The State of Connecticut

Department of Housing (DOH)

Community Development Block Grant Disaster Recovery Program (CDBG-DR)

Owner Occupied Rehabilitation and Rebuilding Program (OORR)

BID PACKAGE

For

Rehabilitation/Reconstruction work for:

O'Neil and Shena Anderson

896-898 Howard Avenue

Bridgeport, CT

Prepared By:

Martinez Couch & Associates, LLC
1084 Cromwell Avenue Suite A-2
Rocky Hill, CT
860-436-4364

Project #: 2149 – 896-898 Howard Avenue, Bridgeport, CT

EQUAL HOUSING OPPORTUNITY

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Section 1

ADVERTISEMENT FOR BIDS

Project # 2149 – 896-898 Howard Avenue, Bridgeport, CT

The State of Connecticut Department of Housing (DOH) is seeking proposals through a Request for Proposal (RFP) process for the rehabilitation, reconstruction and/or mitigation of residential structures damaged by Superstorm Sandy in compliance with all applicable local, federal, and state statutory requirements with special attention paid to requirements for Community Development Block Grants under the United States Department of Housing and Urban Development ("HUD") Disaster Recovery grant program.

Separated sealed bids for 896-898 Howard Avenue, Bridgeport, CT will be received by Martinez Couch & Associates, LLC until 4 o'clock PM on March, 4th, 2015.

The Information to Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Form of Bid Bond, Performance and Payment Bond or Security, and other contract documents may be examined on the Department of Housing Hurricane Sandy Recover website at www.ct.gov/doh/ and click on the "Hurricane Sandy" link.

Copies of plans may be downloaded directly from the Department of Housing website under bid notices or obtained at the office of Martinez Couch & Associates, LLC located at 1084 Cromwell Avenue, Suite 2 Rocky Hill, CT 06067 upon payment of $50.00 for each set. Requests for copies plans shall provide 2 days notice to Martinez, Couch and Associates, LLC.

DOH reserves the right to waive any informalities or to reject any or all bids.

Attention to bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wages rates to be paid under the contract (if applicable), Section 3, Segregated Facilities, Section 109 and E. O. 11246.

No bidder may withdraw his bid within 30 calendar days after the actual date of the bid opening thereof.

INFORMATION FOR BIDDERS

Receipt and Opening of Bids:

The State of Connecticut Department of Housing (herein called the "DOH"), invites bids on the form attached. Bids will be received by DOH at the office of Martinez Couch & Associates, LLC until 4 o'clock PM on March, 4th, 2015.

The envelopes containing the bids must be sealed, addressed to Mr. Richard Couch, P.E. at Martinez, Couch & Associates, LLC. and designated as bid for 896-898 Howard Avenue, Bridgeport, CT .

DOH may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement there considered. NO bidder may withdraw a bid within 30 days after the actual date of the opening thereof.

Mandatory Walk Through: All bidders must attend a mandatory walk through of the property designated above. The date and time of the walk through is set for 9:00 AM on February, 18th, 2015.

Preparation of Bids:

Each bid must be submitted on the prescribed form and accompanied by Certification by Bidder Regarding Equal Employment Opportunity, Form HUD-950.1, and Certification of Bidder Regarding Section 3 and Segregated Facilities. All blank spaces for bid process must be filled in, in ink or typewritten, in both words and figures, and the foregoing Certifications must be fully completed and executed when submitted.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

Subcontracts: The bidder is specifically advised that any person, for, or other party to whom it is proposed to award a subcontract under this contract:

1. Must be acceptable to the DOH after verification by the State of the current eligibility status; and,
2. Must submit Form HUD-950.2, Certification by Proposed Subcontractor Regarding Equal Employment Opportunity and Certification of Proposed Subcontractor Regarding Section 3 and Segregated Facilities. Approval of the proposed subcontractor award cannot be given by the DOH unless and until the proposed subcontractor has submitted the Certifications and/or other evidence showing that it has fully complied with any reporting requirements to which it is or was subject. Although the bidder is not required to attach such Certifications by proposed subcontractors to his/her bid, the bidder is here advised of this requirement so that appropriate action can be taken to prevent subsequent delay in subcontract awards.

Method of Bidding: DOH invites the following bid(s):

Qualifications of Bidder: The DOH may make such investigations as he/she deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the DOH all such information and date for this purpose as the DOH may request. The DOH reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the DOH that such bidder is property qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

The State's set Contractor Prequalifications are available at the Department of Housing's Hurricane Sandy Recovers website www.ct.gov/doh/ and click on the "Hurricane Sandy" link.

Conditions of Work: Each bidder must inform him/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provision of his/her contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

Addenda and Interpretations: No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to: Martinez, Couch & Associates, LLC. at 1084 Cromwell Avenue, Suite A-2 Rocky Hill, CT 06067 and, to be given consideration, must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instruction will be in the form of written addenda to the specifications which, if issued, will be forwarded by electronic mail and posted on DOH's Hurricane Sandy website to all prospective bidders (at the respective email addresses furnished for such purposes), not later than three days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.

Performance and Payment Bonds: A performance and payment bond will be required of the successful bidder (contractor) for 100 percent of the contract price on contracts over $100,000.

Notice of Special Conditions: Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

1. Inspection and testing of materials
2. Insurance requirements
3. Wage rates (if applicable)
4. State allowances

Laws and Regulations: The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

Method of Award-Lowest Qualified Bidder: If at the time this contract is to be awarded, the lowest base bid submitted by a responsible bidder does not exceed the amount of funds then estimated by the DOH as available to finance the contract; the contract will be awarded on the base bid only. If such bid exceeds such amount, the DOH may reject all bids or may award the contract on the base bid combined with such deductible alternatives applied in numerical order in which they are listed in the Form of Bids, as produces a net amount which is within the available funds.

If the homeowner wishes to select a prequalified bidding contractor other than the lowest and most responsible bidder, said owner is responsible for paying the difference between the lowest bidder and their chosen bidder from their own financing.

Obligation of Bidder: At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

Safety Standards and Accident Prevention: With respect to all work performed under this contract, the contractor shall:

1. Comply with the safety standards provision of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register," Volume 36, No 75, Saturday, April 17, 1971.
2. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) who may be injured on the job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

Contract Progress Schedule: Each bid shall be accompanied by a Contract Progress Schedule. Such Schedule shall list the bidder's timetable for completion of the contract.

BID FORM

The undersigned, being familiarized with the local conditions affecting the cost of the work and with the Drawings, Scope of Work, Specifications, Invitation to Bidders, Instructions to Bidders, General Conditions, Bid Form, Form of Contract and Form of Bonds for Project 2149 896-898 Howard Avenue, Bridgeport, CT and Addenda No. and _____ thereto, as prepared by Martinez Couch and Associates, LLC, Rocky Hill Connecticut, and on file in the office of DOH, hereby proposes to provide all work as required for the rehabilitation and reconstruction for said Project No. 2149- 896-898 Howard Avenue located at 896-898 Howard Avenue in Bridgeport, State of Connecticut, all in accordance with the Drawings and Specifications, for the sum of :

_____ Dollars ($_____).

Section #	***Scope of Work***	***Subcontractor***	***Cost***	
			$ / Per	***Total ($)***
	General Conditions		/L.S.	
01 50 00	Temporary Facilities		/L.S.	
02 83 19.13	Lead Paint Abatement		/L.S.	
02 85 00	Mold Remediation		/L.S.	
06 10 00	Rough Carpentry – Roof Sheathing		/S.F.	
06 40 00	Architectural Woodwork		/S.F.	
07 31 00	Asphalt Shingles		/S.F.	
07 71 23	Gutters & Downspouts		/L.S.	
09 26 00	Gypsum Board		/S.F.	
09 30 00	Tiling		/S.F.	
09 68 00	Carpeting		/S.F.	
09 90 00	Paintings Coatings		/S.F.	
	Electric Test		/L.S.	
	Foundation Crack Repair		/L.S.	
TOTAL COST				

Unit Prices - For Unforeseen Conditions During Repairs

All unit prices, unless otherwise noted, shall include all incidental work normally required in connection with the particular type of work involved and would include, but not necessarily be limited to costs of materials, material accessories, material waste, fabrication, labor, supervision, engineering, layout, transportation, rigging, insurances, overhead, and profit. All labor rates, unless otherwise noted, shall include, but not necessarily be limited to all fringe benefits, insurances, overhead, and profit.

Item	***Rate ($/Per)***
Carpenter Labor Rate	/H.R.
Electrician Labor Rate	/H.R.

The undersigned agrees that if within the period of thirty (30) days after the opening of bids, or when extended to the next work day immediately following said period, notice of the acceptance of this bid shall be mailed, or delivered to him/her at the business address given below, or at any time thereafter before this bid is withdrawn, will within fifteen (15) days thereafter deliver to the DOH, where directed, a contract properly executed in such number of counterparts as may be required by said DOH, on the forms annexed, with such changes therein as shall have been made by DOH, prior to the time named for delivery of this proposal, together with an executed Completion Assurance Agreement with a Letter of Credit in a form satisfactory to the DOH and a letter indicating those

FORM OF NON-COLLUSIVE AFFIDAVIT

AFFIDAVIT

State of _____)

County of _____)

_____, being first duly sworn, deposes and says:

That he/she is,_____ the party making the foregoing proposal for bid, that such proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not, in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or of any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against DOH or any person interested in the proposed contract, and that all statements in said proposal for bid are true.

Project No._____

Location _____

_____

Signature

_____

Name and Title

_____

Date

(Signature should be notarized.)

BIDDER'S CERTIFICATION OF ELIGIBILITY

By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

(1) Be awarded contracts by any agency of the United States Government or HUD; or,

(2) Participate in HUD programs pursuant to 24 CFR part 24.

_____

(Name of Bidder)

_____

(Address)

BY:_____

Title: _____

NOTE: This certification is a material representation of fact upon which reliance is placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal programs.

CERTIFICATION OF GENERAL BIDDERS ON CDBG-DR CONSTRUCTION PROJECTS

I. CERTIFICATION REGARDING HEALTH AND SAFETY

The undersigned hereby certifies that he/she is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee

II. CERTIFICATION REGARDING NON-COLLUSION AND DEBARMENT

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies that neither he/she nor any firm, corporation, partnership or association in which he/she has a substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6 (b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR, Part 5), or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (40 USC 276a). The undersigned further certifies that said undersigned is not presently debarred from doing public construction work in the State of Connecticut.

Date: _____

_____

Name of General Bidder

By _____

Signature

_____

Print name and title

_____

Business Address

_____

Street Address City and State

OSHA-10 OSHA-10

CERTIFICATION OF SUB- BIDDERS (IF ANY) ON CDBG-DR CONSTRUCTION PROJECTS

I. CERTIFICATION REGARDING HEALTH AND SAFETY

The undersigned hereby certifies that he/she is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee

II. CERTIFICATION REGARDING NON-COLLUSION AND DEBARMENT

The undersigned further certifies under penalties of perjury that this subbid is in all responses bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies that neither he/she nor any firm, corporation, partnership or association in which he/she has a substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6 (b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR, Part 5), or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (40 USC 276a). The undersigned further certifies that said undersigned is not presently debarred from doing public construction work in the State of Connecticut.

Date _____

_____

Name of Sub-bidder

By _____

Signature

_____

Print Name and Title

_____

Business Name

_____

Street Address, City and State

PERFORMANCE AND PAYMENT BOND

(For contracts over $100,000)

KNOW ALL MEN BY THESE PRESENTS: THAT we, _____, as PRINCIPAL, and_____ , as SURETY, are held firmly bound unto_____ hereinafter called the DOH, in the penal sum of _____ ($_____), for the payment of which sum we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally.
WHEREAS, Principal has entered into a certain Contract with DOH, dated _____, a copy of which is hereto attached and made a part hereof.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall in all respects fully perform the Contract and all duly authorized modifications thereof, during its original term and any extensions thereof that may be granted and during any guaranty period for which the Contract provides, and if the Principal shall fully satisfy all claims arising out of the prosecution of the work under the Contract and shall fully indemnify DOH for all expenses which it may incur by reason of such claims, including its attorney's fees and court costs, and if the Principal shall make full payment to all persons supplying labor, services, materials, or equipment in the prosecution of the work under the Contract, in default of which such persons shall have a direct right of action hereupon; and if the Principal shall pay or cause to be paid all sales and use taxes payable as a result of the performance of the Contract as well as payment of gasoline and special motor fuel taxes in the performance of the Contract and all motor vehicle fees required for commercial motor vehicles used in connection with the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect. No modification of the Contract or extension of the term thereof, nor any forbearance on the part of DOH shall in any way release the Principal or the Surety from liability hereunder. Notice to the Surety of any such modification, extension, or forbearance is hereby waived.

IN WITNESS WHEREOF, the aforesaid Principal and Surety have executed this instrument and affixed their seals hereto, this _____ day of _____.

_____ _____
Principal Surety

_____ _____
Name and Title

(Signatures must be notarized.)

(Power-of-Attorney for person signing for Surety Company must be attached to bond.)

The rate of premium on this bond is $_____ per thousand.

The total amount of premium charge is $_____.

(The above is to be filled in by Surety Company.)

SUBCONTRACTOR IDENTIFICATION

(Provide additional forms for more subcontractors, as needed prior to contract execution.)

This form is a part of your bid package and must be submitted along with the itemized and formal bid forms at the time of the bid opening. Failure to submit a completed document could result in the disqualification of your bid.

Name of Subcontractor: _____

Address: _____
Trade: _____
Hourly Wage: _$_____ Full Contract Price: _$_____
Federal Tax# or SSN #: _____
Male Owned Business _____ Female Owned Business_____
Is he/she of Hispanic or Latino ethnicity? Yes_____ No_____
Race: (Please check one)
____White ____American Indian/Alaskan Native
____Black/African American ____Hasidic Jew
____Asian/Pacific American

Name of Subcontractor: _____
Address: _____
Trade: _____
Hourly Wage: _$_____ Full Contract Price: _$_____
Federal Tax# or SSN #: _____
Male Owned Business _____ Female Owned Business_____
Is he/she of Hispanic or Latino ethnicity? Yes_____ No_____
Race: (Please check one)
____White ____American Indian/Alaskan Native
____Black/African American ____Hasidic Jew
____Asian/Pacific American

Name of Subcontractor: _____
Address: _____
Trade: _____
Hourly Wage: _$_____ Full Contract Price: _$_____
Federal Tax# or SSN #: _____
Male Owned Business _____ Female Owned Business_____
Is he/she of Hispanic or Latino ethnicity? Yes_____ No_____
Race: (Please check one)
____White ____American Indian/Alaskan Native
____Black/African American ____Hasidic Jew
____Asian/Pacific American

_____ _____
Contractor's Signature Date

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F R 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION OF BIDDER

Name and address of Bidder (include zip code)

_____

_____

_____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.
   ( ) YES ( ) NO

2. Compliance reports were required to be filed in connection with such contract or subcontract.
   ( ) YES ( ) NO

3. Bidder has filed all compliance reports due under applicable instructions, including SF.100.
   ( ) YES ( ) NO ( ) NOT REQUIRED

4. Have you ever seen or are you being considered for sanction due to violation of Executive Order 11246, as amended?
   ( ) YES ( ) NO

5. No segregated facilities will be maintained.

NAME AND TITLE OF SIGNER (Please type.)

_____

_____ _____

SIGNATURE DATE

Green Building Standards Checklist

HUD CPD Green Building Retrofit Checklist

The CPD Green Retrofit Checklist promotes energy efficiency and green building practices for residential retrofit projects. Grantees must follow the checklist in its entirety and apply all measures within the Checklist to the extent applicable to the particular building type being retrofitted. The phrase "when replacing" in the Checklist refers to the mandatory replacement with specified green improvements, products, and fixtures only when replacing those systems during the normal course of the retrofit.

WATER AND ENERGY CONSERVATION MEASURES

N/A **Water-Conserving Fixtures**
Install or retrofit water conserving fixtures in any unit and common facility, use the following specifications: Toilets-- 1.28 gpf; Urinals-- 0.5 gpf; Showerheads-- 2.0 gpm; Kitchen faucets-- 2.0 gpm; and Bathroom faucets-- 1.5gpm. [gpf = gallons per flush; gpm = gallons per minute]

N/A **ENERGY STAR Appliances**
Install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators, if these appliance categories are provided in units or common areas.

N/A **Air Sealing: Building Envelope**
Seal all accessible gaps and penetrations in the building envelope. If applicable, use low VOC caulk or foam.

N/A **Insulation: Attic** (if applicable to building type)
For attics with closed floor cavities directly above the conditioned space, blow in insulation per manufacturer's specifications to a minimum density of 3.5 Lbs. per cubic foot (CF). For attics with open floor cavities directly above the conditioned space, install insulation to meet or exceed IECC levels.

N/A **Insulation: Flooring** (if applicable to building type)
Install ≥ R-19 insulation in contact with the subfloor in buildings with floor systems over vented crawl spaces. Install a 6-mil vapor barrier in contact with 100% of the floor of the crawl space (the ground), overlapping seams and piers at least 6 inches.

N/A **Duct Sealing** (if applicable to building type)
In buildings with ducted forced-air heating and cooling systems, seal all penetrations of the air distribution system to reduce leakage in order to meet or exceed ENERGY STAR for Homes' duct leakage standard.

N/A **Air Barrier System**
Ensure continuous unbroken air barrier surrounding all conditioned space and dwelling units. Align insulation completely and continuously with the air barrier.

N/A **Radiant Barriers: Roofing**
When replacing or making a substantial repair to the roof, use radiant barrier sheathing or other radiant barrier material; if economically feasible, also use cool roofing materials.

N/A **Windows**
When replacing windows, install geographically appropriate ENERGY STAR rated windows.

N/A **Sizing of Heating and Cooling Equipment**
When replacing, size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or 2012 ASHRAE Handbook--HVAC Systems and Equipment or most recent edition.

N/A **Domestic Hot Water Systems**
When replacing domestic water heating system(s), ensure the system(s) meet or exceed the efficiency requirements of ENERGY STAR for Homes' Reference Design. Insulate pipes by at least R-4.

N/A **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*** when replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.

N/A **Efficient Lighting: Common Areas and Emergency Lighting** (if applicable to building type)
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*** when 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 exist signs shall meet or exceed LED efficiency levels and conform to local building codes.

N/A **Efficient Lighting: Exterior**
Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/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*** when replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.

INDOOR AIR QUALITY

N/A **Air Ventilation: Single Family and Multifamily** (three stories or fewer)
Install an in-unit ventilation system capable of providing adequate fresh air per ASHRAE 62.2 requirements.

N/A **Air Ventilation: Multifamily** (four stories or more)
Install apartment ventilation systems that satisfy ASHRAE 62.2 for all dwelling units and common area ventilation systems that satisfy ASHRAE 62.1 requirements. If economically feasible, consider heat/energy recovery for 100% of corridor air supply.

N/A **Composite Wood Products that Emit Low/No Formaldehyde**

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.

N/A **Environmentally Preferable Flooring**
When replacing flooring, use environmentally preferable flooring, including the FloorScore certification. 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.

X **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 g/L. [g/L = grams per liter; levels are based on a combination of the Master Painters Institute (MPI) and GreenSeal standards.]

X **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.

N/A **Clothes Dryer Exhaust**
Vent clothes dryers directly to the outdoors using rigid-type duct work.

X **Mold Inspection and Remediation**
Inspect the interior and exterior of the building for evidence of moisture problems. Document the extent and location of the problems, and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.

N/A **Combustion Equipment**
When installing new space and water-heating equipment, specify power-vented or direct vent combustion equipment.

N/A **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.

X **Mold Prevention: Surfaces**
When replacing or repairing bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

N/A **Mold Prevention: Tub and Shower Enclosures**
When replacing or repairing tub and/or shower enclosures, use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

N/A **Integrated Pest Management**
Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry. [If applicable, provide training to multifamily buildings staff.]

X **Lead-Safe Work Practices**

For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule.

[X] **Radon Testing and Mitigation** (if applicable based on building location)
For buildings in EPA Radon Zone 1 or 2, test for radon using the current edition of American Association of Radon Scientists and Technologists (AARST)'s Protocols for Radon Measurement in Homes Standard for Single-Family Housing or Duplexes, or AARST's Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings. To install radon mitigation systems in buildings with radon level of 4 pCi/L or more, use ASTM E 2121 for single-family housing or duplexes, or AARST's Radon Mitigation Standards for Multifamily Buildings. For new construction, use AARST's Reducing Radon in New Construction of 1 & 2 Family Dwellings and Townhouses, or ASTM E 1465.

Section 2

General Conditions

1. The purpose of this HUD and DOH sponsored 0% interest loan Owner Occupied Rehabilitation and Rebuilding program is to make good faith efforts to assist qualified property owners in making repairs to their property damaged by Superstorm Sandy. Eligible repairs include code, health and safety compliance modifications, including but not limited to building envelope and energy efficiency upgrades (See Green Building Standards).
2. In the event that the homeowner is dissatisfied with the work performed although the work has been completed to industry standards, approved by the local municipality's code enforcement officials and approved by the DOH or its agent, the homeowner's approval will be overridden, full payment will be issued to the contractor and the project will be officially closed.
3. The owner is responsible for removal or relocation from the respective work areas the following, including but not necessarily limited to: personal belongings, window treatments, small furniture, fixtures, area carpets, interior and exterior plants. The contractor will be responsible for covering and protecting large furniture unable to be removed from the respective work areas.
4. The Contractor, unless otherwise specified, shall provide all labor, materials, tools, equipment, and related items required for the erection and completion of all work indicated in this project manual and as may be inferred, implied or otherwise necessary for the proper execution of the work.
5. The Contractor shall pay all necessary taxes, fees, and permits necessary to complete all of his work as detailed on the attached scope of work.
6. The premises herein shall be occupied during the course of the construction work.
7. All rehabilitation, alterations, repairs, or extensions shall be in compliance with all applicable codes of the Municipality, HUD requirements or compliance with the latest edition of the International Building Code, which ever applies and is the more strict. All electrical, heating, and plumbing work shall comply with the rules and regulations of the National, State and Local Codes. Before commencing work, contractors and/or subcontractors shall obtain all necessary permits.
8. The Contractor certifies that he has familiarized himself with the requirements of the specifications and plans and understands the extent and character of the work to be done, and inspected the premises and given his full attention to any and all areas with which he might become specifically involved. He must familiarize himself with all conditions relating to and affecting his work and bid.
9. The selected Contractor must, prior to contract signing, supply the DOH and the Owner with the original certificates of insurance in accordance with the following insurance requirements:
   A. Contractor shall procure and maintain for the duration of the Agreement the following types of insurance, in amounts no less than the stated limits, against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder.
      1) Workers' Compensation Insurance: The Contractor shall maintain full and complete Workers' Compensation Insurance for all of its employees and those of its subcontractors engaged in work on the premises, in accordance with the local and state laws governing the same, in the minimum amounts of $100,000 each accident, $500,000 disease – Policy limit, $100,000 disease – each employee.
      2) General Liability Insurance: The Contractor shall furnish evidence of a comprehensive general liability insurance coverage with a combined single limit for bodily injury, death, and property damage in the amount of $1,000,000 per occurrence, naming the Owner and the State as additional insured. This shall cover the use of all equipment, hoists and vehicles on the Premises not covered by any automobile liability policy. If the Contractor has a "claims-made" policy, then the following additional requirements apply: (a) the policy must provide a retroactive date which must be on or before the

execution date of this Agreement and (b) the extended reporting period may not be less than five (5) years following the Construction Completion Date.

3) Automobile Liability: The Contractor shall furnish evidence of Automobile Liability insurance with minimum limits of $1,000,000 per occurrence, combined single limit for bodily injury and property damage liability. This shall include owned vehicles, non-owned vehicles and employee non-ownership.
4) Cargo Insurance: ~~The Contractor shall furnish evidence of all-risk cargo insurance, with a minimum limit of $ per occurrence when the project involves raising a structure above the Base Flood Elevation~~.
5) Builders Risk: The Contractor shall maintain Builder's Risk (fire and extended coverage) insurance providing coverage for the entire work at the project site, including all work in place, all materials stored at the building site, foundations and building equipment. Coverage shall be on a completed value form basis in an amount equal to the projected value of the project. The Contractor agrees to endorse the State of Connecticut and the Owner as Loss Payees.

B. Additional Insurance Provisions

1) Each of the Owner and the State of Connecticut Department of Housing, and their successors and assigns, as their interests may appear, shall be named as an Additional Insured on the Commercial General Liability policy.
2) Described insurance shall be primary coverage and Applicant and Applicant's insurer shall have no right of subrogation recovery or subrogation against the State of Connecticut.
3) Applicant shall assume any and all deductibles in the described insurance policies.
4) Without limiting Applicant's obligation to procure and maintain insurance for the duration identified in (A) above, each insurance policy shall not be suspended, voided, cancelled or reduced except after thirty (30) days prior written notice by certified mail has been given to the State of Connecticut, with the exception that a ten (10) day prior written notice by certified mail for non-payment of premium is acceptable.
5) Each policy shall be issued by an Insurance Company licensed to do business by Connecticut Department of Insurance and having a minimum Best Rating of A- or equivalent or as otherwise approved by the State.

10. DOH and its agents must be notified prior to start of work of any subcontractor to be paid for work on the job who is different from the subcontractor identified in original bid proposal.
11. Working times for the project shall be Monday through Friday 8 am to 5 pm (EST). Contractors must request permission from owner and be in compliance with local municipal ordinances prior to working longer hours or weekends.
12. All materials shall be new and of acceptable quality. The Contractor shall submit proof of purchase of warrantee items at closeout. The property Owner shall select all colors, models, etc. as per scope of work. All materials and work must be applied in accordance with the applicable manufacturer's latest instructions and specifications, and in accordance with Federal prohibitions against the use of lead paint.
13. All manufacturers' warranties are to be extended to the property Owner free and clear of all liens. Unless otherwise specified, all labor, material, and workmanship provided by the Contractor shall be guaranteed by the Contractor, including that of subcontractors, for a one (1) year period from the date of the Final Payment. This guarantee shall be in addition to and not in limitation of, in lieu of, or modify and other guarantee that is due the property Owner from any manufacturer.
14. The Contractor shall repair or replace all work, materials and equipment which are found to be defective during construction and the guarantee period. Repair shall include all damage to surrounding work caused by the failure and/or necessary for the repair or replacement of the defect. All repairs and replacements shall be performed at no additional expense to the Owner and shall be completed promptly after the Contractor receives notice of the defect.

15. The Contractor shall take all necessary measures and precautions to protect the surroundings from damage occurring due to performance of the work. All areas and surfaces of the existing building which are affected by the execution of the new work (removals, demolition, repairs etc.) shall be patched and restored to either match the existing adjacent conditions or to match the new work, whichever is applicable. If such damage occurs it will be repaired by the Contractor at no cost to the Owner. Contractor shall provide all temporary shoring, bracing and other construction (interior and exterior) required to perform the work of this contract.
16. The Contractor shall dispose of all debris and remove all material resulting from his work in accordance with local and State law. The Contractor shall police and maintain a clean and safe job site daily. He shall reinstall accessories taken down and clean up all scrap around the project and remove fingerprints. All on-site maintenance relating to the performance of the work shall be the responsibility of the Contractor until the Certificate of Completion is issued. The project shall be maintained in a habitable and safe condition daily if the project is to remain occupied.
17. Materials and products not otherwise specified in these documents shall be to match building standards and existing conditions, provided such items are in compliance with all applicable codes. Such codes set the minimum standards to be achieved.
18. All work shall be neat and accurate and done in a manner in accordance with customary trade practices**. The Contractor, at a minimum, shall leave the premises broom clean and orderly after each working day and shall keep the premises free from accumulation of materials and rubbish by disposing of such debris in an onsite disposal container (provided by the contractor) or removed by vehicle in accordance with all applicable state and local regulations.** At the completion of the project the Contractor shall remove all excess materials from the site. Any surplus material agreed to be left for the owner shall be stored neatly by the contractor in a location directed by the owner free from weather, spoilage or pilferage.
19. The Contractor shall coordinate any work which interfaces with other Contractors or with the operations of the Owner. The Contractor shall take all necessary precautions to prevent fire, bodily injury, damage to property and any other calamities that may arise which pose a threat to life, limb property.
20. The Contractor shall not make any changes to the scope of work unless a change order is processed and fully executed by the DOH.
21. The Owner may cancel this contract within three days of signing and not be liable to the Contractor or DOH. Should the Owner opt to cancel they must sign and send a Notice of Cancellation to DOH, otherwise DOH shall issue a Notice to Proceed authorizing the contractor to commence with the proposed improvements.
22. The Contractor shall commence work under this contract within 15 work days of the date of the notice to proceed and complete work within **60** calendar days of the notice to proceed.
23. If the Contractor is delayed at any time in the progress of the work by any act or neglect of the Owner or by any employee of the Owner, or by any separate Contractor employed by the Owner, or by changes ordered in the work or by labor disputes, fire, unusual delay in delivery of materials, transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any cause beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any other cause which justifies the delay, the contract time may be extended by Change Order for such reasonable time as may be agreed upon by all parties. It shall be the responsibility of the Contractor to request and document in writing such extensions within three (3) work days.
24. In the event that the Contractor does not commence or pursue the work as hereinafter stated, then DOH shall have the right to terminate this agreement and to hire a successor Contractor to perform the work. Any such termination shall be by certified mail to the address noted in this agreement, and shall be effective as of the date of mailing. Payments by the DOH/Owner in the event of termination shall be as follows:
25. The successor Contractor shall first be paid and then the terminated Contractor. Payments to the terminated Contractor shall be limited both as to those funds remaining after payment to the successor Contractor but shall

not exceed the value of the work actually performed by the terminated Contractor. Further, should the total cost for work performed under this contract exceed the amount stated in this agreement due to the Contractor's termination, then the Owner shall have a cause of action against the terminated Contractor for any such additional cost.

26. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, DOH shall, thereupon, have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date of such termination. In such event, all unfinished work required by the Contractor under this Contract shall, at the option of the DOH, be completed or not.
27. Payments
    1) DOH/Homeowner shall pay the Contractor the price as provided in this contract.
    2) DOH shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. DOH may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
    3) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be acceptable to DOH. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.
    4) The Contractor shall submit, on AIA forms provided by DOH, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the contract price. Such estimates shall be submitted not later than 14 days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
    5) Along with each request for progress payments and the required estimates, the Contractor shall furnish lien waivers and labor releases as good and sufficient evidence that the premises are free from all liens, damages, and anything chargeable to said contractor.
    6) Except as otherwise provided in State law, DOH shall retain five (5) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, DOH may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, DOH shall reinstate the five (5) percent retainage until such time as the Contracting Officer determines that performance and progress are satisfactory. Retainage will be released 90 days after project completion.
    7) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments. Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of DOH's/Homeowner's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the Homeowner.

8) All material and work covered by progress payments made shall, at the time of payment become the sole property of the Homeowner, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of DOH/Homeowner to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of DOH in the course of their employment, the Contractor shall restore such damaged work without cost to DOH/Homeowner and to seek redress for its damage only from those who directly caused it.
9) DOH shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against DOH/Homeowner arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
10) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
11) DOH shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of DOH to withhold moneys from the Contractor shall in nowise impair the obligations of any surety or sureties under any bonds furnished under this contract.

28. Disputes
    1) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
    2) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
    3) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision.
    4) A claim by the Homeowner against the Contractor shall be subject to a written decision by the Contracting Officer.
    5) The Contracting Officer shall, within calendar 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
    6) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in DOH in accordance with DOH's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) calendar days after receipt of the Contracting Officer's decision.
    7) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.
29. The Contractor will not discriminate against any employee or applicant for employment because of race, color, creed, religion, sex, sexual preference, national origin, or mental or physical disability during the performance of this agreement. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, in all employment practices such as the following: employment

upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship, without regard to their race, color, creed, religion, sex, sexual preference, national origin or mental or physical disability. This provision will be inserted in all subcontracts, if any, for work covered by this agreement.

30. Equal Employment Opportunity (EEO) Clause

    During the performance of this contract, the Contractor agrees as follows:

    1) 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 the 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 setting forth the provisions of this nondiscrimination clause.
    2) 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, religion, sex or national origin.
    3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
    4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
    5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
    6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, 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, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by the rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
    7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) 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, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. 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 by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

31. In the event of the Contractor’s noncompliance with this equal opportunity clause or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts in accordance with procedures authorized in Presidential Executive Order 11246, or by rule, regulations, or order of the Secretary of Labor or as provided by law.
32. The following applies to all contracts of $10,000,000.00 or more: SECTION 402 VETERANS OF THE VIETNAM ERA. AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VEITNAM ERA. The Contractor will not discriminate against any employee or applicant for employment

because he or she is a disabled veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veteran status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.

33. No officer, employee or member of the Governing Body of the Municipality shall have any financial interest, direct or indirect, in this contract or the proceeds of this loan.
34. DOH retains the right to reject any or all bids or any part of any bid in part or in whole if deemed to be in the best interest of the project.
35. Substitutions of materials from that specified are only allowed on an approved/equal basis. The Contractor must submit written documentation of the substitute item or material for approval by the Owner and Program prior to making such substitution. Any items or material substituted by the Contractor without prior written approval of the Owner and Program will at the Contractor's expense be replaced if it is determined not to be equal to the item or material specified. Any surrounding, adjoining, or dependent items affected by replacement of the unequal substituted material shall also be replaced, reworked, and reinstalled at no cost to the Owner.
36. Bids shall contain prices for general categories of work and/or items as specified on the provided bid sheets. In the case of a mathematical error by the Contractor, the correct sum of the individual line items in the cost summary shall be the Contractor's bid.
37. All bids shall remain in effect for thirty (30) calendar days.
38. The Owner will supply all necessary power required by the Contractor at no additional cost to complete his work. Power shall be limited to the use of existing outlets and shall not exceed the existing capacity of the system. Power required over the capacity of the existing electrical system shall be the responsibility of the Contractor. Heating during construction shall be supplied by the Owner.
39. If any unseen or unknown asbestos related conditions arise during the work the Contractor shall stop all work immediately and notify the DOH of such.
40. OTHER PROVISIONS – LEAD BASED PAINT

    For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35 and EPA's Repair Renovation, and Painting Rule at 40 CFR.80 Subpart E.

    Any and all rehabilitation work under this Agreement will comply with the requirements of the Federal Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4831) which prohibits the use of lead-based paint in residential structures constructed or rehabilitated with Federal Assistance in any form.

    The construction or rehabilitation of residential structures with assistance provided under this contract is subject to the final regulations "Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally owned Residential Property and Housing Receiving Federal Assistance." The regulation is at 24 CFR part 35. It implements sections 1012 and 1013 of the Residential Lead-Based Paint Hazard Reduction Act

of 1992, Title X, of the Housing and Community Development Act of 1992. Sections 1012 and 1013 amend the Lead-Based Paint Poisoning Prevention Act of 1971.

Beginning April 22, 2010, the Contractor is required to have a certificate from a 6 hour EPA/HUD RRP lead remediation course.

41. The Contractor shall comply with the provisions of the immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold DOH, its agents and the Homeowner harmless for the failure to comply with the provisions of said Act

SECTION 000115

LIST OF DRAWING SHEETS

1.LIST OF DRAWINGS

A. Drawings: Drawings consist of the Contract Drawings and other drawings listed on the Table of Contents page of the separately bound drawing set titled 'Connecticut Department of Housing, Community Development Block Grant, Disaster Recovery Program , Project 2149 – 896-898 Howard Avenue, Owner Occupied Rehabilitation and Rebuilding Program, dated 2/6/2015, as modified by subsequent Addenda and Contract modifications.

B. List of Drawings: Drawings consist of the following Contract Drawings and other drawings of type indicated:
   1. Title Sheet – Sheet T-0.0
   2. Schematic Layout – Roof Plan & Work Notes, Sheet A-1.0
   3. Schematic Layout – Grade Level Plan & Work Notes, Sheet A-1.1

END OF DOCUMENT

SECTION 00 31 26

EXISTING HAZARDOUS MATERIAL INFORMATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. "Hazardous Material Inspection Report, 896-898 Howard Avenue, Bridgeport CT" dated October 13, 2014

B. "Gilbertco Lead Inspections LLC, Comprehensive Lead Inspection Results, 896-898 Howard Avenue, Bridgeport, CT' dated December 16, 2014

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

Facility Support Services, LLC

Environmental & Safety Consulting Engineers

Connecticut Department of Housing
Community Development Block Grant – Disaster Recovery
Owner Occupied Recovery and Rehabilitation Program

Hazardous Materials
Inspection Report

896-898 Howard Avenue
Bridgeport, Connecticut

PREPARED FOR:

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Rocky Hill, CT 06067

PREPARED BY:

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Phone (203) 288-1281

October 13, 2014

FSS #22214-2149

SIGNATURES OF REPORT AUTHORS

The employees of Facility Support Services, LLC whose names appear below prepared this report. Requests for information on the content of this document should be directed to these individuals.

Kevin S. Bogue, LEP, CHMM
Project Manager
CTDPH Asbestos Inspector #000157

TABLE OF CONTENTS

TABLES

ATTACHMENTS

I. Introduction

Facility Support Services, LLC (FSS) was contracted by Martinez, Couch & Associates, LLC (MCA) to perform a limited scope hazardous materials survey of 896/898 Howard Avenue in Bridgeport, Connecticut (the "Site"). The purpose of this inspection was to identify the presence of asbestos, PCBs, and lead paint and mold in certain building materials proposed for removal/demolition that qualify for the repair/replacement of items damaged by the October 2012 Tropical Storm Sandy under the Connecticut Department of Housing (DOH), Community Development Block Grant – Disaster Recovery Owner Occupied Recovery and Rehabilitation Program. In addition, FSS performed radon testing as required for DOH funded projects.

FSS utilized best industry practices to identify all suspect materials associated with the structures. Any material that has not been identified during this inspection or discovered during renovation/demolition activities must be presumed to be hazardous until such time that samples of the material can be collected and analyzed.

II. Mold

FSS conducted sampling for mold on September 22, 2014. Testing for total spores in air was conducted for the following areas of 896/898 Howard Avenue in Bridgeport, Connecticut to identify concerns with indoor air quality related to mold and fungi:

- Basement (near entrance staircase)
- Basement (near room divider)
- Outside of House

The outside ambient air sample provided a background reference sample (collected from a location in the front yard). Mr. Kevin Bogue of FSS conducted the spore sampling utilizing an air sampling pump and sample media. Air was collected at a rate of 15.0 liters of air per minute. The samples were collected on Air-O-Cell type sampling cartridges located in line with the sampling pump, which ran for 10 minutes at each sampling location.

The spore samples were analyzed by EMSL Analytical of Wallingford, Connecticut for the identification and enumeration of spores (EMSL Method M001). EMSL is a State of Connecticut, Department of Public Health certified laboratory (Accreditation Number 165118). Analytical reports for mold are included in Appendix A.

The analysis for total spore counts is a direct microscopic examination and does not include culturing or growing fungi. Therefore, the results include both viable and non-viable spores. Spore trap results are reported in spores per cubic meter of air.

Table 1
Summary of Laboratory Analysis of Spore Types
896/898 Howard Avenue, Bridgeport, Connecticut

Sample Number & Location	Raw Count	Total Fungi (Count/m^3)	Spore Types Present
20140922_2149_MS1 Basement (near staircase)	585	12,310	Alternaria, Ascospores, Aspergillus/Penicillium, Basidiospores, Chaetomium, Cladosporium, Curvularia, Epicoccum, Ganoderma, Myxomycetes, Pithomyces, Rust, Stachybotrys, Arthrinium
20140922_2149_MS2 Basement (room divider)	1,069	22,470	Alternaria, Ascospores, Aspergillus/Penicillium, Basidiospores, Chaetomium, Cladosporium, Curvularia, Epicoccum, Ganoderma, Myxomycetes, Pithomyces, Stachybotrys
20140922_2149_MS3 Outside	725	15,240	Alternaria, Ascospores, Aspergillus/Penicillium, Basidiospores, Cladosporium, Fusarium, Ganoderma, Myxomycetes, Pithomyces, Rust, Zygomycetes, Cercospora, Polythrincium

The suite of mold spores in the outside sample versus the interior samples are similar. The primary mold species were Aspergillus/Pencillium for the basement samples; Cladosporium for the outside sample.

Basidiospores are associated with forest floors, lawns and plants, and can grow on wood containing products. Basidiospores below to members of the Phylum Basidiomycota, which includes mushrooms and fungi.

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Cladosporium – Cladosporiums natural habitat is dead plant matter, soil and woody plants. In indoor environments, this spore type is found on fiberglass duct liners, paints, and textiles, especially in water damaged buildings. This spore type is associated with hay fever and asthma.

In Connecticut, there are currently no regulatory standards directly governing mold/fungal spore concentrations. Although no standards for mold exist, some information regarding levels have been published, including the following:

Baxter, et al considers mold contamination present in a building when the total mold spore concentration per cubic meter is above 10,000. However in special cases, even low quantitative levels of certain particles or particle types (such as *Penicillium/Aspergillus* spore chains in an un-treated building) may be diagnostic and may indicate a hidden mold reservoir that merits further investigation.

FSS's investigation found total spore concentrations inside the 896/898 Howard Avenue residence of up to 22,470/m^3, which is above the 10,000/m^3 level noted above.

The American Conference of Government Industrial Hygienists (ACGIH) stated that indoor mold levels are generally less than 1/3 the outdoor level and that when indoor mold is at more than this level remedial action should be taken to find the source of the elevated counts and to clean it up. However, this is a general rule and may be inaccurate and unreliable method for screening buildings for mold. FSS's investigation found a total spore concentration in the interior samples at levels slightly below (by basement entrance) and above the outside sample (middle of basement, near room divider).

III. Asbestos

FSS conducted a limited scope asbestos inspection and bulk sampling on September 22, 2014 of suspect building materials that are proposed for renovations. The inspection was conducted by Kevin Bogue, a State of Connecticut licensed Asbestos Inspector. Mr. Bogue's Connecticut Asbestos Inspectors/Management Planner license is provided in Appendix B.

The following suspect materials were indentified during the inspection:

- Yellow mastic beneath grey carpet (basement)
- Yellow/tan linoleum (basement)
- Black mastic associated with yellow/tan linoleum
- Sheetrock
- Sheetrock joint compound
- Roof Shingle (lower)
- Roof Shingle (top)

This asbestos inspection was performed in accordance with the EPA, NESHAP regulations for building renovations and demolition, 40 CFR Part 61, Amended 11/20/1990. The bulk asbestos samples collected during this inspection were delivered under full chain of custody and analyzed by EMSL Analytical, Inc., via EPA/600/R-93/116. This is currently the approved EPA test method, which uses Polarized Light Microscopy (PLM). EMSL Analytical, Inc. is an accredited asbestos laboratory (NVLAP # 200700-0) and is a State of Connecticut approved public health laboratory for asbestos analysis. Copies of the laboratory analytical results can be found in Attachment C of this report.

Laboratory results have revealed that the asbestos content of the tested materials are below the 1% required to confirm a material as asbestos containing.

IV. Radon

Initial radon testing was conducted by Mr. Kevin Bogue. Test results were obtained by using a passive activated charcoal device manufactured and analyzed by Radon Testing Corporation of America of Elmsford, New York. The test devices are individually numbered and marked with a bar code for identification (RTCA 4 Pass Charcoal Canister, NRSB Device Code 10331).

Devices were placed in the basement level of the residence on September 22, 2014. The sampling devices was placed on tables with a yellow “Do Not Disturb Test in Progress” warning sign placed beneath the test device. The homeowner was reminded to

not open windows or to allow anyone to tamper with the test device. Testing time was approximately 7 days.

The Radon canister was submitted to Radon Testing Corporation of America for analysis. The analytical result for the samples as shown on Table 1 below. The EPA action level established for Radon is 4.0 pCi/L. Analytical result reports are included in Appendix D.

Table 2
Summary of Laboratory Analysis of Radon
110 East Rocks Road, Norwalk, Connecticut

Canister ID#	Location	Radon Concentration (pCi/L)
June 22-29, 2014		
2333070	Basement (room divider)	1.0
2343052	Basement (refrigerator)	1.4

V. PCBs

Following an inspection of building materials proposed for renovations, two suspected PCB-containing materials were identified.

- Yellow mastic beneath grey carpet (basement)
- Black mastic associated with yellow/tan linoleum

FSS collected a sample of these materials for laboratory analysis for PCBs by EPA Method 8082A with Soxhlet Extraction. Complete Environmental Testing of Stratford, Connecticut was utilized to conduct the analysis.

Laboratory data indicates that the PCB content of the sampled materials was below detectable levels (<0.80 ppm and <0.20 ppm) and below the 1 ppm action level for PCBs. No further investigations or special disposal requirements (for PCBs) are required for these materials. Laboratory analytical data for PCBs are provided in Appendix E.

VI. Lead

The subject residential structure was built prior to 1978 (in 1922) and therefore the likelihood that lead painted surfaces are present is increased. As a residential structure built prior to 1978 the removal of lead painted materials where a child under 6 is housed, or may visit, would trigger the EPA Renovation, Repair and Painting (RRP) rule. Furthermore, adherence to the requirements of The Lead-Safe Housing Rule (US Department of Housing and Urban development, HUD) are stipulated by the Connecticut Department of Housing (DOH) as part of the Community Development Block Grant – Disaster Recovery Owner Occupied Recovery and Rehabilitation Program.

A building wide XRF inspection was conducted by Maureen Monaco of Gilberto Lead Inspections, LLC (Gilbertco) utilizing a Scitec Map4 Portable X-Ray Fluoroscope Spectrum Analyzer with a Cobalt 57 source. Appendix F contains the Lead Inspection Report. The findings of the investigation determined several areas tested positive for lead based paint (>1.0 mg/cm^2):

- Front Porch
  - Window Sill
  - Wall
  - Window Trim
  - Clapboard
  - Door Jamb
  - Door Casing
  - Threshold
- Laundry
  - Wall
- Kitchen
  - Wall – Upper
  - Wall
- Bathroom
  - Window Trim
  - Window Stop
- Rear Bedroom
  - Door Jamb
  - Door Casing
  - Window Sill
  - Window Trim
  - Window Stop
  - Closet Door Casing

Non-Intact Materials

A copy of the Gilbertco Lead Inspection Report is provided in Appendix E. Following the HUD Lead-Safe Housing Guidelines, non-intact materials should undergo interim measures to abate the hazard. Non-intact lead containing materials have been identified as the following:

- Front Porch
  - Window Sill
  - Wall
  - Window Trim

Demolition Materials

When toxic wastes are land disposed, contaminated liquid may leach from the waste and pollute ground water. Toxicity is defined through a laboratory procedure called the Toxicity Characteristic Leaching Procedure (TCLP) (Method 1311). The TCLP helps identify wastes likely to leach concentrations of contaminants that may be harmful to human health or the environment. There are no areas that tested positive for lead (regardless of intactness) that are proposed for demolition.

Soils

The lead inspection also included a composite sample of soil from a bare soil area located on the right side of the property. Soil sampling found soils have a lead concentration of 298 ppm, below the 400 ppm action level for lead in soil, and therefore no soil excavation is required.

VII. Conclusions & Recommendations

When the structure is renovated, all removed debris should be sent to an appropriate landfill for final disposal following all appropriate regulations. Any work involving lead-containing paints should be conducted under the EPA's RRP Renovation, Repair and Painting Rule. Any material discovered during renovation activities which have not been included in this survey must be presumed to contain asbestos, lead and PCBs until such time that the material can be evaluated and sampled.

Mold - FSS's investigation found total spore concentrations inside the 896 Howard Avenue residence of up to 22,470/m^3. The preponderance of spores in the basement of the residence indicates that mold remediation should be conducted.

Asbestos – No asbestos containing materials (>1% asbestos) were identified in materials proposed for renovation or demolition.

PCBs - Two suspected PCB-containing materials were identified in proposed renovation materials and sampled. Laboratory data indicates that the PCB content of the sampled materials was below detectable levels and below the 1 ppm action level for PCBs. No further investigations or special disposal requirements (for PCBs) are required for these materials.

Radon – Levels of radon were identified in the basement of the residence at levels of 1.0 and 1.4 pCi/L, below the EPA action level of 4.0 pCi/L. No further work related to radon will be required.

Lead - Following the HUD Lead-Safe Housing Guidelines, the non-intact areas should undergo interim measures to abate the hazard. The following areas were non-intact as well as testing positive:

- Front Porch
  - Window Sill
  - Wall
  - Window Trim

There are no areas that tested positive for lead (regardless of intactness) that are proposed for demolition. No further consideration for lead containing demolition debris is required for this project.

The lead inspection also included a composite sample of soil from a bare soil area located on the right side of the property. Soil sampling found soils have a lead concentration of 298 ppm, below the 400 ppm action level for lead in soil, requiring remediation of soils. However, ground cover is recommended to be planted near the perimeter of the house or in water runoff areas. Asphalt, bushes, mulch, or good quality grass covering are acceptable.

ATTACHMENTS

ATTACHMENT A

MOLD ANALYTICAL DATA

EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com / wallingfordlab@emsl.com

Order ID:	241403795
Customer ID:	FSS93
Customer PO:	
Project ID:	

Attn: Kevin Bogue
Facility Support Services, LLC
2685 State Street
Hamden, CT 06517

Phone:	(203) 288-1281
Fax:	(203) 248-4409
Collected:	09/22/2014
Received:	09/24/2014
Analyzed:	09/25/2014

Proj: 22214-2149

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241403795-0001			241403795-0002			241403795-0003		
Client Sample ID:	20140922_2149_MS1			20140922_2149_MS2			20140922_2149_MS3		
Volume (L):	150			150			150		
Sample Location:	Basement #1			Basement #2			Outside		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria	12	250	2	2	40	0.2	15	320	2.1
Ascospores	74	1600	13	42	890	4	186	3930	25.8
Aspergillus/Penicillium	307	6480	52.6	858	18100	80.6	1	20	0.1
Basidiospores	59	1200	9.8	37	780	3.5	92	1900	12.5
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	9	200	1.6	9	200	0.9	-	-	-
Cladosporium	39	820	6.7	73	1500	6.7	335	7070	46.4
Curvularia	5	100	0.8	2	40	0.2	-	-	-
Epicoccum	3	60	0.5	2	40	0.2	-	-	-
Fusarium	-	-	-	-	-	-	5	100	0.7
Ganoderma	20	420	3.4	12	250	1.1	21	440	2.9
Myxomycetes++	40	840	6.8	23	490	2.2	40	840	5.5
Pithomyces	5	100	0.8	2	40	0.2	15	320	2.1
Rust	4	80	0.7	-	-	-	4	80	0.5
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	4	80	0.7	7	100	0.4	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	4	80	0.5
Arthrinium	4	80	0.7	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	2	40	0.3
Polythrincium	-	-	-	-	-	-	5	100	0.7
Total Fungi	**585**	**12310**	**100**	**1069**	**22470**	**100**	**725**	**15240**	**100**
Hyphal Fragment	40	840	6.8	17	360	1.6	33	700	4.6
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	6	100	0.8	-	-	-	25	530	3.5
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	-	-
Fibrous Particulate (1-4)	-	2	-	-	2	-	-	-	-
Background (1-5)	-	3	-	-	4	-	-	2	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

No discernable field blank was submitted with this group of samples.

Gloria V. Oriol, Laboratory Manager
or Other Approved Signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 09/25/2014 16:29:41

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.
29 North Plains Hwy, Unit 4

Wallingford, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number *(Lab Use Only)*: 241403795

Company: Facilty Support Services, LLC	**EMSL-Bill to:** ✓ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 2685 State Street	Third Party Billing requires written authorization from third party
City: Hamden **State/Province:** CT	**Zip/Postal Code:** 06517 **Country:** United States
Report To (Name): Kevin Bogue	**Telephone #:** 203-288-1281
Email Address: kbogue.fss@snet.net	**Fax #:** **Purchase Order:**
Project Name/Number: 22214-2149	**Please Provide Results:** ☐ FAX ✓ E-mail ☐ Mail
U.S. State Samples Taken: CT	**Connecticut Samples:** Commercial (Residential)

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☒ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test.
Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)*

Asbestos

PCM - Air
☐ NIOSH 7400
☐ w/ 8hr. TWA

TEM– Air ☐ 4-4.5hr TAT(AHERA ONLY)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Water
Fibers ≥10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

PLM - Bulk
☐ PLM EPA 600/R-93/116
☐ PLM EPA NOB (<1%)
☐ NYS 198.1 (friable-NY)
☐ NYS 198.6 (non-friable-NY)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/ Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

TEM - Dust
☐ Microvac – ASTM D 5755
☐ Wipe-ASTM D6480

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP

Soil/Rock/Vermiculite
☐ PLM CARB 435 – A (0.25% sensitivity)
☐ PLM CARB 435 – B (0.1% sensitivity)
☐ TEM CARB 435 – B (0.1% sensitivity)
☐ EPA Reg. 1 Screening Protocol (Qualitative)

Other:

Lead (Pb)

Flame Atomic Absorption
☐ Chips SW846-7000B or AOAC 974.02
☐ Soil SW846-7000B/7420
☐ Air NIOSH 7082
☐ Wastewater SM3111B or SW846-7000B/7420
☐ ASTM Wipe SW846-7000B/7420
☐ non ASTM Wipe SW846-7000B/7420
☐ TCLP SW846-1311/7420/SM 3111B

ICP
☐ Air NIOSH 7300 Modified
☐ non ASTM Wipe SW846-6010B or C
☐ ASTM Wipe SW846-6010B or C
☐ Soil SW846-6010 B or C
☐ Waste Water SW846-6010B or C
☐ TCLP SW846-6010B or C

Graphite Furnace Atomic Absorption
☐ Soil SW846-7421 ☐ Wastewater EPA 200.9
☐ Air NIOSH 7105 ☐ Drinking Water EPA 200.9

Other: ☐

Materials Science

☐ Common Particle ID (large particles)
☐ Full Particle ID (environmental dust)
☐ Basic Material ID (solids)
☐ Advanced Material ID
☐ Physical Testing (Tensile, Compression)
☐ Combustion-by-products (soot, char, etc.)
☐ X-Ray Fluorescence (elem. analysis)
☐ X-Ray Diffraction (Crystalline Part.)
☐ MMVF's (Fibrous glass, RCF's)
☐ Particle Size (sieve/microscopy/laser)
☐ Combustible Dust
☐ Petrographic Examination
Other: ☐

Microbiology

Wipe and Bulk Samples
☐ Mold & Fungi – Direct Examination
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi Culture (Genus & Species)
☐ Bacterial Count & ID (Up to Three Types)
☐ Bacterial Count & ID (Up to Five Types)
☐ MRSA
☐ *Pseudomonas aeruginosa*

Water Samples
☐ Total Coliform & E.coli (P/A)
☐ Fecal Coliform (SM 9222D)
☐ Sewage Screen
☐ Heterotrophic Plate Count (SM 9215)

Air Samples
☒ Mold & Fungi (Spore Trap)
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi (Genus & Species)
☐ Bacterial Culture & ID (Up to Three Types)
☐ Bacterial Culture & ID (Up to Five Types)
☐ Endotoxin Testing

Real Time Q-PCR (See Analytical Guide for Code)
Code:

Legionella
☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4

Other: ☐

IAQ

Nuisance Dust NIOSH ☐ 0500 ☐ 0600
Airborne Dust ☐ PM10 ☐ TSP
Silica Analysis: ☐ All Species
Silica Analysis – Single Species
☐ Alpha Quartz ☐ Cristobalite ☐ Tridymite
☐ HVAC Efficiency
☐ Carbon Black
☐ Airborne Oil Mist
Radon Testing: Call for Kit and COC
Other: ☐

****Comments/Special Instructions:** Mold; Airo-Cell

Client Sample #'s	M1 - M3	**Total # of Samples:**	
Relinquished (Client): Kevin Bogue	**Date:** 9/24/14	**Time:** 8:30	
Received (Lab):	**Date:**	**Time:**	

RECEIVED SEP 24 2014 8:30 By WI

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL Analytical, Inc.
29 North Plains Hwy, Unit 4

Wallingford, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

Chain of Custody

EMSL Order Number *(Lab Use Only)*:

241403795

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
20140922_2149_MS1	Basement #1	150 l	9/22/14 1:05–1:15
20140922_2149_MS2	Basement #2	150 l	9/22/14 1:18–1:28
20140922_2149_MS3	outside	150 l	9/22/14 1:33–1:43

RECEIVED SEP 24 2014 BY

*Comments/Special Instructions:

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

ATTACHMENT B

FSS LISENSURE

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT-INSP/MGMT PLANNER

KEVIN S. BOGUE

CERTIFICATE NO
000157

CURRENT THROUGH
08/31/15

VALIDATION NO.
03-928515

SIGNATURE

COMMISSIONER

ATTACHMENT C

ASBESTOS LABORATORY ANALYTICAL DATA

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com wallingfordlab@emsl.com

EMSL Order:	241403790
CustomerID:	FSS93
CustomerPO:	
ProjectID:	

Attn: **Kevin Bogue**
Facility Support Services, LLC
2685 State Street

Hamden, CT 06517

Project: **22214-2149**

Phone:	(203) 288-1281
Fax:	(203) 248-4409
Received:	09/24/14 9:00 AM
Analysis Date:	9/25/2014
Collected:	9/22/2014

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
20140922_2149_S1 A *241403790-0001*	Basement - grey carpet- yellow mastic	Tan Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
20140922_2149_S1 B *241403790-0002*	Basement - grey carpet- yellow mastic	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
20140922_2149_S1 C *241403790-0003*	Basement - grey carpet- yellow mastic	Yellow Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
20140922_2149_S2 A *241403790-0004*	Basement - yellow/tan linoleum	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
		This is a composite result of both vinyl and backing layers.					
20140922_2149_S2 B *241403790-0005*	Basement - yellow/tan linoleum	Tan Non-Fibrous Homogeneous	<1%	Glass	100%	Non-fibrous (other)	**None Detected**
		This is a composite result of both vinyl and backing layers.					
20140922_2149_S2 C *241403790-0006*	Basement - yellow/tan linoleum	Tan Non-Fibrous Homogeneous	3%	Glass	97%	Non-fibrous (other)	**None Detected**
		This is a composite result of both vinyl and backing layers.					

Analyst(s)

Kristin Lopez (7)
Lauren Brennan (12)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 09/26/2014 08:21:26

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com wallingfordlab@emsl.com

EMSL Order:	241403790
CustomerID:	FSS93
CustomerPO:	
ProjectID:	

Attn: **Kevin Bogue**
Facility Support Services, LLC
2685 State Street

Hamden, CT 06517

Project: **22214-2149**

Phone:	(203) 288-1281
Fax:	(203) 248-4409
Received:	09/24/14 9:00 AM
Analysis Date:	9/25/2014
Collected:	9/22/2014

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
20140922_2149_S3 A *241403790-0007*	Basement - yellow/tan linoleum black mastic	Black Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
20140922_2149_S3 B *241403790-0008*	Basement - yellow/tan linoleum black mastic	Black Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
20140922_2149_S4 A *241403790-0009*	Basement - sheetrock	White Non-Fibrous Homogeneous	5%	Cellulose	30% 65%	Gypsum Non-fibrous (other)	**None Detected**
20140922_2149_S4 B *241403790-0010*	Basement - sheetrock	White Non-Fibrous Homogeneous	2%	Cellulose	30% 68%	Gypsum Non-fibrous (other)	**None Detected**
20140922_2149_S4 C *241403790-0011*	Basement - sheetrock	White Fibrous Homogeneous	4%	Cellulose	35% 61%	Gypsum Non-fibrous (other)	**None Detected**
20140922_2149_S5 A *241403790-0012*	Sheetrock joint compound	White Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
20140922_2149_S5 B *241403790-0013*	Sheetrock joint compound	White Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (7)
Lauren Brennan (12)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 09/26/2014 08:21:26

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com wallingfordlab@emsl.com

EMSL Order: 241403790
CustomerID: FSS93
CustomerPO:
ProjectID:

Attn: **Kevin Bogue**
Facility Support Services, LLC
2685 State Street

Hamden, CT 06517

Project: **22214-2149**

Phone: (203) 288-1281
Fax: (203) 248-4409
Received: 09/24/14 9:00 AM
Analysis Date: 9/25/2014
Collected: 9/22/2014

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
20140922_2149_S6 A *241403790-0014*	Black (lower) shingle	Black Fibrous Homogeneous	2% 10%	Synthetic Cellulose	88%	Non-fibrous (other)	**None Detected**
20140922_2149_S6 B *241403790-0015*	Black (lower) shingle	Black Fibrous Homogeneous	15% 2%	Cellulose Synthetic	83%	Non-fibrous (other)	**None Detected**
20140922_2149_S6 C *241403790-0016*	Black (lower) shingle	Black Fibrous Homogeneous	20% 5%	Cellulose Synthetic	75%	Non-fibrous (other)	**None Detected**
20140922_2149_S7 A *241403790-0017*	Brown (top) shingle	Black Fibrous Homogeneous	5%	Glass	95%	Non-fibrous (other)	**None Detected**
20140922_2149_S7 B *241403790-0018*	Brown (top) shingle	Black Fibrous Homogeneous	4% <1%	Glass Synthetic	96%	Non-fibrous (other)	**None Detected**
20140922_2149_S7 C *241403790-0019*	Brown (top) shingle	Black Fibrous Homogeneous	10%	Glass	90%	Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (7)
Lauren Brennan (12)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 09/26/2014 08:21:26

EMSL Analytical, Inc.
29 North Plains Hwy, Unit 4

Wallingford, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 241403790

Company: Facilty Support Services, LLC	**EMSL-Bill to:** ☐ Different ☑ Same If Bill to is Different note instructions in Comments**
Street: 2685 State Street	*Third Party Billing requires written authorization from third party*
City: Hamden **State/Province:** CT	**Zip/Postal Code:** 06517 **Country:** United States
Report To (Name): Kevin Bogue	**Telephone #:** 203-288-1281
Email Address: kbogue.fss@snet.net	**Fax #:** **Purchase Order:**
Project Name/Number: 22214-2149	**Please Provide Results:** ☐ FAX ☑ E-mail ☐ Mail
U.S. State Samples Taken: CT	**Connecticut Samples:** ☐ Commercial ☒ Residential

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
☐ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☒ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ TEM Qual. via Filtration Technique
☐ TEM Qual. via Drop-Mount Technique

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Kevin Bogue **Samplers Signature:** Kevin Bogue

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
20140922_2149_S1A	basement grey carpet - yellow mastic	1	9/22/14
_S1B	↓	1	↓
_S1C	↓	1	↓
20140922_2149_S2A	yellow/tan Linoleum, basement	2	↓
_S2B	↓	2	↓
_S2C	↓	2	↓
20140922_2149_S3A	~~tan~~ Yellow/tan Linoleum blck mastic, basement	3	↓
_S3B	↓	3	↓

Client Sample # (s): S1A - S6C **Total # of Samples:** 19

Relinquished (Client): Kevin Bogue **Date:** 9/24/14 **Time:** 8:30

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:

RECEIVED SEP 24 2014 8:30 BY

Page 1 of 2 pages

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL Analytical, Inc.
29 North Plains Hwy, Unit 4

Wallingford, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*:

241403790

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
20140922-2149-S4A	Sheetrock (Basement)	4	9/22/14
S4B	↓	↓	↓
S4C	↓	↓	↓
20140922-2149-S5A	Sheetrock joint compound	5	↓
S5B	↓	5	↓
20140922-2149-S6A	Black (lower) shingle	6	↓
S6B	↓	6	↓
S6C	↓	6	↓
20140922-2149-S7A	brown (top) shingle	7	↓
S7B	↓	7	↓
S7C	↓	7	↓

*Comments/Special Instructions:

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SEP 24 2014
8:30
By

Page 2 of 2 pages

ATTACHMENT D

RADON ANALYTICAL DATA

PC1409300096

RTCA RADON TESTING CORPORATION OF AMERICA

Site Radon Inspection Report

Date : 09/30/2014

Kevin Bogue
FACILITY SUPPORT SVCS., LLC
2685 State Street
Hamden, CT 06517-

Client: Anderson
Test Location: 896/898 Howard Ave
Bridgeport, CT 06605-

Individual Canister Results

Canister ID# :	2333070	Test Start :	09/22/2014 @ 13:11
Canister Type :	Charcoal Canister 3 inch	Test Stop :	09/29/2014 @ 12:10
Location :	Basement	Received:	09/30/2014 @ 16:36
Radon Level :	1.0 pCi/L	Analyzed:	09/30/2014 @ 14:58
Error for Measurement is:	± 0.2 pCi/L		

Canister ID# :	2343052	Test Start :	09/22/2014 @ 13:13
Canister Type :	Charcoal Canister 3 inch	Test Stop :	09/29/2014 @ 12:10
Location :	Basement-Refrige/tor	Received:	09/30/2014 @ 16:36
Radon Level :	1.4 pCi/L	Analyzed:	09/30/2014 @ 14:58
Error for Measurement is:	± 0.2 pCi/L		

The reported results indicate that radon levels in the building tested are below the United States Environmental Protection Agency (EPA) action level of 4.0 picoCuries per liter of air (pCi/L). The EPA recommends retesting if your living patterns change and you begin occupying a lower level of the building, such as a basement or if major remodeling is done.

General radon information may be obtained by consulting the EPA booklet: A Citizen's Guide to Radon (www.epa.gov/radon/pubs/citguide.html). To request a copy or for further information, please contact your state health department. The EPA maintains a radon information website, including copies of its publications, at www.epa.gov/iaq/radon.

For New Jersey clients: Please see the attached guidance document entitled Radon Testing and Mitigation: The Basics for further information.

For New York clients: If the radon level of one or more testing devices is equal to or exceeds 20 pCi/L please contact the New York State Department of Health, Bureau of Environmental Radiation Protection, for technical advice and assistance at 518-402-7556 or toll free1-800-458-1158.

PLEDGE OF ASSURED QUALITY

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of radon in air (EPA 402-R-92-004). The analytical results relate only to the samples tested, in the condition received by the lab, and that calculations were based upon the information supplied by client. RTCA and its personnel do not assume responsibility or liability , collectively and individually, for analysis results when detectors have been improperly handled or placed by the consumer, nor does RTCA and its personnel accept responsibility for any financial or health consequences of subsequent action or lack of action, taken by the customer or it's consultants based on RTCA-provided results.

National Radon Safety Board NRSB Certified Radon Professionals

Andreas C. George

Andreas C. George
Radon Measurement Specialist
NJ MES 11089

Dante Galan
Laboratory Director

NRSB ARL0001
NYS ELAP ID: 10806
PADEP ID: 0346
NJDEP ID: NY933
NJ MEB 90036
FL DOH RB1609
IL RNL2000201

(914)345-3380
FAX (914)345-8546

2 Hayes Street, Elmsford, NY 10523
www.rtca.com

ATTACHMENT E

PCB ANALYTICAL DATA

80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Kevin Bogue
Facility Support Services
2685 State Street
Hamden, CT 06517

Analytical Report
CET# 4090649

Report Date: October 01, 2014
Project: 22214-2149
Project Number: Bridgeport

Connecticut Laboratory Certificate: PH 0116
Massachussetts laboratory Certificate.: M-CT903

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 3.9°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
20140922_2149_P1	4090649-01	Solid	9/22/2014	09/23/2014
20140922_2149_P2	4090649-02	Solid	9/22/2014	09/23/2014

Client Sample ID 20140922_2149_P1
Lab ID: 4090649-01

PCBs by Soxhlet **Analyst: CA**

Method: EPA 8082A **Matrix: Solid**

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1221	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1232	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1242	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1248	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1254	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1260	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1268	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
PCB-1262	ND	0.80	4	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:11	
Surrogate: TCMX	*72.9 %*	*50 - 150*			B4I2411	09/24/2014	*09/26/2014 13:11*	
Surrogate: DCB	*78.4 %*	*50 - 150*			B4I2411	09/24/2014	*09/26/2014 13:11*	

Client Sample ID 20140922_2149_P2
Lab ID: 4090649-02

PCBs by Soxhlet **Analyst: CA**

Method: EPA 8082A **Matrix: Solid**

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1221	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1232	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1242	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1248	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1254	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1260	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1268	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
PCB-1262	ND	0.20	1	EPA 3540C	B4I2411	09/24/2014	09/26/2014 13:30	
Surrogate: TCMX	*48.6 %*	*50 - 150*			B4I2411	09/24/2014	*09/26/2014 13:30*	**L**
Surrogate: DCB	*56.2 %*	*50 - 150*			B4I2411	09/24/2014	*09/26/2014 13:30*	

QUALITY CONTROL SECTION

Batch B4I2411 - EPA 8082A

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B4I2411-BLK1)					Prepared: 9/24/2014 Analyzed: 9/26/2014				
PCB-1016	ND	0.20							
PCB-1221	ND	0.20							
PCB-1232	ND	0.20							
PCB-1242	ND	0.20							
PCB-1248	ND	0.20							
PCB-1254	ND	0.20							
PCB-1260	ND	0.20							
PCB-1268	ND	0.20							
PCB-1262	ND	0.20							
Surrogate: TCMX					*70.7*	*50 - 150*			
Surrogate: DCB					*80.4*	*50 - 150*			
LCS (B4I2411-BS1)					Prepared: 9/24/2014 Analyzed: 9/26/2014				
PCB-1016	0.842	0.20	1.000		84.2	50 - 150			
PCB-1260	0.901	0.20	1.000		90.1	50 - 150			
Surrogate: TCMX					*91.4*	*50 - 150*			
Surrogate: DCB					*103*	*50 - 150*			
Duplicate (B4I2411-DUP1)		**Source: 4090649-01**			Prepared: 9/24/2014 Analyzed: 9/26/2014				
PCB-1016	ND	0.20		ND				50	
PCB-1221	ND	0.20		ND				50	
PCB-1232	ND	0.20		ND				50	
PCB-1242	ND	0.20		ND				50	
PCB-1248	ND	0.20		ND				50	
PCB-1254	ND	0.20		ND				50	
PCB-1260	ND	0.20		ND				50	
PCB-1268	ND	0.20		ND				50	
PCB-1262	ND	0.20		ND				50	
Surrogate: TCMX					*42.6*	*50 - 150*			**L**
Surrogate: DCB					*46.0*	*50 - 150*			**L**

Batch S4I2601 - EPA 8082A

Analyte	Result (ug/L)	RL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Calibration Check (S4I2601-CCV1)					Prepared: 9/26/2014 Analyzed: 9/26/2014				
PCB-1016	1010		1,000.000		101	80 - 120			
PCB-1260	925		1,000.000		92.5	80 - 120			
Surrogate: TCMX					*103*	*50 - 150*			
Surrogate: DCB					*92.0*	*50 - 150*			

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
email: cet1@cetlabs.com

Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-tarer organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration	An analytical standard analyzed with each set of samples to verify initial calibration of the system.
Batch	Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected
RL	Reporting Limit
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte foun in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.

NELAP ACCREDITED TNI LABORATORY

Connecticut Laboratory Certification PH0116
Massachussets Laboratory Certification M-CT903
New York Certification 11982
Rhode Island Certification 199

Questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

Report Comments:

Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogenity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CET
COMPLETE ENVIRONMENTAL TESTING, INC.

80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet@cetlabs.com

4090649

OF CUSTODY RECORD

Volatile Soils Only:

Date and Time in Freezer

Client:

CET:

Matrix: A=Air, S=Soil, W=Water, DW=Drinking W., C=Cassette, Solid, Wipe, Other (Specify)

Turnaround Time ** (check one)

Sample ID	Date/Time	Matrix	Same Day	24 Hours	2–3 Days	Standard	8260 CT List	8260 Aromatics	8260 Halogens	SPLP 8260	TCLP 8260	TPH (418.1)	CT ETPH	8270 CT List	8270 PNAs	PCBs (Soxhlet)	Pesticides	13 Priority Poll	8 RCRA	TOTAL	TCLP	SPLP	Field Filtered	Lab To Filter	Additional Analysis	TOTAL # OF CONT.	NOTE #
20140922_2149_P1	9/22/14	Solid				X										X											
20140922_2149_P2	9/22/14	Solid				X										X											

PRESERVATIVE (Cl–HCl, N–HNO_3, S–H_2SO_4, Na–NaOH, C=Cool, O–Other)

CONTAINER TYPE (P–Plastic, G–Glass, V–Vial, O–Other)

Soil VOCs Only (M=MeOH B= Sodium Bisulfate W=Water F= Empty Vial E=Encore)

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Ken Bogue	9/22/14 9/23/14 1445	[illegible]
[illegible]	9/23/14 1545	[illegible]

NOTES:

Client / Reporting Information

Company Name: Facility Support Services, LLC

Address: 2685 State Street

City: Hamden State: CT Zip: 06517

Report To: Kevin Bogue E-mail: KBogue_FSS@SNET.NET

Phone #: 203 208 1281 Fax #:

Project Information

Project Contact: K. Bogue PO #: —

Project: 22214 – 2149 Project #: 22214

Location: Bridgeport, CT Collector(s): KSB

QA/QC: ☒ Std ☐ Site Specific (MS/MSD) * ☐ RCP Pkg *

Data Report: ☒ Email ☐ PDF ☐ Excel ☐ Other

RSR Reporting Limits (check one): ☐ GA ☐ GB ☐ SWP ☒ Other (Specify) 1ppm

Lab Use:
Evidence of Cooling: Y or N
Temp Upon Receipt 3.9 °C

SHEET 1 OF 1

* Additional charge may apply. ** TAT begins when the samples are received at the Lab. TAT for samples received after 3 p.m. will start on the next business day.

REV. 5/9/06

ATTACHMENT F

LEAD REPORT

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

LEAD INSPECTION AND TESTING SUMMARY FORM

This lead inspection and testing summary form must be completed and sent to the property owner of the property in accordance with Section 19a-111-3 (d) of the regulations of Connecticut State Agencies concerning Lead Poisoning Prevention and Control. A Comprehensive Lead Inspection is one performed to satisfy CGS 19a-111 (epidemiological investigation) and CGS 19a-110(d) (on-site inspection). Bare soil areas, dust and water are required to be tested for the presence of lead as part of a comprehensive lead inspection.

PROPERTY INSPECTED/TESTED

(Check): Residence ☑ Child Day Care Center/Group Day Care Home ☐ Name: _____ Family Day Care Home ☐ Name: _____

(Check One): Comprehensive Lead Inspection ☐ Limited Testing ☑

Street Address: 896-898 Howard Ave. Apt.# 2 Floor: 2nd

City/Town: Bridgeport Zip Code: 06605 Telephone: _____

If Apartment, Number of Units: 3-4 Year Property Built: 1910

PROPERTY OWNER

Name: O'Neil and Shena Anderson

Street Address: 896-898 Howard Ave- Second Floor City: Bridgeport

State: CT Zip Code: 06605 Telephone: 203-338-0053

INSPECTING ENTITY

A. If Consultant Contractor:

Name: Gilbertco Lead Inspections LLC

Street Address: 287 Main Street

City: Ansonia State: CT Zip Code: 06401

Consultant License Number: CC 270

Inspector's Name: Maureen Monaco Telephone: 1-800-959-2985

Inspector's Certification Number: IR 1172

B. If Code Enforcement Agency:

Department Name: n/a

Street Address: _____

City: _____ State: _____ Zip Code: _____

Inspector's Name: _____ Telephone: _____

Date of Inspector's Initial Training: ____/____/____ Date of Latest Refresher Training: ____/____/____

INSPECTION INFORMATION **Beginning and End Date(s) of Inspection:** 9 /22 /14

For each day that the inspection was conducted consent was given by an adult occupant of the dwelling unit to enter and inspect all areas of the dwelling that are under the control of that individual or to which that individual has legitimate access.
☑ Yes ☐ No

Name of person 18 years of age or older who granted consent: Shena Anderson Age: 18+ Date: 9/22/14

Name of person 18 years of age or older who granted consent: _____ Age: ___ Date: _____

A. Were Lead-Based Surfaces Identified? (Check One) ☑ Yes ☐ No
If yes, complete the tables below. Data in tables may not indicate all identified lead-based surfaces.

EXTERIOR Lead-Based Surfaces	Foundation	Siding &/or Trim	Stairs &/or Stair Components	Porch &/or Porch Components	Doors &/or Trim	Windows &/or Trim	Garage &/or Garage Components
Deteriorated	☐	☑	☐	☑	☑	☐	☐
Intact	☐	☑	☐	☑	☑	☐	☐

(X = positive location)

INTERIOR Lead-Based Surfaces	Floors	Baseboards	Walls	Ceilings	Stairs &/or Stair Components	Doors &/or Trim	Windows &/or Trim	Closet/ Cabinet Components
Deteriorated	☐	☐	☐	☐	☐	☐	☐	☐
Intact	☐	☐	☑	☐	☐	☑	☑	☐

(X = positive location)

Were rooms, areas or components inaccessible during inspection? (Check One) ☐ Yes ☐ No
List any inaccessible locations: _____

B. Indicate Potential Lead Hazards Identified:

(Check All That Apply)
Was drinking water tested for lead?
☐ Yes ☑ No
Was dust tested for lead?
☐ Yes ☑ No
Was bare soil tested for lead?
☑ Yes ☐ No ☐ N/A If yes, complete the adjacent table.

Lead Hazard Locations	Floors (dust)	Window Sills (dust)	Window Wells (dust)	Soil	Water	Paint (XRF)	Paint Chip
(Enter highest result for each)				398		21.59	

Per section 19a-111-4(a) and 19a-111-2(e) of the Lead Poisoning Prevention and Control Regulations:

A lead abatement plan **is required for this property:** ☑ Yes ☐ No
A lead management plan is required for this property: ☑ Yes ☐ No

A lead hazard remediation **plan is required for this property:** ☐ Yes ☐ No
A lead management plan is required for this property: ☐ Yes ☐ No

Inspector's Signature: _____ Date: 10 /1 /2014

The federal Residential Lead-Based Paint Hazard Reduction Act, 42 U.S.C. 4852d, requires sellers and landlords of most residential housing built before 1978 to disclose all available records and reports concerning lead-based paint and/or lead-based paint hazards, including the test results contained or referenced in this notice, to purchasers and tenants at the time of sale or lease or upon lease renewal. This disclosure must occur even if hazard reduction or abatement has been completed. Failure to disclose these test results is a violation of the U.S. Department of Housing and Urban Development and the U.S. Environmental Protection Agency regulations at 24 CFR Part 35 and 40 CFR Part 745 and can result in a fine of up to $11,000 per violation. To find out more information about your obligations under federal lead-based paint requirements, call 1-800-424-LEAD.

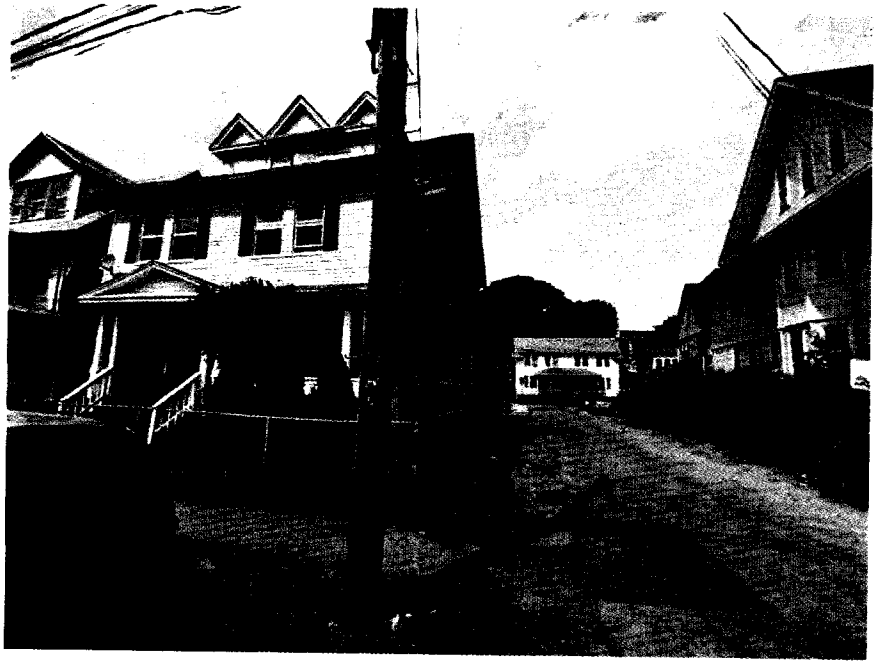
I have received a copy of this summary report from my landlord/property manager and have been informed that I can obtain further information about the testing results from the report by contacting the property owner listed above.

Resident's Signature: _____ Date: ____/____/____

1-7-14

LEAD BASED PAINT INSPECTION
REPORT OF FINDINGS
OF:

896-898 HOWARD AVENUE
BRIDGEPORT, CONNECTICUT



DATE:
SEPTEMBER 22, 2014

PREPARED BY:
GILBERTCO LEAD INSPECTIONS LLC
287 MAIN STREET
ANSONIA, CONNECTICUT 06401

GILBERTCO
LEAD INSPECTIONS, LLC

"LEAD BASED PAINT SPECIALIST"

October 1, 2014

Job 9928-16-896

Kevin Bogue, LEP, CHMM
Facility Support Services, LLC
2685 State Street
Hamden, Connecticut 06517

Re: Lead Based Paint Inspection: 896-898 Howard Ave., Bridgeport, CT
Applicant 2149- O'Neil and Shena Anderson

Gilbertco Lead Inspections LLC performed a limited XRF inspection for the presence of lead based paint at 896-898 Howard Ave., Bridgeport, Connecticut. The inspection was requested by Facility Support Services in response to distribution of HUD funds given to CT DOH for Storm Sandy repair work.

The site inspected consists of a large, four story, three family home built about 1910. The exterior is vinyl siding with vinyl replacements windows throughout. The home is in good repair and enjoys excellent housekeeping.

In accordance with HUD/EPA guidance issued June 26, 1996, the Scitec Map 4 Spectrum Analyzer was used in the "Unlimited" assaying mode. This enables the equipment to accurately determine whether the result is "Positive", above the 1.0 mg/cm2 action level or "Negative", below the action level regardless of precision or operator bias. In accordance with the above guidance, values of 0.91 mg/cm2 through 1.19 mg/cm2 are considered "Inconclusive", meaning the value level of lead in paint was so close to the 1.0 mg/cm2 action level that further analysis by XRF would not result in a "Positive" or "Negative" answer. Only laboratory analysis of the paint film can determine actual values in this range. Chip sampling of inconclusive was not included in the scope of this report, therefore, any results above 0.9 mg/cm2 are considered positive. Results are arranged floor plan style with the substrate and condition noted. Orientation of rooms places side 'one' as street side, with side 'two' to the left, side 'three' opposite, and wall 'four' to the right. Rooms were tested in a clockwise pattern.

287 Main Street
Ansonia, CT 06401
203-732-2615 - FAX 866-437-8191
Toll Free In CT Only 1-800-959-2985

In regards to the above mentioned property, *several lead based paint hazards were identified.* A lead based paint hazard is "any condition that causes lead exposure to lead from lead-contaminated dust, lead contaminated soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects...". ...". (The Residential Lead Based Paint Hazard Reduction Act of 1992 – Title X). ...". Several areas tested positive for lead based paint but are currently in an intact condition. These areas should be placed on a Management Plan and monitored annually for signs of deterioration or paint breakdown. *See attached* . In April 2010, a new EPA regulation requires that any contractor who disturbs more than six square feet of painted surface per room or does window replacement must be certified as a Renovate Right Contractor. Homeowners are allowed to do their own renovation but are not exempt from providing renovation notices or posting informational signs. Further information regarding Renovate Right may be obtained at www.epa.gov/lead/pubs/renovation or by calling the National Lead Information Center at 1-800-424-LEAD (5323).

Lead in dust was not included in the scope of this report. Only laboratory analysis can insure that no lead dust hazards remain after renovations or from everyday use of the home.

A composite soil sample was obtained from exposed bare soil on the right side of the property and found to have a lead concentration of 398 ppm. This is below the 400 ppm recommended lead in soil level and therefore no action needs to be taken. Nevertheless, vegetable plants should not be planted near the perimeter of the house or in water runoff areas. Children should not be allowed to play in bare soil areas adjacent to the house. Asphalt, bushes, mulch, or good quality grass covering are acceptable deterrents.

This lead inspection report should be disclosed to future tenants and /or buyers in accordance with Title X (copy enclosed). As with any lead-containing surface, children should not be allowed to chew or mouth painted surfaces as this is a common source of lead poisoning in children.

A copy of this report and has been sent to the owner in accordance with CGS 19a-111 and a proposed abatement plan has been submitted to the Bridgeport Health Department as required. Additionally, notification has been sent to the State Historic Preservation Office for approval.

Please feel free to call if any questions arise,

Maureen Monaco

Maureen Monaco
Consultant Contractor #270
Lead Inspector Risk Assessor #1172

CERTIFICATION
LEAD IN PAINT RESULTS

AGENCY:	GILBERTCO LEAD INSPECTIONS LLC 287 MAIN STREET ANSONIA, CONNECTICUT 06401
PROJECT ADDRESS:	896-898 HOWARD AVENUE BRIDGEPORT, CONNECTICUT
PROJECT NUMBER:	9928-16-896
TEST DATE:	SEPTEMBER 22, 2014
REQUIREMENTS:	CHAPTER 7 HUD GUIDELINES LEAD INSPECTION- SURFACE BY SURFACE
INSTRUMENTATION:	SCITEC MAP4 PORTABLE X-RAY (BRUKER HANDHELD) FLUOROSCOPE SPECTRUM ANALYZER (XRF) COBALT 57 SOURCE
REPORT MEDIUM:	MG PB/CM2 (MILLIGRAMS OF LEAD PER SQUARE CENTIMETER)
CALIBRATION:	TO MEASURE LEAD K-SHELL EMISSIONS. FACTORY CALIBRATED WITH HUD APPROVED REFERENCE STANDARDS. CALIBRATION FIELD CHECKED HOURLY AS RECOMMENDED BY MANUFACTURER
OPERATORS CERTIFICATION:	LEAD CONSULTANT CONTRACTOR-CC270 LEAD INSPECTOR RISK ASSESSOR- IR 1172 LEAD ABATEMENT SUPERVISOR- 2383

I hereby certify to the best of my knowledge and capabilities that this report reflects the true lead content of the surfaces tested in this report on this date.

Mauro Morris 10/2/14

896-898 Howard Ave., Lower Level, Bridgeport, Connecticut

September 22, 2014

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1.34	okay
Front Right BR	1	1	Wall	Sheetrk	Intact	-0.24	Negative
Front Right BR	1	1	Ceiling	Sheetrk	Intact	-0.6	Negative
Front Right BR	1	2	Wall	Sheetrk	Intact	-0.06	Negative
Front Right BR	1	2	Baseboard	Wood	Intact	-0.01	Negative
Front Right BR	1	2	Wall	Sheetrk	Intact	0.17	Negative
Front Right BR	1	3	Door	Wood	Intact	-0.14	Negative
Front Right BR	1	3	Door Casing	Wood	Intact	-0.09	Negative
Living Room	2	1	Wall	Sheetrk	Intact	0.24	Negative
Living Room	2	1	Door Casing	Wood	Intact	-0.14	Negative
Living Room	2	2	Baseboard	Wood	Intact	0.47	Negative
Living Room	2	2	Wall	Sheetrk	Intact	0.16	Negative
Living Room	2	3	Closet Door	Sheetrk	Intact	0.12	Negative
Living Room	2	3	Clo Dr Csng	Sheetrk	Intact	0.13	Negative
Living Room	2	4	Wall	Sheetrk	Intact	0.03	Negative
Living Room	2	4	Window Trim	Wood	Intact	-0.03	Negative
Kitchen	3	1	Wall	Sheetrk	Intact	-0.14	Negative
Kitchen	3	4	Wall	Sheetrk	Non-intact	0.21	Negative
Kitchen	3	4	Clo Dr Csng	Wood	Intact	0.19	Negative
Kitchen	3	4	Ceiling	Sheetrk	Intact	0.15	Negative
Kitchen	3	4	Wall	Sheetrk	Intact	0.37	Negative
Kitchen	3	4	Baseboard	Wood	Intact	-0.2	Negative
Kitchen	3	4	Cabinet	Wood	Intact	0.15	Negative
Kitchen	3	3	Wall	Sheetrk	Intact	0.35	Negative
Kitchen	3	3	Door	Wood	Intact	0.24	Negative
Kitchen	3	3	Door Casing	Wood	Intact	0.4	Negative
Kitchen	3	2	Closet Door	Wood	Intact	-0.13	Negative
Kitchen	3	2	Clo Dr Csng	Wood	Intact	-0.02	Negative
Front Left BR	4	1	Wall	Sheetrk	Intact	0.28	Negative
Front Left BR	4	2	Wall	Sheetrk	Intact	-0.05	Negative
Front Left BR	4	2	Window Trim	Wood	Intact	0.12	Negative
Front Left BR	4	1	Ceiling	Sheetrk	Intact	0.04	Negative
Front Left BR	4	4	Wall	Sheetrk	Intact	-0.06	Negative
Front Left BR	4	4	Door	Wood	Intact	-0.11	Negative
Front Left BR	4	3	Door Casing	Wood	Intact	-0.06	Negative
Front Left BR	4	3	Wall	Sheetrk	Intact	0.21	Negative
Bathroom	5	4	Door	Wood	Intact	-0.03	Negative
Bathroom	5	4	Door Jamb	Wood	Intact	0.1	Negative
Bathroom	5	4	Door Casing	Wood	Intact	0.05	Negative
Bathroom	5	4	Wall	Sheetrk	Intact	-0.07	Negative

Bathroom	5	1	Wall	Sheetrk	Intact	0	Negative
Bathroom	5	1	Cabinet	Wood	Intact	0.03	Negative
Bathroom	5	2	Wall	Sheetrk	Intact	-0.16	Negative
Bathroom	5	2	Baseboard	Sheetrk	Intact	0.11	Negative
Bathroom	5	1	Ceiling	Sheetrk	Intact	-0.44	Negative
Open Basement	6	1	Door	Wood	Intact	-0.35	Negative
Open Basement	6	1	Door Jamb	Wood	Intact	0.07	Negative
Open Basement	6	4	Wall	Sheetrk	Intact	0.7	Negative
Open Basement	6	2	Wall	Masonry	Intact	-0.27	Negative
Open Basement	6	3	Door	Wood	Intact	0.27	Negative
Open Basement	7	3	Door	Wood	unpainted	0.28	Negative
Open Basement	7	3	Door Casing	Wood	Intact	-0.57	Negative
Open Basement	7	3	Wall	Wood	Intact	-0.13	Negative
Open Basement	7	3	Floor	Masonry	Non-intact	0.23	Negative
Open Basement	7	3	Stair Tread	Wood	Intact	0.26	Negative
Open Basement	7	3	Stair Riser	Wood	Intact	0.49	Negative
Open Basement	7	3	Wall	Wood	Intact	0.23	Negative
Open Basement	7	3	Ceiling	Sheetrk	Intact	-0.43	Negative

896-898 Howard Ave., First Floor, Bridgeport, Connecticut

September 22, 2014

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1.05	okay
Front Right BR	1	1	Wall	Sheetrk	Intact	0.11	Negative
Front Right BR	1	1	Window Trim	Wood	Intact	0.43	Negative
Front Right BR	1	1	Window Sill	Wood	Intact	0.23	Negative
Front Right BR	1	1	Window Apron	Wood	Intact	-0.08	Negative
Front Right BR	1	1	Baseboard	Wood	Intact	0.14	Negative
Front Right BR	1	1	Radiator	Metal	Intact	0.61	Negative
Front Right BR	1	4	Wall	Sheetrk	Intact	-0.12	Negative
Front Right BR	1	4	Baseboard	Wood	Intact	0.04	Negative
Front Right BR	1	4	Window Trim	Wood	Intact	0.02	Negative
Front Right BR	1	4	Window Sill	Wood	Intact	0.84	Negative
Front Right BR	1	4	Window Apron	Wood	Intact	-0.08	Negative
Front Right BR	1	4	Wall	Sheetrk	Intact	0.23	Negative
Front Right BR	1	2	Closet Door	Wood	Intact	-0.03	Negative
Front Right BR	1	2	Clo Dr Csng	Wood	Intact	0.11	Negative
Front Right BR	1	2	Door Casing	Wood	Intact	-0.31	Negative
Front Right BR	1	2	Wall	Sheetrk	Intact	0.24	Negative
Front Right BR	1	2	Baseboard	Wood	Intact	-0.03	Negative
Front Right BR	1	2	Door	Wood	Intact	-0.54	Negative
Front Right BR	1	3	Door Casing	Wood	Intact	0	Negative
Front Right BR	1	3	Wall	Sheetrk	Intact	0.27	Negative
Living Room	2	1	Door Casing	Wood	Intact	-0.34	Negative
Living Room	2	1	Wall	Sheetrk	Intact	0.37	Negative
Living Room	**2**	**2**	**Door**	**Wood**	**Intact**	**10.06**	**Positive**
Living Room	2	2	Door Casing	Wood	Intact	0.03	Negative
Living Room	2	2	Wall	Sheetrk	Intact	0.01	Negative
Living Room	2	2	Baseboard	Wood	Intact	-0.3	Negative
Living Room	2	2	Floor	Wood	Stain/varnish	0.16	Negative
Living Room	2	2	Cabinet	Wood	Intact	-0.02	Negative
Living Room	2	2	Cabinet	Wood	Intact	0.17	Negative
Living Room	2	3	Wall	Sheetrk	Intact	-0.04	Negative
Living Room	2	3	Door Casing	Wood	Intact	-0.28	Negative
Living Room	2	3	Baseboard	Wood	Intact	0.42	Negative
Living Room	2	4	Wall	Sheetrk	Intact	0.13	Negative
Living Room	2	4	Window Sill	Wood	Intact	0.37	Negative
Living Room	2	4	Window Trim	Wood	Intact	0.18	Negative
Living Room	2	5	Window Stop	Wood	Intact	-0.12	Negative
Living Room	2	4	Windwo Apron	Wood	Intact	0.24	Negative
Living Room	2	4	Baseboard	Wood	Intact	-0.08	Negative
Living Room	2	4	Radiator	Metal	Intact	0.76	Negative
Living Room	2	1	Floor	Wood	Stain/varnish	-0.33	Negative
Bathroom	3	2	Door Jamb	Wood	Intact	0.32	Negative
Bathroom	3	2	Door Casing	Wood	Intact	0.18	Negative

Bathroom	**3**	**2**	**Wall**	**Sheetrk**	**Intact**	**1.49**	**Positive**
Bathroom	**3**	**3**	**Wall**	**Sheetrk**	**Intact**	**2.62**	**Positive**
Bathroom	3	3	Baseboard	Wood	Intact	0	Negative
Bathroom	**3**	**4**	**Wall**	**Sheetrk**	**Intact**	**3.25**	**Positive**
Bathroom	3	4	Window Trim	Wood	Intact	0.21	Negative
Bathroom	3	4	Window Sill	Wood	Intact	0.06	Negative
Bathroom	3	4	Window Apron	Wood	Intact	0	Negative
Bathroom	3	1	Wall	Sheetrk	Intact	-0.04	Negative
Bathroom	3	1	Baseboard	Wood	Intact	0.18	Negative
Kitchen	4	1	Door Jamb	Wood	Intact	0.18	Negative
Kitchen	4	1	Door Casing	Wood	Intact	0.38	Negative
Kitchen	4	1	Cabinet	Wood	Stain/varnish	0.27	Negative
Kitchen	4	2	Wall	Sheetrk	Intact	-0.14	Negative
Kitchen	4	2	Baseboard	Wood	Intact	0.27	Negative
Kitchen	**4**	**4**	**Wall**	**Sheetrk**	**Intact**	**4.05**	**Positive**
Kitchen	4	4	Window Trim	Wood	Intact	0.45	Negative
Kitchen	4	4	Window Sill	Wood	Intact	0.22	Negative
Kitchen	4	4	Window Stop	Wood	Intact	0.19	Negative
Kitchen	**4**	**4**	**Wall-upper**	**Sheetrk**	**Intact**	**3.17**	**Positive**
Kitchen	4	4	Wall-lower	Wood	Intact	0.02	Negative
Kitchen	4	4	Radiator	Metal	Intact	0.68	Negative
Kitchen	**4**	**3**	**Wall**	**Sheetrk**	**Intact**	**3.23**	**Positive**
Kitchen	4	3	Cabinet	Wood	Stain/varnish	0.43	Negative
Kitchen	**4**	**3**	**Wall-upper**	**Sheetrk**	**Intact**	**3.93**	**Positive**
Kitchen	4	3	Wall-lower	Sheetrk	Intact	0.17	Negative
Kitchen	4	3	Door	Sheetrk	Intact	0.63	Negative
Kitchen	4	3	Door Casing	Sheetrk	Intact	-0.01	Negative
Kitchen	4	1	Closet Door	Wood	Intact	-0.04	Negative
Kitchen	4	1	Clo Dr Csng	Wood	Intact	0.38	Negative
Front Hall	5	1	Door	Wood	Intact	0.26	Negative
Front Hall	5	1	Door Casing	Wood	Intact	-0.17	Negative
Front Hall	5	1	Wall	Sheetrk	Intact	0.26	Negative
Front Hall	5	1	Baseboard	Wood	Intact	0.37	Negative
Front Hall	5	1	Floor	Wood	Stain/varnish	0.11	Negative
Front Hall	5	4	Wall	Sheetrk	Intact	0.17	Negative
Front Hall	5	4	Baseboard	Wood	Intact	-0.18	Negative
Front Hall	5	2	Wall	Sheetrk	Intact	0.16	Negative
Front Hall	5	2	Baseboard	Wood	Intact	0.25	Negative
Front Hall	5	3	Wall	Sheetrk	Intact	0.21	Negative
Front Hall	5	3	Radiator	Metal	Intact	0.28	Negative
Front Hall	5	3	Baseboard	Wood	Intact	-0.39	Negative
Front Hall	**5**	**3**	**Door**	**Wood**	**Intact**	**8.27**	**Positive**
Front Hall	5	3	Door Casing	Wood	Intact	0.48	Negative
Front Left Bedroom	6	1	Door	Wood	Intact	-0.06	Negative

Front Left Bedroom	6	1	Door Casing	Wood	Intact	0.11	Negative
Front Left Bedroom	6	1	Wall	Sheetrk	Intact	0.13	Negative
Front Left Bedroom	6	1	Baseboard	Wood	Intact	0.29	Negative
Front Left Bedroom	6	1	Closet Door	Wood	Intact	0.09	Negative
Front Left Bedroom	6	1	Clo Dr Csng	Wood	Intact	0.34	Negative
Front Left Bedroom	6	1	Shelf Support	Wood	Intact	0.44	Negative
Front Left Bedroom	6	2	Window Trim	Wood	Intact	0.37	Negative
Front Left Bedroom	6	2	Window Sill	Wood	Intact	0.12	Negative
Front Left Bedroom	6	2	Window Stop	Wood	Intact	-0.11	Negative
Front Left Bedroom	6	2	WindowApron	Wood	Intact	0.75	Negative
Front Left Bedroom	6	2	Baseboard	Wood	Intact	0.53	Negative
Front Left Bedroom	6	2	Radiator	Wood	Intact	0.71	Negative
Front Left Bedroom	6	3	Wall	Sheetrk	Intact	0.04	Negative
Front Left Bedroom	6	3	Baseboard	Wood	Intact	0.43	Negative
Front Left Bedroom	6	3	Door	Wood	Intact	0.06	Negative
Front Left Bedroom	6	3	Door Casing	Wood	Intact	-0.02	Negative
Front Left Bedroom	6	3	Door Jamb	Wood	Intact	0.02	Negative
Bathroom	7	4	Door	Wood	Intact	-0.13	Negative
Bathroom	7	4	Door Jamb	Wood	Intact	0.06	Negative
Bathroom	**7**	**4**	**Door Casing**	**Wood**	**Intact**	**2.37**	**Positive**
Bathroom	7	4	Wall	Sheetrk	Intact	-0.02	Negative
Bathroom	7	1	Wall	Sheetrk	Intact	0.27	Negative
Bathroom	7	2	Wall	Sheetrk	Intact	0.89	Negative
Bathroom	**7**	**2**	**Window trim**	**Wood**	**Intact**	**2.13**	**Positive**
Bathroom	**7**	**2**	**Window Sill**	**Wood**	**Intact**	**2.02**	**Positive**
Bathroom	7	2	Window Stop	Wood	Intact	0.76	Negative
Bathroom	**7**	**2**	**Window Apron**	**Wood**	**Intact**	**2.91**	**Positive**
Bathroom	7	8	Radiator	Metal	Non-intact	0.48	Negative
Bathroom	7	8	Shelf	Metal	Non-intact	-0.2	Negative
Bathroom	7	3	Shelf Support	Wood	Intact	0.48	Negative
Rear Bedroom	8	1	Door	Wood	Intact	-0.04	Negative
Rear Bedroom	8	1	Door Jamb	Wood	Intact	-0.04	Negative
Rear Bedroom	8	1	Door Casing	Wood	Intact	0.31	Negative
Rear Bedroom	8	1	Wall	Sheetrk	Intact	0.09	Negative
Rear Bedroom	8	1	Baseboard	Wood	Intact	0.23	Negative
Rear Bedroom	8	2	Wall	Sheetrk	Intact	-0.19	Negative
Rear Bedroom	8	2	Window Sill	Wood	Intact	0.77	Negative
Rear Bedroom	8	2	Window Trim	Wood	Intact	0.57	Negative
Rear Bedroom	8	2	Window Apron	Wood	Intact	0.86	Negative
Rear Bedroom	8	3	Wall	Sheetrk	Intact	0.09	Negative
Rear Bedroom	8	3	Baseboard	Wood	Intact	-0.21	Negative
Rear Bedroom	8	4	Wall	Sheetrk	Intact	-0.35	Negative
Rear Bedroom	**8**	**4**	**Baseboard**	**Wood**	**Intact**	**2.97**	**Positive**
Rear Bedroom	8	4	Closet Door	Wood	Intact	-0.26	Negative
Rear Bedroom	8	4	Clo Dr CSng	Wood	Intact	0.53	Negative

896-898 Howard Ave., Second Floor, Bridgeport, Connecticut

September 22, 2014

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1.04	okay
Front Porch	1	1	Wall	Sheetrk	Intact	-0.16	Negative
Front Porch	**1**	**1**	**Window Sill**	**Wood**	**Non-intact**	**1**	**Inconclusive**
Front Porch	**1**	**1**	**Window Sill**	**Wood**	**Non-intact**	**1.76**	**Positive**
Front Porch	**1**	**1**	**Wall**	**Wood**	**Non-intact**	**15.2**	**Positive**
Front Porch	1	4	Wall	Sheetrk	Intact	-0.36	Negative
Front Porch	**1**	**4**	**Window Sill**	**Wood**	**Non-intact**	**2.51**	**Positive**
Front Porch	**1**	**4**	**Wall**	**Wood**	**Non-intact**	**8.81**	**Positive**
Front Porch	**1**	**3**	**Window Trim**	**Wood**	**Non-intact**	**19.47**	**Positive**
Front Porch	**1**	**3**	**Window Sill**	**Wood**	**Non-intact**	**8.85**	**Positive**
Front Porch	**1**	**3**	**Clapboard**	**Wood**	**Intact**	**1.04**	**Inconclusive**
Front Porch	1	3	Door	Wood	Intact	0.33	Negative
Front Porch	**1**	**3**	**Door Jamb**	**Wood**	**Intact**	**21.59**	**Positive**
Front Porch	**1**	**3**	**Door Casing**	**Wood**	**Intact**	**3.42**	**Positive**
Front Porch	**1**	**3**	**Threshold**	**Wood**	**Intact**	**3.57**	**Positive**
Front Hall	2	1	Door	Wood	Intact	0.68	Negative
Front Hall	2	1	Door Casing	Wood	Intact	0.07	Negative
Front Hall	2	1	Wall	Sheetrk	Intact	0.35	Negative
Front Hall	2	1	Radiator	Metal	Intact	0.37	Negative
Front Hall	2	4	Wall	Sheetrk	Intact	0.1	Negative
Front Hall	2	4	Baseboard	Sheetrk	Stain/varnish	-0.06	Negative
Front Hall	2	1	Floor	Wood	Stain/varnish	-0.2	Negative
Front Hall	2	1	Stair Tread	Wood	Stain/varnish	0.21	Negative
Front Hall	2	1	Stair Riser	Wood	Intact	0.23	Negative
Front Hall	2	1	Stair Stringer	Wood	Intact	0.28	Negative
Front Hall	2	2	Wall	Sheetrk	Intact	-0.26	Negative
Front Hall	2	2	Newel Post	Wood	Intact	0.04	Negative
Front Hall	2	2	Newel Post	Wood	Intact	-0.06	Negative
Front Hall	2	2	Spindle	Wood	Intact	-0.21	Negative
Front Hall	2	2	Ceiling	Sheetrk	Intact	0.23	Negative
Front Hall	2	3	Wall	Sheetrk	Intact	-0.04	Negative
Front Hall	2	3	Baseboard	Wood	Intact	0.06	Negative
Front Bedroom	3	1	Wall	Sheetrk	Intact	0.77	Negative
Front Bedroom	3	4	Wall	Sheetrk	Intact	-0.52	Negative
Front Bedroom	3	1	Window Sill	Wood	Intact	-0.03	Negative
Front Bedroom	3	1	Window Trim	Wood	Intact	0.02	Negative
Front Bedroom	3	1	Radiator	Metal	Non-intact	0.83	Negative
Front Bedroom	3	1	Clo Dr Csng	Wood	Intact	-0.09	Negative
Front Bedroom	3	1	Wall	Sheetrk	Intact	0.31	Negative
Front Bedroom	3	3	Door Casing	Wood	Intact	0.27	Negative
Front Bedroom	3	3	Baseboard	Wood	Intact	0.26	Negative
Front Bedroom	3	3	Door	Wood	Intact	-0.63	Negative

Front Bedroom	3	3	Door Jamb	Wood	Intact	0.14	Negative
Front Bedroom	3	3	Door Casing	Wood	Intact	-0.13	Negative
Living Room	4	1	Door Casing	Wood	Intact	0.28	Negative
Living Room	4	1	Post/column	Wood	Intact	-0.29	Negative
Living Room	4	1	Window Sill	Wood	Intact	0.07	Negative
Living Room	4	4	Window Trim	Wood	Intact	-0.17	Negative
Living Room	4	4	Wall	Sheetrk	Intact	0.03	Negative
Living Room	4	4	Radiator	Metal	Non-intact	0.15	Negative
Living Room	4	2	Door	Wood	Intact	-0.26	Negative
Living Room	4	2	Door Casing	Wood	Intact	-0.22	Negative
Living Room	4	2	Wall	Sheetrk	Intact	0.45	Negative
Living Room	4	2	Baseboard	Wood	Intact	-0.13	Negative
Living Room	4	2	Floor	Wood	Stain/varnish	-0.36	Negative
Living Room	4	2	Door Casing	Wood	Intact	0.16	Negative
Living Room	4	3	Wall	Sheetrk	Intact	0.05	Negative
Living Room	4	3	Door Casing	Wood	Intact	0.37	Negative
Living Room	4	3	Door Jamb	Wood	Intact	0.13	Negative
Laundry	5	2	Door Casing	Wood	Intact	0.31	Negative
Laundry	**5**	**2**	**Wall**	**Sheetrk**	**Intact**	**3.3**	**Positive**
Laundry	5	2	Baseboard	Wood	Intact	-0.01	Negative
Laundry	**5**	**4**	**Wall**	**Sheetrk**	**Intact**	**11.91**	**Positive**
Laundry	5	4	Window Trim	Wood	Intact	-0.35	Negative
Laundry	5	4	Window Sill	Wood	Intact	0.26	Negative
Laundry	5	4	Window Stop	Wood	Intact	0.41	Negative
Laundry	5	1	Wall	Sheetrk	Intact	0.06	Negative
Laundry	**5**	**2**	**Wall**	**Sheetrk**	**Intact**	**7.21**	**Positive**
Bathroom	5	3	Baseboard	Wood	Intact	0.3	Negative
Kitchen	6	1	Door Jamb	Wood	Intact	0.31	Negative
Kitchen	6	1	Door Casing	Wood	Intact	-0.02	Negative
Kitchen	6	1	Cabinet	Wood	Stain/varnish	-0.39	Negative
Kitchen	6	4	Window Sill	Wood	Intact	0.26	Negative
Kitchen	6	4	Window Trim	Wood	Intact	-0.35	Negative
Kitchen	6	4	Window Stop	Wood	Intact	0.05	Negative
Kitchen	6	4	Window Apron	Wood	Intact	0.15	Negative
Kitchen	6	4	Wall-upper	Sheetrk	Intact	0.04	Negative
Kitchen	6	4	Chairrail	Wood	Intact	-0.01	Negative
Kitchen	6	4	Wall-lower	Wood	Intact	0.37	Negative
Kitchen	6	4	Radiator	Metal	Non-intact	-0.09	Negative
Kitchen	**6**	**2**	**Wall-upper**	**Sheetrk**	**Intact**	**8.61**	**Positive**
Kitchen	6	2	Chairrail	Wood	Intact	0.02	Negative
Kitchen	6	2	Wall-lower	Sheetrk	Intact	0.11	Negative
Kitchen	6	2	Baseboard	Sheetrk	Intact	0.1	Negative
Kitchen	**6**	**3**	**Wall**	**Sheetrk**	**Intact**	**10.87**	**Positive**
Kitchen	6	3	Door	Wood	Intact	-0.47	Negative

Kitchen	6	3	Door Casing	Wood	Intact	-0.03	Negative
Kitchen	6	3	Cabinet	Wood	Stain/varnish	-0.15	Negative
Dining Room	7	1	Wall	Sheetrk	Intact	-0.29	Negative
Dining Room	7	1	Door	Wood	Intact	-0.12	Negative
Dining Room	7	1	Door Casing	Wood	Intact	0.74	Negative
Dining Room	7	1	Closet Door	Wood	Intact	-0.04	Negative
Dining Room	7	1	Clo Dr Csng	Wood	Intact	0.88	Negative
Dining Room	7	1	Window Sill	Wood	Non-intact	0.19	Negative
Dining Room	7	1	Window Trim	Wood	Intact	0.88	Negative
Dining Room	7	1	Window Stop	Wood	Intact	0.5	Negative
Dining Room	7	2	Window Apron	Wood	Intact	0.72	Negative
Dining Room	7	2	Baseboard	Wood	Intact	0.43	Negative
Dining Room	7	2	Floor	Wood	Stain/varnish	0.14	Negative
Dining Room	7	4	Wall	Sheetrk	Intact	0.22	Negative
Dining Room	7	4	Door Casing	Wood	Intact	-0.18	Negative
Dining Room	7	2	Railing	Metal	Non-intact	0.8	Negative
Dining Room	7	2	Wall	Sheetrk	Intact	-0.24	Negative
Dining Room	7	2	Door Casing	Wood	Intact	0.4	Negative
Dining Room	7	3	Door Jamb	Wood	Intact	-0.14	Negative
Bathroom	8	4	Door	Wood	Intact	-0.14	Negative
Bathroom	8	4	Door Jamb	Wood	Intact	0.03	Negative
Bathroom	8	4	Door Casing	Wood	Intact	0.36	Negative
Bathroom	8	4	Wall	Sheetrk	Intact	0.57	Negative
Bathroom	8	1	Wall	Sheetrk	Intact	0.56	Negative
Bathroom	8	1	Cabinet	Wood	Intact	0.14	Negative
Bathroom	8	1	Window Sill	Wood	Intact	-0.2	Negative
Bathroom	**8**	**2**	**Window Trim**	**Wood**	**Intact**	**1.81**	**Positive**
Bathroom	**8**	**2**	**Window Stop**	**Wood**	**Intact**	**1.46**	**Positive**
Bathroom	8	2	Window Apron	Wood	Intact	0.19	Negative
Bathroom	8	2	Shelf	Wood	Intact	-0.06	Negative
Bathroom	8	3	Shelf Support	Wood	Intact	0.02	Negative
Bathroom	8	3	Wall	Sheetrk	Intact	0.12	Negative
Rear Bedroom	9	1	Door	Wood	Intact	0.01	Negative
Rear Bedroom	**9**	**1**	**Door Jamb**	**Wood**	**Intact**	**4.59**	**Positive**
Rear Bedroom	**9**	**1**	**Door Casing**	**Wood**	**Intact**	**4.05**	**Positive**
Rear Bedroom	9	1	Wall	Sheetrk	Intact	0.49	Negative
Rear Bedroom	9	2	Wall	Sheetrk	Intact	0.3	Negative
Rear Bedroom	9	2	Radiator	Metal	Non-intact	0.33	Negative
Rear Bedroom	9	3	Wall	Sheetrk	Intact	-0.31	Negative
Rear Bedroom	**9**	**3**	**Window Sill**	**Wood**	**Intact**	**1.53**	**Positive**
Rear Bedroom	**9**	**3**	**Window Trim**	**Wood**	**Intact**	**4.76**	**Positive**
Rear Bedroom	**9**	**3**	**Window Stop**	**Wood**	**Intact**	**1.88**	**Positive**
Rear Bedroom	9	3	Wall	Sheetrk	Intact	0.15	Negative
Rear Bedroom	9	4	Baseboard	Wood	Non-intact	0.06	Negative

Rear Bedroom	9	4	Closet Door	Wood	Intact	0.11	Negative
Rear Bedroom	**9**	**4**	**Clo Dr Csng**	**Wood**	**Intact**	**4.63**	**Positive**
Rear Bedroom	**9**	**4**	**Clo Dr Csng**	**Wood**	**Intact**	**3.45**	**Positive**

896-898 Howard Ave., Rear Second Floor Porch and Rear Hall. Bridgeport, Connecticut
September 22, 2014

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1.24	Okay
2nd Fl Rear Porch	1	1	Ceiling	Wood	Non-intact	-0.05	Negative
2nd Fl Rear Porch	**1**	**1**	**Transom**	**Wood**	**Non-intact**	**23.47**	**Positive**
2nd Fl Rear Porch	**1**	**1**	**Transom**	**Wood**	**Non-intact**	**18.87**	**Positive**
2nd Fl Rear Porch	**1**	**1**	**Transom**	**Wood**	**Non-intact**	**19.81**	**Positive**
2nd Fl Rear Porch	**1**	**1**	**Threshold**	**Wood**	**Non-intact**	**16.9**	**Positive**
2nd Fl Rear Porch	**1**	**1**	**Door Jamb**	**Wood**	**Non-intact**	**17.39**	**Positive**
2nd Fl Rear Porch	1	1	Door	Wood	Intact	-0.01	Negative
Rear Hall	2	1	Door	Wood	Intact	-0.16	Negative
Rear Hall	2	1	Door Jamb	Wood	Intact	-0.04	Negative
Rear Hall	2	1	Door Casing	Wood	Intact	0.32	Negative
Rear Hall	**2**	**1**	**Wall**	**Sheetrk**	**Intact**	**5.07**	**Positive**
Rear Hall	**2**	**3**	**Wall**	**Sheetrk**	**Intact**	**1.28**	**Positive**
Rear Hall	**2**	**4**	**Wall**	**Sheetrk**	**Intact**	**5.31**	**Positive**
Rear Hall	2	1	Ceiling	Sheetrk	Intact	0.81	Negative
Rear Hall	2	1	Stair Tread	Wood	Intact	-0.03	Negative
Rear Hall	2	1	Stair Riser	Wood	Intact	0.06	Negative
Rear Hall	2	1	Stair Stringer	Wood	Intact	0.19	Negative
Rear Hall	2	1	Floor	Wood	Intact	-0.09	Negative
Rear Hall	**2**	**4**	**Wall**	**Sheetrk**	**Intact**	**3.55**	**Positive**
Rear Hall	2	4	Door Casing	Wood	Intact	0.31	Negative
Rear Hall	2	2	Closet Door	Wood	Intact	-0.1	Negative
Rear Hall	2	2	Clo Dr Csng	Wood	Intact	-0.15	Negative
Rear Hall	2	2	Floor	Wood	Intact	0	Negative

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1.08	Okay
Front Bedroom	1	1	Wall	Sheetrk	Intact	-0.21	Negative
Front Bedroom	1	1	Window Sill	Wood	Intact	0.49	Negative
Front Bedroom	1	1	Window Trim	Wood	Intact	-0.03	Negative
Front Bedroom	1	1	Window Stop	Wood	Intact	-0.18	Negative
Front Bedroom	1	1	Window Apron	Wood	Intact	0.37	Negative
Front Bedroom	1	1	Baseboard	Wood	Intact	0.44	Negative
Front Bedroom	1	2	Wall	Sheetrk	Intact	-0.42	Negative
Front Bedroom	1	2	Closet Door	Wood	Intact	-0.04	Negative
Front Bedroom	1	2	Clo Dr Csng	Wood	Intact	-0.08	Negative
Front Bedroom	1	4	Wall	Sheetrk	Intact	0.17	Negative
Front Bedroom	1	4	Baseboard	Wood	Intact	-0.05	Negative
Front Bedroom	1	3	Wall	Sheetrk	Intact	-0.17	Negative
Front Bedroom	1	2	Door	Wood	Intact	0.03	Negative
Front Bedroom	1	2	Door Casing	Wood	Intact	0.1	Negative
Front Bedroom	1	2	Ceiling	Sheetrk	Intact	-0.05	Negative
Right Bedroom	2	2	Door	Wood	Intact	0.24	Negative
Right Bedroom	2	2	Door Casing	Wood	Intact	-0.02	Negative
Right Bedroom	2	2	Wall	Sheetrk	Intact	-0.09	Negative
Right Bedroom	2	2	Baseboard	Wood	Intact	-0.11	Negative
Right Bedroom	2	3	Wall	Sheetrk	Intact	0.06	Negative
Right Bedroom	2	3	Closet Door	Wood	Intact	-0.14	Negative
Right Bedroom	2	3	Clo Dr Csng	Wood	Intact	0.22	Negative
Right Bedroom	2	1	Ceiling	Sheetrk	Intact	-0.3	Negative
Right Bedroom	2	4	Wall	Sheetrk	Intact	0.04	Negative
Right Bedroom	2	4	Baseboard	Wood	Intact	0.22	Negative
Right Bedroom	2	4	Window Trim	Wood	Intact	0.28	Negative
Right Bedroom	2	4	Window Sill	Wood	Intact	0.08	Negative
Right Bedroom	2	4	Window Apron	Wood	Intact	0.14	Negative
Right Bedroom	2	1	Wall	Sheetrk	Intact	0.36	Negative
Right Bedroom	2	1	Wall	Sheetrk	Intact	0.31	Negative
Kitchen	3	1	Door Casing	Wood	Intact	0.35	Negative
Kitchen	3	1	Wall	Sheetrk	Intact	0.61	Negative
Kitchen	3	1	Cabinet	Other	Intact	0.14	Negative
Kitchen	3	2	Wall	Sheetrk	Intact	0.16	Negative
Kitchen	3	2	Window Trim	Wood	Intact	-0.05	Negative
Kitchen	3	2	Wall	Sheetrk	Intact	0.02	Negative
Kitchen	3	3	Wall	Sheetrk	Intact	-0.08	Negative
Kitchen	3	3	Cabinet	Wood	Intact	0.17	Negative
Kitchen	3	4	Wall	Sheetrk	Intact	-0.11	Negative
Kitchen	3	4	Baseboard	Wood	Intact	0.01	Negative

Bathroom	4	4	Door	Wood	Intact	-0.22	Negative
Bathroom	4	4	Door Jamb	Wood	Intact	-0.46	Negative
Bathroom	4	4	Door Casing	Wood	Intact	-0.4	Negative
Bathroom	4	4	Wall	Sheetrk	Intact	-0.15	Negative
Bathroom	4	1	Wall	Sheetrk	Intact	-0.05	Negative
Bathroom	4	2	Wall	Sheetrk	Intact	0.12	Negative
Bathroom	4	2	Cabinet	Wood	Intact	0.17	Negative
Bathroom	4	1	Ceiling	Sheetrk	Intact	-0.15	Negative
Living Room	5	1	Wall	Sheetrk	Intact	0.13	Negative
Living Room	5	1	Baseboard	Wood	Intact	0.23	Negative
Living Room	5	2	Wall	Sheetrk	Intact	-0.14	Negative
Living Room	5	2	Baseboard	Wood	Intact	0.27	Negative
Living Room	5	2	Door	Wood	Intact	0.19	Negative
Living Room	5	2	Door Casing	Wood	Intact	0.04	Negative
Living Room	5	2	Door Jamb	Wood	Intact	0.18	Negative
Living Room	5	3	Door	Wood	Intact	0.28	Negative
Living Room	5	3	Door Casing	Wood	Intact	0.34	Negative
Living Room	5	3	Wall	Sheetrk	Intact	0.04	Negative
Living Room	5	4	Wall	Sheetrk	Intact	0.02	Negative
Living Room	5	4	Baseboard	Wood	Intact	0.3	Negative
			* no windows				
Rear Left BR	6	4	Door	Wood	Intact	0.16	Negative
Rear Left BR	6	4	Door Casing	Wood	Intact	0.14	Negative
Rear Left BR	6	4	Wall	Sheetrk	Intact	0.25	Negative
Rear Left BR	6	4	Baseboard	Wood	Intact	-0.11	Negative
Rear Left BR	6	1	Wall	Sheetrk	Intact	-0.05	Negative
Rear Left BR	6	3	Window Trim	Wood	Intact	-0.15	Negative
Rear Left BR	6	3	Window Sill	Wood	Intact	-0.06	Negative
Rear Left BR	6	3	Window Apron	Wood	Intact	0.06	Negative
Rear Left BR	6	1	Baseboard	Wood	Intact	-0.71	Negative
Rear Left BR	6	2	Wall	Sheetrk	Intact	0.18	Negative
Rear Left BR	6	2	Baseboard	Wood	Intact	0.32	Negative
Rear Left BR	6	1	Ceiling	Sheetrk	Intact	0.05	Negative
Rear Left BR	6	1	Wall	Sheetrk	Intact	0.5	Negative
Rear Left BR	6	1	Closet Door	Wood	Intact	-0.09	Negative
Rear Left BR	6	1	Clo Dr Csng	Wood	Intact	0.09	Negative
Rear Left BR	6	1	Ceiling	Sheetrk	Intact	0.23	Negative
Rear Left BR	6	1	Wall	Sheetrk	Intact	0.2	Negative

896-898 Howard Ave., Exterior, Bridgeport, Connecticut
September 22, 2014

Room Type	Room #	Wall #	Component	Substrate	Condition	K Shell	Decision
Calibration						1	Okay
Exterior	1	3	Door	Metal	Intact	-0.05	Negative
Exterior	**1**	**3**	**Door Casing**	**Wood**	**Non-intact**	**2.48**	**Positive**
Exterior	**1**	**3**	**Door Casing**	**Wood**	**Non-intact**	**19.42**	**Positive**
Exterior	**1**	**3**	**Threshold**	**Wood**	**Non-intact**	**7.37**	**Positive**
Exterior	**1**	**3**	**Kickplate**	**Wood**	**Intact**	**9.86**	**Positive**
Exterior	1	3	Bilco Door	Metal	Non-intact	0.49	Negative
Exterior	**1**	**4**	**Basement wnd trim**	**Wood**	**Non-intact**	**8.22**	**Positive**
Exterior	**1**	**4**	**Basement wnd trim**	**Wood**	**Non-intact**	**13.33**	**Positive**
Exterior	1	4	Wall	Masonry	Intact	0.26	Negative
Exterior	**1**	**7**	**Post/column**	**Wood**	**Non-intact**	**26.65**	**Positive**
Exterior	**1**	**7**	**Post/column**	**Wood**	**Non-intact**	**24.35**	**Positive**
Exterior	**1**	**1**	**Porch Wall**	**Wood**	**Intact**	**15.08**	**Positive**
Exterior	**1**	**1**	**Porch Floor**	**Wood**	**Intact**	**13.11**	**Positive**
Exterior	1	1	Porch Floor	Wood	Stain/varnish	0.14	Negative
Exterior	1	1	Door	Wood	Intact	-0.13	Negative
Exterior	**1**	**1**	**Door Jamb**	**Wood**	**Intact**	**15.04**	**Positive**
Exterior	1	1	Threshold	Wood	Intact	0.56	Negative
Exterior	1	1	Stair Tread	Wood	Non-intact	-0.09	Negative
Exterior	1	1	Stair Riser	Wood	Non-intact	-0.6	Negative
Exterior	1	1	Railing	Wood	Non-intact	0.35	Negative
Exterior	1	1	Spindle	Wood	Non-intact	-0.02	Negative
Exterior	1	2	Wall	Masonry	Non-intact	0.15	Negative
Exterior	**1**	**2**	**Basement wnd trim**	**Wood**	**Non-intact**	**4.95**	**Positive**
Exterior	**1**	**2**	**Trim under front porch**	**Wood**	**Non-intact**	**7.22**	**Positive**
Exterior	1	2	Wall	Wood	Non-intact	0.69	Negative

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LABORATORY ANALYSIS REPORT

Lead Analysis based on EPA 7000B Method
Using Preparation Method EPA 3050B

ACCOUNT #: 3813-14-639
CUSTOMER: Gilbertco Inc
ADDRESS: 287 Main Street
Ansonia, CT 06401
PROJECT NAME: MCA
JOB LOCATION: Howard Ave
PROJECT NO.: 9928-16
PO NO.:

DATE RECEIVED: 9/27/2014
DATE ANALYZED: 9/29/2014
DATE REPORTED: 9/30/2014

Sample Type: SOIL

SLI Sample No.	Customer Sample No.	Collection Date	Sample Description	Sample Wt (mg)	Total Lead (µg)	Lead Conc (% by wt)	Lead Conc PPM
32312514	9928-16	9/22/2014	Composite Right Side Of H	520	207.1	0.040	398

Analysis Run ID: 53876

Analyst: **MARTI H. BAIRD**
Total Number of Pages in Report: 1
Results relate only to samples as received by the laboratory.

Reviewed By **Thoria Nadiem, Analyst**
Visit www.slabinc.com for current certifications.

Accrediting bodies: AIHA-LAP, LLC 100527, NVLAP 101150-0, VELAP/NELAC 460135 - Call laboratory for current national and state certifications.

*Minimum Reporting Limit: 10.0 µg. EPA Soil Std for bare residential soil: 400 ppm by wt in play areas; 1200 ppm by wt in bare soil in the remainder of the yard based on an avg of all other samples collected. EPA does not distinguish between lead-contaminated soil and soil-lead hazards. Soil samples are tested as received unless noted as "Dried before analysis." *Data precision justifies 2 sig. figures. All internal QC parameters were met. Unusual sample conditions, if any, are described.*

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WorkOrderKey V: \ 1026 \ 1026560

Submitting Co.	Gilbertco LLC	Lab WO#	3813-A-639	Phone	800-959-2985
	257 Main St	Acct #	3813	Fax / Email	866-437-8191
	Ansonia CT 06401	**State of Collection	CT	**Cert. Required	☒ Yes ☐ No
Project Name:	MCA -	Special Instructions [Include requests for special reporting or data packages]			
Project Location:	Howard Ave				
Project Number:	9928-16				
PO Number:					

Turn Around Time
- ☐ 2 hours*
- ☐ Same day*
- ☐ 1 business day*
- ☐ 2 business day*
- ☒ 3 business days*
- ☐ 5 business days*
- ☐ Full TCLP (10d)
- ☐ Weekend*

* not available for all tests

Schedule rush organics, multi-metals & weekend tests in advance.

Matrix / Sample Type (Select ONE)

All samples on form should be of SAME matrix type. Use additional forms as needed.

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ HI-Vol Filter (PM10)
- ☐ HI-Vol Filter (TSP)
- ☐ Oil
- ☐ Paint
- ☐ Sludge
- ☒ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☐ Water,Drinking
- ☐ Compliance
- ☐ Wipe
- ☐ Wipe, Composite
- ☐ _____
- ☐ _____

Tests / Analytes (Select ALL that Apply)

Asbestos Air / Fiber Counts
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)
- ☐ _____

Miscellaneous Tests
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)
- ☐ Mold Direct Exam

Asbestos Bulk / Asb ID
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYELAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ _____

FOR ASBESTOS AIR:
TYPE OF RESPIRATOR USED: _____

Metals-Total Conc.
- ☒ Lead
- ☐ RCRA Metals
- ☐ _____
- ☐ _____

Metals-Extract
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics)

Others
- ☐ _____

Sample #	Date Sampled**	Time Sampled**	Sample Identification (Employee, SSN, Bldg, Material, Type[1])	Wiped Area (ft²)	pH / Temp *	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total[4] Air
9928-16	9-22		Composite Soil							
			Right side of house							

[1]Type: A=area B=blank P=personal E=excursion [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters (time in min * flow in L/min)

Sampled by
NAME M Monaco
SIGNATURE M Monaco
DATE/TIME 9-22-14

Relinquished to lab by
NAME M Monaco
SIGNATURE M Monaco
DATE/TIME 9-24-14

TW 9-27-14 11:15

Sample Disposal
If samples over req. weight (Refer to Fee Schedule)
- ☐ Return to Sender (Shipping fees)
- ☐ Disposal by lab ($50 fee)

Shipping Methods
- ☐ FX ☐ UPS ☐ USM
- ☐ HD ☐ DB

WB: _____

☐ Sample return requested ☐ Ambient temp ☐ Ice CI ☐R ☐S ☐X ☐ Receive a physical copy of report.

* Temperature taken with IR Gun A. **Required. Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.

A. Background Information

Date Plan Submitted: October 2, 2014

Address of Property: 896-898 Howard Ave., Bridgeport, CT

Plan Prepared by: Owner ☐ Planner Project Designer ☒

Lead Planner / Project Designer

Name: Maureen Monaco Certificate: 2152

Telephone: 1-800-959-2985

Address: 287 Main Street, Ansonia, CT 06401

Inspection Report Used to Develop Abatement Plan

Date of Inspection: September 22, 2014

Consultant Contractor: Gilbertco Lead Inspections LLC, 287 Main Street, Ansonia, CT 06401 Consultant Contractor # 270

Telephone- 1-800-959-2985

Inspectors: Maureen Monaco- Lead Inspector Risk Assessor #1172

B . Owner Information

Name: O'Neal and Shena Anderson

Address: 896-898 Howard Ave., Second Floor, Bridgeport, CT

Telephone: 203-338-0053

C. Resident Information

Owner- Anderson family

Number of Children under six years old- one- O'Dayne Anderson dob 3-25-11

Will residents be relocated? Yes ☐ No ☒

D. Abatement Contractor Information

Who will conduct abatement? Owner ☐ Abatement Contractor ☒

Abatement contractor will submit all licenses and certifications of the company and individuals working on the property and give written notice to the Bridgeport Health Department at least five days prior to commencing the project.

This is a Department of Housing and Urban Development Project receiving Storm Sandy Disaster Recovery funds therefore must go out to bid. Abatement Contractor to be determined.

E. Repairs prior to Abatement

Please Note:

- Water leaks: Must be corrected prior to abatement regardless of the method of abatement. Uncorrected water leaks can cause encapsulating material to fail if the underlying lead painted surface deteriorates. Moisture can also cause paint on stripped surface (and unabated surface) to fail and expose lead residue that may remain on the substrate after stripping by heat, caustic chemicals, solvents or scraping.

- Heating Systems: Inadequate heat after abatement may lead to failure of encapsulants and paint. Therefore heating systems must be repaired. Prior to abatement, forced air systems must be shut down and sealed to prevent transport of lead contamination from the abatement area to other areas of the residence.

What Components or Mechanical Systems Need To Be Repaired Prior To Abatement?

❑ Water leaks, roof, plumbing, wall surfaces, etc.- Repairs to include interior ceiling and floor repair.

❑ Heating Systems-

❑ Electrical Systems

❑ Any other conditions that require repair so as not to impede abatement.

☒No prior repairs required.

F. Abatement Techniques To Be Used

Identify which abatement techniques will be used on the attached forms. The three general strategies for lead paint abatement are removal, replacement, and encapsulation. See attached relevant forms.

A. Removal (REM): stripping of paint

B. Replacement (REP): Architectural replacement components shall conform with all contract requirements and specifications. Product submittal shall conform with requirements of Section 01 33 00-Submittal Procedures.

C. BARRIER: (BAR): enclosure using approved materials such as siding or sheetrock.

D. Liquid Encapsulation: (LENCAP) : Use of Connecticut approved encapsulant; technical information and MSDS attached.

E. Cementitious Encapsulation (CENCAP): provide technical information

* Note: If rigid, liquid or cementitious encapsulants are to be used, the associated surfaces must be periodically monitored in the future per a schedule that is established within a lead management plan. Additionally liquid and cementitious encapsulants must be authorized for use by the Connecticut Department of Public Health (DPH) and listed on the DPH registry of Authorized Encapsulant Products.

Paint Removal means the stripping of lead paint from the surfaces of components. The following are some of the paint removal processes that can be used; chemical stripping, mechanical stripping, and wet scraping/wet sanding.

- **Chemical stripping**: there are a variety of paint removal products that are available from various manufacturers. Commonly the stripper is applied to the building component and later removes by manual scraping. All paint layers must be removed. Follow manufacturer's direction on how to apply such products.
- **Mechanical stripping**: This technique requires the use of power tools. Examples of such equipment are: needle guns, vibrating, belt, and rotary sanders. Abrasive blasting equipment and other types of impact strippers that employ the use of steel studs of different sizes and shapes, that rotate in an enclosed head to impact the painted surface. See manufacturer instructions on how to use this equipment. (Note: Mechanically powered abatement equipment requires the use of HEPA-equipped vacuum attachments to remove dust generated during the use of the equipment).
- **Wet Scraping/wet sanding**. Wet scraping or wet sanding manually removes loose and peeling lead paint. Paint chips and dust that are generated during these procedures, must be controlled, to avoid further distribution of contaminates to adjacent areas. Wet Scraping and sanding involves misting

the peeling paint before scraping or sanding, and thus reducing the amount of lead dust that is generated during these processes. Surfactants (wetting agents) may be added to the water to facilitate cleanup.

- **Heat Gun**: This removal technique involves the softening of the paint with a heat gun and then scraping the paint off. To prevent vaporization of the lead contained in the paint, the temperature of the heat gun must not exceed 700 degrees Fahrenheit per DPH regulations.

Replacement means the removal of components such as windows, doors and trim that have lead painted surfaces and the installation of new components that are fee of lead containing paint. Replacement may be feasible for many exterior and interior architectural components. Product submittal shall conform with requirements of Section 01 33 00- Submittal procedures.

Encapsulation refers to the processes that make lead paint inaccessible, by covering or sealing lead painted surfaces. If the lead paint is peeling or deteriorating then some wet scraping and/or wet sanding is necessary prior to encapsulation. The following are some types of rigid encapsulation materials: gypsum dry wall, fiberglass, wool and vinyl siding. Seams must be sealed to prevent the escape of lead dust. Liquid and cementitious encapsulants must be listed on the DPH registry of Authorized Encapsulant Products, to be considered for use.

The following cannot be used as encapsulants:

- A new coat of paint or primer
- Wall paper coverings
- Contact paper

Any area that is to be abated must be properly contained with materials such as 6 mil polyethylene sheeting to prevent further contamination of the dwelling or environment and to facilitate post abatement cleanup.

G. Dates of Abatement Project

Estimated start date: November 1, 2014

Estimated completion date: January 1, 2014

Note: Written notice shall be given to the local health department at least five days prior to actual starting date.

H. Notification To Connecticut Historical Commission- if property is over 50 years old

Year Built: 1920 +/- Notification required? Yes ☒ No ❑

Address of Ct Historical Commission:

CT Commission of Culture and Tourism and Historic Preservation
1 Constitution Plaza, Second Floor
Hartford, CT 06103
1-860-256-2800

Date filed- 10/2/14

I. Notification procedure

Written notice will be given to the residents five working days prior to start date. The notice shall:

- Inform the residents of their rights and responsibilities per the statutes and regulations

- Inform residents which surfaces or soil areas will be abated.

Additionally, warning signs shall be posted at all entrances to and exits from the abatement area, prior to abatement.

J. Containment of Work Area (Interior and Exterior)

Movable objects belonging to residents must be removed from the abatement area. The belongings should be stored in an easily accessible location.

Cover and seal all non-work surfaces with 6 mil polyethylene as follows;

a) non-movable objects

b) air systems heating, ventilation, and air conditioning

c) entrance to abatement areas

d) floors

e) exterior grounds and surfaces (use 6 mil polyethylene sheeting to prevent release of lead into the environment)

Note: The contractor and/or owner is responsible for using the best available engineering controls to reduce the potential for emissions to the exterior of an abatement area. Engineering controls may include but not limited to, proper containment and control of the abatement are, provision of negative pressure within containment area, use of wet scraping/wet sanding methods and use of vacuum HEPA attached power tools.

Describe proposed engineering controls:

Polyethylene to cover ground when any exterior work is to be done.

K. Cleaning After Lead- Based Paint Abatement (Prior to Clearance Testing)

Procedure: ☒ 1. Wet clean

☒ 2. Carefully remove the polyethylene covering.

☒ 3. Use a COMMERCIAL HEPA vacuum and wash with TSP or other effective non-TSP cleaner.

☒ 4. After 24 hours from the time active abatement has ceased, HEPA vac again, rewash with TSP or other effective non-TSP cleaner and HEPA vac again.

L. Waste Disposal (Hazardous)

A. Materials associated with the abatement shall be disposed of as hazardous waste with a TCLP reading $\geq$ 5 mg/l. The contractor shall obtain a small quantity hazardous waste generator ID number from the State of CT DEP for the site if hazardous waste exceeds 100 kilograms per month. Materials associated with this abatement include:

- Any lead containing or lead based paint debris
- Wood painted with lead based paint
- Stripped paint or paint chips
- Painted wall or ceiling plaster
- Painted concrete debris

B. Disposal of all hazardous waste shall comply with the requirements of Resource Conservation and Recovery Act (RCRA).

C. Contractor can wipe clean polyethylene sheeting and dispose of it as construction debris.

D. Dumpsters containing hazardous waste are to be kept covered and locked when not in active use for lading of materials.

E. All containers of hazardous lea bearing material shall carry the following label in accordance with 29 CFR 1926.62.

HAZARDOUS LEAD WASTE

Federal Law prohibits improper disposal.
If found, contact the nearest police or public safety authority,
or the U.S. Environmental Protection Agency
Generator Information:
Facility Name:
Facility Address:
Facility Phone Number:
EPA ID / Manifest Document # _____
Accumulation Start Date:_____
EAP Waste # _____
HAZARDOUS WASTE SOLID NUMBERS
ORM-E NA 9189 D008
HANDLE WITH CARE

Any questions regarding hazardous waste issues should be directed to:

State of CT- Dept of Environmental Protection, Waste Management Bureau, 79 Elm Street, Hartford, CT 06106-5127 ,1- 860-424-3023

M. Worker Protection

Note: Workers must use proper personal protective equipment per the OSHA Lead in Construction Standard (29CFR 1926.62) and state regulation. Full body covering (suits) with hood and shoe covering attached should be used to prevent lead dust contamination. Disposable coveralls that are used one time, provide effective protection. Indicate the level of protection that is to be provided:

Body Covering ❑ Disposable❑

Head Covering☒ hat Disposable☒

Hand covering ☒ Disposable ☒

Shoe Covering ☒ Disposable ☒

Respirator w/HEPA Filter❑ Type of respirator _____

Note: Neither smoking, eating, or drinking nor the application of cosmetic lip balm, is permitted within the work area. Use of personal clothing and foot wear is not permitted during abatement activities.

Indicate available washing facilities. Hand washing ☒ Showers ❑

Bathroom sink water is available for handwashing; do not use kitchen sink for cleanup.

N. Clearance Testing

Prior to reoccupancy, a visual inspection of abatement areas is required and dust samples shall be collected and analyzed from floors and window sills in each area where abatement has occurred. This inspection and sampling must be performed by a certified lead inspector, certified lead inspector risk assessor or an authorized code enforcement official.

☒ Visual inspection and sampling to be performed by a certified lead risk assessor.

Maureen Monaco , IR #1172
Gilbertco Lead Inspections LLC , CC # 270
287 Main Street, Ansonia, Ct 06401
1-800-959-2985 or

Facilities Support Services LLC
2685 State Street
Hamden, Connecticut 06517
1-203-288-1281

Sampling to include window sill, window well, and floor to be sampled in each room where abatement work has taken place.

❑ Visual Inspection to be performed by an authorized code enforcement official of the Bridgeport Health Department once reoccupancy criteria has been met.

O. Soil Abatement-

1. For soil lead levels between 400 ppm and 5000 ppm

❑ Plant grass or shrubbery to reduce exposure to bare soil.

❑ Permanent barrier; examples asphalt or cement

❑ Cover three to six inches with gravel or mulch-

❑ Restrict access-

❑ Excavate, remove and replace contaminated soil. Specify depth___.

❑ Relocate play equipment

2. For soil lead levels over 5000 ppm

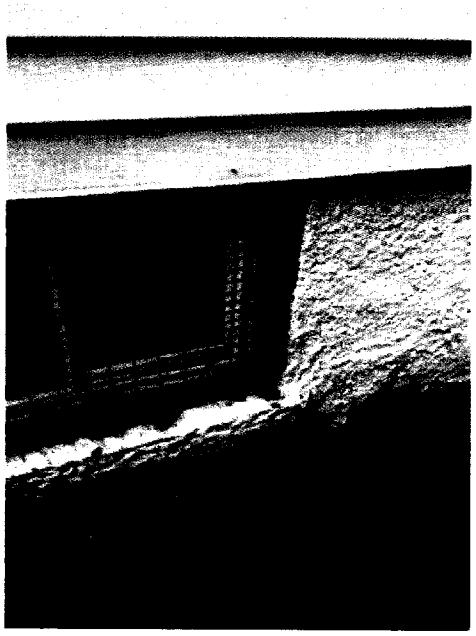
❑ Excavate and disposal top two inches

❑ Rototill soil

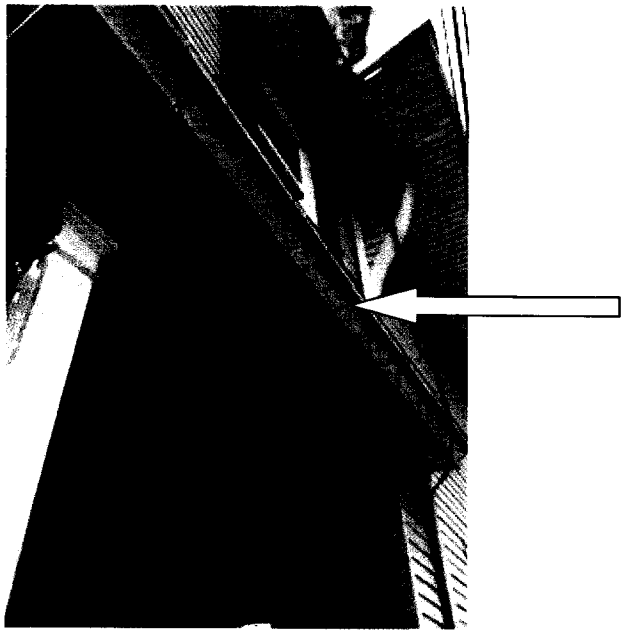
❑ Cover area with lead free soil, mulch, stone, asphalt or other acceptable covering

Key: PS- Paint Stabilization
BAR- Barriers
RESACC- Restricted Access
REM- Paint Removal
REP- Replace with new
LEN- Liquid Encapsulate
REN- Rigid Encapsulate
DCU- Dust Clean-up

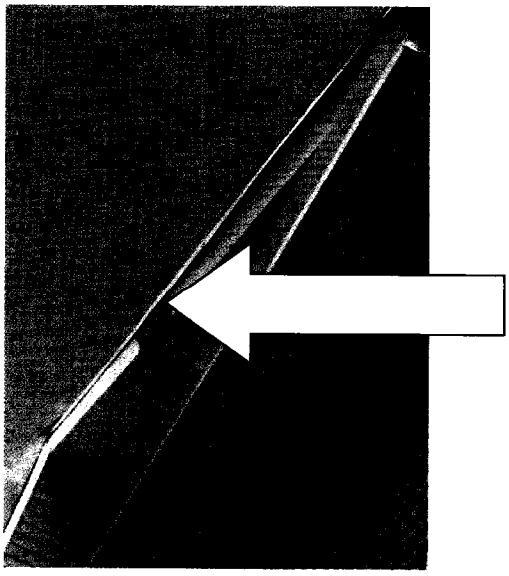
Room Name	Component	Abatement Method	Comments
2nd Floor Front Porch	Window Sills	LEN	
2nd Floor Front Porch	Wood Walls	LEN	
2nd Floor Front Porch	Clapboard –Wall 3	LEN	
2nd Floor Rear Porch	Transom	LEN or REN	
2nd Floor Rear Porch	Threshold	REM	
2nd Floor Rear Porch	Door Jamb	REM	
Exterior	Rear Door Casing	LEN	
Exterior	Threshold	REM	
Exterior	Basement window trim x 6 or 7	LEN	
Exterior	Front Porch columns	LEN	4 square and 2 round
Exterior	Trim under front porch side 2	REN	
Exterior	Exposed fascia	REN	



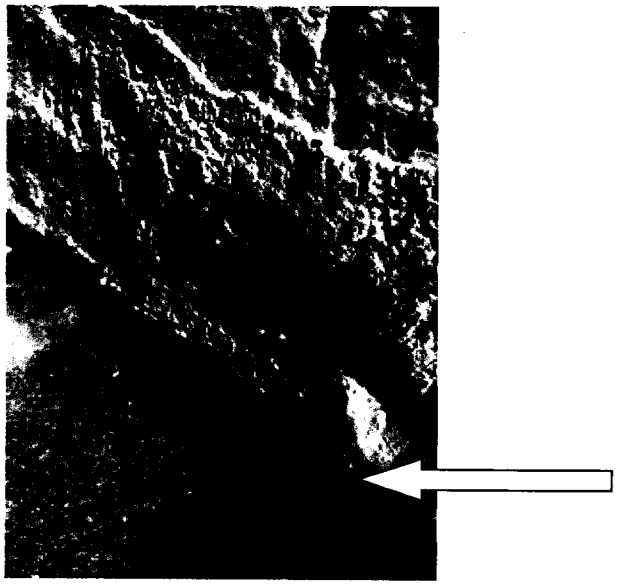
Basement wnd trim



exposed drip edge



Exposed Fascia- left side



Front Porch Trim side 2

GILBERTCO
LEAD INSPECTIONS, LLC

"LEAD BASED PAINT SPECIALIST"

October 1, 2014

State Historic Preservation Office
One Constitution Plaza
2nd Floor
Hartford, Connecticut 06103

Re: 896-898 Howard Ave., Bridgeport

An inspection of the above mentioned property in anticipation of Storm Sandy Disaster Recovery Block Grant monies revealed several lead hazards that require abatement because a child under the age of six resides on the property. Abatement will include drip edge and soffit repair and encapsulation of the basement window trim and front porch columns. Do you have any input?

Maureen Monaco
Gilbertco Lead Inspections LLC

287 Main Street
Ansonia, CT 06401
203-732-2615 - FAX 866-437-8191
Toll Free In CT Only 1-800-959-2985

GILBERTCO
LEAD INSPECTIONS, LLC

"LEAD BASED PAINT SPECIALIST"

December 16, 2014

Kevin Bogue, LEP, CHMM
Facility Support Services, LLC
2685 State Street
Hamden, Connecticut 06517

RE: 896 Howard Ave., Bridgeport, Connecticut

Gilbertco Lead Inspections LLC performed a surface to surface lead inspection at 896-898 Howard Ave., Bridgeport on October 1, 2014 in anticipation of the home undergoing renovations using Storm Sandy Disaster Recovery Funds distributed by CT DOH. Subsequently, Gilbertco was asked to collect samples to complete a comprehensive lead inspections because a child under six is in residence on the second floor. We were met at the site by Paul from Martinez Couch and Associates.

Prerenovation lead in dust results obtained from December 12, 2014 testing showed all areas met reoccupancy criteria as specified by CGS 19a-111. A Lead Abatement plan has been written and submitted to the Bridgeport Health Department which requires lead dust sampling in all area where remediation or abatement activity will occur.

A surface composite soil sample was obtained from the right side of the house during the original inspection and showed a lead in soil level of 398 ppm. A second set obtained on December 12, 2014 showed the right side drip line, surface composite soil sample showed 431 ppm of lead. A second surface composite soil sample obtained from drip line around the rear porch in the rear of the property showed 939 ppm of lead. These samples are determined by EPA, CT-DPH, and HUD standards to be hazardous and in need of remediation.

A first draw water sample was obtained from the kitchen faucet of the second floor apartment. Drinking water collected exhibited a concentration of less than 5 µg/L of lead and therefore fell within permissible limits as established by CT- DPH. The home is services by public water.

A copy of these additional findings has been forwarded to Bridgeport Health Department.

Please feel free to cal if you have any questions,

Maureen Monaco
Consultant Contractor #270
Lead Inspector Risk Assessor #1172

287 Main Street
Ansonia, CT 06401
203-732-2615 - FAX 866-437-8191
Toll Free In CT Only 1-800-959-2985

LEAD IN DUST DATA PAGE

Lead in Dust- 896 Howard Ave., Second Floor,Bridgeport, CT December 12, 2014

Prerenovation

Sample	Location	Component	Sample Size (l x w)	Results µ/ft2	Notes
1	Front Bedroom	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
2	Front Bedroom	Floor	12 x 12	<10 x 1 = <10	Acceptable
3	Living Room	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
4	Living Room	Floor	12 x 1 2	<10 x 1 = <10	Acceptable
5	Dining Room	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
6	Dining Room	Floor	12 x 12	<10 x 1 = <10	Acceptable
7	Kitchen	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
8	Kitchen	Floor	12 x 12	<10 x 1 = <10	Acceptable
9	Bath	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
10	Bath	Floor	12 x 12	<10 x 1 = <10	Acceptable
11	Rear Bedroom	Window Sill	3 x 12	<10 x 4 = <40	Acceptable
12	Rear Bedroom	Floor	12 x 12	< 10 x 1 = <10	Acceptable
13	Rear Hall	Floor	12 x 12	13.7 x 1 = 13.7	
14	Front enclosed Porch	Floor	12 x 12	<10 x 1 = <10	Acceptable
15	Front Entry	Floor		<10 x 1 = <10	Acceptable
	open blank			<10	Acceptable
	Closed blank			<10	Acceptable

Reoccupancy Criteria: CGS 19a-111-4(e)(2):

Floors- 40 µg/ft2 Window Sills- 250 µg/ft2 Window Wells- 400 µg/ft2

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Gilbertco Lead Inspections LLC (3813)
Address: 287 Main Street
Ansonia, CT 06401

Attn:

Project: MCA
Location: 896 Howard 2nd Fl
Number: 9928-896

Order #: 116639

Matrix	Wipe
Received	12/15/14
Analyzed	12/15/14
Reported	12/15/14

PO Number:

Sample ID / Parameter	Cust. Sample ID	Location / Method	Sample Date	Area	Total	Conc.	RL*
116639-001	1	Front BR WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-002	2	Front BR FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-003	3	LR WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-004	4	LR FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-005	5	DR WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-006	6	DR FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-007	7	Kitchen WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-008	8	Kitchen FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-009	9	Bath WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-010	10	Bath FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-011	11	Rear BR WDS	12/12/14				
Lead		EPA 7000B / 3050B		0.250 ft2	<10.0 µg/wipe	**<40.0 µg/ft2**	40.0 µg/ft2
116639-012	12	Rear BR FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-013	13	Rear Hall FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	13.7 µg/wipe	**13.7 µg/ft2**	10.0 µg/ft2

Minimum Total Reporting Limit: 10.0 µg/wipe. EPA Clearance Std: 40 µg/ft² for floors, 250 µg/ft² for interior window sills, and 400 µg/ft² for window troughs. All internal QC parameters were met. Unusual sample conditions, if any, are described. Surrogate Spike results designated with "D" indicate that the analyte was diluted out. "MI" indicates matrix interference. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The analysis data reported relates only to the samples as submitted.

Accrediting bodies: AIHA-LAP, LLC 100527, VELAP/NELAC 460135 - Call laboratory for current national and state certifications.

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Gilbertco Lead Inspections LLC (3813)
Address: 287 Main Street
Ansonia, CT 06401

Attn:

Project: MCA
Location: 896 Howard 2nd Fl
Number: 9928-896

Order #: 116639

Matrix	Wipe
Received	12/15/14
Analyzed	12/15/14
Reported	12/15/14

PO Number:

Sample ID / Parameter	Cust. Sample ID	Location / Method	Sample Date	Area	Total	Conc.	RL*
116639-014	14	Front Porch FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-015	15	Front Entry FL	12/12/14				
Lead		EPA 7000B / 3050B		1.00 ft2	<10.0 µg/wipe	**<10.0 µg/ft2**	10.0 µg/ft2
116639-016		Open Blank	12/12/14				
Lead		EPA 7000B / 3050B			<10.0 µg/wipe		10.0 µg/wipe
116639-017		Closed Blank	12/12/14				
Lead		EPA 7000B / 3050B			<10.0 µg/wipe		10.0 µg/wipe

Analyst: IH
116639-12/15/14 08:44 PM

Reviewed By: **Mohammed Eltilib**
Metals Team Leader

Minimum Total Reporting Limit: 10.0 µg/wipe. EPA Clearance Std: 40 µg/ft² for floors, 250 µg/ft² for interior window sills, and 400 µg/ft² for window troughs. All internal QC parameters were met. Unusual sample conditions, if any, are described. Surrogate Spike results designated with "D" indicate that the analyte was diluted out. "MI" indicates matrix interference. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The analysis data reported relates only to the samples as submitted.

Accrediting bodies: AIHA-LAP, LLC 100527, VELAP/NELAC 460135 - Call laboratory for current national and state certifications.

SCHNEIDER LABORATORIES GLOBAL, INC.

2512 West Cary Street, Richmond, Virginia 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475
www.slabinc.com e-mail: info@slabinc.com

116639

V:\116\116639

Submitting Co.	Gilberteo LLC	Lab WO#		Phone	800 959-2985
	287 Main	Acct #	3813	Fax / Email	866-437-8191
	Ansonia CT 06401	**State of Collection	CT	**Cert. Required	☑ Yes ☐ No
Project Name:	MCA	Special Instructions [include requests for special reporting or data packages]			
Project Location:	896 Howard Ave				
Project Number:	9928-896				
PO Number:					

Turn Around Time
- ☐ 2 hours*
- ☐ Same day*
- ☑ 1 business day*
- ☐ 2 business day*
- ☐ 3 business days*
- ☐ 5 business days*
- ☐ Full TCLP (10d)
- ☐ Weekend*

* not available for all tests

Schedule rush organics, multi-metals & weekend tests in advance.

Matrix / Sample Type (Select ONE)

All samples on form should be of SAME matrix type. Use additional forms as needed.

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ Hi-Vol Filter (PM10)
- ☐ Hi-Vol Filter (TSP)
- ☐ Oil
- ☐ Paint
- ☐ Sludge
- ☐ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☐ Water,Drinking
- ☐ Compliance
- ☑ Wipe
- ☐ Wipe, Composite
- ☐ _____
- ☐ _____

Tests / Analytes (Select ALL that Apply)

Asbestos Air / Fiber Counts
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)
- ☐ _____

Miscellaneous Tests
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)
- ☐ Mold Direct Exam

Asbestos Bulk / Asb ID
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYELAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ _____

FOR ASBESTOS AIR:
TYPE OF RESPIRATOR USED: _____

Metals-Total Conc.
- ☑ Lead
- ☐ RCRA Metals
- ☐ _____
- ☐ _____

Metals-Extract
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics)

Others
- ☐ _____

Sample #	Date Sampled**	Time Sampled**	Sample Identification (Employee, SSN, Bldg, Material, Type[1])	Wiped Area (ft²)	pH / Temp *	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total[4] Air
1	12-12		Front BR WDS	3x12						
2	12-12		Front BR FL	12x12						
3	12-12		LR WDS	3x12						
4	12-12		LR FL	12x12						
5	12-12		PR WDS	3x12						
6	12-12		DR FL	12x12						
7	12-12		Kitchen WDS	3x12						
8	12-12		Kitchen FL	12x12						
9	12-12		Bath WDS	3x12						
10	12-12		Bath FL	12x12						
11	12-12		Rear BR WDS	3x12						
12	12-12		Rear BR FL	12x12						

[1]Type: A=area B=blank P=personal E=excursion [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters [time in min * flow in L/min]

Sampled by
NAME M Monaco
SIGNATURE M Monaco
DATE/TIME 12-12-14

Relinquished to lab by
NAME M Monaco
SIGNATURE M Monaco
DATE/TIME 12-12-14

12-15-14

☐ Sample return requested ☐ Ambient temp ☐ Ice Cl ☐R ☐S ☐X

☐ Receive a physical copy of report.

Sample Disposal
If samples over req. weight (Refer to Fee Schedule)
☐ Return to Sender (Shipping fees)
☐ Disposal by lab ($50 fee)

Shipping Methods
☐ FX ☐ UPS ☐ USM
☐ HD ☐ DB
WB: _____

* Temperature taken with IR Gun A. **Required.

Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.

SCHNEIDER LABORATORIES GLOBAL, INC.

2512 West Cary Street, Richmond, Virginia 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475
www.slabinc.com e-mail: info@slabinc.com

WO Label

Submitting Co.	Gilbert & Co LLC	Lab WO#		Phone	800 959 2985
	282 Main	Acct #	3813	Fax / Email	866 437-8191
	Ansonia CT 06401	**State of Collection	CT	**Cert. Required	☑ Yes ☐ No
Project Name:	MCA	Special Instructions [include requests for special reporting or data packages]			
Project Location:	896 Howard St Fl				
Project Number:	9928-896				
PO Number:					

Turn Around Time
- ☐ 2 hours*
- ☐ Same day*
- ☑ 1 business day*
- ☐ 2 business day*
- ☐ 3 business days*
- ☐ 5 business days*
- ☐ Full TCLP (10d)
- ☐ Weekend*

* not available for all tests

Schedule rush organics, multi-metals & weekend tests in advance.

Matrix / Sample Type (Select ONE)

All samples on form should be of SAME matrix type. Use additional forms as needed.

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ Hi-Vol Filter (PM10)
- ☐ Hi-Vol Filter (TSP)
- ☐ Oil
- ☐ Paint
- ☐ Sludge
- ☐ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☐ Water,Drinking
- ☐ Compliance
- ☑ Wipe
- ☐ Wipe, Composite
- ☐ _____
- ☐ _____

Tests / Analytes (Select ALL that Apply)

Asbestos Air / Fiber Counts
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)
- ☐ _____

Miscellaneous Tests
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)
- ☐ Mold Direct Exam

Asbestos Bulk / Asb ID
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYSLAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ _____

FOR ASBESTOS AIR:
TYPE OF RESPIRATOR USED:

Metals-Total Conc.
- ☑ Lead
- ☐ RCRA Metals
- ☐ _____
- ☐ _____

Metals-Extract
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics)

Others
- ☐ _____

Sample #	Date Sampled**	Time Sampled**	Sample Identification (Employee, SSN, Bldg, Material, Type[1])	Wiped Area (ft²)	pH / Temp *	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total[4] Air
13	12-12		Rear Hall FL	12x12						
14	12-12		front Porch Fl	12x12						
15	12-12		front entry Fl	12x12						
			open blank							
			Closed blank							

[1]Type: A=area B=blank P=personal E=excursion [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters [time in min * flow in L/min]

Sampled by
NAME Mmonaco
SIGNATURE Mmonaco
DATE/TIME 12-12-14

Relinquished to lab by
NAME Mmonaco
SIGNATURE Mmonaco
DATE/TIME 12-12-14

12-15-14

Sample Disposal
If samples over req. weight (Refer to Fee Schedule)
- ☐ Return to Sender (shipping fees)
- ☐ Disposal by lab ($50 fee)

Shipping Methods
- ☐ FX ☐ UPS ☐ USM
- ☐ HD ☐ DB

WB: _____

☐ Sample return requested ☐ Ambient temp ☐ Ice CI ☐R ☐S ☐X ☐ Receive a physical copy of report.

* Temperature taken with IR Gun A. **Required.

Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Gilbertco Lead Inspections LLC (3813)
Address: 287 Main Street
Ansonia, CT 06401

Attn:

Project: MCA
Location: 896 Howard 2nd Fl
Number: 9928-896

Order #: 116640

Matrix	Soil
Received	12/15/14
Analyzed	12/15/14
Reported	12/15/14

PO Number:

Sample ID / Parameter	Cust. Sample ID	Location / Method	Sample Date	Weight Total µg	Conc. % by Wt	Conc.	RL*
116640-001	896	Composite Right	12/12/14	508 mg			
Lead		EPA 7000B / 3050B		219 µg	0.0431 %	431 mg/kg	19.7 mg/kg
116640-002	896	Composite Rear	12/12/14	519 mg			
Lead		EPA 7000B / 3050B		487 µg	0.0939 %	939 mg/kg	19.3 mg/kg

Analyst: IH
116640-12/15/14 04:46 PM

Abisola O Kasali
Reviewed By: **Abisola Kasali**
Metals Supervisor

Minimum reporting limit: 10.0 µg. EPA Soil Std for bare residential soil: 400 mg/kg by wt in play areas; 1200 mg/kg by wt in bare soil in the remainder of the yard based on an avg of all other samples collected. EPA does not distinguish between lead-contaminated soil and soil-lead hazards. Concentration and *Reporting Limit (RL) based on weights provided by client. All internal QC parameters were met. Unusual sample conditions, if any, are described. Values are reported to three significant figures. PPM = mg/kg | PPB = µg/kg. The analysis data reported relates only to the samples as submitted.

Accrediting bodies: AIHA-LAP, LLC 100527, VELAP/NELAC 460135 - Call laboratory for current national and state certifications.

116640

V:\116\116640

SCHNEIDER LABORATORIES GLOBAL, INC.

2512 West Cary Street, Richmond, Virginia 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475
www.slabinc.com e-mail: info@slabinc.com

Submitting Co.	Gilberto LLC	Lab WO#		Phone	800 959-2985
	287 Main St	Acct #	3813	Fax / Email	866-437-8191
	Ansonia, CT 06401	**State of Collection	CT	**Cert. Required	☑ Yes ☐ No
Project Name:	MCA	Special Instructions [include requests for special reporting or data packages]			
Project Location:	896 Howard 2nd fl				
Project Number:	9928-896				
PO Number:					

Turn Around Time
- ☐ 2 hours*
- ☐ Same day*
- ■ 1 business day*
- ☐ 2 business day*
- ☐ 3 business days*
- ☐ 5 business days*
- ☐ Full TCLP (10d)
- ☐ Weekend*

* not available for all tests

Schedule rush organics, multi-metals & weekend tests in advance.

Matrix / Sample Type (Select ONE)

All samples on form should be of SAME matrix type. Use additional forms as needed.

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ Hi-Vol Filter (PM10)
- ☐ Hi-Vol Filter (TSP)
- ☐ Oil
- ☐ Paint
- ☐ Sludge
- ■ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☐ Water,Drinking
- ☐ Compliance
- ☐ Wipe
- ☐ Wipe, Composite
- ☐ _____
- ☐ _____

Tests / Analytes (Select ALL that Apply)

Asbestos Air / Fiber Counts
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)
- ☐ _____

Miscellaneous Tests
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)
- ☐ Mold Direct Exam

Asbestos Bulk / Asb ID
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYELAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ _____

FOR ASBESTOS AIR:
TYPE OF RESPIRATOR USED: _____

Metals-Total Conc.
- ■ Lead
- ☐ RCRA Metals
- ☐ _____
- ☐ _____

Metals-Extract
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics)

Others
- ☐ _____

Sample #	Date Sampled**	Time Sampled**	Sample Identification (Employee, SSN, Bldg, Material, Type[1])	Wipe Area (ft²)	pH / Temp *	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total[4] Air
896	12-12		Composite - Right							
896	12-12		Composite Rear							

[1]Type: Area, Bulk, Bulk Personal Exposure [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters (time in min * flow in L/min)

Sampled by
NAME mmonaco
SIGNATURE mmonaco
DATE/TIME 12-12-14

Relinquished to lab by
NAME mmonaco
SIGNATURE mmonaco
DATE/TIME 12-12-14

12-15-14

Sample Disposal
If samples over reg. weight (Refer to Fee Schedule)
- ☐ Return to Sender (shipping fees)
- ☐ Disposal by lab ($$ fee)

Shipping Methods
- ☐ FX
- ☐ UPS
- ☐ USPS
- ☐ HD
- ☐ DB

WB: _____

☐ Sample return requested ☐ Ambient temp ☐ Ice Cl ☐R ☐S ☐X ☐ Receive a physical copy of report.

* Temperature taken with IR Gun A. **Required. Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Gilbertco Lead Inspections LLC (3813)
Address: 287 Main Street
Ansonia, CT 06401

Attn:

Project: Mca
Location: 896 Howard 2nd
Number: 9928-896

Order #: 116641

Matrix Drinking Water
Received 12/15/14
Reported 12/16/14

PO Number:

Sample ID / Parameter	Cust. Sample ID	Location / Method	Result	RL*	Units	Analysis Date	Analyst
116641-001	896	Kitchen Faucet					
Metals Analysis							
Lead		EPA 200.9 Rev 2.2	**< 5.00**	5.00	µg/L	12/16/14	SA

116641-12/16/14 07:07 PM

Reviewed By: **Mohammed Eltilib**
Metals Team Leader

Certifications

Paramater	Method	Matrix	CA	CT	NJ	RI	VA
Lead	EPA 200.9 Rev 2.2	Drinking Water	X	X	X	X	X

Key

State	Regulatory Agency - Lab ID	Certificate Number
CA	CA ELAP	2078
CT	CT DPH	PH-0118
NJ	NJDEP	NLC13001
RI	RIDOH	LAO00084
VA	Virginia DCLS/DEQ - 460135	7579

'X' indicates that the analyte is accredited.

If your state is not listed above, call laboratory for accreditation/certification information.

All internal QC parameters were met. Unusual sample conditions, if any, are described. Surrogate Spike results designated with "D" indicate that the analyte was diluted out. "MI" indicates matrix interference. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. PPM = mg/kg | PPB = µg/kg. The analysis data reported relates only to the samples as submitted.

Accrediting bodies: AIHA-LAP, LLC 100527, VELAP/NELAC 460135.

SCHNEIDER LABORATORIES GLOBAL, INC.

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804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475
www.slabinc.com e-mail: info@slabinc.com

116641
V:\116\116641

Submitting Co.	Gilbertco LLC	Lab WO#		Phone	800-959-2985
	287 Main	Acct #	3813	Fax / Email	866-437-8191
	Ansonia CT 06401	**State of Collection	CT	**Cert. Required	☒ Yes ☐ No

Project Name:	MCA
Project Location:	896 Howard 2nd
Project Number:	9928-896
PO Number:	

Special Instructions [include requests for special reporting or data packages]

Turn Around Time
- ☐ 2 hours*
- ☐ Same day*
- ☒ 1 business day*
- ☐ 2 business day*
- ☐ 3 business days*
- ☐ 5 business days*
- ☐ Full TCLP (10d)
- ☐ Weekend*

* not available for all tests

Schedule rush organics, multi-metals & weekend tests in advance.

Matrix / Sample Type (Select ONE)

All samples on form should be of SAME matrix type. Use additional forms as needed.

- ☐ Air
- ☐ Aqueous
- ☐ Bulk
- ☐ Hi-Vol Filter (PM10)
- ☐ Hi-Vol Filter (TSP)
- ☐ Oil
- ☐ Paint
- ☐ Sludge
- ☐ Soil
- ☐ Solid
- ☐ Waste
- ☐ Wastewater
- ☒ Water, Drinking
- ☐ Compliance
- ☐ Wipe
- ☐ Wipe, Composite
- ☐ ______
- ☐ ______

Tests / Analytes (Select ALL that Apply)

Asbestos Air / Fiber Counts
- ☐ PCM (NIOSH 7400)
- ☐ TEM (AHERA)
- ☐ TEM (EPA Level II)
- ☐ ______

Miscellaneous Tests
- ☐ Total Dust (NIOSH 0500)
- ☐ Resp. Dust (NIOSH 0600)
- ☐ Silica - FTIR (NIOSH 7602)
- ☐ Silica - XRD (NIOSH 7500)
- ☐ Mold Direct Exam

Asbestos Bulk / Asb ID
- ☐ PLM (EPA 600/R-93/116)
- ☐ PLM (EPA Point Count)
- ☐ PLM (Qualitative only)
- ☐ NYELAP 198.1/.4/.6
- ☐ CAELAP (EPA Interim)
- ☐ TEM (Chatfield)
- ☐ ______

FOR ASBESTOS AIR:
TYPE OF RESPIRATOR USED: ______

Metals-Total Conc.
- ☒ Lead
- ☐ RCRA Metals
- ☐ ______
- ☐ ______

Metals-Extract
- ☐ TCLP / Lead
- ☐ TCLP / RCRA Metals
- ☐ TCLP / Full (w/ organics)

Others
- ☐ ______

Ph.6
22.7°

Sample #	Date Sampled**	Time Sampled**	Sample Identification (Employee, SSN, Bldg, Material, Type[1])	Wiped Area (ft²)	pH / Temp *	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total[4] Air
896	12.12		Kitchen faucet							

[1]Type: A=area B=blank P=personal E=excursion [2]Beginning/End of Sample Period [3]Pump Calibration in Liters/Minute [4]Volume in Liters (time in min * flow in L/min)

Sampled by	Relinquished to lab by		Sample Disposal
NAME M Monaco	NAME M Monaco	12-15-14	If samples over reg. weight (Refer to Fee Schedule) ☐ Return to Sender (shipping fees) ☐ Disposal by lab (see fee)
SIGNATURE M Monaco	SIGNATURE M Monaco	[signature]	Shipping Methods ☐ FL ☐ UPS ☐ USM ☐ HD ☐ DB
DATE/TIME 12-12-14	DATE/TIME 12-12-14	☐ Receive a physical copy of report.	WB: ______

☐ Sample return requested ☐ Ambient temp ☐ Ice Cl ☐R ☐S ☐X

* Temperature taken with IR Gun A. **Required. *Chain-of-Custody documentation continued internally within lab. Terms and conditions page 2.*

18.12

SECTION 011000

SUMMARY OF WORK

General Conditions

The following provisions are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of the Project Documents irreconcilably conflicts with one or more of the following provisions, the provision imposing the greater duty or obligation on the Contractor shall govern.

1. Contractor shall supply all materials (except where indicated), labor, tools, equipment, and supplies required to complete the total Project in accordance with the drawings, specifications and other Contract Documents. Prior to beginning Work, Contractor shall list any deficiencies in scope and report to the DOH.

2. Contractor shall provide all coordination of all Work with Owner, Owner Vendors, DOH, DOH Agencies as required for project completion.

3. Contractor will develop a comprehensive logistics plan for all activities that affect the Owner.

4. Contractor is responsible on a daily basis to submit a Daily Construction Report (DCR) indicating subcontractors, total number of people working, description of Work completed that day, total hours worked that day, and any major deliveries.

5. Contractor shall secure and pay for a dumpster for all refuse and waste material. The dumpster location will be determined by the property Owner.

6. If required for the Project (as reasonably determined by Owner) Contractor shall erect and maintain dust-barriers to separate living areas from areas of construction.

7. In the event of a required utility shutdown, Contractor will diligently schedule work with the Owner. Contractor will give the Owner Project Manager at least three (3) days advance notice of any proposed utility shutdown.

8. Contractor shall comply with all of the legal regulations, including, but not limited to, OSHA safety regulations and regulations of municipal, city, local, and other government agencies having jurisdiction concerning the Work. Contractor shall give all notices and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the Work. If Contractor performs any Work that is contrary to such laws, ordinances, codes, rules, and regulations, it shall make all changes to comply therewith and bear all costs arising therefrom.

9. All permits, required for any part of Contractor's Work, including those to be obtained in the Owner's name, shall be procured and paid for by Contractor.

GENERAL SCOPE

1. Inspect all areas, including those not affected by the repair scope, for damage to the finishes, fixtures, appliances, furnishings, etc. Document and report any and all damage to Owner for acceptance, and to DOH for notice, prior to commencing work.

2. Furnish and install any temporary supports or bracing as required to properly complete the work.

3. Provide all floor preparation as required including any flashing, skimming, or patching to provide for a suitable substrate for flooring work.

4. Contractor is responsible to detach and reset any items to properly perform all work, including but not limited to: trim, hardware, fixtures, door slabs, electrical components, mechanical components, etc.

PROJECT SCOPE OF WORK

1. ROOFING

1.1. Remove and dispose of asphalt shingles and roll roofing on all roof slopes.

1.1.1. Additional removing of roofing accessories as required to complete work.

1.2. Remove and dispose of roof sheathing.

1.3. Furnish and install new 5/8” plywood sheathing on roof meeting all manufacturer requirements.

1.4. Furnish and install new 3 tab asphalt shingles to match existing shingle style.

1.4.1. Provide all underlayment per manufacturer and code requirements.

1.5. Furnish and install all drip edges and flashing as required.

2. Metal Fascia & Gutters

2.1. Remove and repair aluminum wrap on fascia board as required.

2.2. Remove and reset gutters, diverters, and leaders as required to complete roofing work.

2.3. Furnish and Install new gutters and downspouts where indicated on drawings.

3. Foundation Work

3.1. Repair cracks in the foundation fall along Howard Place at building utility entrances with a 2 part, high solids, low viscosity epoxy.

3.1.1. Epoxy product shall be Simpson Strong Tie CRACK-PAC® Injection Epoxy or Approved Equal

3.2. Apply masonry waterproofing coating on foundation walls at building utility entrances after completing crack repair

3.2.1. Waterproofing Coating shall be United Gilsonite Laboratories Latex Base DRYLOK® or approved equal.

4. Finishes

4.1. Remove and dispose water damaged gypsum wallboard basement.

4.2. Remove and replace damaged flooring in the following rooms:

4.2.1. Carpet tile in playroom

4.2.2. Vinyl tile in bathroom

4.2.3. Carpet tile in the office

4.2.4. Carpet tile in the living room

4.2.5. Linoleum flooring in kitchen

4.3. Furnish and install new 1/2" gypsum board walls where removed

4.3.1. Provide taping of gypsum board to match adjacent finishes

4.4. Prime and paint new gypsum board walls and trim in replacement areas

5. ELECTRICAL

5.1. Test electrical devices and systems in basement. Testing to be done within guidelines set forth in the National Electrical Manufacturers Association (NEMA) publication titled "Evaluating Water-Damaged Electrical Equipment".

5.2. Detach and reset all electrical and telecommunication wires on building roof as necessary to complete roofing work.

6. ENVIRONMENTAL

6.1. Apply anti microbial agents to the following surfaces in accordance with Section 02 85 15 – Mold Remediation.

6.1.1. Wood stud wall framing and backside of wall panels in basement level

6.1.2. Wood roof rafters

6.2. All work, labor, and materials in accordance with Section 02 83 19.13 – Lead Paint Abatement

6.2.1. Lead Paint Abatement Work Item Summary

Room #	Component	Abatement Method	Comments
2nd Floor Front Porch	Window Sills	LEN	

2nd Floor Front Porch	Wood Walls	LEN	
2nd Floor Front Porch	Clap Board Wall 3	LEN	
2nd Floor Front Porch Rear	Transom	LEN or REN	
2nd Floor Front Porch Rear	Threshold	REM	
2nd Floor Front Porch Rear	Door Jam	REM	

6.2.2. Lead Paint Abatement Work Item Summary - Exterior

Room #	Component	Abatement Method	Comments
Exterior	Rear Door Casing	LEN	
Exterior	Threshold	REM	
Exterior	Basement Windows Trim	LEN	
Exterior	Front Porch Columns	LEN	4 Square and 2 Round
Exterior	Trim under front porch side 2	REN	
Exterior	Exposed fascia	REN	

SECTION 013300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.2 - SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Requirements:
   1. Section 000115 "List of Drawings Sheets"

1.3 - DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Martinez Couch & Associates LLC (MCA) is the Project Manager and for this project. MCA will provide technical consultation, review of all materials, and project management. All references in this specification and in all other specifications references, MCA is Martinez Couch & Associates.
   1. All submittals shall be mailed to:
      Martinez Couch & Associates
      1084 Cromwell Avenue
      Rocky Hill, CT 06067
      Phone Number: (860) 436-4364
      Fax Number: (860) 436-4626

E. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

All submittals shall be submitted in PDF via electronic mail (email) to

1. recouch@martinezcouch.com

2. mranando@martinezcouch.com

1.4 - ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by MCA and additional time for handling and reviewing submittals required by those corrections.
   1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
   2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 10 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
   3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
      a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
   4. Format: Arrange the following information in a tabular format:
      a. Add information, such as scheduled dates for purchasing and installation and the activity or event number, if using a CPM construction schedule.
      b. Scheduled date for first submittal.
      c. Specification Section number and title.
      d. Submittal category: Action; informational.
      e. Name of subcontractor.
      f. Description of the Work covered.
      g. Scheduled date for MCA final release or approval.
      h. Scheduled date of fabrication.
      i. Retain three subparagraphs below if CPM construction schedules are required.
      j. Scheduled dates for purchasing.
      k. Scheduled dates for installation.
      l. Activity or event number.

1.5 - SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. MCA's Digital Data Files: Electronic digital data files of the Contract Drawings will not be provided by Engineer for Contractor's use in preparing submittals.
      a. Engineer makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
   3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
   4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
      a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
   1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
   2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
   3. Resubmittal Review: Allow 15 days for review of each resubmittal.
   4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Engineer and to Engineer's consultants, allow 15 days for review of each submittal. Submittal will be returned to Engineer before being returned to Contractor.

D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
   1. Indicate name of firm or entity that prepared each submittal on label or title block.
   2. Provide a space approximately 6 by 8 inches (150 by 200 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
   3. Include the following information for processing and recording action taken:
      a. Project name.
      b. Date.
      c. Name of Engineer.
      d. Name of Construction Manager.
      e. Name of Contractor.
      f. Name of subcontractor.
      g. Name of supplier.
      h. Name of manufacturer.
      i. Submittal number or other unique identifier, including revision identifier.
         1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
      j. Number and title of appropriate Specification Section.
      k. Drawing number and detail references, as appropriate.
      l. Location(s) where product is to be installed, as appropriate.
      m. Other necessary identification.

4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will discard submittals received from sources other than Contractor.
   a. Transmittal Form for Paper Submittals: Use AIA Document G810**.**
   b. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
      1) Project name.
      2) Date.
      3) Destination (To:).
      4) Source (From:).
      5) Name and address of Engineer.
      6) Name of Contractor.
      7) Name of firm or entity that prepared submittal.
      8) Names of subcontractor, manufacturer, and supplier.
      9) Category and type of submittal.
      10) Submittal purpose and description.
      11) Specification Section number and title.
      12) Specification paragraph number or drawing designation and generic name for each of multiple items.
      13) Drawing number and detail references, as appropriate.
      14) Indication of full or partial submittal.
      15) Transmittal number numbered consecutively.
      16) Submittal and transmittal distribution record.
      17) Remarks.
      18) Signature of transmitter.

E. Options: Identify options requiring selection by Engineer.

F. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
   1. Note date and content of previous submittal.
   2. Note date and content of revision in label or title block and clearly indicate extent of revision.
   3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.

H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Engineer action stamp.

PART 2 - PRODUCTS

2.1 - SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
   1. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. MCA will return two copies.
   2. Informational Submittals: Submit paper copies of each submittal unless otherwise indicated. Engineer will not return copies.
   3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
   1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
   2. Mark each copy of each submittal to show which products and options are applicable.
   3. Include the following information, as applicable:
      a. Manufacturer's catalog cuts.
      b. Manufacturer's product specifications.
      c. Standard color charts.
      d. Statement of compliance with specified referenced standards.
      e. Testing by recognized testing agency.
      f. Application of testing agency labels and seals.
      g. Notation of coordination requirements.
      h. Availability and delivery time information.
   4. For equipment, include the following in addition to the above, as applicable:
      a. Wiring diagrams showing factory-installed wiring.
      b. Printed performance curves.
      c. Operational range diagrams.
      d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
   5. Submit Product Data before or concurrent with Samples.
   6. Submit Product Data in the following format:
      a. Three paper copies of Product Data unless otherwise indicated. Engineer will return two copies.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data unless submittal based on Engineer's digital data drawing files is otherwise permitted.
   1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
      a. Identification of products.
      b. Schedules.
      c. Compliance with specified standards.
      d. Notation of coordination requirements.
      e. Notation of dimensions established by field measurement.
      f. Relationship and attachment to adjoining construction clearly indicated.

g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm)
3. Retain subparagraph below unless default submittal format specified elsewhere in this article applies.
4. Submit Shop Drawings in the following format:
   a. Three opaque copies of each submittal. Engineer will retain two copies; remainder will be returned.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:
   a. Generic description of Sample.
   b. Product name and name of manufacturer.
   c. Sample source.
   d. Number and title of applicable Specification Section.
   e. Specification paragraph number and generic name of each item.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
   a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
   b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
   a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line to Engineer. Engineer will provide sample to property owner for their use to select option to be used.
5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
   a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line to Engineer. Engineer will provide sample to property owner for their use to select option to be used.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.
5. Submit product schedule in the following format:

    a. Three paper copies of product schedule or list unless otherwise indicated. Engineer will return two copies.

F. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Engineers and owners, and other information specified.

G. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

H. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

I. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

J. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

K. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

L. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

M. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

N. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

O. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

P. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

2.2 – DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
   1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
   1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 - CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 - ENGINEER'S ACTION

A. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
   1. Action Code 1 - No Exceptions Taken

2. Action Code 2 - Correct as Noted
3. Action Code 3 - Revise and Resubmit
4. Action Code 4 - Rejected

B. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.

C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Engineer.

D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

E. Submittals not required by the Contract Documents may be returned by the Engineer without action.

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

A. General: During the construction period various types of services are necessary to record or support the construction process, which are not an integral part of the final construction. Provide temporary facilities and controls in accordance with the Contract Documents.

B. Scope of Work includes but is not limited to:

a) Layout and measurements.
b) Staging areas.
c) Rubbish removal.
d) Safety, protection and security.
e) Temporary toilets.
f) Water Service
g) Temporary scaffolding, ladders, stairs, hoists, etc.
h) Site fence.
i) Temporary closures
j) Labor disputes
k) Temporary light and power
l) Temporary heat
m) Ventilation and Humidity Control

1.2 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Ladders, scaffolds, planks, hoists and similar items required for a specific item of work shall be part of that Scope of Work

1.3 QUALITY ASSURANCE

A. Codes: Comply with applicable Building Code and Standards.

B. Standards: Comply with the State and Local Board of Health, Environmental Protection Agency, Fire Department and other applicable standards.

C. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

D. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.4 SUBMITTALS

A. Refer to Section 01330 or certain individual items of this section.

1.5 PRODUCT HANDLING

A. Maintain temporary facilities and controls in proper safe condition throughout progress of the Work.

1.6 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

PART 2 - PRODUCTS AND EXECUTION

2.1 TEMPORARY FACILITIES INSTALLATION

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to Martinez Couch and Associates, testing agencies, and authorities having jurisdiction.

B. Layout and Measurements:
1. Use of Data Furnished: Boring, and survey data made available to the Contractor is for information only, and the Contractor shall use his own judgment as to the actual conditions. He is warned that reliance on the information presented is at his own risk, and neither the Owner, State, nor the Engineer and his consultants will be liable for errors relating to such data.
2. Additional Data Required By Contractor: The Contractor may make borings or drive test pits he requires to verify the conditions at the site at his own expense. The location and size of such exploratory holes will be subject to approval by the Engineer.

3. Protection of Survey: Land monuments, bench marks, survey points and other such references shall be protected from damage unless and until their removal is authorized. If they are disturbed, they shall be replaced in their proper positions.
4. Measurements: Take measurements of the work and be responsible for it.
   a. Discrepancies: Thoroughly examine the drawings and specifications, carefully checking the figured dimensions, before commencing work, and report to the Engineer if any discrepancy, error, or defect appears.
   b. Dimensions: If figured dimensions are lacking on the drawings, the Engineer will supply them.

C. Staging Area:
1. Scope: Access and staging areas for purposes of this Contract shall be confined to areas as directed by the Owner or Engineer within the property boundary.
2. Location of Apparatus: The locations of material, apparatus, equipment, fixtures, piping outlets, etc., are not specified. The actual location shall be as directed or as required to suit the conditions at the time of installation. Before installation, the Contractor shall consult the Engineer and ascertain the actual location.
3. Provide temporary storage sheds if necessary, and other storage facilities on the job site for the storage of materials that may be subject to weather damage when interior or covered space is not available.
4. Provide for adequate timber bridging and planking or other suitable means as required for legal egress, and for the safeguarding of existing paving, walks and curbs, structures and utilities from damage due to construction vehicle traffic. Safeguard existing conditions from damage during construction. Repair or replace the damaged existing surroundings within the designated access and staging areas which is needed to remain in place and which is damaged by operations under this Contract.
5. Do not encumber the premises nor overload the structures beyond their allowable design live load with his/her apparatus, storage of materials and the operation of his/her workmen, and shall be confined within the limits designated by the Owner or Engineer.

D. Rubbish Removal:
1. Clean-up debris, rubbish and old materials resulting from the Work on a daily basis.
2. Cleaning Responsibility: Remove from the work area of building and site debris, resulting from the work daily or as often as necessary if it interferes with the work or staging area under the contract or presents a fire hazard. No rubbish or debris shall be dropped from a height of more than 6 feet, or thrown out of windows or openings without a chute. An adequate number of cleaning personnel shall be provided during working hours, who shall keep areas within and adjacent to the building free from dust and loose dirt by sweeping and wet mopping.
3. Rubbish Disposal: Furnish containers at central collection locations as designated by the Owner or Engineer on the site to receive construction debris. Cost of containers, removal and disposal charges shall be paid by the Contractor. Containers shall be removed as often as necessary to minimize interference with work in progress.
4. Clean the site around the building and maintain it clean and free from food and beverage containers, waste and other debris. Provide and rigidly enforce the use of waste receptacles by construction personnel. Burning of refuse is not permitted.

5. Salvage Materials: Construction salvage materials, not indicated items elsewhere to be returned to the Owner, shall become the property of the Contractor and shall be taken from the premises. Storage of materials and equipment on the site, other than for this project, will not be permitted.

E. Safety, Protection and Security:
1. Provide safety and protection in accordance with Contract Documents.

2. Protection: Protection shall be maintained for the duration of the Project and shall include:
   a. Weather Protection: Arrange to provide protection against rain, wind, storms, frost, heat and other weather conditions, so as to maintain work, materials, apparatus and fixtures free from injury or damage. At the end of each day's work items likely to be damaged shall be covered. Remove snow and ice for the proper protection and/or execution of the construction work.
   b. Protection of Finished or Existing Work: Provide protection for the finished work. Finished or Existing floors that will remain shall be protected from traffic or construction work by covering with materials approved by the finish manufacturer. Finished construction and materials shall be protected from rain, snow and windstorm damage throughout the construction period.
   c. Fire Protection: Maintain fire-fighting equipment for the duration of construction in accordance with the requirements of the Fire Department and the Insurance Underwriters and subject to approval of the Owner's insurance agent. .Provide fire extinguishers as required by the local Fire Department and the Building Code. Coordinate with existing firefighting equipment in existing building.
   d. Volatile Liquids: Bulk storage of volatile liquids shall be outside the building at designated location. Only as much volatile liquid shall be allowed within the building at any given time as is needed for that day's operation.
   e. Vermin and Rodent Control: Prevent the infestation and multiplication of vermin and rodents, and, if necessary, employ an exterminator to rid the premises of them if there is evidence that they exist.
   f. Dust Protection: Prevent the nuisance of dust to the surrounding areas, and provide coverings or water sprinkling materials and equipment as required for such dust prevention for the work.
   g. Structural Alterations: Do not permit endangering work by excavation or otherwise and shall not cut or alter the work without the consent of the Structural Engineer. Written instruction shall be obtained from the Structural Engineer's representatives before cutting beams or other structural members, arches, lintels, etc.

3. Protection of Adjacent Property:
   a. Scope: Take necessary precautions to protect public and private property on or adjacent to the job site, including utilities, street signs, light standards, hydrants, pavements and walks, planting and natural features, against damage or injury including settlement or collapse.

b. Building Damage: Should damage result to structures or property, the Contractor shall correct or repair it without undue delay and to the complete satisfaction of the Owner. No "Waiver of Responsibility" for incomplete, inadequate or defective adjoining work will be accepted unless otherwise stated by the Engineer.

c. Excavation Damage: Maintain the existing and adjoining structures safety. Concrete or rock excavation in the proximity of the adjoining structures shall be done by line drilling. Existing footings and foundation work exposed shall be underpinned as directed by Engineer. Prevent damage to pipes, conduits, wires, cables or structures above or below ground.

d. Site Damage: Repair and restoration of existing roads, pavements, walks, curbs, manholes, hydrants, light standards, street signs, catch basins, railings and plantings, and other construction or surfaces required due to the work under this contract shall be included in the work under the Contract even if not specifically called for in the various sections of the Specifications. Repair and restoration work shall match existing work. Costs incurred in repair work, including permits, bonds and supervision by public authorities, shall be borne by the Contractor causing the damage.

4. Welding & Cutting:

a. Handling of Welding Materials: The handling and storage of welding materials, acetylene and oxygen tanks, burners, and other equipment required for the execution of welding and cutting work at the job shall be subject to the approval of the Building Department and Fire Marshal.

b. Welding Standards: Work shall be performed in accordance with the standard specifications of the American Welding Society.

c. Fire Protection: Welders shall take precautions required to prevent fires as a result of his/her operations. When welding tools or torches are in used, the Contractor shall have available, in the immediate vicinity of the work, a fire extinguisher of the $C0_2$ type. The fire extinguisher shall be provided and maintained by the Installer. Fuel for cutting and heating torches shall be gas only, and shall be contained in Underwriters Laboratory listed containers. Storage of gas shall be in locations approved by the Fire Department.

Provide fireproofed tarpaulins where applicable at welding and cutting operations.

d. Power: The Owner will not provide power for electric welders.

5. Tree Protection: Trees identified by the Owner or Engineer to remain must be protected by the Contractor during the construction period. Avoid driving vehicles or storing materials within the tree root area and excavating in the root area unless accepted by the Owner or Engineer.

6. Security: The Contractor shall secure his/her tools, materials and assemblies. Claims shall not be made against the Owner or Engineer for equipment or tool losses or damage to installed assemblies.

F. Temporary Toilets:

1. Chemical Toilets: The Contractor shall provide and maintain temporary enclosed and weatherproof chemical toilets located on the site. Use of the owner's toilets by construction personnel within occupied areas of the building is not permitted.
2. Cleaning of Toilets: Toilets shall be maintained in a clean and sanitary condition and shall conform to the requirements of the local Department of Health and Labor requirements. Toilets shall be pumped and cleaned a minimum of once per week.

G. Water Service:
1. Water shall be available for the various trades as coordinated with the property Owner. Prevent freeze-ups. Have water available for the various trades during the normal working periods and for fire prevention purposes.
2. Cost: the Owner shall pay the cost of water.

H. Temporary Scaffolding, Ladders, Stairs, Hoists, Etc.:
1. Scope: Coordinate the installation and maintenance and safety of temporary stairs, ladders, ramps, scaffolds, runways, sidewalk bridges, fences, derricks, hoists, chutes, and other such operational facilities as may be needed for the proper execution of the work. Apparatus, equipment and construction shall meet the requirements of the Labor Law and other State and local Building Department Requirements.
2. Scaffolding: Coordinate the location, erection, maintenance and removal of scaffolding and other temporary facilities as required for the proper installation of the work.
3. Hoists and/or Crane: (for General Use) Coordinate and maintain the use of conventional construction hoists of sufficient size and capacity to raise materials and equipment and give access to construction levels.

I. Site Fence, if applicable:
1. Location: A site fence shall be installed by the Contractor at the construction site perimeter and adjacent staging areas if required by the contract documents. New construction work, including trailer and staging shall be contained within the site fence.
2. Type: Provide either of the following types:
   a. Woven Wire Mesh: 6'-0" high with gates and required bracing.
   b. Maintain fence and gates during entire construction period in a neat and orderly way free of graffiti or unauthorized signs.

J. Temporary Closures:
1. Take special precautions against damage to materials and work installed in cold or freezing weather, by providing adequate special heat and/or covering to prevent damage by the elements.
2. Temporary Partitions: (adjacent to occupied areas) after relocation of occupancy from spaces requiring access, provide temporary partitions to isolate occupied areas from work areas. Temporary partitions shall be of gypsum board on suitable studs and shall not interfere with the emergency exit requirements of occupied areas.
3. Exterior partitions shall be suitably weather protected insulated and otherwise sealed off to prevent dirt and weather infiltration.
4. Interior partitions shall be suitably sealed to limit noise and dirt infiltration.

K. Labor Disputes:

1. Notifications: Immediately notify the Engineer of actual or impending labor disputes that may affect or is affecting the schedule of the Work. Take appropriate measures to eliminate or minimize the effect of such labor dispute on the schedule, including but not limited to, such measures as: promptly seeking appropriate injunctive relief; filing appropriate charges with the National Labor Relations Board under the applicable provisions of the Labor Management Relations Act of 1947, as amended; filing appropriate damage actions; taking such measures as establishing a reserved gate, where appropriate; seek other sources or supply or service; and other measures that may be appropriately utilized to limit or eliminate the effect of the labor dispute.
2. Damage - Time Extension: To the extent the Contractor fails to promptly initiate measures that are appropriate, no extension of time for completion shall be allowed. In addition, any delay impact on any Contractor's schedule or on the schedule for the Project, which is a direct result of such failure, shall be considered as a Contractor caused delay under applicable provisions of the Contract. The rights and remedies provided in this paragraph are in addition to other rights or remedies provided by law or under this Contract. The Contractor shall include this clause in every Contract, together with a requirement that Sub-Subcontractors include a substantially similar clause in each lower tier subcontract.

L. Temporary Light and Power:

1. Scope: The Contractor shall provide labor, materials, tools, appliances, and equipment and perform operations necessary for the complete execution of a separate system of temporary electric light and power throughout the project suitable for supplying electrical energy for illumination and for power tools and equipment. Such system shall be installed and maintained in place as needed and removed promptly as its necessity ceases to exist. Maintaining shall and include energizing and de-energizing the electrical systems each working day, and turning on and off of lights daily.
2.
3. Lighting Standards: The minimum temporary lighting to be provided, and maintained in each room and changed as needed when interior walls are being erected as directed by OSHA standards. Temporary lighting must be maintained for twenty-four (24) hours a day, and seven (7) days a week at stairs and corridors below ground. In other spaces, temporary lighting and power shall be energized approximately thirty (30) minutes before the starting time and after the quitting time of the latest stopping unless otherwise directed by code.
4. Wiring Standards: Temporary wiring and equipment shall conform to the requirements of the National Electrical Code, regulations of the Building Code.

5. Energy Costs: The Owner shall pay the Electric Utility bills, as they become due, for electric energy used for temporary lighting and power to perform work in the building.
6. Other Costs: The Contractor responsible for the other costs in connection with providing and maintaining the temporary electrical power system.

M. Temporary Heat:
   1. Scope of Enclosed Building Protection: Prior to the winter weather protection as required to accomplish the following:
   2. To protect the finish work.
   3. If the heat not available from existing heating plant, the Contractor is responsible to provide sufficient heat so that the work can be accomplish in accordance with the Contract.
   4. Cost: If the other than existing plant used for heat the Contractor shall pay for temporary heat equipment, safety provisions and fuel charges.
   5. Damage Due to Lack of or Improperly Operated Temporary Heat: Maintain heat to prevent damage due to frost and freezing during the period when temporary heat is needed. Prevent damage due to defective equipment or the use of equipment, including but not limited to damage such a stains, smudges, soot or fire, and repair damage in a manner satisfactory to the Owner and Engineer.

N. Ventilation and Humidity Control (Where necessary for project work): Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.

   1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.

2.2 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:
   1. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

   1. Protect existing site improvements to remain including curbs, pavement, and utilities.
   2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

2.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 011000 "Summary."

B. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

C. Barricades and Warning Signs: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs.

D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

E. Prohibit smoking in construction areas.

F. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

2.4 MOISTURE AND MOLD CONTROL

A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.

B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:

1. Protect porous materials from water damage.
2. Protect stored and installed material from flowing or standing water.
3. Keep porous and organic materials from coming into prolonged contact with concrete.
4. Remove standing water from decks.
5. Keep deck openings covered or dammed.

C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard, replace, or clean stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use temporary dehumidifiers or permanent HVAC system, if available to control humidity.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

    a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective.
    b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
    c. Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.

2.5 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor.

2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.

3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Substantial Completion Procedures.

B. Final Completion Procedures.

C. Requirements for Operating and Maintenance Manuals.

D. Requirements for Warranties.

E. Requirements for Commissioning , Testing, and Inspection Records.

F. Final Cleaning.

1.2 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Manufacturer's data sheets on each cleaning product to be used, including:
1. Material descriptions, dimensions, and profiles.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Application methods.

C. Material Safety Data Sheets (MSDS), where appplicaple.

D. Contractor’s List of Incomplete Items.

E. Certified List of Incomplete Items.

F. Labor Warranties.

G. Product Warranties.

H. Product Operating and Maintenance Manuals.

I. Project Records: Commissioning, Testing, and Inspection Records.

J. Owner Acceptance Letter.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor’s List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor’s Punch List), indicating the value of each item on the list and reasons why the work is incomplete.

B. Submittals Prior to substantial Completion: Complete the following prior to requesting inspection for determining date of substantial completion. List items below that are incomplete at time of request.

1. Submit closeout submittals, including project record documents, operation and maintenance manuals, warranties, final certifications, and similar final record information.

C. Procedures prior to Substantial Completion: Complete the following prior to requesting inspection for determining date of substantial completion. List items below that are incomplete at time of request.
   1. Instruct owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
   2. Terminate and remove temporary facilities from project site, along with mockups, construction tools, and similar elements.
   3. Complete final construction cleaning (broom sweep), including touch up painting.
   4. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

1.4 FINAL COMPLETION PROCEDURES

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
   1. List of incomplete items: Submit certified copy of MCA substantial completion inspection list of items to be completed of corrected (punch list), endorsed and dated by MCA. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.

B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, MCA will either proceed with inspection or notify contractor of unfulfilled requirements. MCA will prepare a final certificate for payment after inspection or will notify contractor of construction that must be completed or corrected before certificate will be issued.
   1. Request reinspection when the work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by contractor that are outside the limits of construction.
   1. Organize list of spaces in sequential order, starting with exterior areas first.
   2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment's, and building systems.
   3. Submit list of incomplete items, including item values, in MS excel electronic file format.

1.6 SUBMITTAL OF PROJECT WARRANTIES

A. Time of submittal: Submit written warranties on request of MCA for designated portions of work where commencement of warranties other than date of substantial completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.

B. Warranty documents to be provided to Owner in hard copy format. Photo copies or scanned PDF versions of the warranty documents shall be provided to MCA for file submission to

PART 2 PRODUCTS

2.1 CLEANING AGENTS AND MATERIALS, GENERAL

A. Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might

damage finished or unfinished surfaces.

PART 3 EXECUTION

3.1 FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average residential building. Comply with manufacturer's written instructions.
   1. Clean project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
   2. Remove tools, construction equipment, machinery, and surplus material from project site.
   3. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
   4. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
   5. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damages transparent materials.
   6. Remove labels that are not permanent.
   7. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
   8. Leave project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations before requesting inspection for determination of final completion.

B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
   1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
   2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence or repair or restoration.
   3. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION

SECTION 02 41 19

SELECTIVE DEMOLTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Demolition and removal of selected portions of building or structure.

B. Demolition and removal of selected site elements.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. State of Connecticut Department of Energy and Environmental Protection (CTDEEP).

C. State of Connecticut Department of Environmental Protection (CTDEP).

D. State of Connecticut Department of Public Health (CTDPH).

E. Occupational Safety and Health Administration (OSHA).

1.3 SUBMITTALS

A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.4 FIELD CONDIITONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work unless otherwise noted in the contract documents.
   1. If suspected hazardous materials are encountered, do not disturb; immediately notify MCA and Owner. Hazardous materials will be removed per the written directive of the CT DOH and under separate specification.

C. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that utilities scheduled to remain have been properly protected before starting selective demolition operations.

B. Verify that utilities scheduled to be removed have been disconnected and capped before starting selective demolition operations.

C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to MCA.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
   1. Arrange to shut off indicated utilities with utility companies.
   2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
   3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.

3.3 PREPERATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent properties.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent properties.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
   1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
   2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.

3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
4. Dispose of demolished items and materials promptly.

B. Removed and Reinstalled Items:
1. Clean salvaged items.
2. Store items in area as coordinated with Owner.
3. Protect stored items until reinstallation.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for intended use.

C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Owner, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Disposal: Transport demolished materials off Owner's property and legally dispose of them at a licensed transfer station.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

SECTION 02 83 19.13

LEAD PAINT ABATEMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A.“Abatement Plan for 896-898 Howard Avenue, Bridgeport, CT”

PART 2 - PRODUCTS

PART 3 - EXECUTION

All work, labor, and materials shall conform to “Abatement Plan for 896-898 Howard Avenue, Bridgeport, CT” prepared by Gilbertco Lead Inspections, LLC.

Abatement Plan for

896-898 Howard Avenue, Second Floor and Exterior, Bridgeport, Ct

A. Background Information

Date Plan Submitted: October 2, 2014

Address of Property: 896 Howard Avenue, Second Floor, Bridgeport, CT

Plan Prepared by: Owner ☐ Planner Project Designer ☒

Lead Planner / Project Designer

Name: Maureen Monaco Certificate: 2152

Telephone: 1-800-959-2985

Address: 287 Main Street, Ansonia, CT 06401

Inspection Report Used to Develop Abatement Plan

Date of Inspection: September 22, 2014

Consultant Contractor: Gilbertco Lead Inspections LLC, 287 Main Street, Ansonia, CT 06401 Consultant Contractor # 270

Telephone- 1-800-959-2985

Inspectors: Maureen Monaco- Lead Inspector Risk Assessor #1172

B. Owner Information

Name: O'Neil and Shena Anderson

Address: 896 Howard Avenue, Second Floor, Bridgeport, CT

Telephone: 203-338-0053

C. Resident Information

Shena and O'Neil Anderson and family

Number of Children under six years old: one- O'Dayne Anderson age 3

Will residents be relocated? Yes ☐ No ☒

D. Abatement Contractor Information

Who will conduct abatement? Owner ☐ Abatement Contractor ☒

Abatement contractor will submit all licenses and certifications of the company and individuals working on the property and give written notice to the Bridgeport Health Department at least five days prior to commencing the project.

This is a Department of Housing and Urban Development Project receiving Storm Sandy Disaster Recovery funds and therefore must go out to bid. Abatement Contractor to be determined.

Oscar Ardon
Oscar's Abatement LLC # 2`27
PO Box 261081
29 ½ Meadow Street
Hartford, CT 06114
860-296-7450

E. Repairs prior to Abatement

Please Note:

- Water leaks: Must be corrected prior to abatement regardless of the method of abatement. Uncorrected water leaks can cause encapsulating material to fail if the underlying lead painted surface deteriorates. Moisture can also cause paint on stripped surface (and unabated surface) to fail and expose lead residue that may remain on the substrate after stripping by heat, caustic chemicals, solvents or scraping.

- Heating Systems: Inadequate heat after abatement may lead to failure of encapsulants and paint. Therefore heating systems must be repaired. Prior to abatement, forced air systems must be shut down and sealed to prevent transport of lead contamination from the abatement area to other areas of the residence.

What Components or Mechanical Systems Need To Be Repaired Prior To Abatement?

☒ Water leaks, roof, plumbing, wall surfaces, etc

❑ Heating Systems-

❑ Electrical Systems

❑ Any other conditions that require repair so as not to impede abatement.

❑No prior repairs required.

F. Abatement Techniques To Be Used

Identify which abatement techniques will be used on the attached forms. The three general strategies for lead paint abatement are removal, replacement, and encapsulation. See attached relevant forms.

A. Removal (REM): stripping of paint

B. Replacement (REP): Architectural replacement components shall conform with all contract requirements and specifications. Product submittal shall conform with requirements of Section 01 33 00-Submittal Procedures.

C. BARRIER: (BAR): enclosure using approved materials such as siding or sheetrock.

D. Liquid Encapsulation: (LENCAP) : Use of Connecticut approved encapsulant; technical information and MSDS attached.

E. Cementitious Encapsulation (CENCAP): provide technical information

* Note: If rigid, liquid or cementitious encapsulants are to be used, the associated surfaces must be periodically monitored in the future per a schedule that is established within a lead management plan. Additionally liquid and cementitious encapsulants must be authorized for use by the Connecticut Department of Public Health (DPH) and listed on the DPH registry of Authorized Encapsulant Products.

Paint Removal means the stripping of lead paint from the surfaces of components. The following are some of the paint removal processes that can be used; chemical stripping, mechanical stripping, and wet scraping/wet sanding.

- **Chemical stripping**: there are a variety of paint removal products that are available from various manufacturers. Commonly the stripper is applied to the building component and later removes by manual scraping. All paint layers must be removed. Follow manufacturer's direction on how to apply such products.
- **Mechanical stripping**: This technique requires the use of power tools. Examples of such equipment are: needle guns, vibrating, belt, and rotary sanders. Abrasive blasting equipment and other types of impact strippers

that employ the use of steel studs of different sizes and shapes, that rotate in an enclosed head to impact the painted surface. See manufacturer instructions on how to use this equipment. (Note: Mechanically powered abatement equipment requires the use of HEPA-equipped vacuum attachments to remove dust generated during the use of the equipment).

- **Wet Scraping/wet sanding**. Wet scraping or wet sanding manually removes loose and peeling lead paint. Paint chips and dust that are generated during these procedures, must be controlled, to avoid further distribution of contaminates to adjacent areas. Wet Scraping and sanding involves misting the peeling paint before scraping or sanding, and thus reducing the amount of lead dust that is generated during these processes. Surfactants (wetting agents) may be added to the water to facilitate cleanup.
- **Heat Gun**: This removal technique involves the softening of the paint with a heat gun and then scraping the paint off. To prevent vaporization of the lead contained in the paint, the temperature of the heat gun must not exceed 700 degrees Fahrenheit per DPH regulations.

Replacement means the removal of components such as windows, doors and trim that have lead painted surfaces and the installation of new components that are fee of lead containing paint. Replacement may be feasible for many exterior and interior architectural components.

Encapsulation refers to the processes that make lead paint inaccessible, by covering or sealing lead painted surfaces. If the lead paint is peeling or deteriorating then some wet scraping and/or wet sanding is necessary prior to encapsulation. The following are some types of rigid encapsulation materials: gypsum dry wall, fiberglass, wool and vinyl siding. Seams must be sealed to prevent the escape of lead dust. Liquid and cementitious encapsulants must be

listed on the DPH registry of Authorized Encapsulant Products, to be considered for use.

The following cannot be used as encapsulants:

- A new coat of paint or primer
- Wall paper coverings
- Contact paper

Any area that is to be abated must be properly contained with materials such as 6 mil polyethylene sheeting to prevent further contamination of the dwelling or environment and to facilitate post abatement cleanup.

G. Dates of Abatement Project

Estimated start date: January 26, 2015

Estimated completion date: May 1, 2015

Note: Written notice shall be given to the local health department at least five days prior to actual starting date.

H. Notification To Connecticut Historical Commission- if property is over 50 years old

Year Built: 1910 Notification required? Yes ☒ No ☐

Address of Ct Historical Commission:

CT Commission of Culture and Tourism and Historic Preservation
1 Constitution Plaza, Second Floor
Hartford, CT 06103
1-860-256-2800

Date filed- October 2, 2014 Response received ☒Yes No ❑
See attached

I. Notification procedure

Written notice will be given to the residents five working days prior to start date. The notice shall:

- Inform the residents of their rights and responsibilities per the statutes and regulations
- Inform residents which surfaces or soil areas will be abated.

Additionally, warning signs shall be posted at all entrances to and exits from the abatement area, prior to abatement.

J. Containment of Work Area (Interior and Exterior)

Movable objects belonging to residents must be removed from the abatement area. The belongings should be stored in an easily accessible location.

Cover and seal all non-work surfaces with 6 mil polyethylene as follows;

a) non-movable objects

b) air systems heating, ventilation, and air conditioning

c) entrance to abatement areas

d) floors

e) exterior grounds and surfaces (use 6 mil polyethylene sheeting to prevent release of lead into the environment)

Note: The contractor and/or owner is responsible for using the best available engineering controls to reduce the potential for emissions to the exterior of an

abatement area. Engineering controls may include but not limited to, proper containment and control of the abatement are, provision of negative pressure within containment area, use of wet scraping/wet sanding methods and use of vacuum HEPA attached power tools.

Describe proposed engineering controls:

Polyethylene to cover ground when any exterior work is to be done.

K. Cleaning After Lead- Based Paint Abatement (Prior to Clearance Testing)

Procedure: ☒ 1. Wet clean

☒ 2. Carefully remove the polyethylene covering.

☒ 3. Use a COMMERCIAL HEPA vacuum and wash with TSP or other effective non-TSP cleaner.

☒ 4. After 24 hours from the time active abatement has ceased, HEPA vac again, rewash with TSP or other effective non-TSP cleaner and HEPA vac again.

L. Waste Disposal (Hazardous)

A. Materials associated with the abatement shall be disposed of as hazardous waste with a TCLP reading ≥ 5 mg/l. The contractor shall obtain a small quantity hazardous waste generator ID number from the State of CT DEP for the site if hazardous waste exceeds 100 kilograms per month. Materials associated with this abatement include:

- Any lead containing or lead based paint debris

- Wood painted with lead based paint
- Stripped paint or paint chips
- Painted wall or ceiling plaster
- Painted concrete debris

B. Disposal of all hazardous waste shall comply with the requirements of Resource Conservation and Recovery Act (RCRA).

C. Contractor can wipe clean polyethylene sheeting and dispose of it as construction debris.

D. Dumpsters containing hazardous waste are to be kept covered and locked when not in active use for lading of materials.

E. All containers of hazardous lead bearing material shall carry the following label in accordance with 29 CFR 1926.62.

HAZARDOUS LEAD WASTE

Federal Law prohibits improper disposal.
If found, contact the nearest police or public safety authority,
or the U.S. Environmental Protection Agency
Generator Information:
Facility Name:
Facility Address:
Facility Phone Number:
EPA ID / Manifest Document # _____
Accumulation Start Date:_____
EAP Waste # _____
HAZARDOUS WASTE SOLID NUMBERS
ORM-E NA 9189 D008
HANDLE WITH CARE

Any questions regarding hazardous waste issues should be directed to:

State of CT- Dept of Environmental Protection, Waste Management Bureau, 79 Elm Street, Hartford, CT 06106-5127 ,1- 860-424-3023

M. Worker Protection

Note: Workers must use proper personal protective equipment per the OSHA Lead in Construction Standard (29CFR 1926.62) and state regulation. Full body covering (suits) with hood and shoe covering attached should be used to prevent lead dust contamination. Disposable coveralls that are used one time, provide effective protection. Indicate the level of protection that is to be provided:

Body Covering ☐		Disposable☒
Head Covering☒	hat	Disposable☒
Hand covering ☒		Disposable ☒
Shoe Covering ☒		Disposable ☒
Respirator w/HEPA Filter☐		Type of respirator _____

Note: Neither smoking, eating, or drinking nor the application of cosmetic lip balm, is permitted within the work area. Use of personal clothing and foot wear is not permitted during abatement activities.

Indicate available washing facilities. Hand washing ☒ Showers ☐

Bathroom sink water is available for hand washing; do not use kitchen sink for cleanup.

N. Clearance Testing

Prior to reoccupancy, a visual inspection of abatement areas is required and dust samples shall be collected and analyzed from floors and window sills in each area where abatement has occurred. This inspection and sampling must be performed by a certified lead inspector, certified lead inspector risk assessor or an authorized code enforcement official.

☒ Visual inspection and sampling to be performed by a certified lead risk assessor.

Maureen Monaco , IR #1172
Gilbertco Lead Inspections LLC , CC # 270
287 Main Street, Ansonia, Ct 06401
1-800-959-2985 or

Facilities Support Services LLC
2685 State Street
Hamden, Connecticut 06517
1-203-288-1281

Sampling to include window sill, window well, and floor to be sampled in each room where abatement work has taken place.

❑ Visual Inspection to be performed by an authorized code enforcement official of the Bridgeport Health Department once reoccupancy criteria has been met.

O. Soil Abatement-

1. For soil lead levels between 400 ppm and 5000 ppm

☒ Plant grass or shrubbery to reduce exposure to bare soil.

❑ Permanent barrier; examples asphalt or cement

☒ Cover three to six inches with gravel or mulch-

❑ Restrict access-

❑ Excavate, remove and replace contaminated soil. Specify depth___.

❑ Relocate play equipment

2. For soil lead levels over 5000 ppm

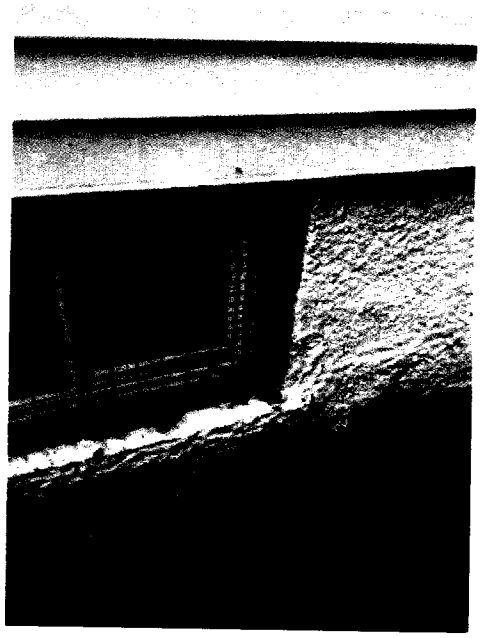
❑ Excavate and disposal top two inches

❑ Rototill soil

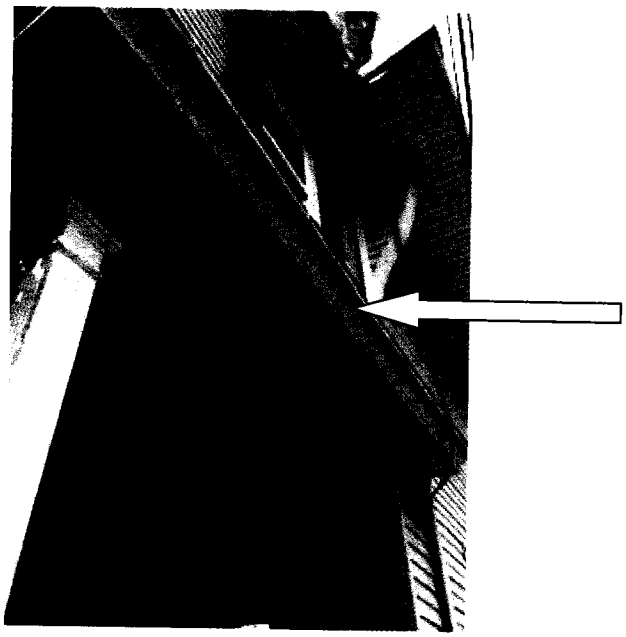
❑ Cover area with lead free soil, mulch, stone, asphalt or other acceptable covering

Key: PS- Paint Stabilization
BAR- Barriers
RESACC- Restricted Access
REM- Paint Removal
REP- Replace with new
LEN- Liquid Encapsulate
REN- Rigid Encapsulate
DCU- Dust Clean-up

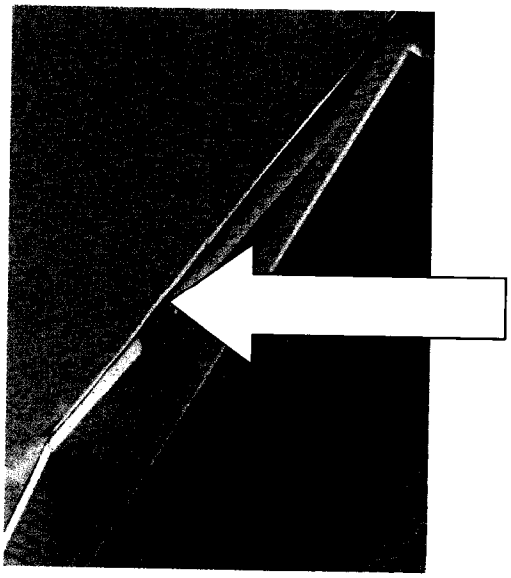
Room Name	Component	Abatement Method	Comments
2nd Floor Front Porch	Window Sills	LEN	
2nd Floor Front Porch	Wood Walls	LEN	
2nd Floor Front Porch	Clapboard –Wall 3	LEN	
2nd Floor Rear Porch	Transom	LEN or REN	
2nd Floor Rear Porch	Threshold	REM	
2nd Floor Rear Porch	Door Jamb	REM	
Exterior	Rear Door Casing	LEN	
Exterior	Threshold	REM	
Exterior	Basement window trim x 6 or 7	LEN	
Exterior	Front Porch columns	LEN	4 square and 2 round
Exterior	Trim under front porch side 2	REN	
Exterior	Exposed fascia	REN	



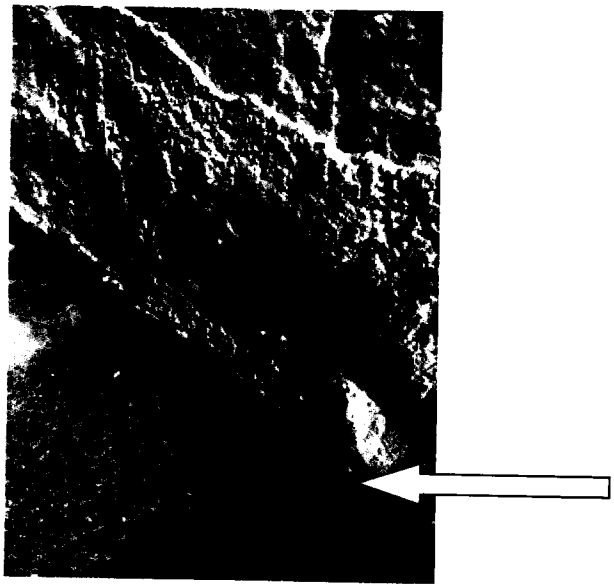
Basement wnd trim



exposed drip edge



Exposed Fascia- left side



Front Porch Trim side 2

SECTION 02 85 15

MOLD REMEDIATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A.“Microbial (Mold) Abatement Work Plan, 896 Howard Avenue, Bridgeport, CT”

PART 2 - PRODUCTS

PART 3 - EXECUTION

A.All work, labor, and materials shall conform to Microbial (Mold) Abatement Work Plan, 896 Howard Avenue, Bridgeport, CT” prepared by Facility Support Services.

Microbial (Mold) Abatement Work Plan

896 Howard Avenue
Bridgeport, CT

The following work plan outlines the microbial mold abatement of 896 Howard Avenue in Bridgeport, Connecticut.

1. The Contractor shall have a designated Competent Person: on the job at all times to ensure proper work practices throughout the project.
2. Prior to beginning the clean-up and decontamination process, the contractor shall install at a minimum, a one-stage decontamination unit at the entrance to the area.
3. Workers shall don the proper PPE following 29 CFR 1910.120 prior to beginning the removal. This may include respiratory protection and. or disposable full body coveralls.
4. Microbial abatement shall be implemented using the following procedure:
    a. If visible mold growth is observed:
        i. Mold contaminated waste materials shall be handled and removed from specified locations for proper disposal.
        ii. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools only to remove materials from adjacent substrates.
        iii. Any dry or brittle materials shall be removed with additional engineering controls such as use of a HEPA vacuum to removed accumulated dust or debris during removal.
        iv. Waste shall be immediately placed in disposal containers/storage trailers. The containers shall not be empties into other containers to avoid dispersal of dust or fugitive emissions.
        v. The use of minimal but sufficient quantities of water to wet the generated waste prior to collection shall be utilized. Under no circumstances shall the mold waste show evidence of free liquid water, pooling or ponding with the waste stream. Any liquid used to wet the dust and debris to control fugitive emission shall be properly containerized and decontaminated in accordance with CHS Section 22a-463 through 22a-469.
    b. All basement surfaces.
        i. Spray one coat of Shockwave Disinfectant & Cleaner (or similar) to all surfaces per the manufacturer's specifications. This includes all floors, walls, and ceilings. Alternate products must be approved by the project consultant.
        ii. Spray one coat of Aftershock fungicidal coating (or similar) to all surfaces per the manufacturer's specifications. This includes all floors, walls, and ceilings. Alternate products must be approved by the project consultant.

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Dimensional Lumber.

B. Wall, Floor, and Roof Sheathing.

C. Miscellaneous Lumber.

D. Related Accessories.

1.2 REFERENCES

A. American Forest and Paper Association (AF&PA).

B. American Lumber Standard Committee (ALSC).

C. American National Standards Institute (ANSI/ASSE).

D. ASTM International (ASTM).

E. American Wood Preservers Association (AWPA).

F. Douglas Fir Protection Association (DFPA).

G. National Fire Protection Association (NFPA).

H. National Lumber Grades Authority (NLGA).

I. Northeastern Lumber Manufacturers Association (NeLMA).

J. Occupational Safety and Health Administration (OSHA).

K. Underwriters Laboratories (UL).

L. West Coast Lumber Inspection Bureau (WCLIB).

M. Western Wood Products Association (WWPA).

PART 2 PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules writing agency certified by the ALSC Board of Review. Provide lumber graded by an

agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Provide dressed lumber, ss per local and national governing industry standards.

B. Maximum Moisture Content of Lumber: As per local and national governing industry standards.

C. Engineered Wood Products: Provide engineered wood products acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

1. Allowable Design Stresses: Provide engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 DIMENSION LUMBER FRAMING

A. Non-Load-Bearing Interior Partitions: As per local and national governing industry standards.

1. Application: Interior partitions not indicated as load-bearing.
2. Species:
    a. Mixed southern pine.
    b. Northern species.
    c. Eastern softwoods.
    d. Western woods.

B. Framing Other Than Non-Load-Bearing Interior Partitions: As per local and national governing industry standards.

1. Application: Framing other than interior partitions.
2. Species:
    a. Hem-fir (north).
    b. Southern pine.
    c. Douglas fir-larch.
    d. Mixed southern pine.
    e. Spruce-pine-fir.
    f. Douglas fir-south.
    g. Hem-fir.
    h. Douglas fir-larch (north).
    i. Spruce-pine-fir (south).

2.3 WALL, FLOOR, AND ROOF SHEATHING

A. Sheathing: As per local and national governing industry standards.

1. Application: Wall sheathing.
2. Application: Subflooring.

3. Application: Roof decking – 5/8” Nominal Thickness.
4. Material: Match existing materials or comply with final install product instructions, specified industry standards and recommendations application.

2.4 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
   1. Blocking.
   2. Nailers.
   3. Cants.
   4. Furring.
   5. Grounds.

B. For items of dimension lumber size, provide lumber per local and national governing industry standards.

C. For concealed boards, provide lumber per local and national governing industry standards. following species and grades:
   1. Mixed southern pine.
   2. Eastern softwoods.
   3. Northern species.
   4. Western woods.

2.5 FASTENERS

A. General: Provide fasteners as per local and national governing industry standards.

PART 3 EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.

D. Do not splice structural members between supports unless otherwise indicated.

E. Comply with, specified industry standards and recommendations for installation of all applications.

END OF SECTION

SECTION 06 40 00

ARCHITECTURAL WOODWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Cabinetry and Cabinetry Hardware.

B. Wood Paneling.

C. Exterior and Interior Wood Trim and Casing.

D. Related Accessories.

1.2 REFERENCES

A. Minimum standards for work in this Section shall be in conformity with the Architectural Woodwork Standards, latest edition, published jointly by the Architectural Woodwork Institute and the Woodwork Institute (AWI).

B. American National Standards Institute (ANSI/ASSE).

C. ASTM International (ASTM).

D. Occupational Safety and Health Administration (OSHA).

E. Underwriters Laboratories (UL).

1.3 SUBMITTALS

A. Product Data: For each type of factory-fabricated product.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials only when the project is ready for installation and the general contractor has provided a clean storage area.
   1. Delivery of architectural millwork shall be made only when the area of operation is enclosed, all plaster and concrete work is dry and the area broom clean.
   2. Maintain indoor temperature and humidity within the range recommended by the Architectural Woodwork Standards for the location of the project.

1.5 WARRANTY

A. Standard Manufacturers warranty for each type of factory-fabricated product.

PART 2 PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber shall be sound, kiln dried, and in accordance with the Architectural Woodwork

Standards requirements for its use and the Grade specified.

B. Shall be lumber or sheet products of the species and Grade to match existing materials.

C. Shall conform in finish width, thickness, and profile of lumber to match existing materials.

D. Particleboard, MDF, and Plywood shall meet the requirements of the AWS for the Grade specified and their intended.

E. Veneered components shall be in accordance with the Architectural Woodwork Standards requirements for the Grade specified use.

F. Adhesives shall meet the requirements of the Architectural Woodwork Standards for its intended use.

2.2 CABINETRY

A. Cabinetry components to match existing, including the following:
1. Shelving configuration.
2. Drawer configuration.
3. Trims, moldings, toe kicks and end panel configuration.

B. Countertops to match existing, including the following:
1. Cut-out configurations.
2. Backsplash.
3. Plywood substrates.
4. Counter supports.

C. Cabinetry hardware to match existing, including the following:
1. Pulls.
2. Drawer guides.
3. Hinges.
4. Door catches.
5. Shelf supports.

D. Plastic Laminates shall meet the requirements of the Architectural Woodwork Standards for its intended use.

E. All finishes/colors of cabinetry and countertops to match existing.

2.3 EXTERIOR TRIM

A. Waterproof Type I adhesive is required.

B. Sheet products shall be of exterior type.

C. Nails and screws shall be corrosion-resistant.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify the adequacy and proper location of any required backing or support framing.

3.2 INSTALLATION

A. All work shall be secured in place, square, plumb, and level.

B. All work abutting other building components shall be properly scribed.

C. Mechanical fasteners used at exposed and semi-exposed surfaces, excluding installation attachment screws and those securing cabinets end to end, shall be countersunk.

D. All nicks, chips and scratches shall be sanded out, filled and re-touched. Damaged items which cannot be repaired shall be replaced.

END OF SECTION

SECTION 07 31 00

ASPHALT ROOF SHINGLES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Asphalt Roofing Shingles.

B. Leak Barrier and Moisture Shedding Roof Deck Protection.

C. Metal Flashing Associated with Shingle Roofing.

D. Related Accessories.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. Asphalt Roofing Manufacturers Association (ARMA).

C. American Society of Civil Engineers (ASCE).

D. ASTM International (ASTM).

E. National Roofing Contractors Association (NRCA).

F. Occupational Safety and Health Administration (OSHA).

G. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA).

H. Underwriters Laboratories (UL).

I. U.S. Green Building Council (USGBC).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Manufacturer's data sheets on each product to be used, including:
   1. Material descriptions, dimensions, and profiles.
   2. Preparation instructions and recommendations.
   3. Storage and handling requirements and recommendations.
   4. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Selection Samples: Two complete sets of color cards representing manufacturer's full range of available colors and patterns.

1.4 QUALITY ASSURANCE

A. Installer Minimum Qualifications:
   1. Installer shall be classified as an Authorized contractor as defined and certified by manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened labeled packaging until ready for installation.

B. Store products in a covered, ventilated area, at temperature not more than 110 degrees F (43 degrees C); do not store near steam pipes, radiators, or in sunlight.

C. Store bundles on flat surface to maximum height recommended by manufacturer; store rolls on end.

D. Store and dispose of solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 WEATHER CONDITIONS

A. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer recommendations.

1.7 WARRANTY

A. Provide Manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:
   1. Atlas Roofing Corporation.
   2. CertainTeed Corporation.
   3. GAF.
   4. Owens Corning.
   5. PABCO Roofing Products.

B. Substitutions: or approved equal.

C. Requests for substitutions will be considered in accordance with Section 01 60 00.
   1. When submitting request for substitution, provide complete product data and sample warranty specified above under submittals, for each substitute product.

2.2 ASPHALT SHINGLES

A. Style: 3 Tab asphalt shingle or match existing.
   1. Shingle Thickness: Match existing.
   2. Color: Match existing or selected by Owner.
   3. Warranty: Match original warranty of existing materials.

2.3 HIP AND RIDGE SHINGLES

A. Hip and ridge cap shingle field fabricated from the same color and type of field shingle.

2.4 STARTER STRIP

A. Self sealing starter shingle designed for all roof shingles.

2.5 UNDERLAYMENT

A. #15 Roofing Underlayment: Water repellent breather type cellulose fiber building paper. Meets or exceeds the requirements of ASTM D 4869 Type I.

B. Plywood Sheathing; replacement and/or repair of existing sheathing as required during course of construction.

2.6 ACCESSORY PRODUCTS

A. Fasteners
   1. Standard round wire shingle type, zinc-coated steel or aluminum; 10 to 12 gauge (3.416 mm to 2.657 mm for steel) (2.588 mm to 2.052 mm for aluminum), barbed or deformed shank, with heads 3/8 inch (9.5 mm) to 7/16 inch (11 mm) in diameter; length sufficient to penetrate at least 3/4 inch (19 mm) into solid wood or just through plywood or oriented strand board.

B. Roofing Cement:
   1. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.

C. Metal Flashing:
   1. 16 oz/sq ft (0.56 mm) copper sheet, complying with ASTM B 370.
   2. 0.032 inch (0.8 mm) aluminum sheet, complying with ASTM B 209.
   3. Use metal flashings at:
      a. Eave edges: Match existing materials.
      b. Rake edges: Match existing materials.
      c. Step flashing at chimneys, side walls and dormers: Match existing materials.
      d. Valleys: Match existing materials.

D. Metal Flashing:
   1. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions metal, and other characteristics of the item.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until roof deck has been properly prepared.

3.2 REMOVAL OF EXISTING ROOFING

A. Remove all existing roofing down to the roof deck.

B. Verify that deck is dry, sound, clean and smooth, free of depressions, waves and projections.

C. Where new decking is not installed cover with sheet metal all holes over 1 inch (25 mm) diameter, cracks over 1/2 inch (12 mm) in width, loose knots and excessively resinous areas.

D. Verify that deck is dry, sound, clean and smooth, free of depressions, waves and projections.

E. Clean deck surfaces thoroughly prior to installation of eaves protection membrane and underlayment

3.3 PREPARATION

A. Clean deck surfaces thoroughly prior to installation of leak barrier and roof deck protection.

B. At areas to receive leak barrier, fill knot holes and cracks with latex filler.

3.4 INSTALLATION OF UNDERLAYMENT

A. Install using methods recommended by manufacturer in accordance with local building code. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.

B. Eaves:
1. Place eave edge metal flashing tight with fascia boards; lap joints 2 inches (50 mm) and seal with plastic cement; nail at top of flange.
2. Install leak barrier up the slope from eave edge to 36 inches from the edge or at least 24 inches (610 mm) beyond the interior face of the warm exterior wall, whichever is greater; lap ends 6 inches (150 mm) and bond.

C. Valleys:
1. Install leak barrier at least 36 inches wide centered on valley; lap ends 6 inches (150 mm) and seal.
2. Where valleys are indicated to be "open valleys", install metal flashing over leak barrier before roof deck protection is installed; DO NOT NAIL THROUGH metal flashing; secure by nailing at 18 inches (457 mm) on center just beyond edge of flashing so that nail heads hold down edge.

D. Hip and Ridge:
1. Install leak barrier along entire lengths. If ridge vents are to be installed, position the leak barrier so that the ridge slots will not be covered.

E. Penetrations:
1. At vent pipes, install a 24 inch (610 mm) square piece of leak barrier lapping over roof deck protection; seal tightly to pipe.
2. At vertical walls, install leak barrier extending at least 6 inches (150 mm) up the wall and 12 inches (305 mm) on to the roof surface lapping over roof deck protection.
3. At skylights and roof hatches, install leak barrier up the sides of the frame and 12 inches (305 mm) on to the roof surface on all sides, lapping over roof deck protection.
4. At chimneys, install leak barrier around entire chimney extending at least 6 inches (152 mm) up the wall and 12 inches (305 mm) on to the roof surface lapping over roof deck protection.

5. At rake edges, install metal edge flashing over leak barrier and roof deck protection; set tight to rake boards; lap joints at least 2 inches (50 mm) and seal with plastic cement; secure with nails.
6. At hips and ridges, install leak barrier along entire lengths. If ridge vents are to be installed, position the leak barrier so that the ridge slots are not covered.

3.5 INSTALLATION OF SHINGLES

A. Install in accordance with manufacturer's instructions and requirements of local building code.
   1. Avoid breakage of shingles by avoiding dropping bundles on edge, by separating shingles carefully (not by "breaking" over ridge or bundles), and by taking extra precautions in temperatures below 40 degrees F (4 degrees C).
   2. Handle carefully in hot weather to avoid damaging shingle edges.
   3. Secure with 4 to 6 nails per shingle; use number of nails required by manufacturer or by code, whichever is greater. Nails must be long enough to penetrate through plywood or OSB, or 3/4 inch (19 mm) into dimensional lumber.

B. Install hip, ridge, and valley shingles as required by the manufacturer.
   1. At ridges, install hip and ridge shingles over ridge or ridge vent material.

C. All penetrations are to be flashed according to manufacturer, ARMA and NRCA application instructions and construction details.

D. For skylights, consult the manufacturer of the skylight or roof hatch for specific installation recommendations. Skylights and roof hatches shall be installed with pre-fabricated metal flashings specifically designed for the application of the unit.

END OF SECTION

SECTION 07 71 23

GUTTERS AND DOWNSPOUTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Gutters and Downspouts.

B. Related Accessories.

1.2 REFERENCES

A. American Architectural Manufacturers Association (AAMA).

B. ASTM International (ASTM).

C. Occupational Safety and Health Administration (OSHA).

D. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Manufacturer's data sheets on each product to be used, including:
1. Material descriptions, dimensions, and profiles.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Maintenance Data: Include recommended cleaning methods and cleaning materials.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store products to prevent twisting, bending, and abrasion, and to provide ventilation. Slope stored materials to drain.

C. During storage prevent contact with materials capable of causing discoloration, staining, or other damage.

1.5 WARRANTY

A. Provide Manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 GENERAL

A. Gutter Material Thickness: Match existing materials.

B. Downspout Material Thickness: Match existing materials.

2.2 GUTTERS

A. Gutter Stock (Aluminum, Vinyl, Etc): Match existing materials.
   1. Gutter Size: Match existing.
   2. Profile: Match existing.
   3. Texture: Match existing.
   4. Finish: Match existing finish; applied to sides as matching.
   5. Color: Match existing.

B. Accessories:
   1. Gutter Protection System: Match existing. Size and shape as required for gutter size, style and gutter support. Provide factory fabricated inside and outside corners.
   2. Miscellaneous Components: Provide all necessary inside and outside corners, corner reinforcing, eave tubes, and end caps required for a complete installation.

2.3 DOWNSPOUTS

A. Downspout Stock (Aluminum, Vinyl, Etc): Match existing materials.
   1. Downspout Size: Match existing.
   2. Profile: Match existing.
   3. Texture: Match existing.
   4. Finish: Match existing finish; applied to sides as matching.
   5. Color: Match existing.

B. Accessories:
   1. Downspout Support: Match existing materials. Profile and color to match existing.
   2. Miscellaneous components: Provide all necessary elbows, downspout offset sections, and pop rivets as required for a complete installation. All miscellaneous components shall match downspouts.

2.4 RELATED ACCESSORIES

A. Fasteners: Match existing materials.
   1. Finish: Match existing finish.
   2. Size: As recommended by manufacturer.

B. Flashings: Match existing or where installation is recommended by Manufacturer. Colors to match existing.

C. Sealants: Mildew-Resistant Joint Sealant as recommended by Manufacturer at gutter joints. Color shall match existing.

D. Splash Pans: Match existing in materials, size, shape, and color.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that substrates are in place and ready for installation of gutters and downspouts.

3.2 INSTALLATION

A. General: Install gutters and downspouts per manufacturer's written installation instructions. Install Work securely in place and provide for expansion and contraction of components using lapped and sealed joints.

B. Install roof apron flashings at roof edge conditions as required for proper installation, and matching existing conditions.

C. Gutters:
1. Install gutter supports as per Manufacturer recommendations.
2. Slope gutters evenly to downspouts; provide end caps at gutter ends and seal watertight per Manufacturer's instructions.
3. Install eave tubes at all downspout locations, seal watertight.
4. Apply joint sealants at gutter joints per Manufacturer's installation instructions.
5. Install gutter protection per manufacturer's instructions; provide factory fabricated corners at all inside and outside corners.

D. Downspouts:
1. Install downspouts, provide elbows and offsets, and secure downspouts to wall construction using downspout supports spaced as per Manufacturer's instructions. Provide 45 degree elbow at bottom of downspout to direct water away from wall surface or foundation.
2. Where downspout connects to building perimeter drainage system, lap downspout and perimeter drainage pipe a minimum of 3 inches. At concrete perimeter drainage pipe, grout downspout in place, slope grout to shed rain away from downspout.
3. Install splash pans under downspouts.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Silicone Joint Sealants.

B. Urethane Joint Sealants.

C. Latex Joint Sealants.

D. Related Accessories.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. ASTM International (ASTM).

C. Occupational Safety and Health Administration (OSHA).

D. Underwriters Laboratories (UL).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Manufacturer's data sheets on each product to be used, including:
1. Material descriptions, dimensions, and profiles.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

1.5 WARRANTY

A. Provide Manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 SILICONE JOINT SEALANTS

A. Acceptable Manufacturers: Subject to compliance with requirements, available

manufactures offering products that may incorporated into the Work include the following:

1. BASF Building Systems.
2. Dow Corning Corporation.
3. GE Advanced Materials - Silicones.
4. May National Associates, Inc.
5. Pecora Corporation.
6. Polymeric Systems, Inc.
7. Schnee-Morehead, Inc.
8. Sika Corporation; Construction Products Division.
9. Tremco Incorporated.

B. Type: Single component (S).

C. Grade: Pourable (P).

D. Class: 100/50.

E. Uses Related to Exposure: Traffic (T) and Nontraffic (NT).

2.2 URETHANE JOINT SEALANTS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:

1. BASF Building Systems.
2. Bostik, Inc.
3. Lymtal. International. Inc.
4. May National Associates, Inc.
5. Pacific Polymers International. Inc.
6. Pecora Corporation.
7. Polymeric Systems, Inc.
8. Schnee-Morehead, Inc.
9. Sika Corporation; Construction Products Division.
10. Tremco Incorporated.

B. Type: Single component (S).

C. Grade: Pourable (P).

D. Class: 100/50.

E. Uses Related to Exposure: Traffic (T) and Nontraffic (NT).

2.3 LATEX JOINT SEALANTS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:

1. BASF Building Systems.
2. Bostik, Inc.
3. May National Associates, Inc.
4. Pecora Corporation.
5. Schnee-Morehead, Inc.

6. Tremco Incorporated.

B. Latex: Acrylic latex or siliconized acrylic latex.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 EXECUTION

3.1 PREPERATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
1. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

A. Install sealant types compatible with adjacent surfaces, materials, and finishes to while sealant may come in contact with.

B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
1. Do not leave gaps between ends of sealant backings.
2. Do not stretch, twist, puncture, or tear sealant backings.
3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint:
   1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

END OF SECTION

SECTION 09 26 00

GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Gypsum Board and Joint Treatments.

B. Mold and Mildew Resistant Gypsum Board.

C. Related Accessories.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. ASTM International (ASTM).

C. Gypsum Association (GA).

D. Occupational Safety and Health Administration (OSHA).

E. Underwriters Laboratories (UL).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:
   1. American Gypsum.
   2. CertainTeed Gypsum, Inc.
   3. Georgia-Pacific Gypsum
   4. National Gypsum Co.
   5. Pabco Gypsum, Inc.
   6. USG Corporation.

B. Substitutions: or equal.

C. Requests for substitutions will be considered in accordance with Section 01 60 00.
   1. When submitting request for substitution, provide complete product data and MSDS sheet for each substitute product.

2.2 GYPSUM PRODUCTS, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area that correspond with the support system indicated.

B. Recycled Content: Provide gypsum panel products with recycled content such that post consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum 50 percent by weight.

2.3 INTERIOR GYPSUM MATERIALS

A. Regular Gypsum Board: Gypsum core panel surfaced with paper on front and back edges and complying with ASTM C 1396 and ASTM C 36.
   1. Thickness: 1/2 inch (12.7 mm), unless otherwise indicated.
   2. Width: 48 inches (1219 mm).
   3. Length: Use longest length available, avoiding unnecessary joints.
   4. Edges: Use square, rounded tapered, or tapered per required application.

B. Regular Mold Resistant Gypsum Board: Gypsum core panel enhanced with moisture-resistant wax emulsion and chemically treated to resist mold and mildew in the core and surfaced with mold and mildew resistant paper on front, back and long edges and complying with ASTM C 1396 Section 7 and ASTM C 630.
   1. Thickness: 1/2 inch (12.7 mm), unless otherwise indicated.
   2. Width: 48 inches (1219 mm).
   3. Length: Use longest length available, avoiding unnecessary joints.
   4. Edges: Use square, rounded tapered, or tapered per required application.
   5. Mold and Mildew Resistance: Panel score of 10 when tested in accordance with ASTM D 3273.

2.4 GYPSUM JOINT TREATMENT AND FINISH PRODUCTS

A. Joint Treatment Tape: Complying with ASTM C 475 and GA-216.

B. Joint Compound: Vinyl type pre-mixed compound; complying with ASTM C 475.

C. Joint Compound: Level Five vinyl type pre-mixed compound; off-white color or tinted gray color; complying with ASTM C 475 and fulfilling ASTM C 840; designed for joint finishing of Level Five gypsum board.

2.5 ACCESSORY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Corner Bead: Formed galvanized steel angle, min. base steel 0.014 in. thick, and complying with ASTM C 1047.

C. Casing Bead: Formed galvanized steel or vinyl trim, matching existing application and complying with ASTM C 1047, type(s) as follows:
1. J-shaped U-bead, for face nailing and finishing with joint treatment.
2. J-shaped U-bead, requiring no finishing.
3. L-shaped, for application over edge and finishing with joint treatment.

D. Control Joint: Extruded vinyl formed with V-shaped slot covered with removable flexible vinyl strip; complying with ASTM C 1047.

E. Control Joint: Bent zinc sheet formed with V-shaped slot, covered with plastic tape, with perforated flanges; complying with ASTM C 1047.

F. Screws: ASTM C 954 or ASTM C 1002 or both with heads, threads, points, and finish as recommended by panel manufacturer.

G. Nails: ASTM C 514 with heads, lengths, configurations, and finish as recommended by panel manufacturer.

H. Acoustical Sealant: Nondrying, nonhardening, nonskinning, nonstaining, nonbleeding, gunnable type as recommended by panel manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.2 INSTALLATION

A. Application: Apply and maintain conditions during installation in accordance with GA-216 and GA-238 and as follows:
1. Keep gypsum board dry throughout application.
2. Do not use gypsum board that has visible mold growth.
3. Apply gypsum board on walls with a minimum 1/4 inch (6.4 mm) gap between the gypsum board and the floor.
4. Do not apply gypsum board over other building materials where conditions exist that are favorable to mold growth.

5. Maintain a sound weather-tight building envelope including, such elements as the roof, sealants, windows, etc.
6. Immediate and appropriate remediation measures must be taken as soon as water leaks or condensation sources are identified.
7. If gypsum board is damaged by water, assess the need for replacement in accordance with GA-231.

B. Install accordance with GA 216 and the following:
1. Gypsum Sheathing Board: ASTM C 1280 and GA-253.
2. Gypsum Board and Joint Treatment: ASTM C 840 and GA-214.
3. Gypsum panel manufacturer's published recommendations.

C. Finishing: Tape, fill, sand and finish joints in accordance with ASTM C 840 and GA-214.
1. Level 2: Water resistant gypsum backing board indicated to receive tile.
2. Level 4: Gypsum board indicated to receive light textured coatings and light-grade wall coverings.
3. Level 5: All other gypsum board.

END OF SECTION

SECTION 09 30 00

TILING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Floor and Wall Tile.

B. Trims.

C. Tile Setting Materials.

D. Related Accessories.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. ASTM International (ASTM).

C. Occupational Safety and Health Administration (OSHA).

D. Underwriters Laboratories (UL).

E. Tile Council of North America (TCNA).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Selection Samples: Submit a complete set of tile samples that represent the full range of manufacturer's products, colors and patterns available.

E. Maintenance Data: Include recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging until ready for installation.

B. Protect adhesives and liquid additives from freezing or overheating in accordance with

manufacturer's instructions.

C. Store tile and setting materials on elevated platforms, under cover and in a dry location and protect from contamination, dampness, freezing or overheating.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:
   1. American Olean Tile Co.
   2. Daltile Corporation.
   3. Interceramic Inc.
   4. Merola Tile.

B. Substitutions: or equal.

C. Requests for substitutions will be considered in accordance with Section 01 60 00.
   1. When submitting request for substitution, provide complete product data and MSDS sheet for each substitute product.

2.2 TILE, GENERAL

A. Tile shall also be provided in accordance with the following:
   1. Factory Blending: For tile exhibiting color variations within the ranges selected under Submittal of samples, blend tile in the factory and package so tile taken from one package shows the same range of colors as those taken from other packages.
   2. Mounting: For factory mounted tile, provide back or edge mounted tile assemblies as standard with the manufacturer, unless otherwise specified.
   3. Factory Applied Temporary Protective Coatings: Where existing, to match, protect exposed surfaces of tile against adherence of mortar and grout by precoating with a continuous film of petroleum paraffin wax applied hot. Do not coat unexposed tile surfaces.

2.3 FLOOR AND WALL TILE

A. Product: Match existing materials with best efforts.

B. Size and Shape: Match existing materials.

C. Surface Finish: Match existing materials.

D. Colors: Match existing materials.

E. Pattern: Match existing materials.

F. Trim Units: Matching bullnose, bullnose corner, cove/inside finger cove, radius cap, sink rail, sink rail incorner/outcorner, cove base, outside cove corner, Cement Bullnose, Cove Base, Cove Base Corner, Fabric Bullnose, Groover Bullnose shapes in sizes coordinated with field tile shapes.

2.4 TRIM AND ACCESSORIES

A. Ceramic Accessories: Match existing finish, same color and finish as adjacent field tile; same manufacturer as tile.
   1. Soap Dish: With wash cloth holder, clam shell design, surface mounted or recessed; cast strength sufficient to resist lateral pull force of 75 lbs (34 Kg).
   2. Toilet Tissue Holder: Surface mounted or recessed, for single roll, with spring loaded holder.
   3. Towel Bars: Standard design, surface mounted with extensions for casting into small wall openings; cast strength sufficient to resist lateral pull force of 30 lbs (14 Kg).
   4. Corner Shelf.

B. Non-Ceramic Trim: Match material, finish, style and dimensions as existing and to suit application, for setting using tile mortar or adhesive; use in the following locations:
   1. Open edges of floor tile.
   2. Transition between floor finishes of different heights.
   3. Thresholds at door openings.
   4. Expansion and control joints, floor and wall.

C. Stone Thresholds: Provide stone thresholds uniform in color and finish and fabricated to match existing material type, size and finish.
   1. Provide to provide transition between tile surface and adjoining finishes where required.

2.5 SETTING MATERIALS

A. Organic or Epoxy Adhesive: Thinset per Manufacturer requirements.

B. Mortar Bed Materials: Match existing materials or per Manufacturer requirements.

C. Mortar Bond Coat Materials: Match existing materials or per Manufacturer requirements.

D. Standard Grout: Cement grout, sanded or unsanded, as specified by Manufacturer; color to match existing.

E. Polymer modified cement grout, sanded or unsanded, as specified by Manufacturer; color to match existing.

F. Epoxy Grout: As specified by Manufacturer; color to match existing.

G. Silicone Sealant: Silicone sealant, moisture and mildew resistant type, as specified by Manufacturer; color to match existing.

H. Waterproofing membranes: Match existing materials or per Manufacturer requirements.

I. Cementitious Backer Board: Match existing materials or per Manufacturer requirements.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that wall surfaces are free of substances which would impair bonding of setting materials, smooth and flat within tolerances specified by Manufacturer, and are ready to receive tile.

B. Verify that sub-floor surfaces are dust-free, and free of substances which would impair bonding of setting materials to sub-floor surfaces, and are smooth and flat within tolerances specified by Manufacturer.

3.2 INSTALLATION

A. Preparation: Prepare substrate surfaces for adhesive installation in accordance with adhesive manufacturer's instructions.
   1. Remove any curing compounds or other contaminates.
   2. Vacuum clean surfaces and damp clean.
   3. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
   4. Install cementitious backer board in accordance with Manufacturer requirements and board manufacturer's instructions. Tape joints and corners, cover with skim coat of dry-set mortar to a feather edge.

B. Install tile, grout and setting materials in accordance with applicable requirements of manufacturer's instructions, and TCA Handbook recommendations.

C. Lay tile to pattern to match existing application. Arrange pattern so that a full tile or joint is centered on each wall and that no tile less than 1/2 width is used. Do not interrupt tile pattern through openings.

D. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.

E. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.

F. Install non-ceramic trim in accordance with manufacturer's instructions.

G. Install thresholds where required.

H. Sound tile after setting. Replace hollow sounding units.

I. Keep expansion joints free of adhesive or grout. Apply sealant to joints.

J. Allow tile to set for a minimum of 48 hours prior to grouting.

K. Grout tile joints. Use standard grout unless otherwise indicated.

L. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

M. Comply with the manufacturer's instructions, specified industry standards and recommendations for cleaning, traffic, furnishings installation and equipment installation.

END OF SECTION

SECTION 09 68 00

CARPETING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Carpet.

B. Carpet Padding.

C. Related Accessories.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. ASTM International (ASTM).

C. Carpet Cushion Council (CCC).

D. Carpet and Rug Institute (CRI).

E. Occupational Safety and Health Administration (OSHA).

F. Underwriters Laboratories (UL).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Manufacturer's data sheets on each product to be used, including:
   1. Material descriptions, physical characteristics, durability, resistance to fading and flame resistance characteristics for each type of carpet material and installation accessory.
   2. Preparation instructions and recommendations.
   3. Storage and handling requirements and recommendations.
   4. Installation methods.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Selection Samples: Submit a complete set of carpet samples that represent the full range of manufacturer's products, colors and sheens available.

E. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Transport carpet in a manner that prevents damage and distortion. Bending or folding individual carpet rolls or cuts from rolls is not recommended. When bending or folding is unavoidable for delivery purposes, the carpet is required to be unrolled and allowed to lie flat immediately upon arrival at the installation site.

B. Deliver carpet and adhesives in manufacturer's original wrappings and packages clearly labeled with manufacturer's name, brand, name, size, dye lot number and related information.

C. Store carpet and related materials in a climate-controlled, dry space. Protect carpet from soil, dust, moisture and other contaminants and store on a flat surface. Stacking heavy objects on top of carpet rolls or stacking more than three rolls is prohibited.

1.5 WARRANTY

A. Provide Manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:
   1. Fabrica.
   2. Dixie Home.
   3. Masland Carpets.
   4. Mohawk Industries.

B. Substitutions: or equal.

C. Requests for substitutions will be considered in accordance with Section 01 60 00.
   1. When submitting request for substitution, provide complete product data and MSDS sheet for each substitute product.

2.2 CARPETING, GENERAL

A. Provide carpet free of visual blemishes, streaks, poorly dyed areas, fuzzing of pile yarn, spots or stains and other physical and manufacturing defects.

2.3 CARPETING

A. Carpet Type: Match existing materials.
   1. Fiber Content: Match existing.
   2. Pile Characteristics: Match existing.
   3. Dye Process: Match existing.
   4. Density: Match existing.
   5. Color: Match existing and as approved by Owner.

2.4 CARPET PADDING

A. Product as recommended in writing by the carpet manufacturer for the application indicated

and which will not void the specified warranties, (if required).

2.5 CARPETING ACCESSORIES

A. Trowelable Leveling and Patching Compounds: Portland cement based formulation provided by or recommended by Manufacturer. Do not use gypsum based compounds.

B. Carpet Adhesives: Water-resistant, mildew resistant, and nonstaining, high solids, low VOC emitting formulations that are specifically recommended by the carpet manufacturer, as verified through compatibility and adhesion testing for the intended substrate and application, and that comply with flammability requirements for installed carpet.

C. Tackless Carpet Stripping (Stretch-In Installations): Materials as specifically recommended by the carpet manufacturer, thickness to match cushion thickness, with fasteners as specifically recommended by the carpet manufacturer .

D. Plastic Coated Fabric Tape (Stretch-In and Double Stick Broadloom Cushion Installations): Woven fabric impregnated with plastic and coated with adhesive having high-tack adhesion forming a secure bond for application to cushion top seams to resist peaking. Provide water-resistant plastic-coated tape which will unwind without adhesive transfer.

E. Seaming Tape: Hot melt adhesive tape as recommended by the Manufacturer and as suitable for backing specified.

F. Seaming Cement: Water-resistant and flame-resistant carpet adhesive for sealing raw edges, seaming, reinforcing seams and patching. Provide fast drying, easy spreading carpet seaming adhesive having excellent aging characteristics recommended by the carpet manufacturer.

G. Metal Edge Strips: Extruded aluminum with mill finish, matching existing width, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints (if required).

H. Carpet Edging: Provide rubber composition carpet edging in single lengths wherever possible, keeping the number of joints or splices to a minimum (if required).

I. Floor Sealer: Type as recommended and manufactured by the carpet manufacturer for the matching existing applications.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that finishes of substrates comply with tolerances and other requirements specified by Manufacturer installation requirements and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.

B. Provide Carpet free of visual blemishes, streaks, poorly dyed areas, fuzzing of pile yarn, spots or stains and other physical and manufacturing defects.

3.2 INSTALLATION

A. Preparation: Prepare substrates according Manufacturer written instructions.
   1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
   2. Verify that wood substrates are structurally sound, flat, dry and securely anchored. Substrates, such as plywood, hardwood, particleboard, oriented strand board, or other materials, and installed according to manufacturer specifications. Irregularities, imperfections and joints are required to be properly patched and prepared. It is required that all protrusions be properly prepared.
   3. Fill all cracks, voids and holes. Flooring irregularities are required to be repaired to ensure a smooth, finished appearance, prevent accelerated wear and telegraphing substrate irregularities. Patching compounds are required to be suitable for the use application.
   4. Perform moisture, relative humidity, alkalinity, and adhesion testing as per Manufacturer installation requirements.
   5. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.
   6. Properly prepare all edges that are used for seams in strict compliance with carpet Manufacturer recommendations.

B. Carpeting:
   1. Comply with the manufacturer's instructions, specified industry standards and recommendations, and as required to match the existing installations.
   2. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.
   3. Extend carpet into closets and offsets, and under movable equipment of the rooms and spaces shown or scheduled to receive carpet, including recessed covers within those spaces.
   4. Provide cutouts as required for removable access covers in substrates as recommended by carpet manufacturer.
   5. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame in direction of traffic through doorway.
   6. Do not leave visible seams.

C. Carpet Padding:
   1. Comply with the manufacturer's instructions, specified industry standards and recommendations when installing carpet on stairs.

D. Carpet Accessories:
   1. Apply adhesives and/or other carpeting accessories in accordance with manufacturer's directions.
   2. Install edge strip at every location where edge of carpet is exposed, unless otherwise indicated. Install in single lengths and secure in accordance with manufacturer's directions.
   3. Anchor metal strips to floor with suitable fasteners. Apply adhesive to edge strips, insert carpet into lip and press it down over carpet.
   4. Anchor vinyl edge strip to floor with adhesive apply adhesive to edge strip and insert carpet into lip and press lip down over carpet.

E. Comply with the manufacturer's instructions, specified industry standards and recommendations when installing carpet on stairways, stair treads, or any non-flooring area.

F. Comply with the manufacturer's instructions, specified industry standards and recommendations for cleaning, traffic, furnishings installation and equipment installation.

END OF SECTION

SECTION 09 90 00

PAINTS AND COATINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Interior Paint and Coatings Systems Including Surface Preparation.

B. Exterior Paint and Coatings Systems Including Surface Preparation.

1.2 REFERENCES

A. American National Standards Institute (ANSI/ASSE).

B. ASTM International (ASTM).

C. Master Painters Institute (MPI)

D. Occupational Safety and Health Administration (OSHA).

E. Painting and Decorating Contractors of America (PDCA).

F. The Society for Protective Coatings (SSPC).

G. Underwriters Laboratories (UL).

1.3 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Product Data: For each paint system indicated, including.
   1. Product characteristics.
   2. Surface preparation instructions and recommendations.
   3. Primer requirements and finish specification.
   4. Storage and handling requirements and recommendations.
   5. Application methods.
   6. Cautions for storage, handling and installation.

C. Submit Material Safety Data Sheets (MSDS) prior to commencement of work for review and for filing at job site as required.

D. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's products, colors and sheens available.

E. Coating Maintenance Manual: upon conclusion of the project, the Contractor or paint manufacture/supplier shall furnish a coating maintenance manual. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

F. Field Coating of Vinyl Siding Methods and Procedures:
   1. Manufacturer Guarantee: Submit letter from Manufacturer with acceptable product and application methods for coatings used on vinyl siding systems.
   2. Quality Assurance Plan: Submit methods and procedure plan for protection of adjacent environmental items, equipment, vehicles, adjacent structures, etc.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information.
   1. Product name, and type (description).
   2. Application and use instructions.
   3. Surface preparation.
   4. VOC content.
   5. Environmental handling.
   6. Batch date.
   7. Color number.

B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

C. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.

1.5 EXTRA MATERIALS

A. Furnish Owner with any unused materials. Properly seal canisters and label with finish and finish location for proper Owner storage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements, available manufactures offering products that may incorporated into the Work include the following:
   1. BEHR Process Corporation.
   2. Benjamin Moore & Co.
   3. Dunn-Edwards Corporation.
   4. The Sherwin-Williams Company.

B. Substitutions: or equal.

C. Requests for substitutions will be considered in accordance with Section 01 60 00.
   1. When submitting request for substitution, provide complete product data and MSDS sheet for each substitute product.

2.2 PAINT MATERIALS - GENERAL

A. Paints and Coatings.
   1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before

application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

2. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color. Or follow manufactures product instructions for optimal color conformance.

B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.

D. Application to Materials: Apply paints and coatings manufacturer's specifications for application to Wood, Drywall, Plaster, Metals, etc.

E. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.

F. Color: Refer to existing finishes or as selected by Owner.

2.3 INTERIOR PAINT SYSTEMS

A. Interior Painting:
1. Finish: Gloss, Semi-Gloss, Satin or Flat to match existing. If matching is not required, finish per Manufacturer or industry requirements for interior applications.
2. Coats: Apply quantity of coats to match existing. If matching is not required, finish per Manufacturer or industry requirements for interior applications.

B. Interior Primers/Sealers:
1. Interior primers/sealers to be latex or as per Manufacturer/Industry requirements for interior applications.

C. Interior Wood Sealers:
1. Wood primers to be latex or as per Manufacturer/Industry requirements for interior applications.

2.4 EXTERIOR PAINT SYSTEMS

A. Exterior Painting:
1. Finish: Gloss, Semi-Gloss, Satin or flat to match existing. If matching is not required, finish per Manufacturer or industry requirements for exterior applications.
2. Coats: Apply quantity of coats to match existing. If matching is not required, finish per Manufacturer or industry requirements for exterior applications.

B. Exterior Primers/Sealers:
1. Water based primers/sealers to be alkali resistant and/or bonding or as per Manufacturer or industry requirements for exterior applications.

C. Exterior Wood Sealers:
1. Wood primers to be alkyd and/or latex or as per Manufacturer or industry requirements for exterior applications.

D. Vinyl Siding:
   1. Primers and finishes as per manufacturer or industry requirements for vinyl application.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared; notify Architect of unsatisfactory conditions before proceeding. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

B. Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.
   1. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.2 SURFACE PREPARATION

A. General: Surfaces shall be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.
   1. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry a minimum of 48 hours before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.
   2. Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
   3. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50 degrees F (10 degrees C), unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50 degrees F (10 degrees F) or higher to use low temperature products.

B. Drywall - Interior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting.

C. Plaster: Must be allowed to dry thoroughly for at least 30 days before painting, unless the products are designed to be used in high pH environments. Room must be ventilated while drying; in cold, damp weather, rooms must be heated. Damaged areas must be repaired with an appropriate patching material. Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of water. Repeat until the surface is hard, rinse with clear water and allow to dry.

D. Vinyl Siding, Architectural Plastics, EIFS and Fiberglass: Clean vinyl siding thoroughly by

scrubbing with a warm, soapy water solution. Rinse thoroughly. Do not paint vinyl siding with any color darker than the original color unless approved by Manufacturer.

E. Wood: Must be clean and dry. Prime and paint as soon as possible. Knots and pitch streaks must be scraped, sanded, and spot primed before a full priming coat is applied. Patch all nail holes and imperfections with a wood filler or putty and sand smooth.

3.3 INSTALLATION

A. Apply all coatings and materials with the manufacturer’s specifications in mind. Mix and thin coatings according to manufacturer's recommendations.

B. Apply primer to all materials receiving a finish coat of paint.

C. Do not apply to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.

D. Apply coatings using methods recommended by manufacturer and uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.

E. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness. Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.

F. Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

G. Comply with the manufacturer's instructions, specified industry standards and recommendations for cleaning, traffic, furnishings installation and equipment installation.

END OF SECTION