on best building practices.
- The Partnership for Advanced Technology in Housing: www.pathnet.org
  This site has an extensive, searchable resource section with pertinent information about construction solutions.

7.11

Mandatory

Radon Mitigation

New Construction and Substantial Rehab

REQUIREMENTS

New Construction

In EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. Also, install a vertical vent pipe with junction box within 10 feet of an electrical outlet, in case an active system should prove necessary in the future.

Substantial Rehab

Substantial Rehab projects located in EPA Zone 1 and 2 areas should be tested for the presence of radon. If the radon level is elevated, above 4 pCi/L (pica curies per liter), install radon-reduction measures.

Follow EPA guidance for conducting a radon test.

Underground Garages Serving Multifamily Projects

Follow the prescriptive measure below taken from EPA's Indoor airPLUS program, as well as Criteria 7.11 and 7.14:

- *IAP 2.1 Radon control:* Foundation air sealing with polyurethane caulk or the equivalent at all slab openings, penetrations, and control or expansion joints. Sump covers also shall be air sealed (e.g., mechanically attached with full gasket seal or equivalent).

RATIONALE

Exposure to radon is the second leading cause of lung cancer in the United States. Testing and mitigation if necessary will reduce concentrations of radon that can leak into homes through cracks in the slab and foundation.

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RECOMMENDATIONS

- Additional guidance for dealing with underground garages:
  - International Mechanical Code (IMC), which requires 0.75 cfm/sf for garages serving multifamily projects, and ASHRAE Standard 62.1-2010 section 5.15, which encourages maintaining attached garage air pressure at or below adjacent occupiable spaces.
  - If the pressure management strategy is not designed to continually maintain negative pressure in the underground garage space relative to the occupied spaces (i.e., if a timer is used for exhaust fan control), then radon control is not assured. In such situations, use either the radon-resistant New Construction techniques summarized in lAP spec 2.1 (www.epa.gov/indoorairplus/construction_specifications.html#moisture%20control) and detailed further in EPA guidance and/or test the occupied space for radon.
  - If the underground garage does not cover the entire foundation (i.e., some living space is directly above a slab or crawlspace), then those portions of the project should be handled per Indoor airPLUS specs.
  - Any mechanical or service closets in the garage area that are connected to the conditioned enclosure should be aggressively sealed between the garage and the conditioned space.
- For projects located on brownfields or proximate to industrial operations that are not in EPA Zone 1 or 2 areas, consider testing for radon to determine if elevated levels exist on-site. If the radon level is elevated above 4 pCi/L (pica curies per liter), install radon-reduction measures.

RESOURCES

- U.S. Environmental Protection Agency: www.epa.gov/radon/zonemap.html
  Or contact your state radon coordinator through the state health office, to determine if your project is located in a Zone 1 or 2 radon area.
- U.S. Environmental Protection Agency, "Protocols for Radon and Radon Decay Product Measurements in Homes": www.epa.gov/radon/pdfs/homes_protocols.pdf
- National Center for Healthy Housing, "Radon-Resistant Construction: Low-Rise Multi-Family Housing": www.nchh.org/Training/Green-and-Healthy-Housing.aspx
- U.S. Environmental Protection Agency, "Building Radon Out," 2006 (#EPN402-K-01-002): www.epa.gov/radon/pdfs/buildradonout.pdf
- U.S. Environmental Protection Agency, "Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings": www.epa.gov/radon/pubs/mitstds.html
- American Lung Association, Radon Fact Sheet:
  www.lungusa.org/healthy-air/home/resources/radon.html
  This is a general overview of the health risks associated with radon exposure.
- Washington State, Extension Energy Program, "Builder's Field Guide":
  www.energy.wsu.edu/Documents/Builders_Field_Guide-2006.pdf
  Chapter 2 of this field guide provides tips, procedures, and schematics for understanding how to mitigate radon risks during new construction.

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7.12

Mandatory

Water Drainage

This measure applies to Moderate and Substantial Rehab projects only when replacing particular assemblies called out in the prescriptive requirements below.

REQUIREMENTS

Provide drainage of water away from windows, walls, and foundations by implementing the following techniques.

Water Management- Walls

- Provide a housewrap/weather-resistive barrier with sheets lapped, shingle-style, especially over windows, doors, and other penetrations to prevent rainwater that penetrates the finished exterior cladding system from entering the wall assembly or being introduced into window or door openings.
- Provide a pathway for liquid water that has penetrated the cladding system or accumulates due to daily or seasonal changes in thermal and humidity levels behind the cladding system to safely exit the exterior wall assembly.
- Flashing and/or weather-resistive barriers installed in rough window and door openings must integrate with window and door unit flashings, particularly at the sill and head.

OR

- Install pan flashing, side flashing that extends over pan flashing, and head flashing (top flashing) that extends over side flashing on windows and exterior door openings. Apply window pan flashing over building paper at sill and corner patches.
- Flashings at roof/wall intersections and at penetrations through the wall (i.e., plumbing, electrical, vents, HVAC refrigerant lines, and the like) that are provided by other trades must be integrated with the drainage plane to keep water from entering the wall assembly.

Water Management- Roof Systems

- Installation of drip edge at entire perimeter of roof.
- Install flashing where sloped roofs meet gable wall end and integrate all vertical walls into project drainage plane.
- Use kick-out flashings at all wall/eave intersections and integrate into drainage plane.
- At wall/roof intersections, maintain>/= 2" clearance between wall cladding and roofing materials.

Integrity and Continuity of the Thermal Barrier

- The drainage plane, when properly sealed, can also reduce airflow through the wall assembly, which improves the thermal performance of the cavity insulation.

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RATIONALE

Diverting water from the project prevents bulk water entry into foundations and basements, which can contribute to moisture-related problems such as mold and the deterioration of wood and other building materials. Flashing helps direct water away from wall cavities to the drainage plane.

RECOMMENDATIONS

- Where a high water table is anticipated or observed, or has been documented in the soil boring report, or where specifically recommended by the geotechnical engineer, provide subsurface drain tile or other drainage system in strict accordance with the geotechnical engineer's or other qualified professional's recommendations, to divert underground water away from the structure. Coordinate these requirements with those of Criteria ?.lOa and ?.lOb as modified herewith.
- Ensure that a vapor barrier with the appropriate permeability rating is installed on the correct side of the wall assembly, based on climatic considerations.
- Best practices include a grade of one-half inch per foot, or approximately a 4o/o pitch. EPA recommends a 2o/o pitch (one-quarter inch per foot) for hard surfaces such as patio slabs, walks, and driveways.

RESOURCES

- U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, Building America: wwwl.eere.energy.gov!buildings/building_america/about.html
  Free downloads on best building practices.
- U.S. Environmental Protection Agency, Indoor airPLUS Construction Specifications: www.epa.gov/indoorairplus/construction_specifications.html#moistureo/o20control
  Includes detailed construction specifications, several of which are focused on moisture management.
- The Energy & Environmental Building Alliance, Water Management Guide (for purchase only): www.eeba.org/bookstore/prod-Water_Management_Guide-9.aspx

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ANNUAL PRECIPITATION MAP OF NORTH AMERICA

Exposure

- Extreme (over 60" ventilated* rain screen)
- High (40"–60" rain screen/vented** cladding/vented drainage space
- Moderate (20"-40" drainage plane / drainage space
- Low (under 20" face seal)

"Ventilated means insect-protected air holes in the top and bottom of the cladding assemby, creating the potential fcr directional air flow in the air space behind the cladding.

"Vented means insect-protected holes in the cladding assembly not located at the top and bottom, soth at whle limited atr exhange m thts air space is possible, alr flow is not

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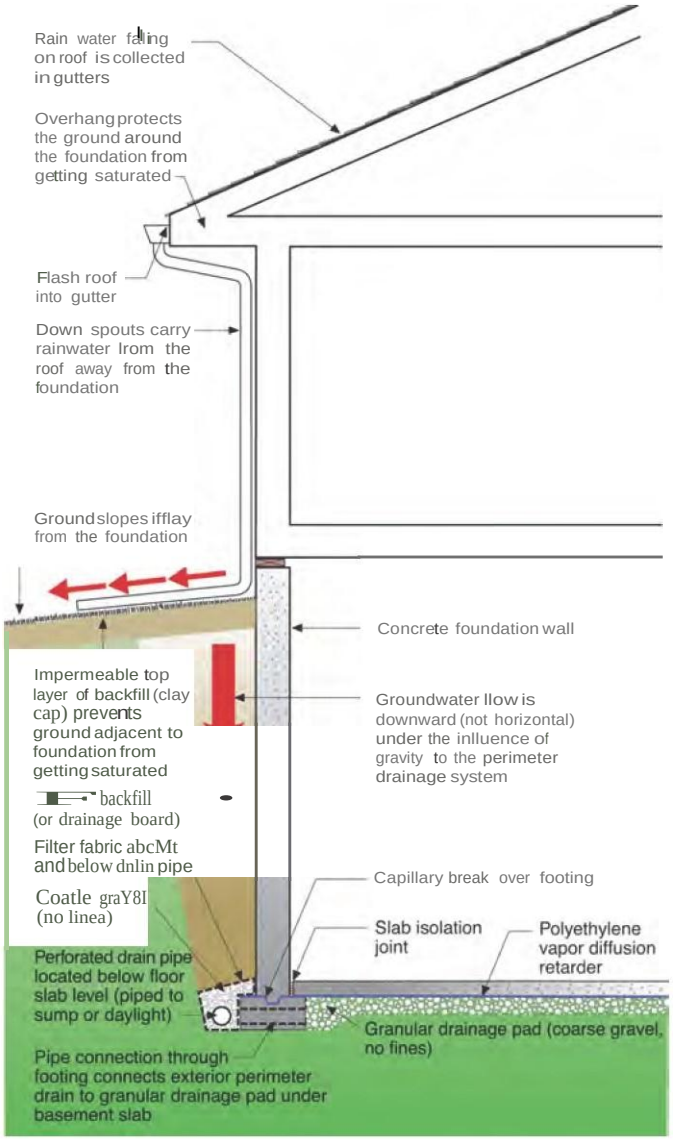
WATER DRAINAGE: BASEMENT



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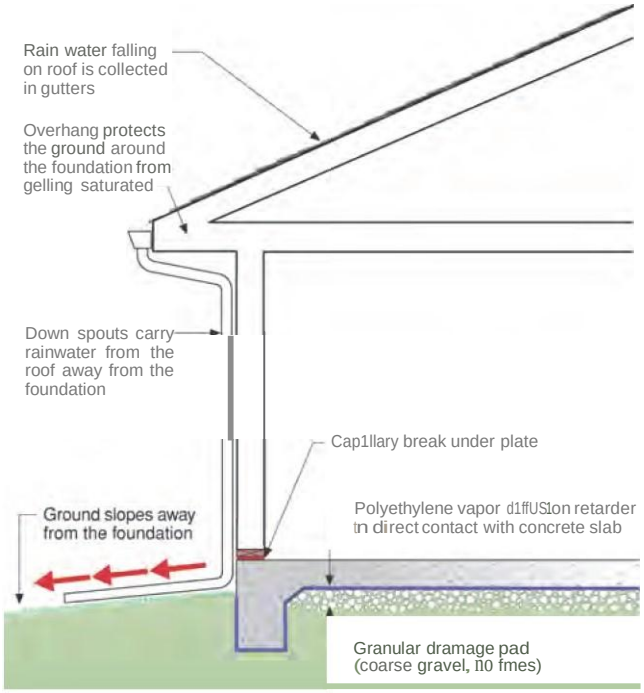
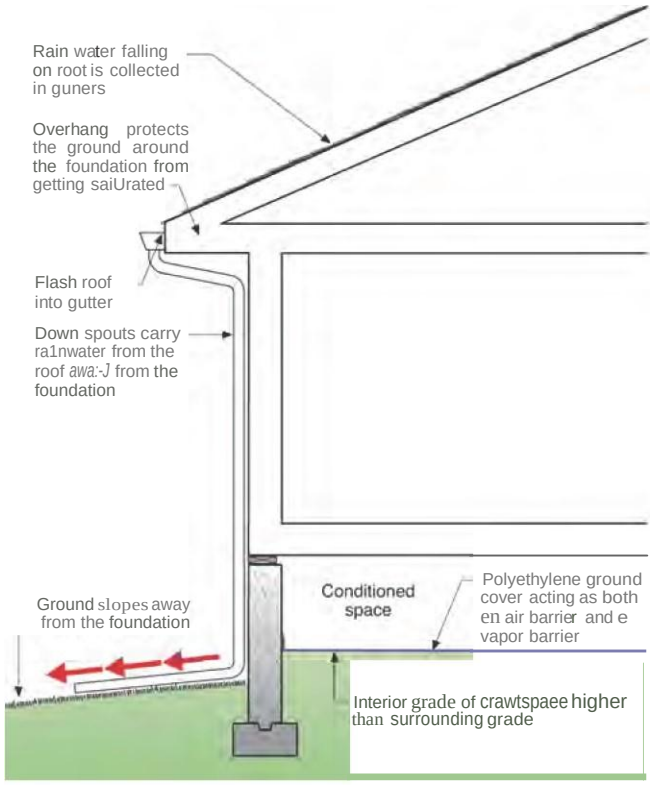
no

WATER DRAINAGE: SLAB ON GRADE



WATER DRAINAGE: CONDITIONED CRAWLSPACE



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7.13 Mandatory Garage Isolation

REQUIREMENTS

- Provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space.
- Do not install ductwork or air handling equipment in a garage.
- All connecting doors between living space and garage must include an automatic closer / spring hinges, and be fixed with gaskets or otherwise made substantially airtight with weather stripping.
- In single-family and multifamily buildings with garages, install a CO alarm inside the house in the room with a door to the garage AND outside all sleeping areas.
- Common walls and ceilings between attached garages and living spaces must be visually inspected to ensure that they are air-sealed before insulation is installed (requirement taken from EPA's Indoor airPLUS program 5.5).

RATIONALE

Carbon monoxide inhalation can be dangerous to human health. The air barrier and air sealing will help prevent carbon monoxide migration from the garage to the living space, and the CO alarm will help ensure that residents are alerted in the case of accidental accumulation of the gas.

RECOMMENDATIONS

Refer to ASHRAE 62.2 to specify garage contaminant isolation measures.

RESOURCES

- National Institute of Standards and Technology, Air and Pollutant Transport from Attached Garages to Residential Living Spaces": www.fire.nist.gov/bfrlpubs/build03/art068.html
  This report provides an overview of the major issues, as well as a review of relevant scientific studies and a series of field studies.
- The Energy & Environmental Building Alliance, "Builder's Guide" series for specific North American climate zones: Cold Climates, Mixed Humid Climates, Hot-Humid Climates, and Hot-Dry & Mixed Dry Climates, by Joseph Lstiburek, Ph.D., P.Eng. Building Science Press: www.eeba.org/bookstore/cat-Builders_Guides-4.aspx
  Refer to the discussion and construction details regarding air sealing and connected garages.

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7.14 *Mandatory* Integrated Pest Management

REQUIREMENTS

Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate non-toxic sealing methods to prevent pest entry. Provide rodent- and corrosion-proof screens (e.g., copper or stainless steel mesh or rigid metal cloth) for openings greater than% inch.

Develop an integrated pest management (IPM) policy and, as part of that, develop resident guidance related to pesticide use, housekeeping, and prompt reporting of pest problems to be included in the Maintenance and Resident Manuals for cockroaches, rodents, and bedbugs.

RATIONALE

Sealing of cracks and penetrations will minimize entry points for pests such as rodents and cockroaches. Avoiding unnecessary pesticides, improving resident housekeeping, and promptly responding to pest problems will reduce the chemicals needed to treat pests and will keep homes pest-free longer than a routine chemical treatment program.

RECOMMENDATIONS

- For guidance on low-VOC caulk, see Criterion 7.2.
- Integrated pest management work should be completed in conjunction with air sealing. Project teams should work with an air sealing contractor to ensure that IPM strategies are part of scope.

RESOURCES

- "How to Control Pests Safely: Getting Rid of Cockroaches and Mice," New York City Department of Health and Mental Hygiene, under the header "Guide to Safe Pest Control in the Home": www.nyc.gov/htmVdoh/htmVpest/pest3.shtml
- The National Center for Healthy Housing, Integrated Pest Management in Affordable Housing: www.healthyhomestraining.org/IPM/
  This webpage has resources dedicated to IPM in affordable housing, including model RFPs and contract language for greener pest control, case studies, and training.

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7.15 Lead-Safe Work Practices

Mandatory

REQUIREMENTS

For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation (RRP) (40 CFR 745) and applicable HUD requirements at 24 CFR 35.

RATIONALE

Any activity that disturbs painted surfaces or project components in pre-1978 dwellings that contain lead-based paint may generate and spread lead dust and debris, increasing the risk of lead poisoning for exposed children and families. Controlling lead dust and debris helps minimize lead in the environment.

RECOMMENDATIONS

- Consider undertaking a lead inspection to determine if the property or surfaces to be disturbed contain lead-based paint. Properties built from 1960 through 1978 are more likely to be free of lead-based paint. Housing and painted components documented to be free of lead-based paint (using EPA-approved methods) are exempt from EPA Renovation, Repair and Painting Regulation. In housing built before 1940, it is very likely that lead-based paint is present.
- Undertake the appropriate training and certification for in-house maintenance staff and ensure that contractors are meeting the lead RRP requirements.

RESOURCES

- U.S. Environmental Protection Agency: www.epa.gov/lead/pubs/traincert.htm and U.S. Department of Housing and Urban Development: www.h ud.gov/offices/lead/training/index.cfm
  Information about lead-safe work practices.
- U.S. Environmental Protection Agency, Small Entity Compliance Guide to Renovate Right EPA's Lead-Based Paint Renovation, Repair, and Painting Program: www.epa.gov/lead/pubs/sbcomplianceguide.pdf and www.epa.gov/lead/pubs/renovation.htm
  General information on compliance with these requirements.

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7.16

Optional | 9 points

Smoke-Free Building

REQUIREMENTS

Implement and enforce a no-smoking policy in all common and individual living areas, and with a 25-foot perimeter around the exterior of all residential projects. The lease language must prohibit smoking in these locations and specify that it is a violation of the lease to smoke. The no-smoking restriction applies to all owners, tenants, guests, and servicepersons.

RATIONALE

Secondhand smoke is the third leading cause of preventable death in the country. Air filtration and ventilation systems do not eliminate the health hazards caused by secondhand smoke. Tobacco smoke from one unit may seep through the cracks, be circulated by a shared ventilation system, or otherwise enter the living space of another. In addition to the negative health effects, smoking significantly increases fire hazard and increases cleaning and maintenance costs.

RECOMMENDATIONS

- Many property insurance companies offer a discount for projects with no-smoking policies.
- Project owners and property managers should inform residents that they are prohibited from smoking in the project. A designated outdoor smoking area should be provided as an alternative arrangement for those who smoke.
- Provide suitable receptacles in the designated outdoor smoking area for the disposal of cigarette butt litter. Ensure that the receptacles are inside the project line and do not encroach into public space.

RESOURCES

- National Center for Healthy Housing, "Reasons to Explore Smoke-Free Housing Fact Sheet": www.nchh.org!Training/Green-and-Healthy-Housing.aspx
- American Lung Association, Air Quality in the Home: www.lungusa.org
  This site includes an entire section devoted to indoor air quality in the home. Choose "Air Quality" at the bottom of the screen and then click "Indoor Air Quality" and "Air Quality in the Home" to find numerous articles and educational pieces about maintaining a healthy indoor environment.
- U.S. Environmental Protection Agency, Indoor Air Quality Division: www.epa.gov/iaq
  This site has numerous resources related to indoor air quality in homes, including reports and web links.

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OPERATIONS + MAINTENANCE

An orientation to the project helps educate residents and property managers on the green features that were designed to deliver health, economic, and environmental benefits, as well as their role in realizing those benefits in their own lives and the lives of future residents.

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8.1

Mandatory

Building Maintenance Manual

For all multifamily projects

REQUIREMENTS

Provide a manual that addresses the following:

- operations and maintenance guidance for all appliances
- HVAC operation and maintenance schedule
- location of water-system turnoffs
- lighting equipment
- paving materials and landscaping
- green cleaning products and schedule(s)
- pest control
- any other systems within the project, including renewable energy systems if applicable
- an occupancy turnover plan that describes the turnover process, including all materials that are frequently replaced at turnover and the process of educating the residents about proper use and maintenance of all project systems

RATIONALE

Regular building maintenance using green methods helps minimize utility consumption and provides a healthy and durable living environment for residents.

RECOMMENDATIONS

- During the design process, keep a running list of how maintenance and landscaping teams and residents may need to be involved with the building in order to ensure that its lifespan is maximized and that it will perform as intended. Once the project team has completed the integrative design process (see Criterion 1.1), amend templates of the Operations and Maintenance documents with project-specific information for maintenance and residents. By working in this manner, Operations and Maintenance documents will be informed by the development process and completed at the same time the project is ready for occupancy.
- Manuals and other training materials are most effective when presented in conjunction with training sessions. These educational sessions give the project maintenance staff an opportunity to share best practices and troubleshoot project performance problems together.
- Consider developing an integrated pest management (IPM) policy and, as part of that, develop guidance related to pesticide use, housekeeping, and prompt reporting of pest problems to be included in maintenance manuals.
- If the project is utilizing greywater, design and institute a policy that requires biodegradable soaps, cleaners, and other products that are flushed down the drains.
- Provide maintenance staff with local information for handling hazardous waste, including fluorescent and compact fluorescent lighting (CFLs).

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RESOURCES

- Enterprise Green Communities, Building Maintenance Manual Templates in Information Resources: www.greencommunitiesonline.org!tools/resources/index.asp
- For language on residential IPM policy, the University of Minnesota offers the following resource: www.entomology.umn.edu/cues/em/index.html
- National Center for Healthy Housing, "Healthy Homes Maintenance Checklist": www.nchh.org!Portals/0/Contents/Maintenance_Checklist2009.pdf

8.2 *Mandatory* Resident Manual

REQUIREMENTS

Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features. The guide also should include the location of transit stops and other neighborhood amenities, and encourage additional green activities such as recycling, gardening, use of healthy cleaning materials, alternative measures to pest control, and purchase of green power.

For single-family projects, and multifamily projects as applicable, include these additional instructions within the Resident Manual:

- a routine maintenance plan
- operations and maintenance guidance for all appliances and special plumbing fixtures (e.g., dual-flush toilets)
- HVAC operation
- cautions or appropriate maintenance on renewable energy systems
- location of water-system turnoffs
- lighting equipment
- interior finish materials, including paints, caulks, and flooring
- paving materials and landscaping
- pest control
- special health considerations if greywater is used indoors (e.g., do not drink from the toilet in emergency situations)
- any other systems that are part of the home

RATIONALE

Education on the operations and maintenance of the home will allow residents to fully realize the environmental, health, and economic benefits that green housing offers. This resource is intended to familiarize residents with the green features and methods used in their new home and additional activities they could initiate to realize the home's benefits.

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RECOMMENDATIONS

- During the design process, keep a running list of how maintenance and landscaping teams and residents may need to be involved with the building in order to ensure that its lifespan is maximized and that it will perform as intended. Once the project team has completed the integrative design process (see Criterion 1.1), amend templates of the Operations and Maintenance documents with project-specific information for maintenance and residents. By working in this manner, Operations and Maintenance documents will be informed by the development process and completed at the same time the project is ready for occupancy.
- If the project is utilizing greywater, design and institute a policy that requires biodegradable soaps, cleaners, and other products that are flushed down the drains.
- Provide homeowners/tenants with two radon test kits designed for 48-hour exposure, and include instructions for use and follow-up action, per EPA's Indoor Air Package.
- Provide residents with local information for handling household hazardous waste, including CFLs.
- Consider including ENERGY STAR "Best Practices" information in the Resident Manual. See the following websites:
  - For washers and dryers: www.energystar.gov/index.cfm?c=clotheswash.clothes_washers_performance_tips
  - For refrigerators: www.energystar.gov/index.cfm?c=refrig.pr_best_practices_refrigerators
  - For dishwashers: www.energystar.gov/index.cfm?c=dishwash.pr_best_practices
- For additional best practices on ENERGY STAR products: www.energystar.gov/index.cfm?c=products.pr_find_es_products
  Select a product type, click on "Buying Guidance," and scroll down to the bottom of the page to select "Best Practices" products.

RESOURCES

- Refer to the Enterprise Green Communities Resident Manual Templates: www.greencommunitiesonline.org/tools/resources/index.asp
- Connecticut Department of Environmental Protection, "A Green Home Is a Healthy Home": www.ct.gov/dep/lib/dep/p2/individual/healthyhome.pdf
  This is a simple brochure with a readable layout and good presentation.
- Home Energy Resource MN: www.homeenergyresourcemn.org/index.aspx
  This site provides information for homeowners on maintaining their home. It includes seasonal checklists and step-by-step instructions for general maintenance, as well as special instructions for new home buyers on maintaining their home during its first year.

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8.3

Mandatory

Resident and Property Manager Orientation

REQUIREMENTS

Provide a comprehensive walk through and orientation for the residents and property manager(s) using the appropriate manual (see Criteria 8.1and 8.2) to review the project's green features, operations, and maintenance, and, for the resident orientation, the neighborhood amenities that may facilitate a healthy lifestyle.

RATIONALE

An orientation to the project helps educate residents and property manager(s) on the green features that were designed to deliver health, economic, and environmental benefits, as well as their role in realizing those benefits in their own lives and the lives of future residents.

8.4

Optional | 12 points

Project Data Collection and Monitoring System

REQUIREMENTS

Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years. Allow Enterprise access to that data.

For submetered projects, property owner/developer must agree to collect utility release forms from a percentage of residents to track actual utility data of a sample of homes. The following table identifies the percentage of residents for which the property owner/developer must collect and track utility data, as based on the project size in total number of units.

NUMBER OF UNITS	PERCENTAGE OF UNITS
0-25 units	50%
25-100 units	25%
100+ units	15%

RATIONALE

A data collection and monitoring system helps project owners, on site staff, and residents to understand project performance issues. Once an issue is identified, appropriate actions can be taken to maximize cost savings and health benefits associated with green building features.

RECOMMENDATIONS

- Provide Enterprise with access to the performance data annually for a fiveyear period through the Utility Release Form (submitted as part of the Enterprise Green Communities Certification process) and/or the EPA's Portfolio Manager account information to help populate its database intended to collect national information on green affordable housing.

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- Ensure that the training for residents and building maintenance staff includes information on how to effectively use the data collection, monitoring, and reporting system.
- Multifamily building data can be tracked and analyzed using EPA's Portfolio Manager tool.
- Property owners have indicated that the best time to collect tenant release forms is during tenant lease-up.
- Whole-project energy monitoring systems (also known as smart meters) are a strategy that can help a project attain optional points under Criterion 5.8.

RESOURCES

- Environmental Protection Agency, Portfolio Manager Overview:
  www.energystar.gov/index.cfrn?c =evaluate_performance.bus_portfoliomanager
  The Portfolio Manager Overview is an interactive energy management tool that allows the project team to track and assess energy and water consumption across its entire portfolio of buildings in a secure online environment.

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Appendix A: The Enterprise Green Communities Certification and Verification Process

Enterprise offers a free, online green building certification program to all types of qualified affordable housing projects, including single-family and multifamily buildings that are New Construction, Substantial Rehab, and Moderate Rehab.

All projects seeking Certification are required to meet the following eligibility parameters:

1. Qualify under Enterprise's definition of affordable housing: rental projects serving residents at or below 60o/o AMI (area median income) and for-sale projects serving residents at or below 80o/o AMI.
2. Apply for Certification during the design phase prior to the construction start date.
3. Participate in the Enterprise Green Communities verification process if project is selected.

At a minimum, the development must meet the Enterprise Green Communities Criteria mandatory measures and achieve the requisite number of optional points applicable to the construction type. Under the 2011 Criteria, New Construction projects are required to achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must achieve 30 optional points.

Any project team submitting a request for certification to Enterprise Green Communities may be subject to on-site verification by a third party from the Enterprise Green Communities Technical Assistance Provider Network. Developments will be selected quarterly for on-site verification, using a sampling approach based on the number of certification requests submitted in a given quarter. Enterprise Green Communities covers the cost of this verification for development teams.

ENTERPRISE GREEN COMMUNITIES ONLINE CERTIFICATION PROCESS

Certification is a two-step online submittal and review process that aligns with the design and construction process of the development. Development teams apply for Step 1 review during the design phase before the construction start date. Within 60 days of the construction end date, they proceed to the final (Step 2) review. The Certification process can be found at www.greencommunitiesonline.org/tools/certification/

Step 1

During the design phase and before the construction start date, developments seeking Certification are required to submit a set of online forms and submittals for Step 1. Upon receiving completed submittal documents, Enterprise Green Communities will conduct a review of the materials and approve the project or, in some instances, request additional information from the development team.

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The following submittals must be completed by the development team:

- Development Registration Form. General information including but not limited to the location, developer, construction schedule, building type, and size.
- Development Overview Form. A brief description of the development's mechanical systems and building envelope, as well as building code(s) and green building program(s) the development will meet.
- Intended Methods Form. Indicates how a development plans to comply with the mandatory and optional points of the Criteria. It also requires that responsibility for meeting an individual criterion is identified among the team and signatures are obtained from team members.
- Site Plan. Indicates the development's proximity to existing infrastructure and its integration into the adjacent pedestrian grid.
- Context Map. Indicates the development's proximity to community amenities and public transportation.
- Energy Modeling Form. Demonstrates improved energy performance of the building and how it will be met.

Waiver Request Process

Enterprise Green Communities provides a formal waiver request process for teams with extenuating circumstances that may preclude the full integration of a mandatory criterion. To maintain the technical integrity of the Criteria, Enterprise Green Communities offers this waiver request process on a limited basis in response to situations in which an alternative approach or an explicit waiver for a single measure may be acceptable. The waiver request is available online.

Step 2

Within 60 days of the completion of construction, the team completes the online Final Certification Form and submits a Compliance Report, a Cost Development Form, any ENERGY STAR certificates, a Utility Release Form, and project photos. Following Step 2, Enterprise Green Communities conducts a final review and determines whether development will be certified in accordance with meeting the Criteria. Enterprise Green Communities issues notification of certification to the primary project contact via email within 30 days of receiving a completed submission.

The following submittals must be completed by the development team:

- Compliance Report. A revised version of the Intended Methods Form from Step 1 requiring project teams to document any changes in their strategy to meet the Criteria.
- ENERGY STAR Certificate(s). Official certificates from ENERGY STAR detailing compliance with the program. (Not required for Moderate Rehab projects.)
- Cost Development Form. Documents the incremental costs that project teams incurred when meeting the Criteria.
- Photos. Before, during, and after photos of the project, uploaded by the team.
- Utility Release Form(s). A series of forms that authorize Enterprise Green Communities to conduct energy data monitoring after the completion of the project.

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VERIFICATION PROTOCOL

The Enterprise Green Communities Verification Protocol is designed to bring the benefits of third-party, on-site assessment and performance testing to developments seeking Certification. Each quarter, Enterprise Green Communities selects a group of projects that apply for Certification to participate in the Verification Protocol. All developments that apply for Certification may be subject to verification by Enterprise Green Communities. Costs for this verification are covered by Enterprise. The developer is connected with the technical assistance (TA) provider assigned by Enterprise Green Communities to work with the team. TheTA providers selected to perform the verification work are local or regional organizations with expertise in green building assessments.

The Verification Protocol consists of three review stages:

Desktop review

In this initial stage, theTA provider reviews all criteria that can be documented and verified prior to site visits. TheTA provider uses information submitted in Step 1 of the Certification process as well as additional information from the team, including the specifications book, construction schedule, project drawings, and HVAC sizing summary.

Pre-drywall site visit

During the first site visit, theTA provider conducts a pre-drywall inspection and documents the results in a related checklist. If the development team is working with an ENERGY STAR rater, the TA provider will not duplicate the rater's scope of work.

Post-construction site visit

During this site visit, theTA provider conducts a series of energy and water performance testing procedures appropriate for the building and construction type of the development and documents the results in a related checklist.

If the desktop review or site visits reveal deficiencies, the TA provider will notify the appropriate team member, and provide recommendations and guidelines on how to correct the issue(s). Development teams will be required to fix accordingly.

Following completion of verification review, theTA provider submits a brief report to Enterprise Green Communities and the development team describing the development's compliance with the Criteria, any recommendations made to the team for improvement, and performance testing results. The information gathered by the TA provider informs Enterprise Green Communities of how best to assist development teams seeking certification.

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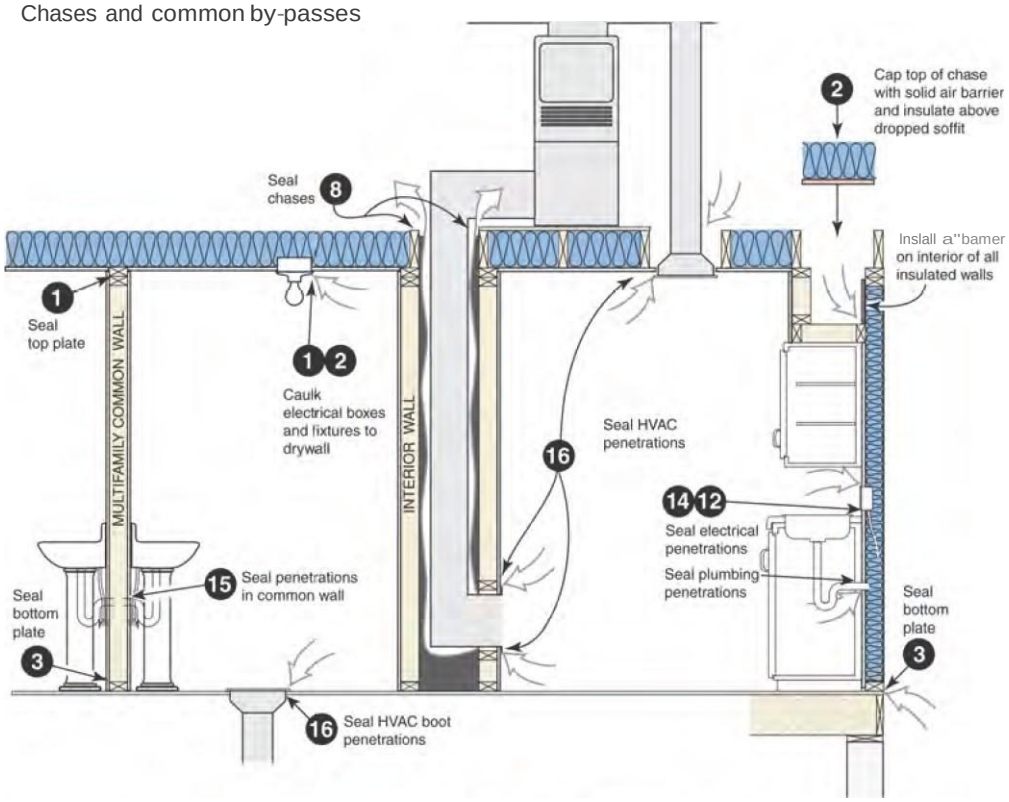
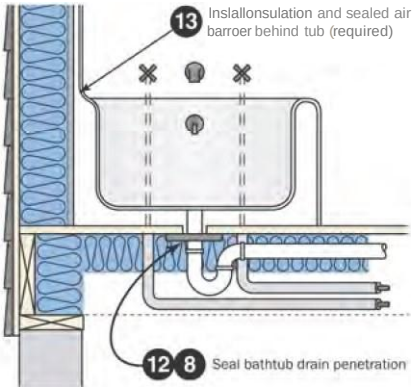
AppendixB: Air Sealing Key Points

Chases and common by-passes



Shower/tub drain rough opening



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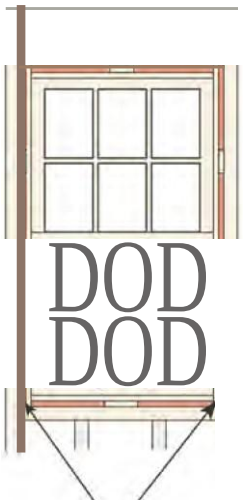
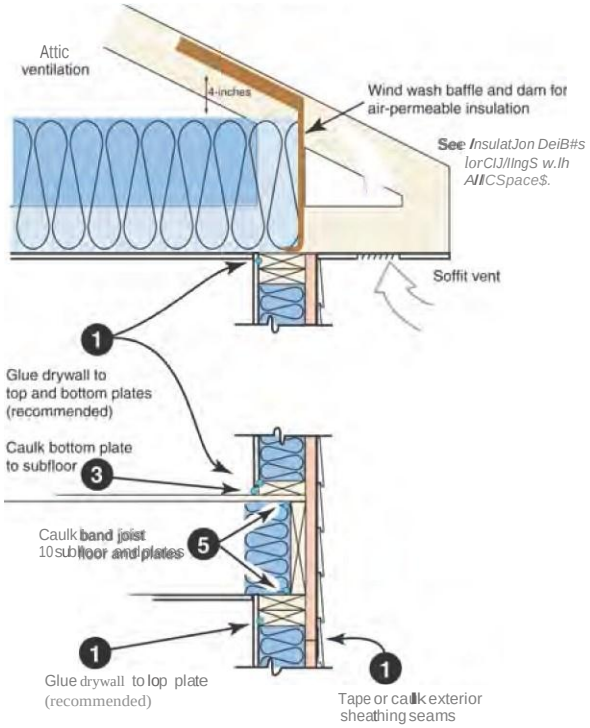
AIR SEALING KEY POINTS (CONTINUED)

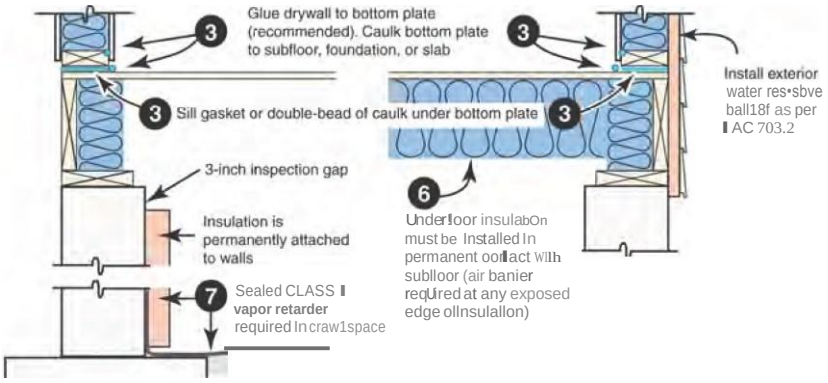
Window rough opening



Use backer rod or spray foam (appropriate lor WindoWS) lo till gape between w.n<loW/door and rough opening

Wall cross-section





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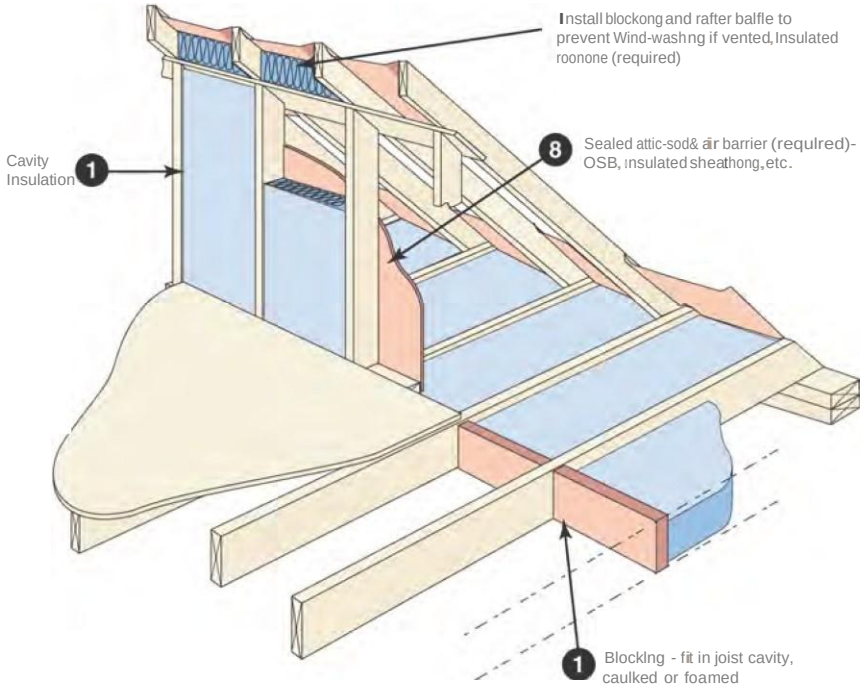
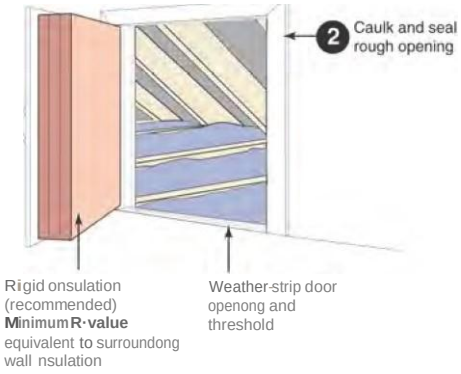
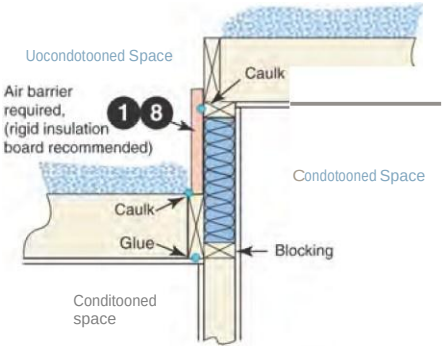


Attic knee-walls



Two-level attic



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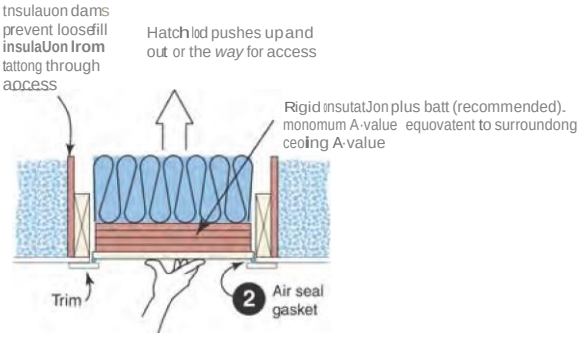
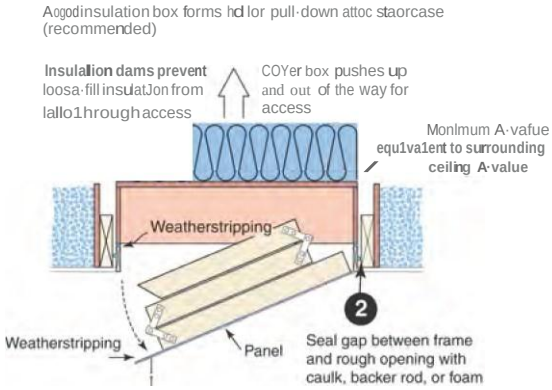
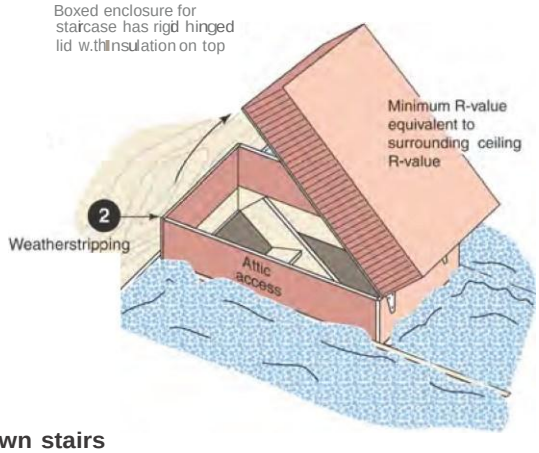
AIR SEALING KEY POINTS (CONTINUED)

Attic scuttle

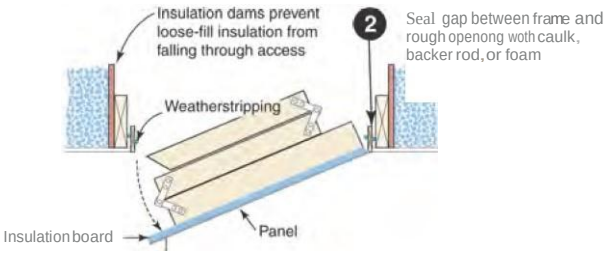


Attic pull-down stairs





Attic pull-down stairs



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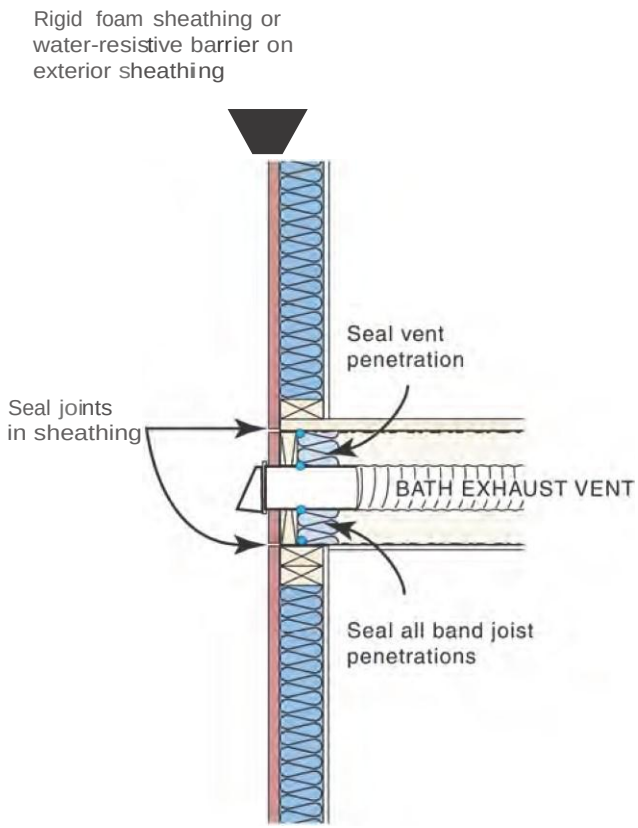
AIR SEALING KEY POINTS (CONTINUED)

Multifamily

1. Cap and seal all chases, including chases for grouped utility lines and radon vents.
2. Seal penetrations in mechanical closet, including penetrations for the:
   - supply plenum
   - outside air ventilation
   - refrigerant line
   - plumbing
   - electrical
   - gas fuel
3. Seal band area at exterior sheathing side and all penetrations through band.
4. Air seal at drywall finishing for any wall adjacent to stairwell or elevator.
   Air seal this gap at every change in floor level.
5. Seal miscellaneous clustered penetrations through building envelope (e.g., refrigerant lines).



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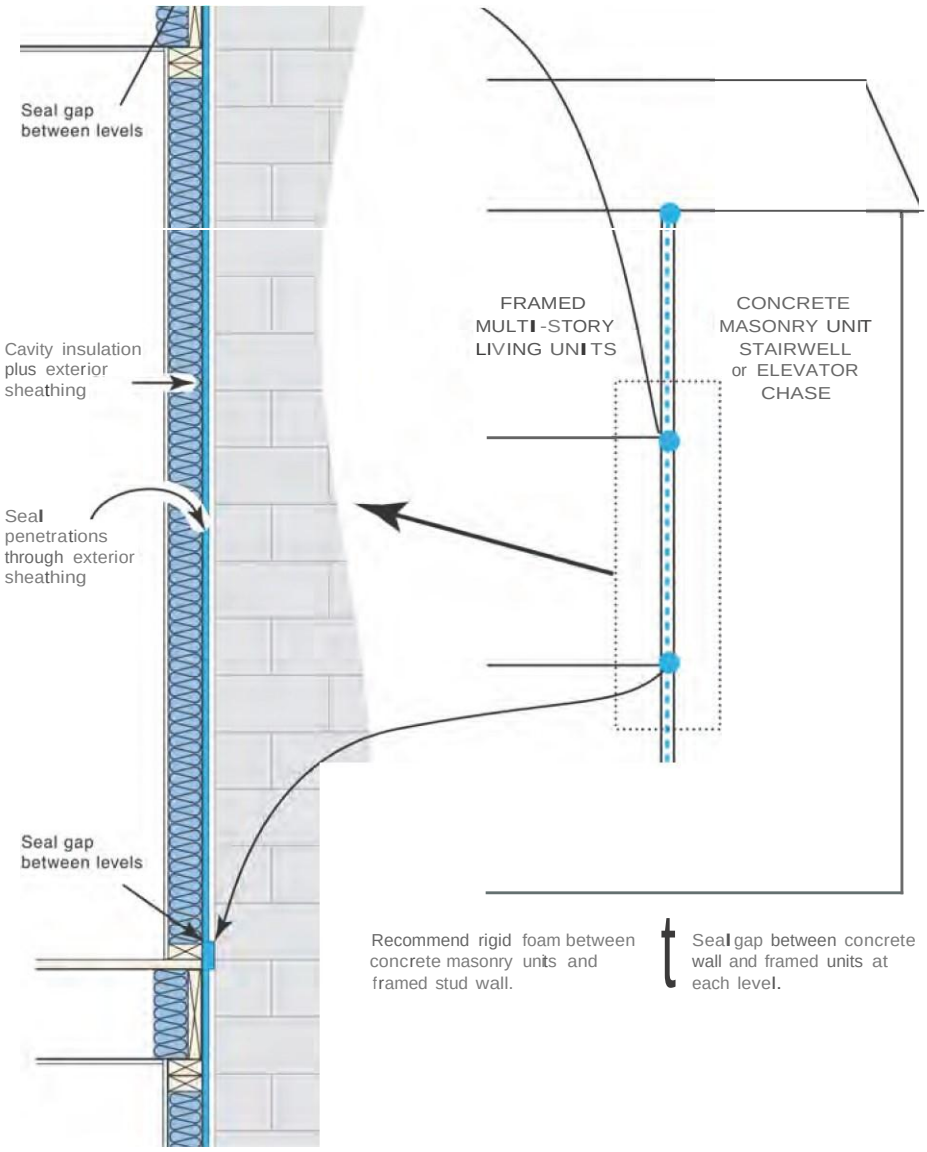
AIR SEALING KEY POINTS (CONTINUED)

Multifamily



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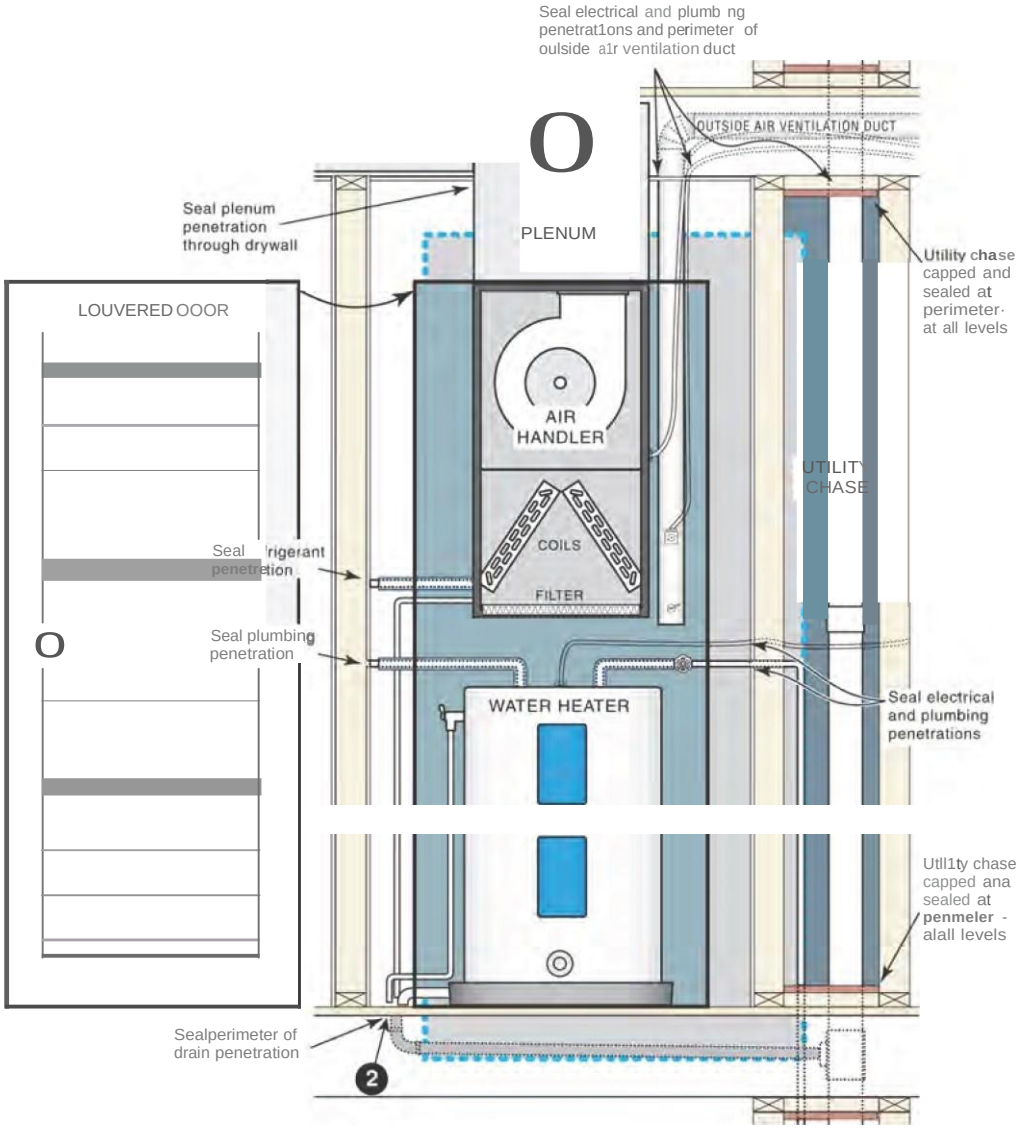
AIR SEALING KEY POINTS (CONTINUED)

Mechanical closet



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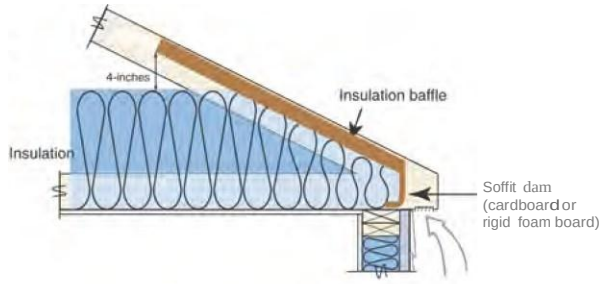
AIR SEALING KEY POINTS (CONTINUED)

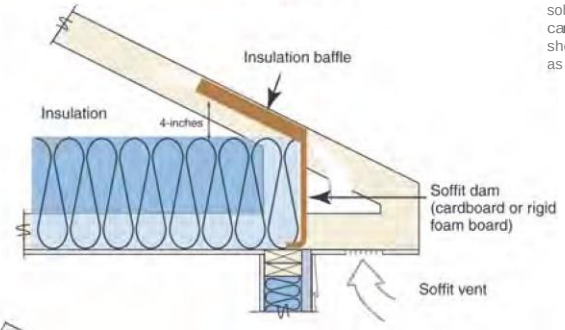
Roof and truss

Standard Truss
with tapered
insulation depth

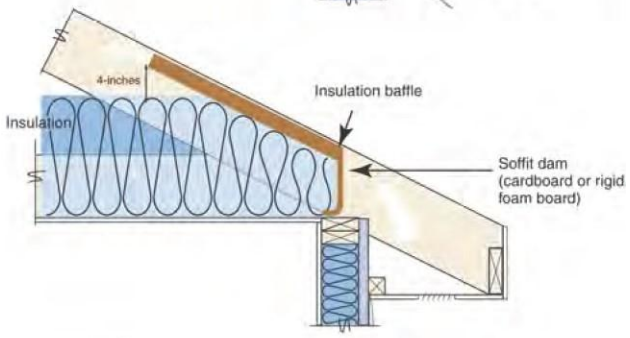


Note: Wind wash baff e and air-permeable insulation **dam. For atr permeable** Insu ation in vented attics, baffles shall be •nstalled adjacent to soffit and eave vents. A mm1mum of a t-n ch of space shall be provided between the insulation and the roof sheathing and at the locatJon of the vent. The baffle shall extend over the top of the **Insulatton inward until** it ts **at** least 4 •nches verllcally above the top of the •nsutation. Any solid matenalsuch as cardboald or thin 1nsulating shealhing shall be permissible as the baffle.

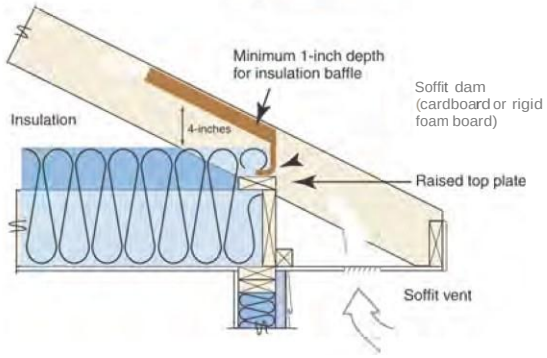
Energy Truss
with full height insulation
(recommended)



Standard rafter
and top plate
with tapered
insulaton depth



Rafter on raised top plate
with full height insulation
(recommended)



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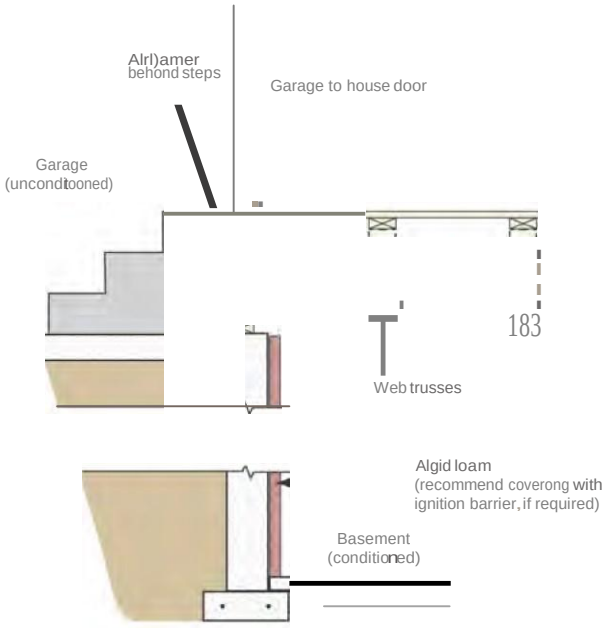
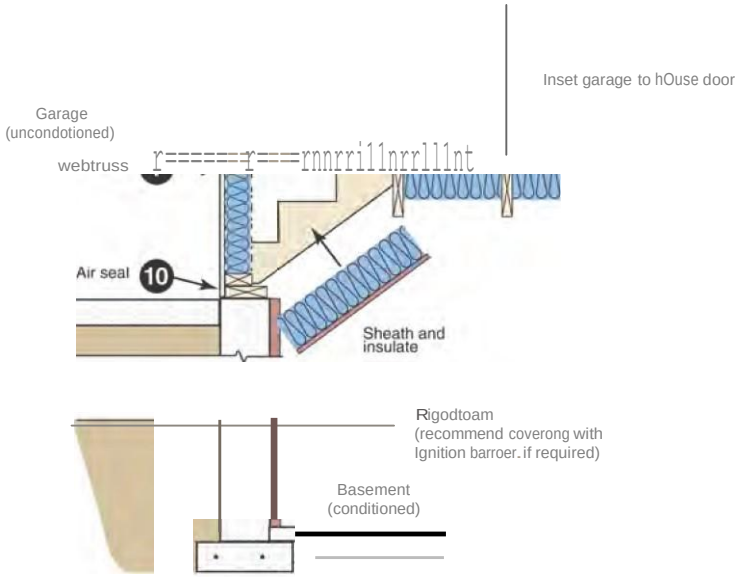
AIR SEALING KEY POINTS (CONTINUED)

Garage





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Glossary

Websites listed were last accessed December 1, 2010.

Adaptive plant species: A non-native plant species that performs similarly to a native species in a particular region, state, ecosystem, and habitat, and that 1) can survive temperature/weather extremes in the microclimate; 2) requires little irrigation or fertilization, once established; 3) is resistant to local pests and diseases; and 4) does not displace other plants, as invasives do.

Adaptive reuse site: A site that was previously developed for non-residential purposes in which at least 25% of the proposed development will reuse existing non-residential structures.

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) Standard 62.2-2010: Establishes minimum requirements for ventilation and acceptable indoor air quality in low-rise residential building. www.ashrae.org/technology/page/548)

ASHRAE Standard 90.1-2007: Establishes minimum requirements for the energy-efficient design of buildings, except single-family houses, multifamily structures of three stories or fewer above grade, and manufactured houses (mobile and modular). This standard is also the basis of Chapter 7 of the International Code Council's International Energy Conservation Codes. State energy codes that may be more stringent than ASHRAE 90.1 are identified on the U.S. Department of Energy's Building Energy Codes website, www.energycodes.gov.

Berm: A sloped wall or embankment, typically constructed of earth, hay bales, or timber framing, used to prevent inflow or outflow of material into or out of an area. www.epa.gov/OUST/pubs/tum_appx.pdf

Building Performance Institute (BPI): A national standards development and credentialing organization for residential energy-efficiency retrofit work that provides training through a network of affiliate organizations, individual certifications, company accreditations, and quality assurance programs.

California 013so: A Special Environmental Requirements standard specification developed by the State of California to cover key environmental performance and public health considerations for building projects. Contains guidelines for energy, materials, water efficiency, indoor air quality (IAQ), nontoxic performance standards for cleaning and maintenance products, and sustainable site planning and landscaping considerations, among other measures. www.calrecycle.ca.gov/greenbuilding/specs/section01350/

CFM (cubic feet per minute): A standard unit of measurement for airflow that indicates how many cubic feet of air are passing through a fixed point per minute.

Charrette: A focused and collaborative brainstorming session held at the beginning of a project to bring people from different disciplines and backgrounds together to explore design options for a particular area or site. All stakeholders are encouraged to exchange ideas and information beyond their areas of expertise so as to allow truly integrative design solutions to take form. www.wbdg.org/wbdg_approach.php

Colonias community: Any identifiable community in the U.S.-Mexico border regions of Arizona, California, New Mexico, and Texas that is determined to be a colonia on the basis of objective criteria, including lack of a potable water supply, inadequate sewage systems, and a shortage of decent, safe, and sanitary housing. The border region means the area within 150 miles of the U.S.-Mexico border excluding Metropolitan Statistical Areas with populations exceeding one million (according to the National Affordable Housing Act of 1990, Section 916).

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Common area: An area available for use by more than one person, including rental or sales offices, entrances, hallways, shared leisure rooms, resident services areas, and laundry rooms.

CSA (Community-Supported Agriculture): A community of individuals who pledge support to a farm operation so that the farmland becomes the community's farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. 'JYpically, members of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and the farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. www.nal.usda.gov/afsic/pubs/csa/csadef.shtml

Compost blanket: A layer of loosely applied compost or composted material that is placed on the soil in disturbed areas to control erosion and retain sediment resulting from sheet-flow runoff. cfpub.epa.gov/npdes/stormwater/menuotb mps/index.cfm?action=factsheet_results&view=specific&bmp=118&minmeasure=4

CO (carbon monoxide): A colorless, odorless, and tasteless gas that greatly affects indoor air quality. Because it is impossible to see, taste, or smell the toxic fumes, CO can kill you before you are aware it is in your home. At lower levels of exposure, CO causes mild effects that are often mistaken for the flu. These symptoms include headaches, dizziness, disorientation, nausea, and fatigue. www.epa.gov/iaq/co.html

Dial-a-ride program: A privately or publicly operated program that provides an on-demand ride service, requiring passengers to call ahead to reserve a ride. These programs usually provide connections between different transportation systems and/or employment centers, and must operate at least Monday through Friday to qualify.

Distribution Uniformity: A measure of the evenness of irrigation water coverage over a given area. www.epa.gov/watersense/docs/ws_water_budget_approach508.pdf

DU (distribution uniformity): A standard unit of measurement that looks at how uniformly water is applied to a defined area.

ECM (electronically commutated motor): A DC electric motor that uses electricity efficiently, particularly at lower speeds. Also known as a "brushless DC motor."

Emissivity: A unitless measure, describing the relative ability of a surface to emit heat through radiation, ranging from 0.00 (minimum radiation of heat) to 1.00 (maximum radiation of heat). Generally, more reflective materials have a lower emissivity.

Employervanpool: A program in which 5 to 15 people (over the age of 16) ride together to and from work. The vanpool may be public or private, but must carry all passengers more than half the distance to work to qualify. Vanpools maybe employer-operated, sponsored by transit agencies, or administered by third-party operators.

ENERGY STAR: A voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Introduced by the EPA in 1992, ENERGY STAR is an accepted, national standard for single-family and low-rise residential New Construction projects. ENERGY STAR New Homes Version 3 will be expanded to include mid-rise multifamily buildings with their own heating, cooling, and hot water systems.

Engineered wood products: Wood building materials manufactured by gluing particles, fibers, or veneers to increase strength. For the purposes of Criterion 6.8, Green Communities considers prefabricated and precut wood products as "engineered wood products." www.astm.org/SNEWS/JUNE_2003/yehjun03.html

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Entryway: Threshold separating the indoor space from the outdoor space.

Environmental site assessment: An investigation of the site's conditions often performed before acquisition of a property to satisfy the due-diligence requirements of a property transaction.

Erosion blankets: Porous fabrics used for a variety of purposes, including separators, reinforcement, filtration and drainage, and erosion control. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=45&minmeasure=4

Filter sock: A mesh tube filled with composted material that is placed perpendicular to sheet-flow runoff to control erosion and retain sediment in disturbed areas. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view =specific&bmp=120&minmeasure= 4

Formaldehyde: A chemical used widely by industry to manufacture building materials and numerous household products. Formaldehyde is also a by-product of combustion and certain other natural processes, and thus may be present in substantial concentrations both indoors and outdoors. Health effects include eye, nose, and throat irritation; wheezing and coughing; fatigue; skin rash; and severe allergic reactions. May cause cancer. www.epa.gov/iaqjformalde.html

Greenfield: A previously undeveloped parcel of land.

Green roof: A planted roof that reduces stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view =specific&bmp=114&minmeasure =5

Greywater: Wastewater produced from baths and showers, clothes washers, and lavatories. Greywater gets its name from its cloudy appearance and from its status as being neither fresh (as in potable water) nor heavily contaminated (as in blackwater from toilet waste). greywater.sustainablesources.co*m1*

HERS Index (Home Energy Rating System Index): A scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home (based on the 2006 International Energy Conservation Code) scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home's HERS Index, the more energy-efficient it is in comparison to the HERS Reference Home. Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the HERS Reference Home; thus a home with a HERS Index of 85 is 15% more energy-efficient than the HERS Reference Home, and a home with a HERS Index of 80 is 20% more energy-efficient.

Home Energy Rating: An analysis of a home's construction plans and onsite inspections. Based on the home's plans, the Home Energy Rater uses an energy-efficiency sofrware package to perform an energy analysis of the home's design. This analysis yields a projected, pre-construction HERS Index. Upon completion of the plan review, the rater will work with the builder to identify the energy-efficiency improvements needed to ensure that the house will meet ENERGY STAR performance guidelines. The rater then conducts on-site inspections, typically including a blower door test (to test the leakiness of the house) and a duct test (to test the leakiness of the ducts). Results of these tests, along with inputs derived from the plan review, are used to generate the HERS Index score for the home.

IECC (International Energy Conservation Code): A model building energy code created by the International Code Council to set a minimum standard for energy efficiency. www.iccsafe.org/Pages/default.aspx

Infill: A site with 75% of its perimeter bordering existing development or roads and with access to existing infrastructure.

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Integrative design: A design approach that brings together at an early stage in project planning all the members of the building stakeholder community, and the technical planning, design, and construction team (including green building consultants such as the green rater, mechanical engineer/energy expert, and others) to look at the project objectives, building materials, systems, and assemblies from many different perspectives. This approach is a deviation from the typical planning and design process of relying on the expertise of specialists who work in their respective specialties somewhat isolated from each other. www.wbdg.org/wbdg_approach.php

Intermittent rate: Ventilation that stops and starts at regular intervals (i.e., the opposite of continuous ventilation).

LED (light-emitting diode): Energy-efficient lights that produce less initial heat per lumen, consume less energy, and last longer than conventional incandescent and fluorescent lights.

Low-impact development: A strategy of site design where the goal is to restore the natural, pre-developed ability of an urban site to absorb stormwater. cfj:mb.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action =factsheet_results&view=specific&bmp=124&minmeasure=S

Maintained solar reflectance: A measure of a material's ability to maintain its initially rated solar reflectance. Products are tested over a period of three years.

Manual D: Manual prepared by the Air Conditioning Contractors of America (ACCA) on residential duct sizing.

Manual J: Manual prepared by ACCA on residential load calculations. www.acca.org/store/product.php?pid =172

ManualS: Manual prepared by ACCA on residential equipment selection. www.acca.org/store/product.php?pid =154

Moderate rehabilitation: Enterprise Green Communities defines a moderate rehab as a project that does not fully gut and expose the structure and air barrier of the building envelope or replace/improve all major systems of the building.

Native plant species: A plant species that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions. web4.audubon.org/bird!at_home/PlantNativeSpecies.html

Naturescaping: A method oflandscaping that reduces water use, energy consumption, and chemical needs by using climate-appropriate plants and maintenance techniques.

Non-buildable land: Land that is not economically feasible to be developed, such as easements, utility fall zones, unsuitable soil, steep grades, water features, wetlands, or natural preserves.

Open space: Undeveloped land that is permanently set aside for public use. Open space may be used as community open space or preserved as green space, and includes parcels in conservation easement or land trust, park or recreation areas, and community gardens.

Permeable paving: A porous cover system that encourages groundwater recharge and infiltration. www.epa.gov/oaintrnt/stormwater/pavers.htm and www.epa.gov/greeningepa/stormwater/best_practices.htm

Phenol-formaldehyde: A resin used in the manufacture of composite wood products primarily for outdoor use, including softwood plywood and flake or oriented strand board. Composite wood products that contain phenol-formaldehyde generally emit formaldehyde at lower rates than those containing urea formaldehyde resin. www.epa.gov/iaqjformalde.html

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Photocell: A light-sensitive device that detects ambient light and controls exterior fixtures accordingly.

Photovoltaics: Composite materials that convert sunlight directly into electrical power.

Post-consumer waste: Materials or finished products that have served their intended use and so have been diverted or recovered from waste destined for disposal. www.epa.gov/OCEPAterms/pterms.html

Post-industrial waste (also called pre-consumer waste): Materials generated in manufacturing and converting processes such as manufacturing scrap and trimmings and cuttings. www.epa.gov/OCEPAterms/pterms.html

Public-private regional transportation: Private company offering public transit services through a public funding stream, based on a regular schedule and permanent stops.

Radon: A colorless, odorless, and tasteless gas that greatly affects indoor air quality. According to the EPA, radon exposure is the second leading cause of lung cancer in the United States. www.epa.gov/radon/pubs/citguide.html

Resilient flooring: Flooring products in which the wearing surface is non-textile, including but not limited to rubber, polymeric, and linoleum. webstore.ansi.org/RecordDetail.aspx?sku=NSF%2FANSI +332-2010

RESNET (Residential Energy Services Network): A national, nonprofit corporation that certifies raters to evaluate building energy performance using HERS. www.resnet.us

Retention basin: A shallow impoundment designed to infiltrate stormwater into the soil. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfrn?action=browse&Rbutton=detail&bmp=69

Road section: The cross-section through a street, with particular attention paid to the width of the street and its hydrology. Carefully planned road sections can decrease the amount of impervious surfaces and can improve the overall stormwater management for the project site. More information can be found in the document Low-Impact *Development Design Strategies: An Integrated Design Approach*, found at www.epa.gov/OWOW/nps/lidnatl.pdf.

Rock filter: A permanent or temporary stone structure installed to serve as a sediment-filtering device in drainage ways. Allows a pool to form in an excavated or natural depression, where sediment can settle. The pool is then dewatered through the gravel rock dam. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=57&minmeasure=4

Silt fencing: A temporary fabric barrier surrounding a site to control stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=56

Silt sacks: Tube-shaped erosion-control devices. cfpub.epa.gov/npdesjstormwaterjmenuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=12l&minmeasure=4

Smart grid: A modern electrical grid that integrates a digital communication overlay on the electro-mechanical grid from the power plant to the end-use appliance.

Smart meter: A system that collects energy usage data (both energy consumption and production, if renewable systems are present) from a home or building.

Solar hot water system: Captures, converts, and transfers heat from direct and indirect sunlight to heat an auxiliary water tank and provide hot water for a building's occupants.

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Solar reflectance (or albedo): A measure of a material's ability to reflect sunlight (including the visible, infrared, and ultraviolet wavelengths) on a scale of 0 to 1. A solar reflectance value of O.O indicates that the surface absorbs all solar radiation, and a 1.0 solar reflectance value represents total reflectivity.

Solar south: A measurement of the sun's true position based on its path across the sky. It is different from magnetic south, which is taken from a compass reading. Methods for calculating solar south include the solar noon method or a compass using a magnetic declination chart to correct for magnetic declination.

Straw bale: A bound block of straw and organic material used to control stormwater runoff. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view =specific&bmp=122&minmeasure=4

Substantial rehabilitation: Enterprise Green Communities defines a substantial rehab (or gut rehab) as a project that guts and exposes the building envelope to expose the structure and air barrier and replaces or improves major systems of the building.

Supportive housing dwelling units: Permanent housing with attached intensive services targeted to populations that have special needs, including people who are currently or formerly homeless; those with serious, chronic mental health issues; people in various stages of recovery from substance abuse; people with HN/AIDS, or physical or developmental disabilities; the formerly incarcerated, the frail elderly, homeless or emancipated youth, and victims of domestic violence; and other groups that would not be able to live independently and maintain housing without intensive support.

Swales: Shallow grass-covered hydraulic conveyance channels that help to slow runoff and facilitate infiltration. cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=75&minmeasure=5

TS fixture: A fixture made up of a tubular fluorescent bulb and an electronic ballast, both operating with a higher efficacy than traditional tubular fluorescent design technology, such as the T12 bulb and magnetic ballast.

Tiers: Earthen embankments that reduce erosion by slowing, collecting, and redistributing surface runoff to stable outlets that increase the distance of overland runoff flow. cfjmb.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp =46&minmeasure=4

Title 24 (2008 Building Energy Efficiency Standards, Title 24, Part 6): The building energy performance standards for the State of California. www.energy.ca.gov/title24/2008standards/index.html

Transit ride: A scheduled stop along a defined route of one form of public transportation (bus, rail, or ferry).

Universal design: The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The principles of universal design are as follows: 1) equitable use, 2) flexibility in use, 3) simple and intuitive use, 4) perceptible information, 5) tolerance for error, 6) low physical effort, and 7) size and space for approach and use. www.design.ncsu.edujcudjabout_udjudprinciples.htm

Urea-formaldehyde: A toxic resin created from formaldehyde that causes similar side effects. Composite wood products made for indoor use, such as particleboard, hardwood plywood paneling, and medium-density fiberboard, often contain this resin. www.epa.gov/iaq/formalde.html

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Vehicle share program: A private system in which a company or a group of individuals share vehicles on a reservation basis and pay for the use on the basis of time or mileage. Programs that qualify under Criterion 2.15 must have an established formal agreement among participants.

Ventilation: The process of supplying outdoor air to, or removing indoor air from, a dwelling by natural or mechanical means. Such air may or may not have been conditioned.

VOCs (Volatile Organic Compounds): A large group of carbon-based chemicals that easily evaporate at room temperature. www.epa.gov/iaq/voc.html

Walk distance: The distance a pedestrian must travel between origins and destinations without obstruction, in a safe and comfortable environment on a continuous network of sidewalks, all-weather-surface footpaths, crosswalks, or equivalent pedestrian facilities. Any crossing of a street with speeds at or greater than 30 miles per hour requires controlled crossing (e.g., a stop sign or stop light).

Watershed: The area of land where all of the water that is under it or drains off of it goes into the same place. www.epa.govjowowjwatershedjwhatis.html

Weekend ride options: A public transit option of either bus, rail, or ferry service. Employer-assisted vanpools and dial-a-ride programs are examples of qualifying weekend service.

Xeriscaping: A method of landscaping aimed at reducing or eliminating excess water from irrigation by using drought-tolerant plants. www.epa.gov/epawaste/conserve/rrr/greenscapes/index.htm

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M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

2011 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. **To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.**

O YES O NO O MAYBE	M	**I.Ia Green Development Plan: Integrative Design Meeting(s)** Conduct one or more integrative design meetings and submit a Green Development Plan or equivalent documentation.
O YES O NO O MAYBE	M	**I.Ib Green Development Plan: Criteria Documentation** Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.
O YES O NO O MAYBE	2	**1.2a Universal Design** *(New Construction only)* Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines.
O YES O NO O MAYBE	2 or 3	**1.2b Universal Design** *(Substantial and Moderate Rehab only)* Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines *[2 points]* and, for an additional point, the remainder of the ground-floor units and elevator-reachable units should have accessible unit entrances.
		SUBTOTAL OPTIONAL POINTS
O YES O NO O MAYBE	M	**2.1 Sensitive Site Protection** *(New Construction only)* Do not locate new development, including buildings, built structures, roads, or other parking areas, on portions of sites that meet any of the following provisions: • Land within 100 feet of wetlands, including isolated wetlands or streams • Land on slope greater than 15% • Land with prime soils, unique soils, or soils of state significance • Public parkland • Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists • Land with elevation at or below the 100-year floodplain
O YES O NO O MAYBE	M	**2.2 Connections to Existing Development and Infrastructure** *(New Construction only, except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000)* Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development. Connect the project to the pedestrian grid.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

O YES O NO O MAYBE — M

2.3 Compact Development *(New Construction only)*

Design and build the project to a density of at least:

- *Urban/Small Cities:* 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- *Suburban/Mid-Size Towns:* 7 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- *Rural/Tribal/Small Towns:* 5 units per acre for detached or semi-detached housing; 10 units per acre for townhomes; 15 units per acre for apartments

O YES O NO O MAYBE — 5 or 6

2.4 Compact Development

Design and build the project to a density of at least:

- *Urban/Small Cities:* 15 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater *[5 points]*
- *Suburban/Mid-Size Towns:* 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater *[6 points]*
- *Rural/Tribal/Small Towns:* 7.5 units per acre for detached or semi-detached housing; 12 units per acre for townhomes; 20 units per acre for apartments *[6 points]*

O YES O NO O MAYBE — M

2.5 Proximity to Services *(New Construction only)*

Locate the project within:

- *Urban/Small Cities:* a 0.25-mile walk distance of at least two ***OR*** a 0.5-mile walk distance of at least four of the list of facilities
- *Suburban/Mid-Size Towns:* a 0.5-mile walk distance of at least three ***OR*** a 1-mile walk distance of at least six of the list of facilities
- *Rural/Tribal/ Small Towns:* two miles of at least two of the list of facilities

O YES O NO O MAYBE — M

2.6 Preservation of and Access to Open Space: Rural/Tribal / Small Towns Only *(New Construction only)*

Set aside a minimum of 10% of the total project acreage as open space for use by residents ***OR*** locate project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres

O YES O NO O MAYBE — 3 max

2.7 Preservation of and Access to Open Space

Set aside a percentage of the total project acreage as open space for use by residents: 20% *[1 point];* 30% *[2 points];* and 40% + written statement of preservation/conservation policy for set-aside land *[3 points]*

O YES O NO O MAYBE — 5

2.8 Access to Public Transportation

Locate the project within:

- *Urban/Small Cities:* a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday and 32 or more transit rides on the weekend
- *Suburban/Mid-Size Towns:* a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 60 or more transit rides per weekday and some type of weekend ride option
- *Rural/Tribal/Small Towns:* S-mile distance of either a vehicle share program, a dial-a-ride program, an employer van pool, or public-private regional transportation

O YES O NO O MAYBE — 5

2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhood-Rural/Tribal/Small Towns

Connect the project to public spaces, open spaces, and adjacent development by providing at least three separate connections from the project to sidewalks or pathways in surrounding neighborhoods and natural areas.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (CONTINUED)

O YES O NO O MAYBE — 7 max

2.10 Smart Site Location: Passive Solar Heating/ Cooling

Demonstrate a building with a passive solar design, orientation, and shading that meet specified guidelines. *Select one:*

- Single building-New Construction *[7points]*
- Multiple buildings-New Construction *[7points]*
- Moderate or Substantial Rehab *[7 points]*

O YES O NO O MAYBE — 2

2.11 Brownfield or Adaptive Reuse Site

Locate the project on a brownfield or adaptive reuse site. *Select either:* adaptive reuse site *[2 points]* or brownfield remediation *[2 points]*

O YES O NO O MAYBE — 6

2.12 Access to Fresh, Local Foods

Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; proximity to farmers market.

O YES O NO O MAYBE — 4

2.13 LEED for Neighborhood Development Certification

Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — M

3.1 Environmental Remediation

Conduct an environmental site assessment to determine whether any hazardous materials are present on site.

O YES O NO O MAYBE — M

3.2 Erosion and Sedimentation Control *(Exceptfor infill sites with buildable area smaller than one acre)*

Implement EPA's Best Management Practices for erosion and sedimentation control during construction.

O YES O NO O MAYBE — M

3.3 Low-Impact Development *(New Construction only)*

Projects located on greenfields must meet the list of low-impact development criteria.

O YES O NO O MAYBE — M

3.4 Landscaping

Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site's soil and microclimate, and none of the new plants is an invasive species.

O YES O NO O MAYBE — M

3.5 Efficient Irrigation and Water Reuse

If irrigation is utilized, install an efficient irrigation or water reuse system.

O YES O NO O MAYBE — 2 or 6

3.6 Surface Stormwater Management

Retain, infiltrate, and/or harvest stormwater on site. *Select only one:* partial stormwater retention *[2 points]* or full stormwater retention *[6 points]*

SUBTOTAL OPTIONAL POINTS

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

O YES O NO O MAYBE — M

4.1 Water-Conserving Fixtures

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.28 gpf; Urinals-0.5 gpf; Showerheads-2.0 gpm; Kitchen faucets-2.0 gpm; Bathroom faucets-1.5 gpm

O YES O NO O MAYBE — 6 max

4.2 Advanced Water-Conserving Appliances and Fixtures

Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets-1.2 gpf; Showerheads-1.5 gpm; Kitchen faucets-1.5 gpm; Bathroom faucets-0.5 gpm. *Select any, or all, of the options:*

- Toilets *[2 points]*
- Showerheads *[2 points]*
- Faucets-kitchen and bathroom *[2 points]*

O YES O NO O MAYBE — 4 max

4.3 Water Reuse

Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.

- 10% reuse *[1 point]*
- 20% reuse *[2 points]*
- 30% reuse *[3 points]*
- 40% reuse *[4 points]*

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — M

5.1a Building Performance Standard: Single family and Multifamily (three stories or fewer)
(New Construction only)

Certify the project under ENERGY STAR New Homes.

O YES O NO O MAYBE — M

5.1b Building Performance Standard: Multifamily (four stories or more)
(New Construction only)

Demonstrate compliance with EPA's Multifamily High-Rise program (MFHR) using either the prescriptive or the performance pathway.

O YES O NO O MAYBE — M

5.1c Building Performance Standard: Single family and Multifamily (three stories or fewer)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 85.

O YES O NO O MAYBE — M

5.1d Building Performance Standard: Multifamily (four stories or more)
(Substantial and Moderate Rehab only)

Demonstrate that the final energy performance of the building is equivalent to ASHRAE 90.1-2007.

O YES O NO O MAYBE — 15 max

5.2 Additional Reductions in Energy Use

Improve whole-building energy performance by percentage increment above baseline building performance standard for additional points.

O YES O NO O MAYBE — M

5.3 Sizing of Heating and Cooling Equipment

Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or ASHRAE handbooks.

O YES O NO O MAYBE — M

5.4 ENERGY STAR Appliances

If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

ENERGY EFFICIENCY (CONTINUED)

O YES O NO O MAYBE	M	**5.5a Efficient Lighting: Interior Units** Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; ***OR*** if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.
O YES O NO O MAYBE	M	**5.5b Efficient Lighting: Common Areas and Emergency Lighting** Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; ***OR*** if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.
O YES O NO O MAYBE	M	**5.5c Efficient Lighting: Exterior** Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEOs with a minimum efficacy of 45lumens/watt; ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; ***OR*** if replacing, install ENERGY STAR compact fluorescents or LEOs with a minimum efficacy of 45lumens/watt.
O YES O NO O MAYBE	M	**5.6a Electricity Meter** *(New Construction and Substantial Rehab only)* Install individual or sub-metered electric meters in all dwelling units.
O YES O NO O MAYBE	3	**5.6b Electricity Meter** *(Moderate Rehab only)* Install individual or sub-metered electric meters in all dwelling units.
O YES O NO O MAYBE	12 max	**5.7a Renewable Energy** Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand.
O YES O NO O MAYBE	1 or 2	**5.7b Photovoltaic/Solar Hot Water Ready** Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.
O YES O NO O MAYBE	5	**5.8 Advanced Metering Infrastructure** Site, design, engineer, and wire the development to accommodate installation of smart meters and/or be able to interface with smart grid systems in the future.
		SUBTOTAL OPTIONAL POINTS

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

O YES O NO O MAYBE	M	**6.1 Low/No VOC Paints and Primers** All interior paints and primers must be less than or equal to the following VOC levels: Flats-50 g/L; Non-flats-50 g/L; Floor-100 giL
O YES O NO O MAYBE	M	**6.2 Low/No VOC Adhesives and Sealants** All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.
O YES O NO O MAYBE	M	**6.3 Construction Waste Management** Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

MATERIALS BENEFICIAL TO THE ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE — 5 max

6.4 Construction Waste Management: Optional

Determine percentage of waste diversion and earn all points below that threshold:

- 35% waste diversion *[1 point]*
- 45% waste diversion *[1 point]*
- 55% waste diversion *[1 point]*
- 65% waste diversion *[1 point]*
- 75% waste diversion *[1 point]*

O YES O NO O MAYBE — 5

6.5 Recycling Storage for Multifamily Project

Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.

O YES O NO O MAYBE — 5 max

6.6 Recycled Content Material

Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. *Select from the following:*

- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

O YES O NO O MAYBE — 5 max

6.7 Regional Material Selection

Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). *Select any or all of these options:*

- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

O YES O NO O MAYBE — 5

6.8 Certified, Salvaged, and Engineered Wood Products

Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.

O YES O NO O MAYBE — 1 or 3

6.9a Reduced Heat-Island Effect: Roofing

Use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. *Select only one:* cool roof *[3 points]* or green roof *[1 point]*

O YES O NO O MAYBE — 2

6.9b Reduced Heat-Island Effect: Paving

Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — M

7.1 Composite Wood Products that Emit Low/No Formaldehyde

All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE	M	**7.2 Environmentally Preferable Flooring** Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, ***OR*** in compliance with the Scientific Certification System's FloorScore program criteria.
O YES O NO O MAYBE	4	**7.3 Environmentally Preferable Flooring: Alternative Sources** Use non-vinyl, non-carpet floor coverings in all rooms of building.
O YES O NO O MAYBE	M	**7.4a Exhaust Fans: Bathroom** *(New Construction and Substantial Rehab only)* Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
O YES O NO O MAYBE	6	**7.4b Exhaust Fans: Bathroom** *(Moderate Rehab only)* Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
O YES O NO O MAYBE	M	**7.Sa Exhaust Fans: Kitchen** *(New Construction and Substantial Rehab only)* Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
O YES O NO O MAYBE	6	**7.Sb Exhaust Fans: Kitchen** *(Moderate Rehab only)* Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.
O YES O NO O MAYBE	M	**7.6a Ventilation** *(New Construction and Substantial Rehab only)* Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
O YES O NO O MAYBE	5	**7.6b Ventilation** *(Moderate Rehab only)* Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.
O YES O NO O MAYBE	M	**7.7 Clothes Dryer Exhaust** Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.
O YES O NO O MAYBE	M	**7.8 Combustion Equipment** Specify power-vented or direct vent equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.
O YES O NO O MAYBE	M	**7.9a Mold Prevention: Water Heaters** Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.
O YES O NO O MAYBE	M	**7.9b Mold Prevention: Surfaces** In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.
O YES O NO O MAYBE	M	**7.9c Mold Prevention: Tub and Shower Enclosures** Use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

M = MANDATORY
# =AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

O YES O NO O MAYBE — M

7.10 Vapor Barrier Strategies *(New Construction and Rehab Projects with foundation work only)*
Install vapor barriers that meet specified criteria appropriate for the foundation type.

O YES O NO O MAYBE — M

7.11 Radon Mitigation *(New Construction and Substantial Rehab only)*
For New Construction in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in those Zones, test for the presence of radon and mitigate if elevated levels exist.

O YES O NO O MAYBE — M

7.12 Water Drainage *(New Construction and Rehab projects replacing assemblies called out in Criterion only)*
Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.

O YES O NO O MAYBE — M

7.13 Garage Isolation
Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage *and* outside all sleeping areas.

O YES O NO O MAYBE — M

7.14 Integrated Pest Management
Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.

O YES O NO O MAYBE — M

7.15 Lead-Safe Work Practices *(Substantial and Moderate Rehab only)*
For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.

O YES O NO O MAYBE — 9

7.16 Smoke-Free Building
Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.

SUBTOTAL OPTIONAL POINTS

O YES O NO O MAYBE — M

8.1 Building Maintenance Manual *(All Multifamily Projects)*
Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.

O YES O NO O MAYBE — M

8.2 Resident Manual
Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.

O YES O NO O MAYBE — M

8.3 Resident and Property Manager Orientation
Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.

O YES O NO O MAYBE — 12

8.4 Project Data Collection and Monitoring System
Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years.

SUBTOTAL OPTIONAL POINTS

TOTAL OPTIONAL POINTS

EXHIBIT L
Sample Damage Assessment Report
Tier 23 Environmental Review and Feasibility Study

Dewberry

Insured: [redacted]
Property:
Home:

Home: [redacted]

Claim Rep.: [redacted]

Estimator: [redacted]

Claim Number: [redacted] **Policy Number:** [redacted] **Type of Loss:** [redacted]

Date Contacted:
Date of Loss:
Date Inspected:

Date Received:
Date Entered:

Price List:

Estimate:

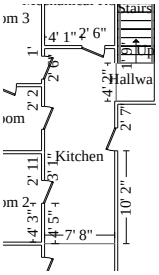
Two story detached dwelling on crawlspace.

[redacted]

Main Level

Main Level

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
1. R&R #ORC# Batt insulation - 10" - R30 - unfaced batt	1,084.02 SF	0.43	1.28	0.00	1,853.68
2. R&R #ORC# Batt insulation - 6" - R19 - unfaced batt	1,291.02 SF	0.36	0.97	0.00	1,717.06
HVAC					
3. R&R #ONU# Central air - condenser unit - 4 ton - 14-15 SEER	1.00 EA	50.14	2,614.92	0.00	2,665.06
4. R&R #ONU# Circuit breaker - main disconnect - 100 amp	1.00 EA	8.60	95.29	0.00	103.89
5. R&R #ONU# Disconnect box - 60 amp - non fused	1.00 EA	14.40	139.81	0.00	154.21
6. #ONU# 110 volt wiring (12/2 copper conductor with ground)	4.00 LF	0.36	1.05	0.00	5.64
7. R&R #ONU# Flexible metal conduit, 1/2" to 1"	4.00 LF	3.01	8.39	0.00	45.60
ROOF & SIDING					
8. R&R #ORC# Batt insulation - 6" - R19 - unfaced batt	1,291.02 SF	0.36	0.97	0.00	1,717.06
9. R&R #ORC# 3 tab - 20 yr. - composition shingle roofing - incl. felt	18.00 SQ	70.64	222.46	0.00	5,275.80
10. R&R #ORC# Siding - vinyl	1,291.02 SF	0.52	2.90	0.00	4,415.29
Total: Main Level				0.00	17,953.29



Kitchen **Height: 8'**

369.33 SF Walls	164.25 SF Ceiling
533.58 SF Walls & Ceiling	164.25 SF Floor
18.25 SY Flooring	46.17 LF Floor Perimeter
46.17 LF Ceil. Perimeter	

Missing Wall	**7' 8" X 8'**	**Opens into DINING_ROOM**
Missing Wall	**4' 2" X 8'**	**Opens into HALLWAY**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
KITCHEN / BATH					
11. #ORC# Cabinetry - lower (base) units - Premium grade	10.00 LF	9.01	342.75	0.00	3,517.60
12. R&R #ORC# Countertop - flat laid plastic laminate	10.00 LF	5.17	37.13	0.00	423.00
13. #ORC# Cabinetry - upper (wall) units - Premium grade	10.00 LF	9.01	271.52	0.00	2,805.30

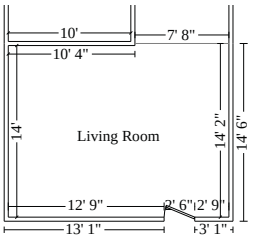
[redacted] [redacted]

CONTINUED - Kitchen

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
14. #ORC# Sink - double - Standard grade	1.00 EA	24.00	276.37	0.00	300.37
15. #ORC# Sink faucet - Kitchen - Standard grade	1.00 EA	0.00	158.56	0.00	158.56
16. #ORC# Range - freestanding - gas	1.00 EA	0.00	616.53	0.00	616.53
17. #ORC# Refrigerator - bottom freezer - 18 to 22 cf	1.00 EA	0.00	954.81	0.00	954.81
18. #ORC# Dishwasher - Standard grade	1.00 EA	0.00	426.21	0.00	426.21
19. #ORC# Microwave oven - over range w/built-in hood - Standard grd	1.00 EA	0.00	277.73	0.00	277.73
PLUMBING					
20. #ORC# Plumbing fixture supply line	2.00 EA	6.00	20.15	0.00	52.30
ELECTRICAL					
21. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
22. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
23. #RRR# Ground fault interrupter (GFI) outlet	2.00 EA	5.42	32.80	0.00	76.44
24. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
25. #RRR# Rewire – average residence copper wiring with conduit	164.25 SF	0.00	4.36	0.00	716.13
WINDOWS & DOORS					
26. #ORC# Exterior door - metal - insulated / wood - High grade	1.00 EA	26.19	431.97	0.00	458.16
27. #ORC# Door lockset & deadbolt - exterior	1.00 EA	0.00	88.20	0.00	88.20
28. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
29. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
30. R&R #ORC# Storm door assembly - Standard grade	1.00 EA	21.18	173.69	0.00	194.87
FLOORS, WALLS, CEILING					
31. R&R #ORC# Sheathing - OSB - 5/8"	164.25 SF	0.68	1.57	0.00	369.56
32. R&R #ORC# Tile floor covering - Standard grade	164.25 SF	3.00	6.71	0.00	1,594.87
33. #ORV# Baseboard – 3 1/4”	46.17 LF	0.55	0.00	0.00	25.39
34. #ORC# Baseboard – 3 1/4”	46.17 LF	0.00	2.73	0.00	126.04
35. #ORC# Paint baseboard - two coats	46.17 LF	0.00	1.31	0.00	60.48
36. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	369.33 SF	0.50	0.00	0.00	184.67

CONTINUED - Kitchen

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
37. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	369.33 SF	0.00	2.12	0.00	782.98
38. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	164.25 SF	0.51	0.00	0.00	83.77
39. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	164.25 SF	0.00	2.22	0.00	364.64
40. #ORC# Paint the walls and ceiling - two coats	533.58 SF	0.00	0.89	0.00	474.89
41. R&R #ORC# Stud wall - 2" x 4" x 8' - 16" oc	46.17 LF	2.07	17.26	0.00	892.46
42. R&R #ORC# Joist - floor or ceiling - 2x8 - w/blocking - 16" oc	164.25 SF	1.07	2.69	0.00	617.58
Totals: Kitchen				0.00	16,936.40



Living Room **Height: 8'**

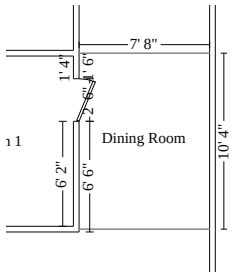
452.00	SF Walls	253.28	SF Ceiling
705.28	SF Walls & Ceiling	253.28	SF Floor
28.14	SY Flooring	56.50	LF Floor Perimeter
56.50	LF Ceil. Perimeter		

Missing Wall **7' 8" X 8'** **Opens into DINING_ROOM**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
43. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
44. #RRR# Switch	4.00 EA	6.05	12.79	0.00	75.36
45. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
46. #RRR# Rewire – average residence copper wiring with conduit	253.28 SF	0.00	4.36	0.00	1,104.30
47. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
48. #ORC# Exterior door - metal - insulated / wood - High grade	1.00 EA	26.19	431.97	0.00	458.16
49. #ORC# Door lockset & deadbolt - exterior	1.00 EA	0.00	88.20	0.00	88.20
50. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
51. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
52. R&R #ORC# Storm door assembly - Standard grade	1.00 EA	21.18	173.69	0.00	194.87

CONTINUED - Living Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
53. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
54. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
55. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
56. R&R #ORC# Sheathing - OSB - 5/8"	253.28 SF	0.68	1.57	0.00	569.88
57. #ORC# Engineered wood flooring - floating - Premium grade	253.28 SF	1.40	16.91	0.00	4,637.55
58. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	452.00 SF	0.50	0.00	0.00	226.00
59. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	452.00 SF	0.00	2.12	0.00	958.24
60. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	253.28 SF	0.51	0.00	0.00	129.17
61. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	253.28 SF	0.00	2.22	0.00	562.28
62. #ORV# Baseboard – 3 1/4”	56.50 LF	0.55	0.00	0.00	31.08
63. #ORC# Baseboard – 3 1/4”	56.50 LF	0.00	2.73	0.00	154.25
64. #ORC# Paint baseboard - two coats	56.50 LF	0.00	1.31	0.00	74.02
65. #ORC# Paint the walls and ceiling - two coats	705.28 SF	0.00	0.89	0.00	627.70
66. R&R #ORC# Stud wall - 2" x 4" x 8' - 16" oc	56.50 LF	2.07	17.26	0.00	1,092.15
67. R&R #ORC# Joist - floor or ceiling - 2x8 - w/blocking - 16" oc	253.28 SF	1.07	2.69	0.00	952.33
Totals: Living Room				0.00	12,824.62



Dining Room **Height: 8'**

166.67	SF Walls	79.22	SF Ceiling
245.89	SF Walls & Ceiling	79.22	SF Floor
8.80	SY Flooring	20.83	LF Floor Perimeter
20.83	LF Ceil. Perimeter		

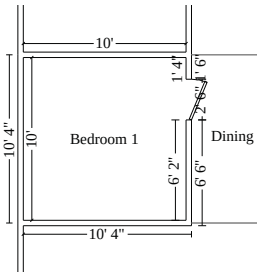
Missing Wall	**7' 8" X 8'**	**Opens into KITCHEN**
Missing Wall	**7' 8" X 8'**	**Opens into LIVING_ROOM**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					

[redacted] [redacted]

CONTINUED - Dining Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
68. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
69. #RRR# Switch	4.00 EA	6.05	12.79	0.00	75.36
70. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
71. #RRR# Rewire – average residence copper wiring with conduit	79.22 SF	0.00	4.36	0.00	345.40
WINDOWS & DOORS					
72. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
73. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
74. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
75. R&R #ORC# Sheathing - OSB - 5/8"	79.22 SF	0.68	1.57	0.00	178.25
76. #ORC# Engineered wood flooring - floating - Premium grade	79.22 SF	1.40	16.91	0.00	1,450.52
77. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	166.67 SF	0.50	0.00	0.00	83.34
78. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	166.67 SF	0.00	2.12	0.00	353.34
79. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	79.22 SF	0.51	0.00	0.00	40.40
80. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	79.22 SF	0.00	2.22	0.00	175.87
81. #ORV# Baseboard – 3 1/4”	20.83 LF	0.55	0.00	0.00	11.46
82. #ORC# Baseboard – 3 1/4”	20.83 LF	0.00	2.73	0.00	56.87
83. #ORC# Paint baseboard - two coats	20.83 LF	0.00	1.31	0.00	27.29
84. #ORC# Paint the walls and ceiling - two coats	245.89 SF	0.00	0.89	0.00	218.84
Totals: Dining Room				0.00	3,570.13



Bedroom 1 **Height: 8'**

320.00	SF Walls	100.00	SF Ceiling
420.00	SF Walls & Ceiling	100.00	SF Floor
11.11	SY Flooring	40.00	LF Floor Perimeter
40.00	LF Ceil. Perimeter		

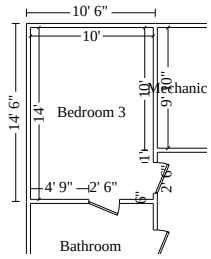
DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL

CONTINUED - Bedroom 1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
85. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
86. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
87. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
88. #RRR# Rewire – average residence copper wiring with conduit	100.00 SF	0.00	4.36	0.00	436.00
89. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
90. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
91. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
92. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92
93. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
94. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
95. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
96. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
97. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
98. R&R #ORC# Sheathing - OSB - 5/8"	100.00 SF	0.68	1.57	0.00	225.00
99. #ORC# Pre-finished solid wood flooring (Premium grade)	100.00 SF	2.81	16.13	0.00	1,894.00
100. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	320.00 SF	0.50	0.00	0.00	160.00
101. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	320.00 SF	0.00	2.12	0.00	678.40
102. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	100.00 SF	0.51	0.00	0.00	51.00
103. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	100.00 SF	0.00	2.22	0.00	222.00
104. #ORV# Baseboard – 3 1/4”	40.00 LF	0.55	0.00	0.00	22.00
105. #ORC# Baseboard – 3 1/4”	40.00 LF	0.00	2.73	0.00	109.20
106. #ORC# Paint baseboard - two coats	40.00 LF	0.00	1.31	0.00	52.40
107. #ORC# Paint the walls and ceiling - two coats	420.00 SF	0.00	0.89	0.00	373.80

CONTINUED - Bedroom 1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
Totals: Bedroom 1				0.00	5,476.09



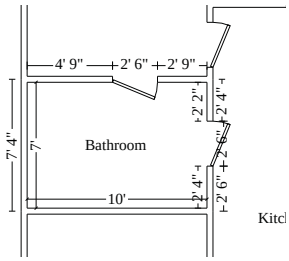
Bedroom 3 **Height: 8'**

384.00	SF Walls	140.00	SF Ceiling
524.00	SF Walls & Ceiling	140.00	SF Floor
15.56	SY Flooring	48.00	LF Floor Perimeter
48.00	LF Ceil. Perimeter		

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
108. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
109. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
110. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
111. #RRR# Rewire – average residence copper wiring with conduit	140.00 SF	0.00	4.36	0.00	610.40
112. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
113. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
114. #ORC# Interior door unit - Standard grade	3.00 EA	22.51	144.32	0.00	500.49
115. #ORC# Door knob - interior - Standard grade	3.00 EA	0.00	31.92	0.00	95.76
116. #ORC# Paint door slab only - 2 coats (per side)	6.00 EA	0.00	27.48	0.00	164.88
117. #ORC# Paint door/window trim & jamb - 2 coats (per side)	6.00 EA	0.00	28.29	0.00	169.74
118. R&R #ORC# Vinyl window, single hung, 13-19 sf	2.00 EA	27.10	294.10	0.00	642.40
119. R&R #ORC# Window trim set (casing & stop)	28.00 LF	0.60	3.69	0.00	120.12
120. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
121. R&R #ORC# Sheathing - OSB - 5/8"	140.00 SF	0.68	1.57	0.00	315.00
122. #ORC# Pre-finished solid wood flooring (Premium grade)	140.00 SF	2.81	16.13	0.00	2,651.60
123. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	384.00 SF	0.50	0.00	0.00	192.00

CONTINUED - Bedroom 3

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
124. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	384.00 SF	0.00	2.12	0.00	814.08
125. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	140.00 SF	0.51	0.00	0.00	71.40
126. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	140.00 SF	0.00	2.22	0.00	310.80
127. #ORV# Baseboard – 3 1/4”	48.00 LF	0.55	0.00	0.00	26.40
128. #ORC# Baseboard – 3 1/4”	48.00 LF	0.00	2.73	0.00	131.04
129. #ORC# Paint baseboard - two coats	48.00 LF	0.00	1.31	0.00	62.88
130. #ORC# Paint the walls and ceiling - two coats	524.00 SF	0.00	0.89	0.00	466.36
Totals: Bedroom 3				0.00	7,934.38



Bathroom — Height: 8'

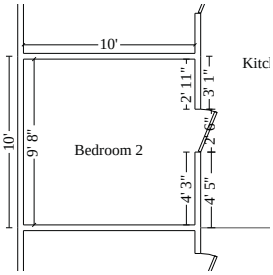
272.00 SF Walls	70.00 SF Ceiling
342.00 SF Walls & Ceiling	70.00 SF Floor
7.78 SY Flooring	34.00 LF Floor Perimeter
34.00 LF Ceil. Perimeter	

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
KITCHEN / BATH					
131. Remove #ORV# Fiberglass tub & shower combination	1.00 EA	99.99	0.00	0.00	99.99
132. #ORC# Fiberglass tub & shower combination	1.00 EA	0.00	942.10	0.00	942.10
133. #ORC# Tub/shower faucet - Standard grade	1.00 EA	0.00	280.10	0.00	280.10
134. Remove #ORV# Pedestal sink - Standard grade	1.00 EA	30.01	0.00	0.00	30.01
135. #ORC# Pedestal sink - Standard grade	1.00 EA	0.00	405.45	0.00	405.45
136. #ORC# Sink faucet - Bathroom - Standard grade	1.00 EA	0.00	150.51	0.00	150.51
137. Remove #ORV# Toilet - Standard grade	1.00 EA	30.01	0.00	0.00	30.01
138. #ORC# Toilet - Standard grade	1.00 EA	0.00	333.80	0.00	333.80
139. #ORC# Toilet seat - Standard grade	1.00 EA	0.00	39.58	0.00	39.58
140. #ORV# Medicine cabinet - Standard grade	1.00 EA	21.63	0.00	0.00	21.63

[redacted] [redacted]

CONTINUED - Bathroom

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
141. #ORC# Medicine cabinet - Standard grade	1.00 EA	0.00	89.98	0.00	89.98
142. #ORC# Bath accessory - Standard grade	1.00 EA	6.00	19.18	0.00	25.18
PLUMBING					
143. #ORC# Plumbing fixture supply line	3.00 EA	6.00	20.15	0.00	78.45
ELECTRICAL					
144. #RRR# Ground fault interrupter (GFI) outlet	2.00 EA	5.42	32.80	0.00	76.44
145. #RRR# Outlet	2.00 EA	6.05	12.76	0.00	37.62
146. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
147. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
148. #RRR# Rewire – average residence copper wiring with conduit	70.00 SF	0.00	4.36	0.00	305.20
WINDOWS & DOORS					
149. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
150. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92
151. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
152. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
153. R&R #ORC# Sheathing - OSB - 5/8"	70.00 SF	0.68	1.57	0.00	157.50
154. R&R #ORC# Tile floor covering - Standard grade	70.00 SF	3.00	6.71	0.00	679.70
155. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	272.00 SF	0.50	0.00	0.00	136.00
156. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	272.00 SF	0.00	2.12	0.00	576.64
157. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	70.00 SF	0.51	0.00	0.00	35.70
158. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	70.00 SF	0.00	2.22	0.00	155.40
159. #ORV# Baseboard – 3 1/4”	34.00 LF	0.55	0.00	0.00	18.70
160. #ORC# Baseboard – 3 1/4”	34.00 LF	0.00	2.73	0.00	92.82
161. #ORC# Paint baseboard - two coats	34.00 LF	0.00	1.31	0.00	44.54
162. #ORC# Paint the walls and ceiling - two coats	342.00 SF	0.00	0.89	0.00	304.38
Totals: Bathroom				0.00	5,563.80



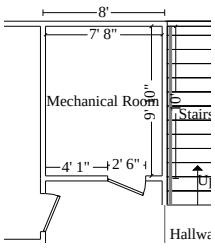
Bedroom 2 **Height: 8'**

314.67	SF Walls	96.67	SF Ceiling
411.33	SF Walls & Ceiling	96.67	SF Floor
10.74	SY Flooring	39.33	LF Floor Perimeter
39.33	LF Ceil. Perimeter		

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
163. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
164. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
165. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
166. #RRR# Rewire – average residence copper wiring with conduit	96.67 SF	0.00	4.36	0.00	421.48
167. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
168. #ONL# Ceiling fan & light - Standard grade	1.00 EA	0.00	224.35	0.00	224.35
WINDOWS & DOORS					
169. #ORC# Interior door unit - Standard grade	2.00 EA	22.51	144.32	0.00	333.66
170. #ORC# Door knob - interior - Standard grade	2.00 EA	0.00	31.92	0.00	63.84
171. #ORC# Paint door slab only - 2 coats (per side)	4.00 EA	0.00	27.48	0.00	109.92
172. #ORC# Paint door/window trim & jamb - 2 coats (per side)	4.00 EA	0.00	28.29	0.00	113.16
173. R&R #ORC# Vinyl window, single hung, 13-19 sf	1.00 EA	27.10	294.10	0.00	321.20
174. R&R #ORC# Window trim set (casing & stop)	14.00 LF	0.60	3.69	0.00	60.06
175. #ORC# Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	0.00	28.29	0.00	28.29
FLOORS, WALLS, CEILING					
176. Remove #ORV# Sheathing - OSB - 5/8"	96.67 SF	0.68	0.00	0.00	65.74
177. #ORC# Sheathing - OSB - 5/8"	96.67 SF	0.00	1.57	0.00	151.77
178. Remove #ORV# Carpet - Standard grade	96.67 SF	0.33	0.00	0.00	31.90
179. #ORC# Carpet pad - Standard grade	96.67 SF	0.00	0.43	0.00	41.57
180. #ORV# Carpet pad - Standard grade	96.67 SF	0.14	0.00	0.00	13.53
181. #ORC# Carpet - Standard grade	96.67 SF	0.00	2.47	0.00	238.77
182. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	314.67 SF	0.50	0.00	0.00	157.34

CONTINUED - Bedroom 2

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
183. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	314.67 SF	0.00	2.12	0.00	667.10
184. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	96.67 SF	0.51	0.00	0.00	49.30
185. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	96.67 SF	0.00	2.22	0.00	214.61
186. #ORV# Baseboard – 3 1/4”	39.33 LF	0.55	0.00	0.00	21.63
187. #ORC# Baseboard – 3 1/4”	39.33 LF	0.00	2.73	0.00	107.37
188. #ORC# Paint baseboard - two coats	39.33 LF	0.00	1.31	0.00	51.52
189. #ORC# Paint the walls and ceiling - two coats	411.33 SF	0.00	0.89	0.00	366.08
Totals: Bedroom 2				0.00	4,162.29



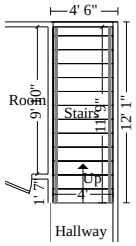
Mechanical Room — Height: 8'

280.00	SF Walls	75.39	SF Ceiling
355.39	SF Walls & Ceiling	75.39	SF Floor
8.38	SY Flooring	35.00	LF Floor Perimeter
35.00	LF Ceil. Perimeter		

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
190. #ORV# Furnace - forced air - 125,000 BTU	1.00 EA	75.50	2,080.36	0.00	2,155.86
191. #RRR# Water heater – 40 gallon – Gas – 6 yr	1.00 EA	69.39	848.13	0.00	917.52
192. #RRR# Circuit breaker – main disconnect – 150 – 200 amp	1.00 EA	8.60	189.11	0.00	197.71
193. #RRR# Breaker panel -150 amp	1.00 EA	298.83	877.49	0.00	1,176.32
ELECTRICAL					
194. #RRR# Outlet	4.00 EA	6.05	12.76	0.00	75.24
195. #RRR# Switch	2.00 EA	6.05	12.79	0.00	37.68
196. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
197. #RRR# Rewire – average residence copper wiring with conduit	75.39 SF	0.00	4.36	0.00	328.70
WINDOWS & DOORS					
198. #ORC# Interior door unit - Standard grade	1.00 EA	22.51	144.32	0.00	166.83
199. #ORC# Door knob - interior - Standard grade	1.00 EA	0.00	31.92	0.00	31.92

CONTINUED - Mechanical Room

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
200. #ORC# Paint door slab only - 2 coats (per side)	2.00 EA	0.00	27.48	0.00	54.96
201. #ORC# Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	0.00	28.29	0.00	56.58
FLOORS, WALLS, CEILING					
202. R&R #ORC# Sheathing - OSB - 5/8"	75.39 SF	0.68	1.57	0.00	169.63
203. R&R #ORC# Tile floor covering - Standard grade	75.39 SF	3.00	6.71	0.00	732.04
204. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	280.00 SF	0.50	0.00	0.00	140.00
205. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	280.00 SF	0.00	2.12	0.00	593.60
206. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	75.39 SF	0.51	0.00	0.00	38.45
207. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	75.39 SF	0.00	2.22	0.00	167.37
208. #ORV# Baseboard – 3 1/4”	35.00 LF	0.55	0.00	0.00	19.25
209. #ORC# Baseboard – 3 1/4”	35.00 LF	0.00	2.73	0.00	95.55
210. #ORC# Paint baseboard - two coats	35.00 LF	0.00	1.31	0.00	45.85
211. #ORC# Paint the walls and ceiling - two coats	355.39 SF	0.00	0.89	0.00	316.30
Totals: Mechanical Room				0.00	7,585.76



Stairs **Height: 17'**

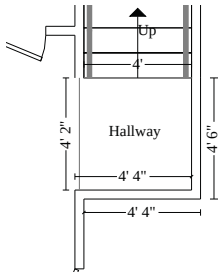
296.32	SF Walls	47.00	SF Ceiling
343.32	SF Walls & Ceiling	86.50	SF Floor
9.61	SY Flooring	28.57	LF Floor Perimeter
23.50	LF Ceil. Perimeter		

Missing Wall **4' X 17'** **Opens into HALLWAY**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
FLOORS, WALLS, CEILING					
212. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	296.32 SF	0.50	0.00	0.00	148.16
213. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	296.32 SF	0.00	2.12	0.00	628.20
214. #ORV# Baseboard – 3 1/4”	28.57 LF	0.55	0.00	0.00	15.71
215. #ORC# Baseboard – 3 1/4”	28.57 LF	0.00	2.73	0.00	78.00

CONTINUED - Stairs

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
216. #ORC# Paint baseboard - two coats	28.57 LF	0.00	1.31	0.00	37.43
217. #ORC# Paint the walls and ceiling - two coats	343.32 SF	0.00	0.89	0.00	305.55
Totals: Stairs				0.00	1,213.05



Hallway **Height: 8'**

68.00	SF Walls	17.36	SF Ceiling
85.36	SF Walls & Ceiling	17.36	SF Floor
1.93	SY Flooring	8.50	LF Floor Perimeter
12.50	LF Ceil. Perimeter		

Missing Wall	**4' 2" X 8'**	**Opens into KITCHEN**
Missing Wall	**4' X 8'**	**Opens into STAIRS**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
ELECTRICAL					
218. #RRR# Outlet	1.00 EA	6.05	12.76	0.00	18.81
219. #RRR# Switch	1.00 EA	6.05	12.79	0.00	18.84
220. #RRR# Light Fixture	1.00 EA	10.00	58.40	0.00	68.40
221. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
222. #RRR# Rewire – average residence copper wiring with conduit	17.36 SF	0.00	4.36	0.00	75.69
FLOORS, WALLS, CEILING					
223. Remove #ORV# Sheathing - OSB - 5/8"	17.36 SF	0.68	0.00	0.00	11.80
224. #ORC# Sheathing - OSB - 5/8"	17.36 SF	0.00	1.57	0.00	27.26
225. Remove #ORV# Tile floor covering - Standard grade	17.36 SF	3.00	0.00	0.00	52.08
226. #ORC# Tile floor covering - Standard grade	17.36 SF	0.00	6.71	0.00	116.49
227. #ORV# Baseboard – 3 1/4”	8.50 LF	0.55	0.00	0.00	4.68
228. #ORC# Baseboard – 3 1/4”	8.50 LF	0.00	2.73	0.00	23.21
229. #ORC# Paint baseboard - two coats	8.50 LF	0.00	1.31	0.00	11.14
230. #ORV# 1/2" drywall - hung, taped, floated, ready for paint	68.00 SF	0.50	0.00	0.00	34.00
231. #ORC# 1/2" drywall - hung, taped, floated, ready for paint	68.00 SF	0.00	2.12	0.00	144.16

CONTINUED - Hallway

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
232. #ORV# 5/8" drywall - hung, taped, floated, ready for paint	17.36 SF	0.51	0.00	0.00	8.85
233. #ORC# 5/8" drywall - hung, taped, floated, ready for paint	17.36 SF	0.00	2.22	0.00	38.54
234. #ORC# Paint the walls and ceiling - two coats	85.36 SF	0.00	0.89	0.00	75.97
Totals: Hallway				0.00	856.70

Environment1 **Height: 4"**

Environment1 1 of 4

1.57 SF Walls
2.92 SF Walls & Ceiling
0.15 SY Flooring
4.70 LF Ceil. Perimeter
1.36 SF Ceiling
1.36 SF Floor
4.70 LF Floor Perimeter

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
235. (Material Only) #ALA# LATITUDE	[redacted]	**0.00**	**0.00**	**0.00**	**0.00**
#ALA#					
236. (Material Only) #ALO# LONGITUDE	[redacted]	**0.00**	**0.00**	**0.00**	**0.00**
#ALO#					
237. (Material Only) #EPH# SIGNS OF POOR HOUSEKEEPING	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EPH# -					
238. (Material Only) #EDV# 55 GAL DRUMS VISIBLE	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EDV# -					
239. (Material Only) #EDL# 55 GAL DRUMS LEAKING	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EDL# -					
240. (Material Only) #EPT# PUSTs	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EPT# -Basement					
241. (Material Only) #EVP# UST VENTS OR FILL PIPES	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EVP# -					
242. (Material Only) #EST# ASTs ABOVE GROUND	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EST# -					

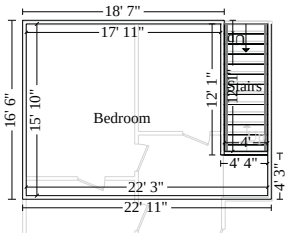
CONTINUED - Environment1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
243. (Material Only) #EMW# GROUND WATERING MONITORING WELLS	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EMW# -					
244. (Material Only) #ESS# ANY SURFACE STAINING	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#ESS# -					
245. (Material Only) #EFS# FAULTY SEPTIC SYSTEM	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EFS# -					
246. (Material Only) #ESW# PERMANENT STANDING WATER	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#ESW# -					
247. (Material Only) #EDG# DISTRESSED VEGETATION	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EDG# -					
248. (Material Only) #EUO# ADDITIONAL UNUSUAL OBJECTS	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EUO# -					
249. (Material Only) #EEI# ENCROACHMENT ISSUES	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EEI# -ENCHOACHMENT DESCRIPTION: ENCROACHMENT SIDE OF STRUCTURE:					
250. (Material Only) #EWF# WATER FRONTAGE	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EWF# -WATER FRONTAGE STABILIZATION DESCRIBE: DESCRIBE CONDITION, IS IT IN DISREPAIR:					
251. (Material Only) #HSE# SIGNIFICANT HISTORICAL EVENT	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#HSE# -					
252. (Material Only) #HAG# STRUCTURE 45 YEARS OR OLDER	**YS**	**0.00**	**0.00**	**0.00**	**0.00**
#HAG# -					
253. (Material Only) #AUN# NUMBER OF UNITS	**1.00 EA**	**0.00**	**0.00**	**0.00**	**0.00**
#AUN# -					
254. (Material Only) #ASQ# TOTAL SQUARE FOOTAGE OF DWELLING	**1,470.00 SF**	**0.00**	**0.00**	**0.00**	**0.00**
#ASQ# -					

CONTINUED - Environment1

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
255. (Material Only) #AWM# HIGH WATER MARK BASEMENT	**LF**	**0.00**	**0.00**	**0.00**	**0.00**
#AWM# -					
256. (Material Only) #AWF# HIGH WATER MARK FIRST FLOOR	**5.00 LF**	**0.00**	**0.00**	**0.00**	**0.00**
#AWF# -					
257. (Material Only) #AGF# GROUND TO BOTTOM JOIST	**3.00 IN**	**0.00**	**0.00**	**0.00**	**0.00**
#AGF# -LEVEL GROUND TO BOTTOM OF FLOOR JOIST					
258. (Material Only) #AFT# FOUNDATION TYPE	**UN**	**0.00**	**0.00**	**0.00**	**0.00**
#AFT# -FOUNDATION TYPE NAME: CRAWLSPACE					
259. (Material Only) #AFL# NUMBER OF FLOORS ABOVE SLAB, BASEMENT OR CRAWL SPACE	**2.00 EA**	**0.00**	**0.00**	**0.00**	**0.00**
#AFL# Number of Floors:					
260. (Material Only) #ASH# DOES DWELLING HAVE STEAM HEAT	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#ASH# STEAM HEAT:					
261. (Material Only) #ADS# IS DWELLING DESTROYED	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#ADS# DWELLING DESTROYED:					
262. (Material Only) #ASP# SPECIAL NEEDS	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#ASP# SPECIAL NEEDS:					
263. (Material Only) #EYS# DOES DWELLING HAVE A SEPTIC TANK	**NO**	**0.00**	**0.00**	**0.00**	**0.00**
#EYS# SEPTIC TANK					
Totals: Environment1				0.00	0.00
Total: Main Level				**0.00**	**84,076.51**

Level 2



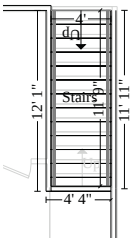
Bedroom **Height: 8'**

613.54	SF Walls	299.79	SF Ceiling
913.34	SF Walls & Ceiling	299.79	SF Floor
33.31	SY Flooring	76.15	LF Floor Perimeter
76.15	LF Ceil. Perimeter		

[redacted] [redacted]

CONTINUED - Bedroom

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
264. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
Totals: Bedroom				0.00	126.78



Stairs **Height: 17'**

296.32	SF Walls	47.00	SF Ceiling
343.32	SF Walls & Ceiling	86.50	SF Floor
9.61	SY Flooring	28.57	LF Floor Perimeter
23.50	LF Ceil. Perimeter		

Missing Wall **4' X 17'** **Opens into Exterior**

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	TOTAL
282. #ONL# Combination CO/Smoke detector - High grade	1.00 EA	0.00	126.78	0.00	126.78
Totals: Stairs				0.00	126.78
Total: Level 2				**0.00**	**253.56**
Line Item Totals: [redacted]				**0.00**	**84,330.07**

Grand Total Areas:

3,834.42	SF Walls	1,391.32	SF Ceiling	5,225.74	SF Walls and Ceiling
1,470.32	SF Floor	163.37	SY Flooring	466.33	LF Floor Perimeter
0.00	SF Long Wall	0.00	SF Short Wall	460.19	LF Ceil. Perimeter
1,470.32	Floor Area	1,507.53	Total Area	3,014.84	Interior Wall Area
1,854.13	Exterior Wall Area	210.02	Exterior Perimeter of Walls		
0.00	Surface Area	0.00	Number of Squares	0.00	Total Perimeter Length
0.00	Total Ridge Length	0.00	Total Hip Length		

Summary for Dwelling

Line Item Total	84,330.07
Replacement Cost Value	**$84,330.07**
Net Claim	**$84,330.07**

[redacted]

Recap by Room

Estimate: [redacted]

Area: Main Level	**17,953.29**	**21.29%**
Kitchen	**16,936.40**	**20.08%**
Living Room	**12,824.62**	**15.21%**
Dining Room	**3,570.13**	**4.23%**
Bedroom 1	**5,476.09**	**6.49%**
Bedroom 3	**7,934.38**	**9.41%**
Bathroom	**5,563.80**	**6.60%**
Bedroom 2	**4,162.29**	**4.94%**
Mechanical Room	**7,585.76**	**9.00%**
Stairs	**1,213.05**	**1.44%**
Hallway	**856.70**	**1.02%**
Area Subtotal: Main Level	**84,076.51**	**99.70%**
Area: Level 2		
Bedroom	**126.78**	**0.15%**
Stairs	**126.78**	**0.15%**
Area Subtotal: Level 2	**253.56**	**0.30%**
Subtotal of Areas	**84,330.07**	**100.00%**
Total	**84,330.07**	**100.00%**

1 Damaged Date Taken: 1/31/2014 Taken By: [redacted]

Tier II: Site-Specific Environmental Assessment

*Intended for use following CEST and EA level Tier I Environmental Review conducted for rehabilitation, reconstruction, elevation and mitigation.

HUD Grant Number: [redacted]			
NYC OMB Submittal date:	[redacted]	**Application #:**	[redacted]
Date of field inspection:	[redacted]	**Date review initiated:**	[redacted]
Inspector name:	[redacted]	**Reviewer name:**	[redacted]
Name of applicant: [redacted]			
Property address:	[redacted]		
Borough:	[redacted]	**Census tract:**	[redacted]
Block:	[redacted]	**Lot:**	[redacted]
Target building site(s):	[redacted]	**GPS Coordinates (Lat/Long):**	[redacted] [redacted] [redacted] [redacted]

Attachments: A-Constraints and Floodplain Map; B-Environmental Data Sheet; C-Photographs; D-Lead-based Paint Assessment;

Project Description:

The NYC Build it Back: Single-Family Houses (1-4 Units) Tier I Environmental Review of the Proposed CDBG-DR (Tier I EA) Funded Action was completed to establish measures for compliance with multiple State and Federal environmental regulations for the program, including various Codes of Federal Regulation (CFR), United States Codes (USC), Executive Orders (EO), New York Codes, Rules and Regulations (NYCRR), as well as any applicable regulations. This is the Tier II site-specific review for activities eligible under this program, for which funds were released at the Tier 1 level on 8/3/13.

- ☑ This home was constructed in 1930, as verified by NYC Department of Finance. The proposed project involves reimbursement of previously performed construction activities (refer to Pre-Award Activity Environmental Review) at an existing residential property with the above-listed address. The home site received damage as a result of Hurricane Sandy, and also includes;
- ☐ The proposed project involves rehabilitation activities on an existing residential property with the above-listed address, where the home site is not located in the 100-year floodplain but received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). Activities would be limited to the disturbed area of the previously developed residential site.
- ☐ The proposed project involves rehabilitation activities on an existing residential property with the above-listed address, where the home site is located in the 100-year floodplain and received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). Activities would be limited to the disturbed area of the previously developed residential site.
- ☑ The proposed project involves rehabilitation and elevation activities on an existing residential property with the above-listed address, where the home site is located in the 100-year floodplain and received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence, including HVAC, electrical, and life safety measures, to bring it to current minimum residential property standards as well as compliance with applicable requirements including elevation of the home two feet above the base flood elevation (BFE) for properties of 1-2 Units, or one foot above BFE for properties of 3-4 Units in accordance with the Federal Emergency Management Agency-issued New York City Preliminary data dated 12.5.13, and site-specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document).
- ☐ The proposed project involves home reconstruction on an existing residential property with the above listed address, where the home site received damage as a result of Hurricane Sandy. This home was constructed in 1930, as verified by NYC Department of Finance. Proposed activities would consist of addressing storm-related damage to the residence including , to bring it to current minimum residential property standards and compliance with applicable requirements, and site specific EA mitigation measures as required (see individual comments associated with applicable compliance factors in this document). If the home site is located in the floodplain, compliance with the local floodplain ordinance would be required and include elevation of the home (two feet above the BFE for properties of 1-2 Units, or one foot above BFE for properties of 3-4 Units) in accordance with the Federal Emergency Management Agency-issued New York City Preliminary data dated 12.5.13.

Finding of this Tier II Site Specific Review

- ☑ The proposed project and pre-award activities comply with environmental requirements for funding.
- ☐ The proposed project does not comply with environmental requirements for funding because
- ☐ A finding cannot be made without

Site Specific Findings

1. Historic Preservation (36 CFR Part 800)

Architecture

Has the building been demolished?
- ☐ Yes (Architectural Review Concluded - Proceed to Archaeology).
- ☑ No.

If the building is still extant, is it 45 years or greater in age?
- ☑ Yes.
- ☐ No (Architectural Review Concluded - Proceed to Archaeology).

If the building is 45 years or greater in age, has it been previously identified as listed or eligible for listing on the New York State or National Registers of Historic Places?
- ☐ Yes.
  - Is the building a designated New York City Landmark, or calendared for designation?
    - ☐ Yes (Submit to the Landmarks Preservation Commission (LPC) for Review).
    - ☐ No.
  - Is the property identified as a National Historic Landmark (NHL)?
    - ☐ Yes (Submit to the National Parks Service NHL Program Manager for Review).
    - ☐ No.
- ☑ No.
  - Is the building a designated New York City Landmark, or calendared for designation?
    - ☐ Yes (Submit to LPC for Review).
    - ☑ No.
      - Is the building recommended eligible for listing on the New York State or National Register of Historic Places?
        - ☐ Yes.
        - ☑ No (Review Concluded per Tier 1 EA: Programmatic Agreement, LPC Consultation 08/30/2013, and SHPO Consultation 08/26/2013).

If the building has been identified or recommended as eligible for, or listed on, the New York State or National Registers of Historic Places, is the proposed undertaking allowable under Appendix B of the May 2013 FEMA Programmatic Agreement?
- ☐ Yes (No Adverse Effect; Review Concluded).
  Cite Allowance # and Page:
- ☐ No (Submit to the Office of Parks, Recreation and Historic Preservation (OPRHP) for Review).

Comments/Review Results/Special Circumstances (as necessary):

Archaeology

Does the project involve ground disturbance?
- ☑ Yes.
- ☐ No.

Is the property located within an OPRHP archaeological sensitivity zone?
- ☑ Yes.
- ☐ No.

Is the proposed ground disturbance greater than five feet from the existing or former building footprint?
- ☐ Yes.
- ☑ No.

If all three answers are "Yes," then submit the proposed undertaking to LPC for archaeological review. If any of the three answers is "No," then archaeological review is concluded.

Comments/Review Results/Special Circumstances (as necessary):

[redacted]

[redacted]

2. Floodplain Management and Flood Insurance (EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6)

The proposed site is (check only one of the following):

- ☑ In a 100-year floodplain (AE and VE zones) and in a National Flood Insurance Program (NFIP)-participating community. Is the activity in a floodway? Source cited below.
  - ☐ Yes. **Does not comply** with Executive Order (EO) 11988, 24 CFR Part 55, and 24 CFR Part 58.6. (Analysis complete)
  - ☑ No. The activity:
    - ☐ Is known to be exempt from the 8-Step floodplain management decision making process under 24 CFR 55.12(b)(2). See comments below. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. Activity requires a NYC Department of Buildings permit.
    - ☑ Is not known to be exempt from the 8-Step floodplain management decision making process but is adequately covered by the Tier I 8-Step Process completed for rehabilitation, reconstruction, elevation, and mitigation under the Tier I Single-family Houses (1-4 Units) EA. Substantial improvement actions will be elevated to the best available (most recent) flood elevation plus at least two feet for properties of 1-2 Units, or one foot for properties of 3-4 Units. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. See comments below. Activity requires a NYC Department of Buildings permit.
    - ☐ Is not known to be exempt from the 8-Step floodplain management decision making process and is not adequately covered by the Tier I 8-Step process completed for rehabilitation, reconstruction, elevation, and mitigation under the Tier I Single-family Houses (1-4 Units) EA. A site-specific supplement to the 8-Step Process has been prepared and is on file. Substantial improvement actions will be elevated to the best available (most recent) flood elevation plus at least two feet for properties of 1 -2 Units, or one foot for properties of 3-4 Units. **Complies** with EO 11988, 24 CFR Part 55, and 24 CFR Part 58.6. Activity requires a NYC Department of Buildings permit.

- ☐ In a 500-year floodplain (shaded Zone X) (Analysis complete)
- ☐ Outside the 500-year floodplain (unshaded Zone X) (Analysis complete)

Comments:

[redacted]

[redacted]

3. Wetlands Protection
(EO 11990 and Clean Water Act, especially Section 404)

Are coastal or freshwater wetlands on or adjacent to the site?
- ☑ No. See comments below. (Analysis complete)
- ☐ Yes. Would the activity affect the wetlands?
  - ☐ No. Outside wetland or no effect on wetlands. See comments below. **Compliance met**. (Analysis complete)
  - ☐ Yes. Possible adverse effect associated with constructing in or near wetlands. Would the effect be permanent or temporary?
    - ☐ Permanent. See comments below. **Activity not in compliance.** (Analysis complete)
    - ☐ Temporary. Temporary impacts are described below. **Compliance met**. (Analysis complete)

Has an 8-Step Process been completed?
- ☐ No. **Activity not in compliance.**
- ☐ Yes. Identify the location of the 8-Step Process Review.
  - ☐ **Activity in compliance** with EO 11990 and the Clean Water Act. See comments below. (Analysis complete).
  - ☐ **Activity not in compliance** with EO 11990 and the Clean Water Act. See comments below. (Analysis complete).

Comments:

[redacted]

4. Coastal Zone Management Act
(Section 307 (c), (d))

Is the activity located within the Coastal Zone?
- ☐ No. (Analysis complete).
- ☑ Yes. Activities proposed under the NYC Build It Back program were determined to not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy by the Waterfront and Open Space Division of the NYC Department of City Planning, which recommended that the NYC Build It Back program be found consistent with WRP policies (letter from Michael Marrella, Director, Waterfront and Open Space Division, to Patrick Blanchfield, Director of Environmental Planning, NYC Department of Housing Preservation and Development, dated May 7, 2013 regarding WRP Project #13-049; included in Attachment D-4 of the Tier I EA). The program was also determined to meet the general consistency concurrence criteria of New York State's Department of State (letter to Mr. Aaron Werner, NYC Housing Preservation and Development dated May 10, 2013 from Jeffrey Zappieri, Supervisor, Consistency Review Unit, Division of Coastal Resources, regarding Project F-2013-03 88 (FA)). Should federal permits or other form of federal authorization be required, consultation with the Division of Coastal Resources would be required. **Activity in compliance.** (Analysis complete).

5. Sole Source Aquifers
(40 CFR Part 149)
Not applicable. Compliance determined in the Tier I EA.

6. Endangered Species Act
(16 USC 1531 et seq., 50 CFR Part 402)

Based on desktop review, could the proposed activity affect piping plovers?
- ☑ No. Piping plovers would not be affected by any eligible activity; property is not located within the piping plover sensitivity areas, per the Tier I EA. (Analysis complete)
- ☐ Yes, piping plovers may be affected by the proposed activity. Based upon review of the Tier I analysis for the piping plover, it has been determined that (check only one of the following):
  - ☐ The project is located within the buffer zone, but not the area of concern for the piping plover. Eligible project activities cannot proceed during the nesting season which occurs from April 1 to September 1. Explain finding and cite supporting documentation. (Analysis complete).
  - ☐ The project is located within the area of concern for the piping plover. Eligible project activities cannot proceed during the nesting season which occurs from April 1 to September 1, and will require United States Fish and Wildlife Service (USF&WS) consultation. Explain finding and cite supporting documentation. (Analysis complete)

Consultation with USF&WS resulted in a determination that (check only one of the following):
- ☐ The proposed activity, including appropriate measures to avoid adverse impacts, would not adversely affect piping plovers. Explain how this conclusion was reached. Describe required mitigation measures. Cite and attach Consultation letter/supporting documentation. **Activity in compliance**. (Analysis complete)
- ☐ The proposed activity would adversely affect the piping plover. Explain how this conclusion was reached. Cite and attach Consultation letter/supporting documentation. **Activity not in compliance.** (Analysis complete)

Comments:

7. Coastal Barrier Resource Act (CBRA)/Coastal Barrier Improvement Act (24 CFR 58.6(c))

Based on desktop review, could the proposed activity be located within a CBRA Unit, Otherwise Protected Area, or Otherwise Protected Area buffer?

- ☑ No. The proposed activity is not within a CBRA Unit, Otherwise Protected Area, or Otherwise Protected Area buffer; refer to Attachment A-Constraints and Floodplain Map. **Compliance met**. (Analysis complete)
- ☐ Yes. The proposed activity appears to be within an Otherwise Protected Area or an Otherwise Protected Area buffer, and consultation with USF&WS is required. Consultation with USF&WS regarding the proposed activity within the Otherwise Protected Area or buffer is complete and resulted in a determination that (check only one of the following):
  - ☐ USF&WS determined that the project is not within a CBRA Otherwise Protected Area or buffer, and/or will not have an effect on the protected resource. Consultation response is attached. **Compliance met**. (Analysis complete)
  - ☐ USF&WS determined that the project is located within a CBRA Otherwise Protected Area or buffer, and the proposed activity would affect the protected resource. Consultation response is attached; **activity not in compliance**. (Analysis complete).

Comments:

8. Wild & Scenic Rivers Act (Sections 7(b), (c))

Not applicable. Compliance determined in the Tier I EA.

9. Air Quality (Clean Air Act, Section 176 (c) & (d), & 40 CFR Part 6, 51, & 93)

Not applicable. Compliance determined in the Tier I EA.

10. Farmland Protection Policy Act (7 CFR Part 658)

Not applicable. Compliance determined in the Tier I EA.

11. Environmental Justice (EO 12898)

Not applicable. Compliance determined in the Tier I EA.

12. Toxic Chemicals and Gases, Hazardous Materials, Contamination, and Radioactive Substances (24 CFR Part 58.5(i)(2))

Do any of the following apply to the subject property? (1) Property is listed on an EPA Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list; (2) Property is within 3,000 feet of a landfill site, hazardous waste or solid waste cleanup site; (3) Has an underground storage tank (which is not a residential fuel tank); (4) Known or suspected to be contaminated by toxic chemicals or radioactive materials; or (5) During site reconnaissance of suject property and visible adjoining properties, inspector has observed potential environmental concerns. Refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet.

Finding Categories

- ☑ No. Recognized environmental conditions (RECs), as presented in the Tier I EA, are not present. Property is not within the 3,000 foot critical distance (CD) of hazardous facilities/ toxic cleanup sites and no RECs were observed during site reconnaissance; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. (Analysis complete).
- ☐ Yes. Property is within the CD of hazardous facilities/ toxic cleanup sites or RECs were observed during site reconnaissance but no threat is found to exist. Explain findings; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. (Analysis complete).
- ☐ Yes. RECs identified during site reconnaissance and subsequently resolved by applicant. Explain (1) initial finding, (2) subsequent measures taken to resolve identified RECs by applicant, and (3) confirmation that RECs no longer present. No American Society of Testing Materials (ASTM) Phase 1 ESA required for compliance. (Analysis complete).
- ☐ Yes. RECs identified during site reconnaissance that cannot be fully resolved under the above findings category. Explain findings; refer to Attachment A-Constraints and Floodplain Map and Attachment B-Environmental Data Sheet. Without submittal of specific site assessment information (ASTM Phase 1 ESA, Phase II ESA, or vapor intrusion investigative study), site will be considered as not being in compliance with HUD's 24 CFR 58.5(i)(2) site contamination regulation and Phase I Threshold policy. If this information exists, it must be submitted to NYCDEP for review.

Comments:

13. Environmental Critieria and Standards: Noise Abatement and Control (24 CFR Part 51, Subpart B)

Not applicable. Compliance determined in the Tier I EA.

14. Environmental Critieria and Standards: Siting of HUD-Assisted Projects near Harzardous Operations (24 CFR Part 51, Subpart C)

Are stationary aboveground storage tank(s) (ASTs) present on or immediately adjacent to the subject property and do they contain explosive or combustible substance(s)?

- ☑ No. Refer to Attachment B-Environmental Data Sheet. **Compliance met**. (Analysis complete)
- ☐ Yes. AST(s) present on or immediately adjacent to subject property. AST located beyond Acceptable Separation Distance (ASD), or explosive or combustible hazard mitigated per 24 CFR 51.205. Explain findings; refer to Attachment B-Environmental Data Sheet. **Compliance met**. (Analysis complete)
- ☐ Yes. AST(s) present on subject property, is not located beyond ASD and/or mitigated per 24 CFR 51.205. Explain findings; refer to Attachment B-Environmental Data Sheet. **Activity not in compliance**. (Analysis complete)

Comments:

15. Airport Clear Zones and Accident Potential Zones (24 CFR Part 51, Subpart D)

Based on desktop review, could proposed activity be located within 2,500 feet of a civilian airport?

- ☑ No. The proposed activity is more than 2,500 feet from the closest airport, and not within a civilian airport clear zone or protection zone; refer to Attachment A-Constraints and Floodplain Map. **Compliance met**. (Analysis complete)
- ☐ Yes. The proposed activity is within 2,500 feet of a civilian airport and consultation with the airport authority is complete and resulted in a determination that (check only one of the following):
  - ☐ The proposed activity is located near but not within the airport's runway clear zone (RCZ) or the protection zone (RPZ). Explain finding and attach supporting documentation. **Compliance met**. (Analysis complete)
  - ☐ The proposed activity is located within the airport's runway clear zone (RCZ) or the runway protection zone (RPZ). Explain finding that the activity is not in compliance and attach supporting documentation. (Analysis complete)

Comments:

16. Fish and Wildlife Coordination Act (16 USC 661-666c)

Would the proposed activity include impounding, diverting, deepening or otherwise modifying the waters of any stream or other body of water? (Check one of the following):

- ☑ No. Property is not located within any mapped waterways; refer to Attachment A - Constraints and Floodplain Map **Compliance met**. (Analysis complete)
- ☐ Yes. The activity would temporarily (impound, divert, deepen or otherwise modify) the waters of a stream or body of water, would require coordination with USF&WS, the National Marine Fisheries Service (NMFS), the United States Army Corps of Engineers (USACE), and New York State Department of Environmental Conservation(NYSDEC), and the application of mitigation measures to protect and restore the resource. Explain the determination, the applicable mitigation measures, and attach appropriate map. **Compliance met**. (Analysis complete)
- ☐ Yes. The activity would permanently (insert impound, divert, deepen or otherwise modify) the waters of a stream or body of water and adversely affect fish and wildlife habitat. Explain basis for conclusion. **Activity not in compliance**. (Analysis complete)

Comments:

17. Magnuson-Stevens Fishery Conservation and Management Act (24 CFR Part 51, Subpart B)

Not applicable. Compliance determined in the Tier I EA.

18. Agriculture and Markets Law (Title 1 NYCRR Section 139.2)

Is the project within a quarantine zone?

- ☑ No. Project is within The Bronx, Manhattan, or Staten Island, and/or outside quarantine zone as presented in Tier I EA. (Analysis complete)
- ☐ Yes. (If yard waste, storm clean-up, and normal tree maintenance activities involve twigs and/or branches of ½" or more in diameter of Asian Longhorn Beetle (ALB) host species, proper handling, and disposal is required. Cite state and/or federal phytosanitary certificates.)

Comments:

Tier II: Site-Specific Environmental Assessment
Pre-Award Activity Environmental Review

HUD Grant Number: [redacted]			
NYC OMB Submittal date:	[redacted]	**Application #:**	[redacted]
Date of field inspection:	[redacted]	**Date review initiated:**	[redacted]
Inspector name:	[redacted]	**Reviewer name:**	[redacted]
Name of applicant: [redacted]			
Property address:	[redacted]		
Borough:	[redacted]	**Census tract:**	[redacted]
Block:	[redacted]	**Lot:**	[redacted]

This is the site specfic review regarding pre-award activities (i.e. reimbursements) at the subject property. This review was conducted in accordance with HUD Guidance as presented in Notice CPD-13-05 Dated July 30, 2013.

Applicant is seeking reimbursement for pre-award activities:

1. Historic Preservation: Pre-Award activities in compliance with provisions of Section 106 of the National Historic Preservation Act and Programmatic Agreement?

☑ Yes. Activity in compliance.

Property is not listed or eligible for listing on the New York State and/or National Registers of Historic places, or Calendared or Designated as a New York City Landmark. Pre-award activities comply with Section 106 of the National Historic Preservation Act, as amended.

☐ No. Explain basis for conclusion. Activity not in compliance.

2. Floodplain Management and Elevation Requirements: Pre-Award activities in compliance with provisions of 24 CFR 55?

☑ Yes. Activity in compliance.

Home is substantially damaged, and proposed to be elevated under the BiB Program. Pre-award activities may be eligible for reimbursement under the Program.

☐ No. Explain basis for conclusion. Activity not in compliance.

3. Wetlands: Pre-Award activities in compliance with provisions of EO 11990 and Section 404 of the Clean Water Act and 6 NYCRR Part 663, Part 664, and Part 665?

☑ Yes. Activity in compliance.

Home is not in wetlands.

☐ No. Explain basis for conclusion. Activity not in compliance.

Summary:

Reimbursement may be requested for interior pre-award activities that included: insulation, roofing, siding, cabinetry, plumbing, appliances, doors, paint, flooring, capentry, walls, framing, and windows.

All activities are in compliance with this EA and eligible for potential reimbursement.

Tier II: Site-Specific Environmental Assessment
Environmental Mitigation & Conditions Summary

HUD Grant Number: [redacted]			
NYC OMB Submittal date:	[redacted]	**Application #:**	[redacted]
Date of field inspection:	[redacted]	**Date review initiated:**	[redacted]
Inspector name:	[redacted]	**Reviewer name:**	[redacted]
Name of applicant: [redacted]			
Property address:	[redacted]		
Borough:	[redacted]	**Census tract:**	[redacted]
Block:	[redacted]	**Lot:**	[redacted]
Target building site(s):	[redacted]	**GPS Coordinates (Lat/Long):**	[redacted] [redacted] [redacted]

The following environmental mitigation measures and conditions shall be complied with for the subject project:

- Historic Preservation: Ground disturbances associated with the proposed Undertaking are limited to within five feet of the footprint of the former structure.

- Floodplain Management: The lowest floor, including the basement, shall be elevated to the base flood elevation +2 feet; enclosed spaces below the design flood elevation shall be useable solely for parking of vehicles, building access, storage, or crawlspace, and shall be wet floodproofed; only flood-damage-resistant materials and finishes shall be utilized below the base flood elevation; and utilities and attendant equipment shall be located one foot above the base flood, or shall be constructed so as to prevent water from entering or accumulating within the components during conditions of flooding. The project is required to comply with the City's local floodplain ordinance, and participate in the National Flood Insurance Program.

- Lead-based Paint: Must adhere to Federal, State and local lead-based paint regulations as further detailed in Attachment D.

Should project plans change (e.g., ground disturbance for utilities and other site specific ground disturbance) the project may be subject to further review and additional mitigation measures.

NYC Recovery

Attachment B

TIER II: Site-Inspection Environmental Data Sheet

1 Application Number	[redacted]
2 Inspector Name	[redacted]
3 Block, Lot	[redacted]

	YES	NO
4. Are there any signs of poor housekeeping on the site? (mounds of rubble, garbage, or solid waste or improperly stored household quantities of petroleum products, pesticides, paints, thinners, cleaning fluids, automotive batteries, damaged, abandoned, and/or dangerous vehicles or other motorized equipment; pits, pools, lagoons, or ponds of hazardous substances or petroleum products located on the site)		NO
a. If yes, ask the customer about any known past uses.		
b. If yes, attach photos of suspected environmental issues if any.		
5. Are there any 55-gallon drums or containers visible on the site?		NO
a. If yes, are they leaking?		NO
b. If yes, are tank contents displayed on outside (used oil, unknown)?		
c. If yes, attach photos (capture drum label photo also if possible)		
6. Are there any signs of petroleum underground storage tanks (PUSTs) on the site?		NO
a. If yes, are there UST vents or fill pipes visible on the site?		NO
b. If yes, attach photos.		
7. Are there any signs of above-ground storage tanks (ASTs) on the site, or immediate adjacent visible sites?		NO
b. Attach photos.		
8. Are there any signs of surface staining?		NO
a. If yes, describe the issue.		
b. If yes, attach photos.		
9. Are there any ground water monitoring or injection wells on the site?		NO
a. If yes, attach photos.		
10. Is there evidence of a faulty septic system on the site?		NO
a. If yes, attach photos.		
11. Is there any permanent standing water, such as a pond or stream, located on the site? (Do not include run-off or ponding from recent weather events)		NO
a. If yes, attach photos.		
12. Is there any distressed vegetation on the site?		NO
a. If yes, attach photos.		

[redacted]

Attachment B

TIER II: Site-Inspection Environmental Data Sheet

13. Are there any encroachment issues impacting the structure?		NO
a. If yes, describe the issue.		
b. If yes, which side of the structure is affected?		
* front		
* back		
* left		
* right		
* entire footprint		
* roof		
c. If yes, approximate the distance from the structure.		
d. If yes, attach photos.		
14. What type of foundation is present?		
a. slab		
b. crawlspace	CRAWLSPACE	
c. basement		
d. walkout basement		
e. raised piles		
f. stone		
g. brick		
h. cellar		
15. If the structure is 45 years old or older, attach the following specific photos:	YES	
a. Full view of each façade of each existing building on the site		
b. Views towards the site from all directions		
c. View of frontages across the street from the site		
d. Attach views of the entire streetscape		
16.Is the customer aware of any significant historical events or persons associated with the structure?		NO
17. Does the subject lot have water frontage?		NO
a. If yes, what type of stabilization is present?		
* bulkhead (steel sheet or wood with piling)		
*rip-rap		
*gabion		
b. If yes, describe the condition of the stabilization - is it in disrepair? (broken, leaning, undermined, missing, etc)		
18. Measured First Floor Above Grade	[redacted]	
19. Estimated Total Square Footage as verified in the field.	[redacted]	

[redacted]

NYC Houses:
Feasibility Determination Report

HUD Grant Number: [redacted]			
Report Submittal Date:	[redacted]	**Applicant ID:**	[redacted]
Date of Field Inspection:	[redacted]	**Date of Feasibility Review:**	[redacted]
Feasibility Reviewer Name:	[redacted]	**QC Reviewer Name:**	[redacted]
Name of Applicant: [redacted]			

Property Overview:

Property Address:	[redacted]						
Borough:	[redacted]	**Census Tract:**	[redacted]	**Block:**	[redacted]	**Lot:**	[redacted]
GPS Coordinates (front right):		**Lat:**	[redacted]	**Long:**	[redacted]		
Year Built:	[redacted]	**Field SF:**	[redacted]	**Number of Levels:**	[redacted]		
Number of Units (DAR):	[redacted]	**Number of Units (DOF):**	[redacted]				
Basement/Cellar:	[redacted]	**Special Needs (Y/N)**	[redacted]	**Eligible SF:**	[redacted]		
SFHA:	[redacted]	**BFE:**	[redacted]	**LAG:**	[redacted]	**Measured FFAG:**	[redacted]
DOB Tag:		**Demolished (Y/N):**	[redacted]				
JOC Multiplier:	[redacted]	**In a Wetland (Y/N):**	[redacted]				
Open Permits (Y/N):	[redacted]	**Open Violations (Y/N):**	[redacted]				

Summary of Program Offering and Findings:

Program Offering Summary:

Preliminary program offering is Major Rehabilitation, pending issue resolution.

Based on the results of the damage assessment, the home is substantially damaged and/or estimated to be substantially improved by the scope of the Build it Back program. It has additionally been determined based on preliminary data that the home can be feasibly and cost effectively brought into compliance with Appendix G of the NYC building code.

The home is located in the 100-year floodplain and should be elevated to a height of approximately 9.25' above grade. The final design flood elevation must provide 2' of freeboard above the base flood elevation. A minimum first floor elevation will be provided by a New York State licensed surveyor prior to submission of the final construction drawings. Soil borings and a detailed structural engineering analysis will be required to confirm the feasibility and means and methods of the elevation.

Construction will include repair of the remaining storm damaged areas of the home to a basic finish level consistent with program standards. Any observed life-safety concerns will also be corrected. Additional upgrades and construction may be required to comply with NYC building code. Unless already present, sprinklers must be added to the residence.

The home was tested for the presence of lead hazards and asbestos containing materials. All identified lead hazards must be abated during construction. Appropriate abatement measures are required for all construction disturbing identified hazardous materials. Complete test results are attached to the record in CMS.

A site-specific Tier II environmental review has been completed for this property based on the estimated scope of work. Design and construction must comply with all the conditions and mitigation specified in that document. Should the project scope be significantly altered subsequent to the date of the Tier II document, a revised environmental review may be required prior to receiving funding.

Residents should anticipate needing to completely vacate the home during elevation. Details and duration will be confirmed during detailed scoping.

NYC Houses:
Feasibility Determination Report

Cost to Complete:			
Total Cost to Complete *(calculation shown on page 2 of this report):*			$188,531.41
Pathway Comparison:			
Description	*Total Value*	*Pre-storm Structure Value*	*Percentage Comparison*
Substantial Damage Comparison:	$123,181.27	$186,000.00	66.23%
Substantial Improvement Comparison Estimate:	$133,288.43	$186,000.00	71.66%
Reconstruction Comparison :	$188,531.41	$404,850.00	46.57%
Coordination of Benefits Summary:			
Completed By:	*Initial Est.*		*Coordination of Benefits Summary*
Completed Contractor Repairs		$66,637.11	$113,283.09
Completed Self-Performed Repairs		$0.00	$0.00
Completed Rapid Repairs		$8,382.08	$0.00
Completed Volunteer Repairs		$4,678.40	$0.00
+ Sum of Completed Repairs:		$79,697.59	$113,283.09

Cost to Complete:

Cost Inputs	**Total**
Total Needed Repairs and Mitigation (Moderate Rehab):	
Total Rehabilitation Cost (Major Rehab):	$188,531.41
Total Reconstruction Cost (Reconstruction):	
Total Cost to Complete:	$188,531.41

List of Report Attachments:

Document Name	*Attached (Y/N)*
Assessment Summary	Y
Elevation Calculation (only required if SD or SI Estimate are greater than 50%):	Y
Destroyed Property Calculation (only required if the property is destroyed):	N
Needed Repairs Detail Sheet	Y
DOF NPV Notice (only required if the property is destroyed):	N
Parcel Map (only required if the property is destroyed):	N
OEM Documents (only required if the property is destroyed and document is available):	N
Notes to the Feasibility Report (includes all calculation definitions)	Y

NYC Houses:
Feasibility Determination Report

Attachment: Assessment Summary

Assessment Summary:

Completed Repairs:		*Program Determinations*	
Completed By:	*Initial Est.*	*Substantial Damage*	*Substantial Improvement Est.*
+ Sum of Completed Repairs:	$79,697.59	$118,749.41	$118,749.41
Needed Repairs:		*Program Determinations*	
Construction Type	*Initial Est.*	*Substantial Damage*	*Substantial Improvement Est.*
Remaining Storm Damage	$2,974.40	$4,431.86	$3,884.57
Life Safety Improvements	$1,658.08		$2,165.45
+ Sum of Needed Repairs:	$4,632.48	$4,431.86	$6,050.02
Mitigation:		*Program Determinations*	
Mitigation Type	*Initial Est.*	*Substantial Damage*	*Substantial Improvement Est.*
Lead Mitigation Base Cost:			
Asbestos Mitigation Base Cost:			
Lead Based Paint Hazards			
Storm Damage Lead Mitigation			
Storm Damage Asbestos Mitigation			
Storm Damage Other Mitigation			
Life Safety Lead Mitigation			
Life Safety Asbestos Mitigation			
Life Safety Other Mitigation			
Raise Utilities *(excludes steam heat)*	$6,500.00		$8,489.00
+ Sum of Mitigation Costs:	$6,500.00	$0.00	$8,489.00
Assessment Summary Total *Sum of Completed Repairs, Needed Repairs and Mitigation Costs):*		$123,181.27	$133,288.43
DOF Value:		$186,000.00	$186,000.00
Substantial Damage/Substantial Improvement Est. Comparison:		66.23%	71.66%

NYC Houses:
Feasibility Determination Report

Attachment: Elevation Calculation

Elevation Overview:

BFE+Freeboard:	16'	Technically Feasible (Y/N):	Y
Eligible for Zoning Allowance (9') (Y/N):	No	Existing Foundation:	CRAWLSPACE
Height Above Ground (=BFE + Freeboard – LAG):	9.25'	Conceptual Foundation Type	Spread Footings & Columns/Piers
Substandard Street (Y/N)	Y	Fire District (Y/N):	N

Rehabilitation Estimate:

Assessment Summary Values		**Program Cost**
	Sum of Needed Repairs	$6,050.02
	+ Sum of Mitigation Costs	$8,489.00
	- Raise Utilities	-$8,489.00
Code Compliance for Structure:		
System	*Estimated Cost*	*Program Cost*
Electrical:	$6,188.70	
Sprinklers:	$12,862.50	
	+Sum of Code Compliance Costs:	$24,880.87
Home Elevation:		
Elevation Cost (breakdown provided in E-6)	$120,674.21	*Program Cost*
	+Sum of Elevation Costs:	$157,600.52
	Total Rehabilitation Cost *(Total of the 5 lines above):*	$188,531.41

Reconstruction Estimate:

Reconstruction Cost:	
Eligible Square Ft.	1,470
x Reconstruction Program SF Price	$255.00
= Base Reconstruction Cost	$374,850.00
+ Demolition: Fixed Cost	$30,000.00
+ Mitigation: Fixed Cost (use $15,000 if positive for asbestos and/or lead, otherwise leave blank)	
+ Environmental Compliance	
Total Reconstruction Cost	$404,850.00

Reconstruction Comparison:

Comparison Factors	*Program Cost*
Total Rehabilitation Cost *(from above):*	$188,531.41
Total Reconstruction Cost *(from above):*	$404,850.00
Reconstruction Comparison *(Total Rehabilitation/Total Reconstruction: display as a %):*	46.57%

[redacted]

NYC Houses:
Feasibility Determination Report

Attachment: Elevation Calculation

Elevation Cost Breakdown:

[redacted]

ELEVATION COST ESTIMATE FOR 1 to 4 FAMILY DETACHED HOME ON SHALLOW FOUNDATION WITHOUT BASEMENT

	Building Plan Dimensions			**Elevation Data**		
	Width (ft):	18.67		BFE (ft):	14.00	
	Length (ft):	56.67		DFE (ft):	16.00	
	Estimated Building Plan Area (SF):	1,130		LAG (ft):	6.75	
	Elevated Height Above Grade (ft)	9.25				
	Estimated Number Footings	24.00				
Item No.	**Description**	**Quantity**	**Unit**	**Unit Price**	**Total Cost**	**Details/Assumptions**
1 - HOUSE LIFTING						
1.1	LIFTING - BASE COST (up to 6 ft)	1	LS	$35,000.00	$35,000	Base cost for lifting operation
1.2	LIFTING - ADDITIONAL COST (6 to 8 ft)	2.00	FT	$500.00	$1,000	Additional cost for higher lift
1.3	LIFTING - ADDITIONAL COST (8 to 12 ft)	1.25	FT	$1,500.00	$1,882	Additional cost for higher lift
2 - SHALLOW FOUNDATIONS (FOOTINGS)						
2.1	FOOTINGS	24	EA	$951.00	$22,824	3 ft x 3 ft reinforced concrete footing
3 - PIERS/COLUMNS (FROM FOOTING TO HOUSE)						
3.1	REINFORCED CONCRETE PIERS/COLUMNS*	294.1120834	LF	$120.00	$35,293	12-inch square reinforced concrete
3.2	HOUSE FRAME CONNECTIONS TO PIERS*	24	EA	$332.00	$7,968	Costs for connections to house frame
4 - HOUSE FRAMING AND DETAILS						
4.1	INSULATION	1,186	SF	$2.00	$2,373	Underfloor insulation on raised home
4.2	SILL BOARDS	151	LF	$4.20	$634	Perimeter 2x8 boards installed
4.3	ACCESS STAIRS	2	EA	$4,000.00	$8,000	2 new access stairs; no ADA elevator
4.4	UTILITIES - SANITARY SEWER	24	LF	$60.00	$1,440	New run from existing location below
4.5	UTILITIES - PLUMBING	24	LF	$60.00	$1,440	grade to new elevation, x 1.5
4.6	UTILITIES - ELECTRICAL	47	LF	$60.00	$2,820	Same length as other utilities x 2.5
SUBTOTAL COST					$120,674	
SQUARE FOOTAGE COST					$106.81	

[redacted]

NYC Houses:
Feasibility Determination Report

Attachment: Needed Repairs Details Sheet

Unrepaired Storm Damage

Location	Cost
Main Level	$2,974.40
Total	$2,974.40

Life Safety Improvements

Location	Cost
Main Level == Living Room	$224.35
Level 2 == Bedroom	$126.78
Level 2 == Stairs	$126.78
Main Level == Bedroom 1	$351.13
Main Level == Bedroom 2	$351.13
Main Level == Bedroom 3	$351.13
Main Level == Hallway	$126.78
Total	$1,658.08

NYC Houses:
Feasibility Determination Report

Attachment: Notes to the Feasibility Report

A. Glossary of Terms Used

Assessment Summary — An attachment to the feasibility determination report that documents the values of completed repairs, needed repairs, and associated mitigation as observed during the damage assessment that contribute to determining whether the home is substantially damaged or is estimated to be substantially improved by the scope of Build it Back Program construction.

Basement — An initial determination based on the measured height of the first floor joist above ground that the home most likely has a basement following the NYC Building Code definition. A finding of basement will be recorded for all homes with a partially below grade level and a measured first floor above grade greater than 4 feet.

BFE — The Base Flood Elevation is the level in feet measured from datum of the 100-year flood at the property as indicated on the Preliminary Flood Insurance Rate Map (PFIRM) prepared by the Federal Emergency Management Agency (FEMA). Datum is a recognized base surveyor elevation that can be used anywhere in the U.S.

Cellar — An initial determination based on the measured height of the first floor joist above ground that the home most likely has a cellar following the NYC Building Code definition. A finding of cellar will be recorded for all homes with a partially below grade level and a measured first floor above grade of 4 feet or less.

Code Compliance for Structure

The anticipated building systems affected and estimated value of additional construction required to bring the entire home into compliance with the current NYC Building Code. The final scope of work and construction costs will be determined at detailed scoping.

Conceptual Foundation Type

A conceptual elevated foundation system based on the SFHA, BFE, and visual assessment of the property. The final elevated foundation system will be determined at detailed scoping. Conceptual foundation types include:

- Shallow spread footings with fully grouted, reinforced masonry piers for homes located in riverine SFHAs; or
- Deep drilled shaft foundations with fully grouted, reinforced masonry piers for homes located in coastal SFHAs and SFHAs designated as areas with limited moderate wave action.

NYC Houses:
Feasibility Determination Report

Coordination of Benefits Summary

The valuation of permanent storm recovery construction already completed in the home as observed during the damage assessment that is compared to validated sources of storm recovery benefits awarded to the homeowner. The initial estimate is based on industry standard contractor pricing in the outer boroughs of New York City in August 2013. The value of work completed compared to benefits received depends on the entity that performed the work:

- A paid general contractor
- The homeowner or other unpaid friends and/or family members
- NYC Rapid Repairs
- A volunteer or charitable organization that donated their time

Cost to Complete — The cost to complete is an initial estimate of the total program cost of construction to complete the home. It includes contractor multipliers.

Demolished — Yes if there was no home structure remaining when the damage assessor inspected the property or if the structure was determined to be a total loss and unsafe to enter and assess.

Destroyed Property Calculation

An attachment to the feasibility determination report that is included only when the home was assessed to be demolished. The attachment documents the calculation of the estimated reconstruction cost to complete.

DOB Tag — The color tag assigned to the home by the NYC Department of Buildings if the home was inspected by them following Hurricane Sandy.

DOF NPV Notice — The NYC Department of Finance Notice of Property Value issued January 15, 2012 is used to support a determination of Eligible SF, particularly when the home is already destroyed.

Elevation Calculation — An attachment to the feasibility determination report that is included only when a home that is not already demolished is determined to be substantially damaged or estimated to be substantially improved. The attachment documents the calculation and analysis of:

- The estimated rehabilitation cost including home elevation, if assumed feasible;
- The estimated reconstruction cost to demolish the existing home and rebuild a new home; and
- The comparison of the rehabilitation cost to the reconstruction cost to determine the preferred cost effective program option.

Eligible for Zoning Allowance

Yes if the elevation height mandated by the NYC Building Code Appendix G

and Build it Back program policy meets the conditions of the NYC zoning allowance that provides for additional home elevation in order to create parking beneath the elevated structure. One and two family homes being raised to more than 6 feet above grade, but less than 9 feet, may be raised to 9 feet to allow for parking without applying for a zoning variance. Build it Back will not provide this additional home elevation.

Eligible SF — For homes to be reconstructed or elevated only, the maximum gross square footage to be built back under the program. For destroyed homes, multiple sources of City data are consulted in order to determine the most probable pre-storm square footage of the home. For non-destroyed homes, it is the above ground portion of the measured Field SF.

Environmental Compliance — The estimated cost of environmental abatement and mitigation required by the National Environmental Policy Act (NEPA) and within Build it Back program policy standards associated with reconstructing a new home.

Existing Foundation — The prominent foundation type currently supporting the home generally classified as:

- Slab for homes with a foundation slab only;
- Crawlspace for homes with foundation structures having minimal height; or
- Basement for homes with foundation structures that either are a full story level or have approximately full story height.

Field SF — The gross square footage of your home as measured by the damage assessor when the property was inspected. If the home has been demolished and/or destroyed prior to the damage assessment, the damage assessor's best estimate of the gross square footage of the home before the storm based on visible traces, photographs, etc.

Fire District — Yes if the property is located in a mapped NYC fire district. Fire district maps are found in NYC Building Code Appendix D. The entire boroughs of Manhattan, Brooklyn, and the Bronx are considered fire districts. If yes, sprinklers are required to be added to the home if not already installed.

Freeboard — The height above the BFE a structure is elevated. Build it Back policy is to elevate all 1 and 2 unit homes no less than 2 feet above BFE and all 3 and 4 unit homes no less than 1 foot above BFE when elevation is required by NYC Building Code Appendix G.

GPS Coordinates — During the damage assessment, the damage assessor obtained a GPS location from the front, right corner of the home. This location is presented in digital

	format and is an additional locator of the property and structure that was assessed.
Height Above Ground	The anticipated finished height above ground of the first floor after elevation is complete.
Home Elevation (Cost)	An initial estimate of the costs to elevate the home to the approximate height above ground determined by the BFE, freeboard, and LAG. The cost estimate is based on the height of elevation, the dimensions of the building footprint, and the conceptual foundation type. The final requirements and costs will be determined at detailed scoping.
In a Wetland	Yes if the property is found to be within a mapped wetland or the regulated adjacent area to a mapped wetland based on geospatial analysis. Yes does not necessarily imply the project will impact the wetland.
JOC Multiplier	The negotiated job order contract multiplier for the rehabilitation contractor assigned to the property's region. This value will be multiplied to established unit prices for all construction completed by a program rehabilitation contractor.
LAG	The Lowest Adjacent Grade is the lowest elevation on the property measured from datum. Datum is a recognized base surveyor elevation that can be used anywhere in the U.S. The LAG provides an initial estimate of the ground elevation around the home to compare to the BFE.
Measured FFAG	The height between the lowest ground point near the building perimeter and the bottom of the first floor above ground (FFAG) as measured by the damage assessor when the property was inspected.
Mitigation	The value of additional or altered construction that is required by federal, state, or NYC law and/or Build it Back program policies and the specific conditions of the assessed property. Mitigation activities in this program can include: • Abatement of observed Lead-Based Paint Hazards in the home according to a HUD-compliant Lead Risk Assessment; • Mitigation and controls when disturbing painted surfaces that tested positive for lead-based paint but are not determined to be Lead-Based Paint Hazards according to a HUD-compliant Lead Risk Assessment; • Abatement of disturbed asbestos containing materials as determined by the final construction scope of work and sampling performed by a Certified Asbestos Investigator; • Environmental abatement and mitigation required by the National Environmental Policy Act (NEPA) and within Build it Back program policy standards such as use of approved in-kind materials in compliance with the Programmatic Agreement for recognized historic landmarks,

installing vapor barriers to protect the property from downstream hazardous material contamination, or limited hazardous material removal; or

- Raising typical home utilities above the floodplain when feasible and the existing heating system is not steam based.

Needed Repairs — The value of the repairs still needed to return the home to near pre-storm condition and ensuring decent, safe, and sanitary conditions as observed during the damage assessment. Needed repairs are classified by the type of construction:

- Unrepaired storm damage
- Life-safety improvements

Needed Repair Detail Sheet — An attachment to the feasibility determination report that lists the areas of the home where needed repairs were identified by the damage assessor when the property was inspected. The final scope of work and construction locations will be determined at detailed scoping.

Number of Levels — The total number of stories in the home as observed by the damage assessor when the property was inspected. Cellars are not included as a level.

Number of Units (DAR) — The number of separate living units located in the home as identified by the damage assessor when the property was inspected. This number is based on information provided to the damage assessor by the homeowner and visual observation of the home. The number does not necessarily indicate living units in compliance with NYC Building Code regulations.

Number of Units (DOF) — The number of separate living units located in the home according to the NYC Department of Finance records.

OEM Documents — The file of letters, checklists, reports and photos compiled by the NYC Office of Emergency Management for homes that were destroyed following Hurricane Sandy. The compiled information is used to support a determination of Eligible SF when available and the home is already destroyed.

Open Permits — Yes if there is at least one permit on file with the NYC Department of Buildings for work on the property that has not been fully signed off. The permit(s) is not expected to alter the program offering indicated in this report.

Open Violations — Yes if there is at least one active violation assessed against the property by the NYC Department of Buildings. The violation(s) does not affect the program offering indicated in this report.

Parcel Map — A map indicating the assessed property and structure footprint according to the NYC MapPLUTO database. The map and footprint data is used to support a determination of Eligible SF, particularly when the home is already destroyed.

Reconstruction Comparison — The reconstruction comparison is the ratio of construction costs to rehabilitate and elevate the home over the costs to demolish and reconstruct a new home. The reconstruction comparison is calculated only when a home is substantially damaged or estimated to be substantially improved. If the ratio is 80% or greater the program will recommend the reconstruction offering.

Reconstruction Program SF Price — The estimated new home construction cost per square foot established by the Build it Back program. The cost depends on the Eligible SF of the reconstructed home.

Site Prep — The estimated cost of site preparation work required prior to beginning reconstruction for a home that has already been destroyed. Site prep items can include excavating and backfilling existing foundation remnants.

SFHA — The Special Flood Hazard Area is the official terminology for the flood zone the property is located in. It is a letter or letter and number code delineated on the Preliminary Flood Insurance Rate Map (PFIRM) prepared by the Federal Emergency Management Agency (FEMA)for areas located in the 100-year floodplain. No code is entered for properties outside of the 100-year floodplain.

Special Needs — Yes if there are special accessibility or other needs of the household members that may require custom construction, as identified through the Build it Back application or the damage assessor when the property was inspected.

Substandard Street — Yes if the width of the street the home faces is less than the minimum standard 38 feet for public streets set by the NYC Fire Code. If yes, sprinklers are required to be added to the home if not already installed.

Substantial Damage — The substantial damage comparison is the ratio of the costs of all repairs necessary to restore the home to its pre-storm condition over the pre-storm market value of the home. The costs of all repairs necessary to restore the home to its pre-storm condition include repairs already made and those still needed. If the ratio is 50% or greater, the home is classified as substantially damaged and NYC Building Code requires the home be made to comply with the flood zone regulations of BC Appendix G as though it were a new building.

Substantial Improvement Estimate — The substantial improvement comparison is a ratio of the costs of all work associated with a project over the pre-storm market value of the home. For the

	purposes of this program, the "project" is repair of storm damage and includes unrelated work if it is to be performed during the same time period. This Feasibility Determination Report only includes a preliminary estimate of the substantial improvement calculation. The final calculation will be made after the final scope of work and cost of construction is determined at detailed scoping. If the ratio is 50% or greater, the home is classified as substantially improved and NYC Building Code requires the home be made to comply with the flood zone regulations of BC Appendix G as though it were a new building.
Technically Feasible	Yes if initial visual assessment of the property supports elevation being possible with the means and methods authorized by Build it Back program policies. A final feasibility determination will be made after engineering investigation at detailed scoping.
Year Built	The year the home was built according to the NYC Department of Finance.

NYC Houses:
Feasibility Determination Report

C. Eligible Square Footage Determination

The Eligible SF was determined as the Field SF because the property contains no basement, as given by the sketch summary.

Eligible SF = 1470

EXHIBIT M
Whistleblower Protection Expansion Rider

WHISTLEBLOWER PROTECTION EXPANSION ACT RIDER

1. In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the New York City Administrative Code, respectively,

(a) Contractor shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this Contract to (i) the Commissioner of the Department of Investigation, (ii) a member of the New York City Council, the Public Advocate, or the Comptroller, or (iii) the City Chief Procurement Officer, ACCO, Agency head, or Commissioner.

(b) If any of Contractor's officers or employees believes that he or she has been the subject of an adverse personnel action in violation of subparagraph (a) of paragraph 1 of this rider, he or she shall be entitled to bring a cause of action against Contractor to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (i) an injunction to restrain continued retaliation, (ii) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (iii) reinstatement of full fringe benefits and seniority rights, (iv) payment of two times back pay, plus interest, and (v) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

(c) Contractor shall post a notice provided by the City in a prominent and accessible place on any site where work pursuant to the Contract is performed that contains information about:

(i) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the Contract; and
(ii) the rights and remedies afforded to its employees under New York City Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the Contract.

(d) For the purposes of this rider, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

(e) This rider is applicable to all of Contractor's subcontractors having subcontracts with a value in excess of $100,000; accordingly, Contractor shall include this rider in all subcontracts with a value a value in excess of $100,000.

2. Paragraph 1 is not applicable to this Contract if it is valued at $100,000 or less. Subparagraphs (a), (b), (d), and (e) of paragraph 1 are not applicable to this Contract if it was solicited pursuant to a finding of an emergency. Subparagraph (c) of paragraph 1 is neither applicable to this Contract if it was solicited prior to October 18, 2012 nor if it is a renewal of a contract executed prior to October 18, 2012.

NOTICE TO BIDDERS, PROPOSERS, CONTRACTORS, AND RENEWAL CONTRACTORS

This contract includes a provision concerning the protection of employees for whistleblowing activity, pursuant to New York City Local Law Nos. 30-2012 and 33-2012, effective October 18, 2012 and September 18, 2012, respectively. The provisions apply to contracts with a value in excess of $100,000.

Local Law No. 33-2012, the Whistleblower Protection Expansion Act ("WPEA"), prohibits a contractor or its subcontractor from taking an adverse personnel action against an employee or officer for whistleblower activity in connection with a City contract; requires that certain City contracts include a provision to that effect; and provides that a contractor or subcontractor may be subject to penalties and injunctive relief if a court finds that it retaliated in violation of the WPEA. The WPEA is codified at Section 12-113 of the New York City Administrative Code.

Local Law No. 30-2012 requires a contractor to prominently post information explaining how its employees can report allegations of fraud, false claims, criminality, or corruption in connection with a City contract to City officials and the rights and remedies afforded to employees for whistleblowing activity. Local Law No. 30-2012 is codified at Section 6-132 of the New York City Administrative Code.

EXHIBIT N
Not Used

EXHIBIT O
Not Used