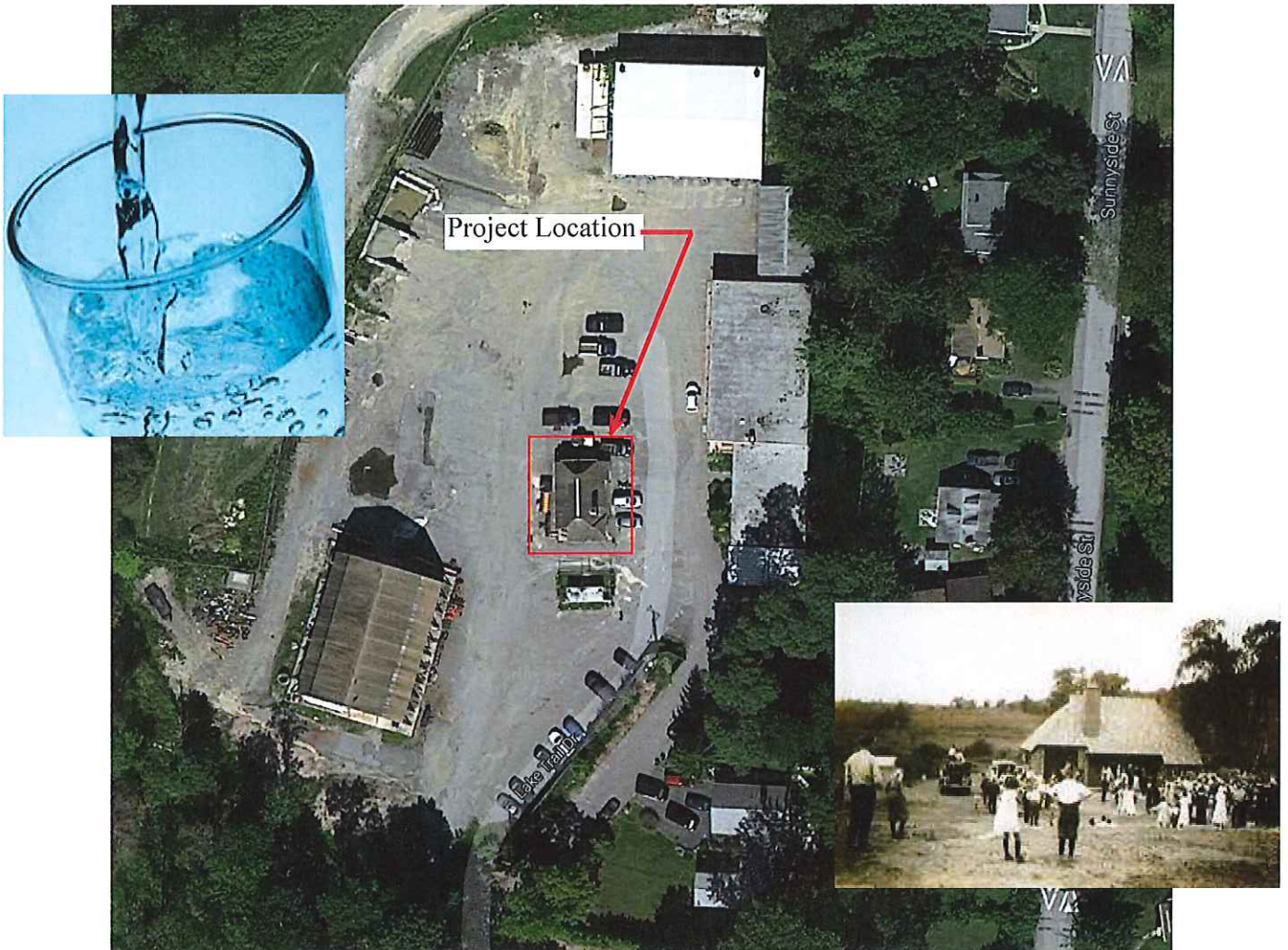


ROOF ABATEMENT AND ROOF REPLACEMENT
TO THE
OLD PUMPHOUSE BUILDING
YORKTOWN CONSOLIDATED
WATER DISTRICT

1080 SPILLWAY ROAD
SHRUB OAK, NY 10588



PREPARED BY
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October 21, 2014

TOWN OF YORKTOWN
WESTCHESTER COUNTY, NY

REQUEST FOR BIDS:

Asbestos Abatement and Roof Replacement to the Old Pumphouse Roof

PROJECT LOCATION:

1080 Spillway Road Shrub Oak, NY 10588.

All references to "OWNER" herein shall mean the Town of Yorktown for the purposes of this contract.

Michael J. Grace
Supervisor

David Rambo
Water Superintendent

July 29, 2015

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Request for Bids:

Asbestos Abatement and Roof Replacement to the Old Pumphouse Roof

NOTICE TO BIDDERS

Sealed proposals will be received by the Town Clerk of the Town of Yorktown, Westchester County, New York, at the Town Hall, Attn: Town Clerk Alice Roker, 363 Underhill Avenue, Yorktown Heights, New York, 10598, until 10:00 A.M., on September 30, 2015, for the Asbestos Abatement and Roof Replacement to the Old Pumphouse Roof bid at the Town's Water Department office located on 1080 Spillway Road Shrub Oak, NY 10588.

The bidder assumes the risk of any delay in the mail or in the handling of mail by the employees of the Town of Yorktown. Whether sent by mail or means of personal delivery, the bidder assumes the responsibility for having bids in on the time and the location specified above.

Specifications and standard proposals for the work proposed may be obtained at the office of the Town Clerk at Town Hall.

A pre-bid site visit will take place on September 15, 2015 at 9:00 AM at the Water Department Office.

The Town of Yorktown reserves the right to waive any informality in the bids, to reject any or all bids and reserves the right to accept that bid which it deems most favorable to the interests of the Town of Yorktown. No bidder may withdraw his bid within thirty (30) days after the actual date of the opening thereof.

BID PROPOSAL FORM

Asbestos Abatement and Roof Replacement to the Old Pumphouse Roof

Remove existing roof and associated accessories from the old pumphouse located at 1180 Spillway Road, abate and dispose of asbestos (using subcontractor approved by Town), supply and install new roof and associated accessories as described more fully in the Plans and Specifications.

Bid Price: \$ _____

REQUIRED INFORMATION:

ASBESTOS ABATEMENT SUBCONTRACTOR:

Name of sub: _____

Address of sub: _____

NYS Asbestos License No. _____

Bidder will be selected based on lowest bid.

All of Bidder's costs must be factored into and incorporated in the bid price above. If the Successful Bidder must rent special equipment to perform the work, the Successful Bidder shall not bill additional fees for such rental costs.

Bidders must factor in the cost of compliance with the prevailing wage law (NY Labor Law).

Under General Municipal Law § 103, the Town may award a bid based on either Lowest Responsible Bid or Best Value.

CERTIFICATIONS OF BIDDER

The undersigned, on behalf of the bidder, certifies, under penalties of perjury, that:

- (1) The person whose signature appears below is legally empowered to bind the company in whose name the bid is entered;
- (2) Bidder has read the complete Request for Bid and understands all provisions;
- (3) If accepted by the Town, this bid is guaranteed as written and will become part of the contract;
- (4) By submitting its bid, Bidder agrees to all the terms of this Bid document;

- (5) Mistakes in writing of the submitted bid will be the Bidder's responsibility;
- (6) By submitting a bid, Bidder/Contractor (or any approved assignee) certifies that it is not on the "Entities Determined To Be Non-Responsive Bidders/Offerers Pursuant to the New York State Iran Disinvestment Act of 2012" list ("Prohibited Entities List") posted on the New York Office of General Services, and further certifies that it will not utilize any subcontractor that is identified on the Prohibited Entities List; and
- (7) Bidder represents and warrants that it is legally authorized to do business in the State of New York.

BIDDER Company Name: _____

By: _____

Print Name _____

Title _____

ADDRESS FOR NOTICES:

BIDDER _____	
Contact:	_____
Street Address _____	
State _____	Zip _____
Phone: _____	
Fax: _____	
Email: _____ @ _____	

NON-COLLUSIVE BIDDING CERTIFICATION

Made pursuant to Section 103-d of the General Municipal Law of the State of New York.

By submission of this bid, Bidder and each person signing on behalf of Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his or her knowledge and belief:

- 1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by Bidder and will not knowingly be disclosed by Bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where (1) (2) and (3) above, have not been complied with; provided, however, that if in any case Bidder cannot make the foregoing certification, Bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

Dated: _____

Bidder: _____
(Legal name of person, firm or corporation)

By: _____
(Signature)

(Please Print Name)

(Title)

State of New York)
County of _____)ss.:

On the ___ day of _____ in the year 200__ before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(Notary Public)

- END OF BID PROPOSAL FORM -

INSTRUCTIONS TO BIDDERS

1. Scope of Work

The Work, as more fully described in the Plans and Specifications, consists of removal and replacement of an approximately 1,900 s.f. roof of the Town-owned Water Department building known as the "Old Pumphouse." The existing roof contains asbestos. The Work includes using a licensed and certified in-house crew or a licensed and certified subcontractor to abate and dispose of asbestos-laden materials. The Work includes installation of a new roof, repairs to fascia and soffit, installation of new gutters and leaders, aluminum fascia and soffit trim, and furnishing of specified warranties.

Bidders are referred to the roof plan diagram, field photographs, and technical specifications that are included in this Bid Document for additional descriptive information and specifications.

The Work shall be completed within 45 calendar days from the date the Town provides the successful bidder with written notice to commence work.

2. Statement of Non-Collusion

Bidder shall certify that it has complied with all of the requirements stated in the non-collusive bidding certificate by signing the form included in this bid document. Failure by Bidder to complete and sign the non-collusive bidding certificate will constitute grounds for rejection of the bid proposal by Town.

3. Prevailing Wage Requirements of New York Labor Law

This Bid is subject to the New York Labor Law provisions requiring the payment of prevailing wage. The successful bidder shall furnish to the Town, prior to the making up of any partial or final estimate, copies of Bidder's own and Bidder's Subcontractor's payrolls for each and every preceding payroll period. These copies shall contain full information, including but not limited to the number of hours worked, rate, classification and total sum paid each employee charged to or working on the job, and shall be certified true copies. No partial or final payments will be processed by the Town without the submission of certified payrolls.

See Wage Schedule annexed to and a made part of this Bid Document.

4. Bid Proposal

The proposal must be made on the Bid Proposal Form attached hereto. All blank spaces in the Bidder's proposal must be filled in and no change shall be made in the phraseology or in the items contained therein. A bid proposal that omits a price per unit of measurement for any of the items for which a quantity is given may be held to be informal and may be rejected.

A proposal that contains omissions, alterations, or additional items, or that is illegible, conditional, incomplete or irregular in any way may be rejected as informal.

5. Investigation of Conditions of Work Prior to Bidding

Each bidder must inform itself fully of the conditions relating to the work to be performed before submitting a bid. Failure to do so will not relieve the successful bidder of the obligation to furnish all material and labor necessary to carry out the provisions of the Contract Documents and to complete the contemplated work for the consideration set forth in his bid.

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, Specifications, and all Bid Documents, including any addenda.

6. Addenda and Interpretations

No interpretation of the meaning of the bid document will be made to any prospective or actual bidder orally prior to bid opening. Any request for such interpretation shall be made not later than five (5) working days prior to the date fixed for the opening of bids and must be made in writing, addressed to:

Alice Roker, Town Clerk
Town of Yorktown
363 Underhill Ave.
Yorktown Heights, NY 10598

Notice of any and all such interpretations and any supplemental instructions will be served upon all bidders of record by the Town Clerk in the form of addenda to the bid specifications. All addenda so issued shall become a part of the bid document. Interpretation of the bid specification shall be decided by Town Clerk after consultation with the Water Department. The Town Clerk's decision shall be final and binding on all parties.

7. Insurance Requirements

Successful bidder must supply insurance certificates meeting the requirements set forth with specificity elsewhere in this Bid Document within the time required by this Bid Document; if not specified elsewhere herein, successful bidder shall supply such insurance certificates within five (5) business days.

The DB-120.1 form and C-105.2 form, or Workers Compensation Board exemption form, are required with the ACORD.

8. Contractors Subcontract and Material Lists

Subsequent to the opening of bids and before an award is made (1) the apparent lowest bidder shall furnish to the Town Clerk the name of the subcontractor the bidder intends to use to perform a portion not to exceed 50% of the Work, which shall be subject to approval of the Town; and (2) if the specifications permit or call for the Contractor to provide a choice of

different materials or manufactured products, the apparent lowest bidder shall state the choice the bidder has made in making up its bid, with the understanding that all choices must subsequently be approved by the Town after award of the contract to the successful bidder. If a bidder wishes to propose utilization of materials or manufactured products other than those specified, bidder shall so state in the Bid Proposal Form, and shall upon request submit the manufacturer's information and any other information reasonably required by the Town, including samples.

9. Late Bids

Bid proposals that arrive after the time stated for the opening of bids shall not be accepted, and will be returned to Bidder unopened. Whether sent by mail or by means of personal delivery, Bidder assumes responsibility for having its bid delivered on time at the place specified in the legal notice.

10. Bid Opening

Sealed Bids will be publicly opened on the date, day and time specified in the notice included in the bid documents. Bids may be read aloud to those persons present when practicable. Any Bidder may request to review the bid proposals submitted by arranging a mutually convenient time when bids may be reviewed with the Town Clerk. If Town Hall is closed for business at the time scheduled for bid opening, for whatever reason, sealed bids will be accepted and opened on the next scheduled and open business day, at the originally scheduled time.

11. Acceptance or Rejection

The Town reserves the sole right to waive any informality, to reject any or all bids, and Town's decision shall be final and binding on all parties.

12. Award

Awards will be made to the responsible bidder submitting the lowest bid that fully complies with all the specifications stated in the bid document.

Town reserves the right to make awards within sixty (60) days after the date of the bid opening, during which period bids may not be withdrawn, unless Bidder expressly states in its bid that acceptance thereof must be made within a shorter specified time.

Town reserves the right to reject all bids and to purchase any or all items on contracts awarded by agencies or departments of the State of New York or of the County of Westchester, if such items can be obtained on substantially the same terms, conditions, specifications, and at a lower price.

13. Notice of Award

If the bid is accepted by Town, Contractor will be notified and will be required to submit insurance certificates meeting the requirements of the Contract and a completed W-9 form. Upon the Town's receipt of the insurance certificates and the Town's determination that the

insurance certificates meet the requirements of the Contract, the Contract will be signed on behalf of Town and a fully executed copy will be furnished to Bidder. Work shall not commence until these documents have been received and accepted by the Town and the Contract has been signed on behalf of the Town.

14. Insurance Requirements

Prior to commencement of any work under this Contract and until completion and final acceptance of the work, the Contractor shall, at its sole expense, maintain the following insurance on its own behalf, and furnish to the Town certificates of insurance evidencing same and reflecting the effective date of such coverage as follows:

1) Commercial General Liability Policy, with limits of no less than \$1,000,000 per occurrence and \$2,000,000 in aggregate for Bodily Injury and Property Damage, which shall not exclude coverage for:

- A. Products/Completed Operations;
- B. Independent Contractors;
- C. Cross Liability (Commercial General Liability and Business Automobile Liability policies only).

Self-insured retentions or deductibles in excess of \$25,000 per occurrence or claim shall be stated on the certificate of insurance or policy endorsement provided as proof of insurance. Town reserves the right to require proof of financial security on larger self-insured retentions or deductibles.

2) Automobile Liability: hired and non-owned liability coverage along with specific coverage for any owned or leased vehicles used at job site in the amount of \$1,000,000 per occurrence for Bodily Injury and/or Property Damage.

3) Umbrella Liability, with limits of no less than \$1,000,000 per occurrence and in aggregate on a follow-form or better basis over underlying General, Automobile, Employer's Liability and, if applicable, Professional Liability.

4) Worker's Compensation and Employers Liability Policy, New York statutory coverage. **C-105.2** form or CE-200 exemption form is required. SI-12 form is required if self-insured.

5) Disability Insurance: statutory coverage. **DB-120.1** form, or, if exempt, a CE-200 form. DB-155 is required if self-insured.

6) Environmental Impairment Liability: If the contract requires handling, abating, or transporting or migrating hazardous or toxic substances of any type, including but not limited to fuel oil, with limits no less than \$5,000,000 per occurrence and in aggregate for Bodily Injury, Property Damage and Clean Up and Removal.

A. The Town of Yorktown and its assigns, officers, employees, representatives and agents shall be named as an "Additional Insured" on the policy and the Certificate of Insurance

shall show this applies to the General Liability coverage on the certificate.

B. Cancellation of insurance or failure to renew insurance, if such occurs prior to the commencement of work or during the performance of work under this contract, shall constitute a material breach of this contract if not cured as described in paragraph D below. If Contractor is notified by its insurer that Contractor's general liability policy has been cancelled or will be cancelled any time within the next thirty (30) days for any reason including but not limited to nonpayment of premiums, Contractor shall immediately all cease work under this Contract, and shall give the Town of Yorktown same day or next business day written notice of such cancellation or threatened cancellation by personal delivery of such notice to the Town Clerk. A copy of such written notice shall also be sent simultaneously to the Town Attorney by personal delivery, email or facsimile transmission. Failure to provide such notice as provided herein shall constitute a material breach of the contract and in such event the Town of Yorktown may in its sole discretion withhold any payment otherwise due under the contract. The Town of Yorktown reserves the right, as a condition of final payment, to require Contractor to provide proof that Contractor maintained the required insurance throughout the performance of the work to be performed under this Contract.

C. Any policy that lapses, expires or is cancelled during the term of work shall be renewed, and proof of such renewal shall be sent by Contractor and received by the Town of Yorktown no less than ten (10) days prior to lapse, expiration or cancellation of the original policy.

D. The Town of Yorktown reserves the right to request copies of actual policies and endorsements to verify coverage.

E. The term "Contractor" as used in this section (pertaining to insurance) shall mean and include Subcontractors of every tier.

F. Each insurance policy shall be written on a primary and non-contributing coverage basis, including any self-insured retentions.

G. Tools and equipment: Contractor is responsible for insuring the value of Contractor's own tools, equipment, and materials brought, stored or operated at the job site. The Town of Yorktown is not responsible if any of these items is lost, stolen or destroyed.

H. To the extent permitted by New York law, the Contractor waives all rights of subrogation or similar rights against Town of Yorktown, assigns, officers, employees, representatives and agents.

I. The cost of furnishing the above insurance shall be borne by the Contractor; there will be no direct payment for this work. Cost will be deemed to have been included in the price bid or proposed for all scheduled items.

J. All carriers listed in the certificates of insurance shall be A.M. Best Rated A VII or better and be licensed in the State of New York.

K. Each policy of insurance shall contain clauses to the effect that such insurance (except

professional liability insurance, if any) shall be primary without right of contribution of any other insurance carried by or on behalf of the Town with respect to the Town's interests and that such insurance shall not be cancelled, materially changed, or not renewed for any reason, including non-payment of premium, without ten (10) days prior written notice to the Town. The Town shall have the option, in its sole discretion, to pay any necessary premiums and charge the cost back to Contractor.

L. Notwithstanding anything to the contrary in this Contract, Contractor irrevocably waives all claims against the Town for all losses, damages, claims, or expenses resulting from risks that are commercially insurable, but Contractor's provision of insurance coverage shall not in any way limit Contractor's liability under this Contract.

M. Failure to provide insurance, lack of insurance or inadequate limits of insurance does not limit in any way Contractor's obligations to reimburse injured parties.

N. Any accident occurring on Town property shall be reported to the office of the Town Supervisor as soon as possible and not later than twenty-four (24) hours from the time of such accident. A detailed written report must be submitted to the Town of Yorktown as soon thereafter as possible and not later than three (3) days after the date of such accident.

15. Date of Delivery/Time of Performance

Work shall be completed within 45 days after Notice of Commencement from Owner.

A. Wages to be paid and Supplements to be provided

Each laborer, workman or mechanic employed by the Contractor, his subcontractor or other persons about or upon this contract shall be paid the wages herein provided and shall be provided the supplements as required by Article 8, Section 220 and 220-d of the Labor Law.

The wages to be paid for a legal day's work, as defined in Article 8, Section 220 of the Labor Law, to laborers, workmen or mechanics upon such public works, and the supplements to be provided to such laborers, workmen and mechanics shall be not less than the amount determined from the schedule of hourly wages and supplements hereto annexed, which schedule is hereby declared to form a part of the specifications for the work.

The Contractor is responsible for ensuring that any Subcontractor complies with the prevailing wage law. Contractor will be required to submit subcontractor's certified payrolls.

Classifications not appearing on the rate sheet can be used only with the consent of the Town and then the rate to be paid will be given by the Town to Contractor after consulting with the State Department of Labor.

B. Records to be kept on site

The Contractor and Subcontractors shall keep the following informative records on the site of this project:

- (a) Record of hours worked by each workman, laborer and mechanic on each day.
- (b) Record of days worked each week by each workman, laborer and mechanic.
- (c) Schedule of occupation or occupations at which each workman, laborer and mechanic on the project is employed during each work day and week.
- (d) Schedule of hourly wage rates paid to each workman, laborer and mechanic for each occupation.

16. Disputed Work

The Contractor's attention is specifically directed to Paragraph GC 24 of the General Clauses entitled "Disputed Work - Notice of Claims for Damages." No claim by the Contractor for damages due to disputed work shall be considered by the Owner, unless the procedures outlined in Paragraph GC 24 have been followed in all details by the Contractor.

17. Time of Starting

Time being of the essence, all bidders shall take note that the speedy completion of the work called for under this contract is of the greatest importance. The Contractor shall commence this work on a mutually agreed date between the Contractor and The Owner.

18. Risks and Indemnifications Assumed by the Contractor

The Contractor shall be the insurer of the Town, its officers, agents and employees, against the following distinct and several risks, whether they arise from acts or omissions of the Contractor, of the Town, or of third persons, excepting only risks which result solely from affirmative, willful acts of the Town, subsequent to the submission of his proposal:

- (a) The risk of loss or damage to the work prior to final acceptance. In the event of such loss or damage, the Contractor shall forthwith repair, replace and make good the work without cost to the Town.
- (b) The risk of injuries or damages, direct or consequential, to the Town, its officers, agents and employees, and to its or their property, arising out of or in connection with the performance of the work, whether sustained before or after final acceptance. The Contractor shall indemnify the Town, its officers, agents and employees for all such injuries and damages and for all loss suffered by reason thereof.
- (c) The risk of claims and demands, just or unjust, by third persons against the Town, its officers, agents and employees, arising or alleged to arise out of the performance of the work as well as for the use of patents, patented articles, equipment or process, or a combination of any and all of the aforesaid, whether made before or after final payment. The present undertaking of the Contractor shall be construed to extend to and to include claims and demands made or threatened to be made by third persons against the Town or any of its employees or agents. The Contractor shall indemnify the Town, its officers, agents and employees, against and from all such claims and demands and from all loss and expense incurred by it and them in the defense, settlement or satisfaction thereof.

Neither the acceptance of the completed work nor payment therefor shall release the Contractor from his obligation under this paragraph, provided, however, that the risks and indemnification assumed by the Contractor shall not inure directly or indirectly to the benefit of any insurer under policies of insurance issued in compliance with this contract.

19. Damages

Bidder shall be fully responsible for shipping and delivery of bid items in an undamaged condition. Bidder shall be fully responsible for performance of work in a satisfactory manner with satisfactory results in the discretion of the Town. With respect to bid items Town will not consider the carrier responsible for damaged or delayed deliveries. Any bid item damaged or broken when delivered to Town shall be replaced immediately by Bidder. With respect to performance of work, Contractor shall correct any deficiencies immediately. Town shall notify Bidder of damaged material or defective or unsatisfactory work in writing within ten (10) business days from the date of delivery or date of performance of work.

20. Guarantee of Equipment and Services

By submitting its bid, Bidder is deemed to warrant and guarantee as follows:

- a) Except as noted in the Summary of Bid and the Specifications, all equipment furnished and work performed in this bid proposal are guaranteed against defects in workmanship and/or material for a period of one (1) year from the date of delivery to Town, or one (1) year from the date of acceptance of work by Town, whichever date is later.
- b) All services rendered and work performed under this bid proposal shall be rendered and performed in a workmanlike manner in accordance with the general standards of the trade.
- c) Except as noted in the Summary of Bid and the Specifications, any equipment furnished is standard, new, latest model of the regular stock product, as required by the specifications, with parts regularly used for the type of equipment offered.
- d) No attachment or part will be substituted or applied contrary to manufacturer's recommended and standard practice. All regularly manufactured stock electrical items must bear the label of the Underwriters Laboratories, Inc. It is the responsibility of Bidder to advise Town in the bid proposal if electrical equipment to be furnished hereunder does not have a U.L. label. Any equipment provided or services rendered under the bid proposal which is or becomes defective during the guarantee period shall be replaced or redone by Bidder, free of charge. All replacements shall carry the same guarantee as the original equipment or service – one (1) year from the date of delivery or acceptance of the replacement. Bidder shall make any such replacement promptly upon receiving written notice from Town.

21. Cover Clause

If Bidder fails to deliver or perform as ordered, or within the time specified, or within reasonable time as interpreted by Town, or fails to make replacement of rejected or defective articles or services, whether so requested immediately or as directed by Town, Town may purchase goods

or services from other sources to take the place of the goods or services rejected found defective or not delivered. Town reserves the right to authorize immediate purchase (within 24 hours) from other sources against rejections on any contract when necessary. On all such purchases Bidder agrees to reimburse Town promptly for excess costs occasioned by such purchases. Should the cost be less, Bidder shall have no claim to the difference. Such purchases may be deducted from the outstanding invoices or claims, or charged back against future invoices.

22. Assignment Prohibited

Bidder shall not assign, transfer, convey, sublet, subcontract or otherwise dispose of the contract or its right, title, or interest therein, except as provided for elsewhere in the Bid Documents, or its power to execute such contract, to any other person, or entity without the prior written consent of Town.

CONTRACT

THIS AGREEMENT made the _____ day of _____, 2015, by and between the TOWN OF YORKTOWN, a municipal corporation of the State of New York, having offices 363 Underhill Avenue, Yorktown Heights, New York 10598 (hereinafter referred to as the "Town"), and _____ (hereinafter referred to as the "Contractor")

WHEREAS, the Town has received a proposal from the Contractor to perform certain work, namely **Asbestos Abatement and Roof Replacement to the Old Pumphouse Roof**, as further detailed in the bid documents. Bid documents consist of sections contained in this bid document and are expressly incorporated by reference into this Agreement; and

WHEREAS, the Town Clerk of the Town, by virtue of the power and authority in the Town Clerk vested did advertise for proposals and bids for the work described in the Bid documents, to furnish all labor, tools, implements and materials that may be requisite and necessary to the execution and completion of the work according to the plans, specifications, profiles and other drawings relating to such work, if applicable, as approved by the Town Board of the Town, and now on file in the office of the Town Clerk, and

WHEREAS, the Contractor did bid for said work in the manner and form as required by said plans and specifications and being the lowest responsible bidder therefor, was duly awarded the contract for such work at unit prices named in the Bid Proposal form by a resolution of the Town Board of the Town;

NOW THEREFORE, the Town and Contractor, by and for the consideration of the prices so named for the various items of work to be paid for as hereinafter provided, does covenant and agree as follows:

1. Contractor shall provide, furnish and perform all of the work specified in the Bid Documents, including all labor, materials, tools and equipment to satisfactorily complete the work in accordance with this Agreement. All work shall be performed by competent and skilled workers and in accordance with good trade practices and all applicable codes. All materials and articles furnished shall be new unless otherwise specified in the Bid Specifications, and shall be of appropriate grade for the particular purpose. The Contractor warrants that it is experienced in, is capable of, and is fully familiar with the work to be performed and the work site.

2. For the performance of all of the work in accordance with the provisions of this Agreement, the Town will pay the Contractor the amount set forth in Contractor's Bid Proposal Form, which Form is expressly incorporated herein by reference. Payment will be made by the Town to the Contractor in accordance with the specifications set forth in the Bid Documents, after submission by Contractor of an invoice or voucher, unless a different payment schedule is required by Section 106-b of the General Municipal Law. Payment shall be made after the submission of a properly itemized claim by the Contractor to the Town, including certified payroll. All claims submitted by the Contractor for payment shall be subject to audit and approval by the Town.

3. The Contractor shall promptly commence work after the full execution of this Agreement, upon the written directions of the Town. All of the work shall be completed as soon as practicable thereafter, but, in no event, later than as required in the Bid Specifications. The time for completion of the work may be extended, in the discretion of the Town, upon the request of the Contractor, for good cause shown, with the grant of any extension by the Town to be in writing. The Contractor will meet with representatives of the Town, as the Town may, from time to time, direct. The Contractor shall promptly inform the Town in writing of any cause for delay in the performance of the Contractor's obligations under this Agreement.

4. The Contractor shall prosecute the work without undue interference with the operations of the Town or the comfort, repose, health, safety and welfare of the inhabitants of the Town. Unless otherwise authorized by the Town in writing, the Contractor's use or operation of construction equipment in performing the work shall be limited to the hours between **7:00 a.m.** and **3:00 p.m.** All work shall be performed during regular business days and hours of operation of the Town, except for responses to emergency calls, and unless otherwise directed by the Town.

5. The Contractor shall be responsible for the proper care and protection of the work and for all materials and articles delivered to the site where the work will be performed, until completion and final acceptance of the work by the Town. The contractor shall exercise proper precautions and safety measures in performing the work, which precautions and safety measures shall be in accordance with all applicable laws, rules and regulations. The contractor shall be responsible for the protection of persons and/or property, and shall be responsible for all injuries and/or damages to all persons and/or property, either on or off the site, which may occur in connection with the prosecution of the work hereunder. The Contractor shall exercise such additional safety measures as the Town may determine to be reasonably necessary, in the Town's discretion. The Contractor shall procure and pay for all permits and licenses necessary for the performance of the work hereunder.

6. The Contractor shall keep the site of the work free from unnecessary accumulations of waste materials. Upon the completion of all of the work, the Contractor shall remove all of its tools, scaffolding, equipment and surplus materials, as well as all rubbish and waste resulting from the work. Upon the completion of the work, the site of the work shall be left "broom clean" or its equivalent, to the reasonable satisfaction of the Town. The Town will not be responsible for the Contractor's tools and equipment, including any loss, theft or damage thereto.

8. The Contractor shall protect, defend, indemnify and hold the Town of Yorktown, its boards, officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof; without limiting the generality of the foregoing, any and all such claims, etc., relating to personal injury, death, damage to property, defects in materials or workmanship, actual or alleged infringement of any patent, trademark, copyright (or application for any thereof or of any other tangible or intangible personal or property right, or any actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, decree of any court, shall be included in the

indemnity hereunder. The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at Contractor's sole expense and agreed to bear all other costs and expenses related thereto, even if it (claims, etc.), is groundless, false or fraudulent. In any case in which such indemnification would violate Section 5-322.1 of the New York General Obligations Law, or any other applicable legal prohibition, the foregoing provisions concerning indemnification shall not be construed to indemnify the Town for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the town, or its employees. This paragraph shall survive any termination or completion of performance of this Agreement.

9. The Contractor shall, at its own expense, comply with all the provisions of all applicable federal, State, County, and municipal laws, rules, regulations and requirements applicable to the Contractor as an employer of labor, the performance of the work, or otherwise.

10. The Town may terminate this Agreement for cause upon five (5) days' notice in writing in the event of a material breach of this Agreement by the Contractor, which shall include, but not be limited to any of the following: (1) failure by the Contractor to provide properly skilled workers or proper materials or to complete the work in accordance with the applicable schedule; (b) failure by the Contractor to pay for materials or labor in accordance with applicable agreements or requirements; (c) non-compliance with laws, rules and regulations or directions of the Town applicable to the performance of the work; (d) failure by the Contractor to maintain any required insurance; (e) failure to defend and indemnify the Town in accordance with this Agreement; or (f) failure by the Contractor to cure any breach of this Agreement not listed above within 20 days after written notice thereof from the town. Without limiting any other rights or remedies of the Town, in the event of termination for cause, the Town may take possession of the site and all tools, equipment, materials, and machinery thereon, and complete the work by such means and methods as it may deem appropriate.

12. All clauses required by law to be inserted in this Agreement shall be deemed to have been inserted herein. The Contractor shall comply and ensure compliance with the following to the extent they are applicable to the work hereunder: (a) minimum wages and supplements for laborers, workers and mechanics as provided in Labor Law Article 8 and 9; (b) non-discrimination and equal opportunity as provided in Labor Law Section 220-e; (c) prevention of dust hazard as provided in Labor Law Section 222-a; (d) prohibition from participating in certain international boycotts as provided in Labor Law Section 220-f; (e) eight-hour maximum workday and five day maximum workweek, except in an emergency, as provided by Labor Law Section 220.

13. The Contractor represents and warrants that it has not employed or retained any person, other than a bona fide full time salaried employee working solely for the Contractor to solicit or secure this Agreement, and that it has not paid for or agreed to pay any person (other than payments of fixed salary to a bona fide full-time, salaried employee working solely for the Contractor) any fee, commission, percentage, gift or other consideration, contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, without limiting any other rights or remedies to which the Town may be entitled, or any civil or criminal penalty to which any violator may be liable, the Town shall have the right, in its discretion, to terminate this Agreement without liability, and to deduct from the contract

price, or otherwise to recover, the full amount of such fee, commission, percentage, gift or consideration.

14. No waiver of any breach of this Agreement shall in any way affect any other term or condition of this Agreement or constitute a cause or excuse for a repetition of such or any other breach of this Agreement.

15. All plans and other like records compiled by the Contractor in completing the work under this Agreement shall become the property of the Town. The Contractor may retain copies of each such plan or record for its own use. If the work includes any article or equipment for which there is a manufacturer's warranty, the Contractor shall ensure that the Town will receive the benefit thereof by transfer or otherwise.

16. The Contractor shall not assign, transfer, convey, sublet, or otherwise dispose of this Agreement, or any right, title or interest therein, or the power to execute this Agreement, without the prior written consent of the Town. The Contractor shall not sub-contract any part of the work without the prior written consent of the Town unless otherwise provided for in the Bid Documents. In the event any part of the work is subcontracted, the Contractor shall remain responsible for its obligations hereunder and for the proper performance of the sub-contracted work in compliance with this Agreement.

17. The Contractor agrees to make no claim for damages for delay in the performance of this Agreement occasioned by any act or omission to act of the Town, or any of its boards, officers, employees or representatives, and agrees that any such claim shall be fully compensated for by an extension of time to complete performance of the work as provided herein.

18. Nothing in this Agreement, express or implied, is intended to confer upon any third party any right or remedy under or by virtue of this Agreement.

19. This Agreement shall constitute the entire Agreement between the parties regarding the subject matter hereof, shall supersede all prior understandings, whether oral or written, and shall not be amended or modified, except by a written document signed by both parties hereto stating the intent to amend or modify this Agreement.

20. This Agreement shall be construed and enforced in accordance with the Laws of the State of New York. Any action or proceeding commenced by the Contractor in relation to this Agreement or the work hereunder, in which the Town is joined as a party, shall be commenced in the Courts of the State of New York and venue shall be in Westchester County.

IN WITNESS WHEREOF, the Town and the Contractor have executed this Agreement on the day and year above first written.

TOWN OF YORKTOWN

CONTRACTOR

By: _____
Michael J. Grace, Supervisor

By: _____
(Authorized to sign as Contractor)

Date: _____

Date: _____

SIGN A, B, OR C BELOW, AS APPLICABLE

(A). **INDIVIDUAL CONTRACTOR'S ACKNOWLEDGMENT**

STATE OF NEW YORK)
COUNTY OF _____) SS.:

On this _____ day of _____, 20__ before me personally came _____ to me known and known to me to be the same person described in and who executed the within instrument and he duly acknowledged to me that he executed the same for the purpose herein mentioned.

Notary Public

(B). **PARTNERSHIP CONTRACTOR'S ACKNOWLEDGMENT**

STATE OF NEW YORK)
COUNTY OF _____) SS.:

On this _____ day of _____, 20__ before me personally came _____ to me personally known and known to me to be the member of the firm of _____ and the person described in, and who executed the within instrument on behalf of said firm, and he acknowledged to me that he executed the same in behalf of, and as the act of said firm for the purposes herein mentioned.

Notary Public

(C). **CORPORATION CONTRACTOR'S ACKNOWLEDGMENT**

STATE OF NEW YORK)
COUNTY OF _____) SS.:

On this _____ day of _____, 20__ before me personally came _____ personally known and known to me to be the _____ of _____ the corporation described in and which executed the within instrument, who being by me duly sworn, did depose and say, that he resides at _____ and that he is the _____ of said corporation and knows the corporate seal of the said corporation; that the seal affixed to the within instrument is such corporate seal and that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.

Notary Public

GENERAL CLAUSES

GC 1. Scope of Work – See also Roof Diagram and Drawing

1. Removal and abatement of existing roof shingles and associated underlayment,
2. Removal of existing gutters, leaders, and fascia and eave trim,
3. Removal of existing fascia and eave lumber,
4. Replacement of approximately 50 linear feet of damaged roof sheathing boards,
5. New wood backing for eaves and soffits and gutters,
6. New gutters and leaders and aluminum brake metal trim 'in-kind',
7. New asphalt roof shingles and associated underlayments, ice shield and drip edges.

GC 2. Pre-Project Administration

A pre-bid meeting will take place on September 15, 2015 at 9:00 AM at the Water Department Office. All bidders are strongly urged to attend this meeting. At that time we will walk through the building to show the existing roof and building layout. We will also answer any questions you have in respect to the work requested and building and tasks described herein these specifications. Any questions pertaining to the meeting please call (914) 245-6111 ext. 24.

All technical questions relating to the scope of work and/or procedures shall be sent in writing directly to David Tetro, at the office of Architect at dtdesign@verizon.net. Verbal answers are not binding on any party. Submit questions not less than five (5) business days before date set for receipt of Bids.

- Replies will be made by Addenda, which may be issued during Bidding period.
- Addenda will be sent to known General Contract Bidders only.
- Addenda become part of Contract Documents.

GC 3. Definitions

OWNER - The Town of Yorktown

TOWN - Party of the first part to the Contract as represented by the Supervisor of the Town of Yorktown.

ARCHITECT – David A. Tetro, Architect P.C., Yorktown Heights, NY.

INSPECTOR - The representative of the Owner (Town) or Architect specially designated to supervise the work for which these specifications are intended.

PLANS - All official drawings or reproductions of drawings pertaining to the work or to any structure connected therewith.

SPECIFICATIONS - The body of directions, requirements, etc., contained in this present volume, together with all documents of any description and agreements made (or to be made), pertaining to the methods (or manner) of performing the work, or to the quantities and quality. Specifications shall also include the Notice to Contractor, Instructions to Bidders, Proposal and Contract Agreement.

CONTRACT - Contract, in addition to the portion of this form or document, entitled "Agreement," shall mean and include the Advertisements, Information for Bidders, Contractor's Bid, Plans, Drawings, Maps, Specifications, Addenda, and such inclusions are and shall each and all be considered a binding part and parcel of this contract. Work shown on the plans and not mentioned in the specifications or vice versa shall be done the same as if shown by both, and in case of conflict, the Architect will determine which shall govern.

CONTRACTOR: Party of the second part to the Contract acting directly or through his agents, subcontractors, or employees, and who is responsible for all debts pertaining to and for the acceptable performance of the work for which he had contracted.

GC 4. Boundaries

The Town will provide land or rights-of-way for the work specified in this contract. Other Contractors, Employees or Concessionaires of the Town, may for all necessary purposes enter upon the work and premises used by the Contractor, and the Contractor shall give to other Contractors and Employees of the Town all reasonable facilities and assistance for the completion of adjoining work.

GC 5. Proper Method of Work and Proper Materials

The Architect shall have the power in general to direct the order and sequence of the work, which will be such as to permit the entire work under this contract to be begun and to proceed as rapidly as possible, and such as to bring the several parts of the work to a successful completion at about the same time.

If at any time before the commencement or during the progress of the work the materials and appliances used or to be used appear to the Architect as insufficient or improper for securing the quality of work required, or the required rate of progress, he may order the contractor to increase their efficiency or to improve their character, and the contractor shall conform to such order; but the failure of the Architect to demand any increase of such efficiency or improvement shall not release the contractor from his obligation to secure the quality of work or the rate of progress specified.

GC 6. Control of Area

Unloading of materials and parking of equipment shall be subject to the orders of the Town so far as he may find necessary for the protection and safety of the traveling public and the preservation of property.

GC 7. Permits, Fees, Etc.

All necessary permits from the municipal, county, state or other public authorities shall be secured at the cost and expense of the contractor. He shall also give all notices required by law, municipal ordinances, or the rules and regulations of the various municipal bureaus or departments and also as a part of the contract comply, without extra charge or compensation, with all State Laws and all Municipal Ordinances or Regulations that may be applicable to this work.

GC 8. Inspection

The contractor shall, at all times, provide convenient access and safe and proper facilities for the inspection of all parts of the work. No work, except such shop work as may be so permitted, shall be done except in the presence of the Architect or his assistant. No material of any kind shall be used upon the work until it has been inspected and accepted by the Architect. All materials rejected shall be immediately removed from the work and not again offered for inspection. Any materials or workmanship found at any time to be defective shall be remedied at once, regardless of previous inspection. The inspection and supervision of the work by the Architect is intended to aid the contractor in supplying labor and materials in accordance with the specifications, but such inspection shall not operate to release the contractor from any of his contract obligations.

GC 9. Stopping Work

The Architect may stop, by written order, any work or any part of the work under this contract if, in his opinion, the methods employed or conditions are such that unsatisfactory work might result. When work is so stopped, it shall not be resumed until the methods or conditions are revised to the satisfaction of the Architect, which must be signified in writing.

GC 10. Dimensions

Figured dimensions on the plans shall be given preference over scaled dimensions, but shall be checked by the contractor before starting construction. Any errors, omissions or discrepancies shall be brought to the attention of the Architect and his decision thereon shall be final.

GC 11. Protection of Existing Structures

The Contractor, at his expense, shall protect adjacent and other property or premises from damage of any kind during the progress of the Work and shall erect and maintain guards around his Work in such a way as to afford protection to the public. The Contractor shall be held responsible for improper, illegal, or negligent conduct of himself, his subcontractors, employees and agents in and about said Work or in the execution of the Work covered by this Contract.

He shall at all times have on the ground suitable and sufficient material and shall use the same as may be necessary or required for sustaining and supporting any and all such structures which are uncovered, undermined, weakened, endangered, threatened, or otherwise materially affected.

GC 12. Hours

Work shall be restricted to normal working hours (7:00 a.m. to 3:00 p.m.) except in cases of emergency; or unless prior written approval at least 48 hours in advance has been obtained from the Town. All costs associated with the inspection services provided by the Town will be borne solely by the Contractor at the employee's pay rate including time and one-half pay and double time pay.

GC 13. Sanitary Regulations

Necessary housing conveniences for the use of the workman for changing clothes and for the protection during inclement weather shall be provided. Toilet accommodations, properly secluded from observation shall also be erected and maintained by the contractor in such a manner and at such points as shall be approved, and their use shall be strictly enforced. The contractor shall obey and enforce such other sanitary regulations and orders and shall take such precautions against infectious diseases as may be deemed necessary.

GC 14. Representative Always Present

The Contractor in case of his absence from the work shall have competent representative or foreman present, who shall follow without delay, all instructions of the Architect of his representatives in the prosecution and completion of the work in conformity with this contract, and shall have full authority to supply labor and materials immediately.

GC 15. Work in Bad Weather

During freezing, storming or inclement weather, no work shall be done except such as can be done satisfactorily and in a manner to secure acceptable construction throughout.

GC 16. Protection of Work Until Completion

The Contractor is to be held responsible for the protection and maintenance of his work until the same has been accepted by the Town and shall make good any damage to the work caused by floods, storms, settlements, accidents, or acts of the negligence of himself of his employees or others so that the complete work, when turned over to the Town, will be in accordance with the Contract Documents.

GC 17. Removal of Temporary Structures and Cleaning Up

On or before the completion of the work, the Contractor shall, without any additional cost to the Town, tear down and remove all buildings and any other structures built by him for facilitating the carrying out of the work, and shall remove all rubbish of all kinds from the grounds which he has occupied, shall do any amount of additional trimming and grading and shall leave the entire work and premises clean, neat and in good condition. The Contractor shall provide, at no additional cost to the Town, suitable dumping places for said material in accordance with all regulations.

GC 18. Gross Loads Hauled on Highways

The Contractor shall at no time during the construction of the Contract, haul gross loads exceeding the legal limit prescribed by the Highway Laws over the highways/roads of access to, or the highways/roads included in this Contract.

GC 19. Repairs Caused by Damage Due to Contractor's Operations

In the event that damage is caused to structures, surfacing, pavement, underground utilities, shrubbery, trees, or to grassed areas throughout trucking operations, delivery of materials, the actual performance of the work by the Contractor, or other causes, the Contractor shall fully restore the same to their original condition at no addition cost to the Town.

GC 20. Property Damage

The Contractor shall not enter upon or make use of any private property along the line of work. In case of any damage done along the line of work in consequence of any act or omission on the part of the contractor in carrying out the contract the Contractor shall at his own expense restore the same or make repairs as are necessary.

In case of failure on the part of the contractor to restore or repair such property in a matter satisfactory to the Town, the Town may proceed with such restoration and/or repair. The expense of such restoration or repair shall be deducted from any monies, which are due or may become due the Contractor under this Contract. The Architect shall be the sole judge as to what constitutes failure to restore or repair as above stated, and service of notice by mail to the Contractor at the address stated in the proposal shall be sufficient.

GC 21. Claims for Damages

No claims of any description for damages or delays caused by the work of negligence of other contractors will be allowed. Allowance will be made, however, for extension of the time of completion, provided, in the opinion of the Architect, the deals of other contractors have actually delayed completion and further provided, that the Contractor has complied with those sections of the Contract Documents governing progress of the work, time of completion and extension of time.

GC 22. Equivalent Quality

Wherever in the Contract Documents an article, material, apparatus, product or process is specified by trade name or catalog of reference, or by the name of the patentee, manufacturer or dealer, it shall be the basis of the bid and shall be furnished under the contract unless otherwise permitted by the Architect.

Should the Contractor desire to substitute other articles, materials apparatus, products or process, he shall apply to the Architect in writing for approval of such substitution. With this application shall be furnished such information as required by the Architect to demonstrate that the article, material, apparatus, product or process he wishes to use is the equal of that specified in quality, finish, design, performance, efficiency, and durability and has been elsewhere demonstrated to be equally serviceable for the purpose for which it is intended. The Contractor shall asset forth the reasons for desiring to make the substitution and shall further state what difference, if any,

will be made in the Contract price for such substitution should it be accepted; it being the intent hereunder that any savings shall accrue to the benefit of the Town.

If the Architect shall reject any such desired substitution as not being the equal of that specifically named in the Contract Documents, or if he shall determine that the adjustment in price in favor of the Town is insufficient, the Contractor shall immediately proceed to furnish the designated article, material, apparatus, product of process. Where two or more articles, materials, apparatus, products of processes are listed as acceptable by reference to trade name or otherwise, the choice of these will be optional to the Contractor.

GC 23. Payment

No direct payment will be made for work done or materials furnished under the Information of Bidders, General Clauses and Special Clauses, except where expressly stated elsewhere, but compensation shall be deemed to be included in the Contract lump sum price for the total work and/or the Contract Unit Prices for the various items of work.

The Architect, may at any time, by written order require the performance of such extra worker changes in the work as he may find necessary or desirable. The amount of compensation to be paid to the Contractor for any extra work as ordered, shall be determined as follows:

By such applicable unit prices, if any, as set forth in the Contract.

GC 24. Disputed Work – Notice of Claims for Damages

If the Contractor is of the opinion that any work required, necessitated, or ordered violates the terms and provisions of this Contract, he must promptly, within five (5) calendar days after being directed to perform such work, notify the Architect, in writing, of his contentions with respect thereto and request a final determination thereon. If the Architect determines that the work in question is contract and not extra work, or that the order complained of is proper, he will direct the Contractor in writing to proceed and the Contractor shall promptly comply. In order, however, to preserve his right to claim compensation for such work, or damages resulting from such compliance, the Contractor must, within seven (7) calendar days after receiving notice of the Architect's determination and direction, notify the Architect, in writing, that the work is being performed or that the determination and direction is being complied with, under protest. Failure of the Contractor to so notify shall be deemed as a waiver of claim for extra compensation or damages therefore.

On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, or alleged to have been sustained, the Contractor shall file with the Architect an itemized statement setting forth in detail the hours, rates, amounts, etc. of the labor, material, equipment or other costs of such damages incurred during the preceding month, and unless such statement shall be made as thus required, his claim for compensation shall be forfeited and invalidated and he shall not be entitled to payment on account of any such damage.

In addition, to the foregoing statements, the Contractor shall, upon notice from the Town, produce for examination by the duly authorized representative of the Town, all his books of accounts, bills, invoices, payrolls, subcontracts, time books and cancelled checks, showing all of his acts and transactions in connection with or relating to or arising by reason of this Contract,

and submit himself, his agents, and employees for examination under oath by any duly appointed representative designated by the Town to investigate the claims made against the Town. Unless the aforesaid statements shall be made and filed within the time aforesaid and the aforesaid records submitted for examination the Contractor, his agents and employees submit themselves for examination as aforesaid, the Town shall be released from all claims arising under, relating to or by reason of this Contract, except for the sums certified by the Architect to be due under the provisions of this Contract. It is further stipulated and agreed that no person has power to waive any of the foregoing provisions, and that in any action against the Town to receive any sum in excess of the sums verified by the Architect to be due under or by reason of this Contract, the Contractor must allege in his complaint and prove, at the trial, compliance with the provisions of this article.

Before final acceptance of the work by the Town, all matters of dispute must be adjusted to the mutual satisfaction of the parties. Determinations and decisions in case any questions shall arise shall constitute a condition precedent to the right of the Contractor to receive the money, until the matter in question has been adjusted.

GC 25. Subcontracting

Bidder shall supply the name of the asbestos abatement subcontractor on the bid proposal form with the license number of said subcontractor.

Except as otherwise provided in the above paragraph, as soon as practicable after execution of the Contract, the successful bidder shall submit to the Town for approval, a list with the names and addresses of the subcontractor's to whom he is proposing to sublet parts of the work, and statements of the work they are to perform. He shall also submit additional information regarding their qualifications as may be later requested by the Town. No part of the work may be sublet until after the Contractor has received the Town's approval. No greater than fifty-one (51) percent of the total Contract amount shall be sublet.

The Contractor shall be fully responsible for all acts and omissions of his subcontractors and persons directly or indirectly employed by them, and the Town's approval to sublet parts of the work will in no way relieve the Contractor of any of his obligations under the Contract. All dealings of the Architect with the subcontractors shall be through the Contractor; subcontractors being recognized by the Town only as employees of the Contractor.

The Contractor shall insert appropriate clauses in all subcontracts, including insurance requirements, to bind the subcontractors to the Contractor by all applicable provisions of the Contract Documents executed between the Town and the Contractor, but this shall not be construed as creating any contractual relationship between the subcontractors and the Town.

GC 26. Interpretation after Contract Award

After contract award, if any conflict exists between a provision in the portion of this bid document that precedes this paragraph (front-end) and a provision in the portion of the bid that follows this paragraph (back-end), the provision in the back-end shall control.

Roof Abatement and Roof Replacement
The Old Pumphouse Building

Technical Specifications

Yorktown Consolidated Water District

1080 Spillway Road Shrub Oak, NY 10588



Prepared by

David A. Tetro, Architect P.C.

302 Lewis Avenue - Yorktown Heights, NY 10598

914.962.3113 dtdesign@verizon.net www.DavidTetroArchitect.com

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SOUTHEAST CORNER



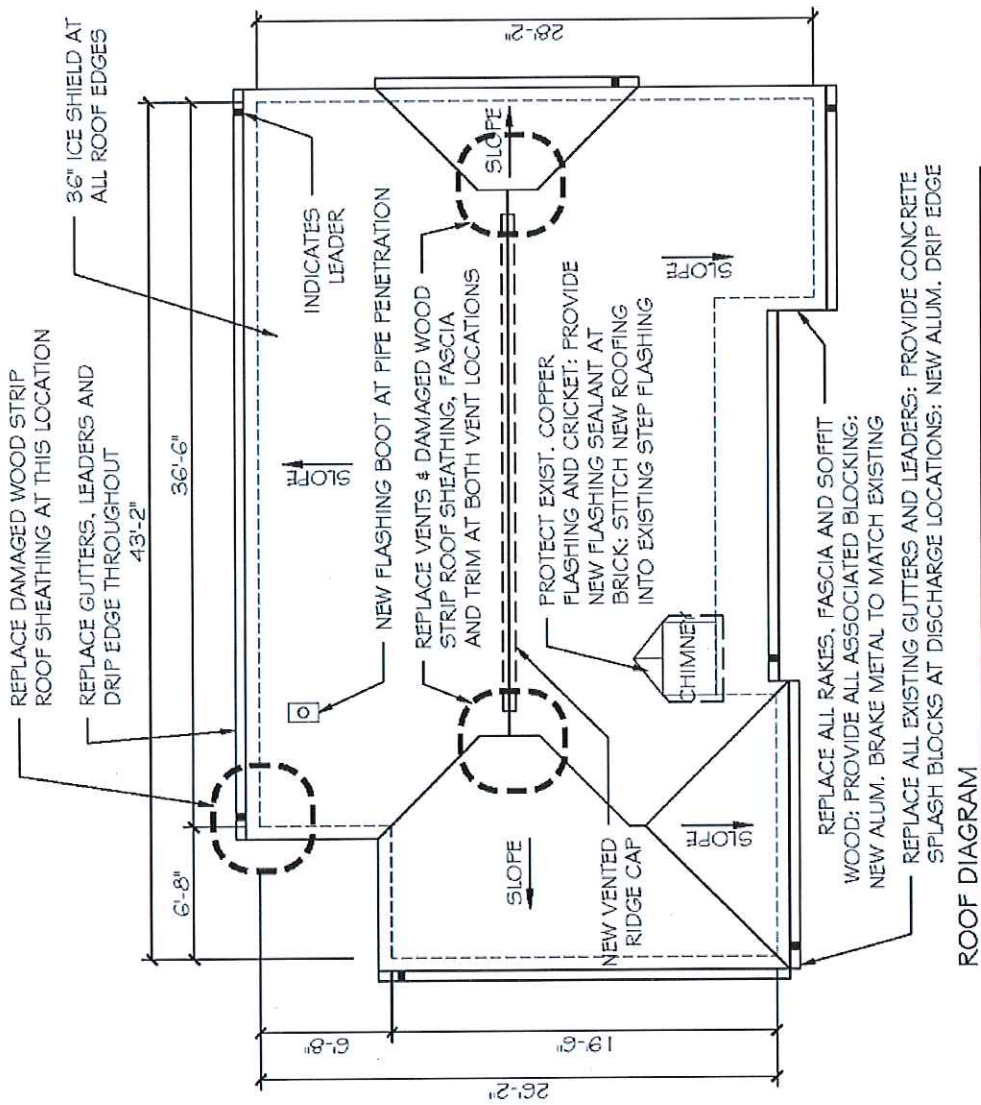
NORTHEAST CORNER



NORTH ELEVATION



WEST ELEVATION



SECTION 01 10 00 - SUMMARY

PART 1 - SECTION 01 10 00 – SUMMARY: GENERAL

1.1 SUMMARY

A. Section Includes:

1. Contract description.
2. Contractor's use of Site and premises.
3. Owner occupancy.
4. Permits, Licenses and Certifications.

1.2 CONTRACT DESCRIPTION

- A. The Work (also called “Project”) constitutes removal of existing asbestos-containing roof assembly, repairs to soffits, fascia, etc., and installation of new roof assembly and associated accessories (e.g., gutters, leaders, flashing, underlayment, etc.). Work includes all debris removal, asbestos disposal, provision and installation of new roof assembly and associated accessories, and furnishing of the specified warranties.
- B. Perform Work of Contract under stipulated sum Contract with Owner according to Conditions of Contract.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

A. Site:

1. Building subject of this scope of work is located on a multi-building plot of land. Public access is to be maintained to adjacent buildings during the course of construction.
2. Use of Site and premises to be maintained for the public in order to conduct the standard daily routine of the Water Department.

B. Construction Operations: Limited to that necessary to carry out the Work.

1. Noisy and Disruptive Operations (such as Use of generators, pumps and other noisy equipment): Not allowed in close proximity to occupied buildings during regular hours of operation. Coordinate and schedule such operations with Owner to minimize disruptions.

C. Sound Level Restrictions: Sound pressure level measured at boundary of Site shall not exceed 40 dBA.

1.4 OWNER OCCUPANCY

- A. Owner will occupy Site during entire period of construction.
- B. Contractor to Cooperate with Owner to minimize conflict and to facilitate Owner's operations and shall schedule the Work to accommodate Owner occupancy.

1.5 PERMITS, LICENSES AND CERTIFICATIONS

- A. Contractor(s) to furnish all required licenses and certificates necessary in order to legally carry out the Work.

END OF SECTION

SECTION 01 20 00 - CONSTRUCTION PROGRESS SCHEDULE

PART 2 - SECTION 01 20 00 – CONSTRUCTION PROGRESS SCHEDULE: GENERAL

2.1 SUBMITTALS

- A. Within 10 days after date of Owner-Contractor Agreement or established in Notice to Proceed, as determined between Owner and Contractor, submit proposed preliminary schedule defining planned operations.
- B. Distribute schedule as electronic file to Owner.

END OF SECTION

SECTION 01 30 00 - SUBMITTAL PROCEDURES

PART 3 - SECTION 01 30 00 – SUBMITTAL PROCEEDURES: GENERAL

3.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed product list.
- D. Product data.
- E. Shop Drawings.
- F. Samples.
- G. Certificates.
- H. Manufacturer's instructions.
- I. Manufacturer's field reports.
- J. Construction photographs.
- K. Contractor review.
- L. Submittal review.

3.2 SUBMITTAL PROCEDURES

- A. Transmit submittal with Contractor's standard letterhead transmittal.
- B. Include Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.
- C. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite Project, and submit electronic submittals via email as editable PDF electronic files. Coordinate submission of related items.
- E. For each submittal for review, allow 10 work days excluding delivery time to and from Contractor.
- F. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- G. Allow space on submittals for Contractor and Owner's review stamps.
- H. When revised for resubmission, identify changes made since previous submission.
- I. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- J. Submittals not requested will not be recognized nor processed.
- K. Incomplete Submittals will not be reviewed. Complete submittals for each item are required. Delays resulting from incomplete submittals are the responsibility of the Contractor.
- L. Submittals shall not be made by telephone, voicemail, text messaging or faxes.

3.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Comply with Section 01 20 00- Construction Progress Schedule

3.4 PROPOSED PRODUCT LIST

- A. Within 10 work days after date of Owner-Contractor Agreement or Notice to Proceed as determined between Owner and Contractor, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.

3.5 PRODUCT DATA

- A. Submit to Product Data to Owner for review for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit electronic submittals via email as editable PDF electronic files.
- C. Mark each submittal to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 80 00 - Execution and Closeout Requirements.

3.6 SHOP DRAWINGS

- A. Submit to Owner in an editable PDF format via email for assessing conformance with information given and design concept expressed in Contract Documents.
- B. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 80 00 - Execution and Closeout Requirements.

3.7 SAMPLES

- A. Submit samples of finishes, textures, and patterns to Owner for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
- C. Include identification on each Sample, with full Project information.
- D. Submit number of Samples specified in individual Specification Sections; Owner will retain one Sample.
- E. Reviewed Samples that may be used in the Work are indicated in individual Specification Sections.
- F. Samples will not be used for testing purposes unless specifically stated in Specification Section.
- G. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 01 80 00 - Execution and Closeout Requirements.

3.8 CERTIFICATES

- A. Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Owner, in quantities specified for Product Data.

- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Owner.

3.9 MANUFACTURER'S INSTRUCTIONS

- A. Submit manufacturer's installation instructions to Owner for informational purposes only.
- B. Submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to Owner in quantities specified for Product Data.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

3.10 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of construction throughout progress of Work produced by a photographer acceptable to Owner.
- B. Submit photographs weekly.
- C. Take photographs as evidence of existing Project conditions as follows:
 - 1. Interior views: Underside of roof prior to construction, during construction and at the end of construction.
 - 2. Exterior views: Roof prior to construction, during construction and at the end of construction, including during abatement activities.
- D. Digital Images: Deliver complete set of digital image electronic files on CD-ROM or flash drive to Owner with Project record documents. Identify electronic media with date photographs were taken. Submit images that have same aspect ratio as sensor, uncropped.
 - 1. Digital Images: Minimum sensor size of 8.0 megapixels, and image resolution of not less than 1024 by 768 pixels.
 - 2. Date and Time: Include date and time in filename for each image.

3.11 CONTRACTOR REVIEW

- A. Review for compliance with Contract Documents and approve submittals before transmitting to Owner.
- B. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received, reviewed and approved by Owner.

3.12 SUBMITTAL REVIEW

- A. Submittal approval does not authorize changes to Contract requirements unless accompanied by Owner's instructions to do so.

END OF SECTION

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 4 - SECTION 01 40 00 – QUALITY REQUIREMENTS: GENERAL

4.1 SECTION INCLUDES

- A. Quality control.
- B. Tolerances.
- C. References.
- D. Labeling.
- E. Testing and inspection services.
- F. Manufacturers' field services.

4.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Perform Work using persons qualified to produce required and specified quality.
- D. Products, materials, and equipment may be subject to inspection by Owner at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.
- E. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.
- F. Persons performing abatement Work shall be certified as necessary by the Authority having Jurisdiction.

4.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Owner before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

4.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current as of date for receiving Bids except where specific date is established by code.
- C. Obtain copies of standards and maintain on Site when required by product Specification Sections.

- D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Owner before proceeding.
- E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Architect or Owner shall be altered from Contract Documents by mention or inference in reference documents.

4.5 LABELING

- A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled by applicable code or as required by the Owner for their records (to be included with close-out documents for the Owner's project binder).
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:
 - 1. Model number.
 - 2. Serial number (where applicable).
 - 3. Performance characteristics.
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

4.6 TESTING AND INSPECTION SERVICES

- A. For asbestos abatement, Owner shall employ and pay for services of an independent inspection and monitoring agency.

4.7 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Owner and Owner fifteen (15) days in advance of required observations. Observer is subject to approval of the Owner.
- C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.

END OF SECTION

SECTION 01 50 00 - SUBSTITUTION PROCEDURES

PART 5 - SECTION 01 50 00 – SUBSTITUTION PROCEDURES: GENERAL

5.1 SECTION INCLUDES

- A. Quality assurance.
- B. Product options.
- C. Product substitution procedures.

5.2 QUALITY ASSURANCE

- A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.
- C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

5.3 PRODUCT OPTIONS

- A. See Section 01 70 00 - Product Requirements.

5.4 PRODUCT SUBSTITUTION PROCEDURES

- A. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- B. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
 - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
 - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
 - 3. Reference to Article and Paragraph numbers in Specification Section.
 - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
 - 5. Changes required in other Work.
 - 6. Availability of maintenance service and source of replacement parts as applicable.
 - 7. Certified test data to show compliance with performance characteristics specified.
 - 8. Samples when applicable or requested.
 - 9. Other information as necessary to assist Owner's evaluation.
- C. A request constitutes a representation that Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.

2. Will provide same warranty for substitution as for specified product.
 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
 6. Will reimburse Owner and Architect for review or redesign services associated with reapproval by authorities having jurisdiction without any increase if Contract Sum to do so.
- D. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.
- E. Substitution Submittal Procedure:
1. Submit requests for substitutions on Contractor's standard letterhead.
 2. Submit one electronic copy to Owner of Request for Substitution for consideration. Limit each request to one proposed substitution.
 3. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 4. Owner will notify Contractor in writing of decision to accept or reject request.

END OF SECTION

SECTION 01 60 00 - TEMPORARY FACILITIES AND CONTROLS

PART 6 - SECTION 01 60 00 – TEMPORARY FACILITIES AND CONTROLS: GENERAL

6.1 SECTION INCLUDES

1. References.
2. Temporary electricity.
3. Temporary lighting for construction purposes.
4. Temporary water service.
5. Temporary sanitary facilities.
6. Field office.
7. Vehicular access.
8. Parking.
9. Progress cleaning and waste removal.
10. Fire-prevention facilities.
11. Barriers.
12. Enclosures and fencing.
13. Security.
14. Pollution control.
15. Removal of utilities, facilities, and controls.

6.2 REFERENCES

A. ASTM International:

1. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
2. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
3. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

6.3 TEMPORARY ELECTRICITY

- A. Owner will pay cost of energy used. Exercise measures to conserve energy. Use Owner's existing power service.
- B. Provide temporary electric feeder from existing building electrical service at location as directed by Owner. Do not disrupt Owner's use of service.
- C. Complement existing power service capacity and characteristics as required for construction operations.
- D. Provide power outlets with branch wiring and distribution boxes located as required for construction operations. Provide suitable, flexible power cords as required for portable construction tools and equipment.
- E. Provide feeder switch at source distribution equipment.
- F. Permanent convenience receptacles may be used during construction: coordinate with Owner.

6.4 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting as necessary for construction purposes.

- B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas and work area after dark for security purposes: coordinate requirement with Owner
- C. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, lamps, and the like, for specified lighting levels.
- D. Maintain lighting and provide routine repairs.
- E. Permanent building and site lighting may be used during construction: coordinate with Owner.

6.5 TEMPORARY WATER SERVICE

- A. Owner will provide access to temporary water. Exercise measures to conserve water. Use Owner's existing water system, extended and supplemented with temporary devices as needed to maintain specified conditions for construction operations.
- B. Extend branch piping with outlets located so that water is available by hoses with threaded connections. Provide temporary pipe insulation and heat tape to prevent freezing.
- C. Components of Contractor's water service shall be free from leaks.

6.6 TEMPORARY SANITARY FACILITIES

- A. Existing designated facilities may be used during construction operations. Maintain a clean and sanitary condition daily.
- B. At end of construction, return existing facilities used for construction operations to same or better condition as original condition.

6.7 FIELD OFFICE

- A. Designated existing spaces may be used for field offices and for storage of materials: Coordinate with Owner.

6.8 VEHICULAR ACCESS

- A. Existing access roads from public thoroughfares shall serve construction area.
- B. Maintain unimpeded access for emergency vehicles. Maintain 20 foot-wide driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants and control valves free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Use existing on-Site roads for construction traffic.

6.9 PARKING

- A. Use of existing on-Site facilities used for construction traffic is permitted. Tracked vehicles are not allowed on paved areas.
- B. Use of existing parking facilities used by construction personnel is permitted.
- C. Do not allow heavy vehicles or construction equipment in parking areas.
- D. Maintain adequate parking spaces for Owner and public use.
- E. Maintenance:
 1. Maintain traffic and parking areas in sound condition free of debris material, construction equipment, products, mud, snow, ice, and the like.

2. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original condition.
- F. Mud from Site vehicles: Provide means of removing mud from vehicle wheels before entering streets.

6.10 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain Site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, before enclosing spaces.
- C. Broom and vacuum clean interior areas before starting surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from Site periodically and dispose of off-Site.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

6.11 FIRE-PREVENTION FACILITIES

- A. Prohibit smoking within area of Work. Provide approved ashtrays in designated smoking areas.
- B. Establish fire watch for cutting, welding, and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- C. Portable Fire Extinguishers: NFPA 10; 10-pound capacity, 4A-60B: C UL rating.
 1. Provide one fire extinguisher within proximity of buildings under construction and demolition.
 2. Provide minimum of one fire extinguisher in every construction trailer and storage shed.
 3. Provide minimum of one fire extinguisher on roof during roofing operations using heat-producing equipment.

6.12 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, Site, and structures from damage.

6.13 ENCLOSURES AND FENCING

- A. Construction: Plastic construction netting.

6.14 SECURITY

- A. Security Program:
 1. Protect Work on existing premises and Owner's operations from theft, vandalism, and unauthorized entry.

2. Initiate program in coordination with Owner's existing security system at Project mobilization.
 3. Maintain program throughout construction period until Owner's acceptance precludes need for Contractor's security.
- B. Entry Control:
1. Restrict entrance of persons and vehicles to Project Work Area.
 2. Allow entrance only to authorized persons.
- C. Coordinate access of Owner's personnel to Site in coordination with Owner's security forces.
- D. Personnel Identification:
1. Provide identification badge for each person authorized to enter premises.
 2. Badge to Include: Personal photograph, name, expiration date, and employer.
 3. Maintain list of accredited persons and submit copy to Owner on request.
 4. Require return of badges at expiration of employment on the Work.
- E. Restrictions:
1. With the exception of the required photographs specified elsewhere, do not allow cameras on Site or photographs taken except by written approval of Owner.
 2. Do no work on days indicated in Owner-Contractor Agreement.

6.15 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

6.16 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials before Final Application for Payment inspection.
- B. Clean and repair damage caused by installation or use of temporary Work.
- C. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

END OF SECTION

SECTION 01 70 00 - PRODUCT REQUIREMENTS

PART 7 - SECTION 01 70 00 – PRODUCT REQUIREMENTS: GENERAL

7.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.

7.2 PRODUCTS

- A. At minimum, comply with specified requirements and reference standards.
- B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.
- C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.
- D. Do not use materials and equipment removed from existing premises except as specifically permitted by Contract Documents.
- E. Furnish interchangeable components from same manufacturer for components being replaced.

7.3 PRODUCT DELIVERY REQUIREMENTS

- A. Comply with delivery requirements in Section 01 90 00- Construction Waste Management and Disposal.
- B. Transport and handle products according to manufacturer's instructions.
- C. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- D. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

7.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products according to manufacturer's instructions.
- B. Store products with seals and labels intact and legible.
- C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.
- D. For exterior storage of fabricated products, place products on sloped supports aboveground.
- E. Provide bonded off-Site storage and protection when Site does not permit on-Site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to handle, unload and store products; use methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

7.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and complying with Specifications; no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 01 50 00 - Substitution Procedures.

END OF SECTION

SECTION 01 80 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 8 - SECTION 01 80 00 – EXECUTION AND CLOSEOUT REQUIREMENTS: GENERAL

8.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Project record documents.
- C. Operation and maintenance data.
- D. Manual for materials and finishes.
- E. Product warranties and product bonds.
- F. Examination.
- G. Preparation.
- H. Execution.
- I. Cutting and patching.
- J. Protecting installed construction.
- K. Final cleaning.

8.2 CLOSEOUT PROCEDURES

- A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:
 - 1. Submit maintenance manuals, Project record documents, digital images of construction photographs, and other similar final record data in compliance with this Section.
 - 2. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
 - 3. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
 - 4. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
 - 5. Perform final cleaning according to this Section.
- B. Substantial Completion Inspection:
 - 1. When Contractor considers Work to be substantially complete, submit to Owner:
 - a. Written certificate that Work, or designated portion, is substantially complete.
 - b. List of items to be completed or corrected (initial punch list).
 - 2. Within seven days after receipt of request for Substantial Completion, Owner will make inspection to determine whether Work or designated portion is substantially complete.
 - 3. Should Owner determine that Work is not substantially complete:

- a. Contractor will be promptly notified in writing, stating reasons for their opinion.
 - b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Owner.
 - c. Owner will reinspect Work.
 - d. Redo and Inspection of Deficient Work: Contractor shall repeat Work until Work passes Owner's inspection.
4. When found that Work is substantially complete, Owner will:
- a. Prepare Certificate of Substantial Completion on AIA G704 - Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified and amended by Owner (final punch list).
 - b. Submit Certificate to Contractor for their written acceptance of responsibilities assigned to them in Certificate.
5. After Work is substantially complete, Contractor shall:
- a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
 - b. Complete Work listed for completion or correction within time period stipulated.
6. Owner will occupy all portions of building as specified in Section 01 10 00 - Summary.
- C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.
- 1. When Contractor considers Work to be complete, submit written certification that:
 - a. Contract Documents have been reviewed.
 - b. Work has been examined for compliance with Contract Documents.
 - c. Work has been completed according to Contract Documents.
 - d. Work is completed and ready for final inspection.
 - 2. Submittals: Submit following:
 - a. Final punch list indicating all items have been completed or corrected.
 - b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
 - d. Accounting statement for final changes to Contract Sum.
 - e. Contractor's affidavit of payment of debts and claims on Contractor's standard letterhead.
 - f. Contractor affidavit of release of liens on Contractor's standard letterhead.
 - g. Consent of surety to final payment on Contractor's standard letterhead.
 - 3. Perform final cleaning for Contractor-soiled areas according to this Section.
- D. Final Completion Inspection:
- 1. Within seven days after receipt of request for final inspection, Owner will make inspection to determine whether Work or designated portion is complete.
 - 2. Should Work considered to be incomplete or defective:

- a. Contractor will be promptly notified in writing, listing incomplete or defective Work.
- b. Contractor shall remedy stated deficiencies and send second written request to Owner that Work is complete.
- c. Owner will reinspect Work.
- d. Redo and Inspection of Deficient Work: Repeated until Work passes Owner's inspection.

8.3 PROJECT RECORD DOCUMENTS

- A. Maintain on Site one set of the following record documents; record actual revisions to the Work:
 1. Specifications
 2. Addenda.
 3. Change Orders and other modifications to the Contract.
 4. Reviewed Shop Drawings, product data, and Samples.
 5. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record, at each product Section, description of actual products installed.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction as follows:
 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
 2. Include locations of concealed elements of the Work.
 3. Field changes of dimension and detail.
 4. Details not on original Drawings.
- G. Submit editable PDF electronic files of marked-up documents to Owner before Substantial Completion with claim for final Application for Payment.

8.4 OPERATION AND MAINTENANCE DATA

- A. Submit in PDF composite electronic indexed file.
- B. Submit data bound in 8-1/2 x 11-inch text pages, three D side ring capacity expansion binders with durable plastic covers.
- C. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of Project, and subject matter of binder when multiple binders are required.
- D. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- E. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- F. Contents: Prepare table of contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:

1. Part 1: Directory, listing names, addresses, and telephone numbers of Owner, Contractor, Subcontractors, and major equipment suppliers.
2. Part 2: Project documents and certificates, including the following:
 - a. Shop Drawings and product data.
 - b. Air testing reports.
 - c. Certificates.
 - d. Originals or Photocopies of warranties and bonds.

8.5 MANUAL FOR MATERIALS AND FINISHES

- A. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after Substantial Completion, with Owner comments. Revise content of document sets as required prior to final submission.
- B. Submit two sets of revised final volumes within ten days after final inspection.
- C. Submit in PDF composite electronic indexed file of final manual within ten days after final inspection.
- D. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.
- E. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- F. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- G. Additional Requirements: As specified in individual product Specification Sections.
- H. Include listing in table of contents for design data, with tabbed fly sheet and space for insertion of data.

8.6 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within ten days after completion of applicable item of Work.
- B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include table of contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.

8.7 EXAMINATION

- A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual Specification Sections.

- D. Verify that utility services are available with correct characteristics and in correct locations.

8.8 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

8.9 EXECUTION

- A. Comply with manufacturer's installation instructions, performing each step in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.
- B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Owner before proceeding.
- C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
 - 1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
 - 2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
 - 3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Owner for final decision.
- E. Allow for expansion of materials and building movement.
- F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
 - 1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
 - 2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
- G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for particular application indicated.
 - 1. Refer questionable mounting heights choices to Owner for final decision.
- H. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

8.10 CUTTING AND PATCHING

- A. Employ skilled and experienced installers to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.

2. Integrity of weather-exposed or moisture-resistant elements.
 3. Efficiency, maintenance, or safety of element.
 4. Visual qualities of sight-exposed elements.
 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work and to:
1. Fit the several parts together, to integrate with other Work.
 2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and nonconforming Work.
- D. Execute Work by methods to avoid damage to other Work and to provide proper surfaces to receive patching and finishing.
- E. Restore Work with new products according to requirements of Contract Documents.
- F. Fit Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- G. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- H. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- I. Identify hazardous substances or conditions exposed during the Work to Owner for decision or remedy.

8.11 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

8.12 FINAL CLEANING

- A. Execute final cleaning prior to final Project assessment employing experienced personnel or professional cleaning firm.
- B. Clean exterior glass and surfaces exposed to view that have been affected by demolition or construction operations; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces; and vacuum carpeted and soft surfaces.
- C. Clean debris from roofs, gutters, downspouts, and drainage systems.
- D. Clean Site; sweep paved areas, rake clean landscaped surfaces.
- E. Remove waste and surplus materials, rubbish, and construction facilities from Site.

END OF SECTION

SECTION 01 90 00 - CONSTRUCTION WASTE AND DISPOSAL

PART 9 - SECTION 01 90 00 – CONSTRUCTION WASTE AND DISPOSAL: GENERAL

9.1 SUMMARY

A. Section Includes:

1. Construction waste management plan.
2. See Section 02 20 00 – Asbestos Abatement for additional information in addition to requirements of this Section.

9.2 PLAN REQUIREMENTS

A. Develop and implement construction waste management plan as approved by the Owner and Authority having Jurisdiction.

B. Intent:

1. Remove and dispose of hazardous waste in a manner consistent with the authority having jurisdiction in a proper and lawful manner.
2. Remove non-hazardous construction debris from site in a proper and lawful manner.

9.3 SUBMITTALS

A. Section 01 30 00 - Submittal Procedures contains requirements for submittals.

B. Construction Waste Management Plan: Submit construction waste management plan describing methods and procedures for implementation and monitoring compliance including the following:

1. Transportation Company hauling construction waste to waste processing facilities.
2. Construction waste materials anticipated.
3. On-Site sorting and Site storage methods.

C. Submit documentation substantiating construction waste management plan was maintained and goals were achieved.

9.4 CONSTRUCTION WASTE MANAGEMENT PLAN

A. Implement required construction waste management plan at start of construction.

B. Review construction waste management plan at preconstruction meeting and progress meetings.

C. Distribute approved construction waste management plan to Subcontractors and others affected by plan requirements.

D. Oversee plan implementation, instruct construction personnel for plan compliance, and document plan results.

9.5 CONSTRUCTION WASTE RECYCLING – NON-HAZARDOUS MATERIALS

A. Use source separation method or comingling method suitable to sorting and processing method of selected recycling center. Dispose nonrecyclable trash separately into landfill.

B. Materials required to be recycled include:

1. Packing materials including paper, cardboard, foam plastic, and sheeting.
2. Recyclable plastics.

3. Glass, clear and colored types.
4. Metals.

9.6 CONSTRUCTION WASTE COLLECTION

- A. Collect construction waste materials in marked bins or containers and arrange for transportation to recycling centers or adaptive salvage and reuse processing facilities.
- B. Maintain recycling and adaptive reuse storage and collection area in orderly arrangement with materials separated to eliminate co-mingling of materials required to be delivered separately to waste processing facility.
- C. Store construction waste materials to prevent environmental pollution, fire hazards, hazards to persons and property, and contamination of stored materials.
- D. Cover construction waste materials subject to disintegration, evaporation, settling, or runoff to prevent polluting air, water, and soil.

9.7 CONSTRUCTION WASTE DISPOSAL

- A. For waste not capable of being recycled or adaptively reused, dispose of construction by delivery to landfill, incinerator, or other legal disposal facility.

END OF SECTION

SECTION 02 10 00 - SELECTIVE STRUCTURE DEMOLITION

PART 10 - SECTION 02 10 00 – SELECTIVE STRUCTURE DEMOLITION: GENERAL

10.1 SUMMARY

A. Section Includes:

1. Removing non-hazardous demolished materials.

10.2 SUBMITTALS

A. Section 01 30 00 - Submittal Procedures: Requirements for submittals.

- B. Demolition Schedule: Indicate overall schedule and interruptions required for utility and building services.

10.3 CLOSEOUT SUBMITTALS

A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for submittals.

10.4 QUALITY ASSURANCE

- A. Conform to applicable lawful rules and regulations and codes by authorities having jurisdiction for demolition work, dust control, and removal and disposal of hazardous materials.

- B. Conform to applicable lawful rules and regulations and codes by authorities having jurisdiction for procedures when hazardous or contaminated materials are being removed.

- C. Obtain any required permits for Work from authorities having jurisdiction.

- D. Perform Work in accordance with all Federal, State and Local lawful requirements for the testing, removal and handling of any and all hazardous materials demolished.

10.5 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section to establish and communicate the requirements for the demolition and removal of hazardous materials.

10.6 SEQUENCING

- A. Section 01 10 00 - Summary: Requirements for sequencing.

- B. Sequence activities in a logical order that removes all hazardous material safely and lawfully prior to the installation of new work.

10.7 SCHEDULING

- A. Schedule Work to coincide with new construction.

- B. Cooperate with Owner in scheduling noisy operations and waste removal that may impact Owners operation in adjoining buildings.

- C. Perform noisy, malodorous, dusty, or hazardous removal work at coordinated times with owner in order to minimize impact on Owner's daily operations.

- D. Coordinate any utility and building service interruptions with Owner.

1. Do not disable or disrupt building fire or life safety systems without three days prior written notice to Owner.

2. Schedule tie-ins to existing systems to minimize disruption.
3. Coordinate Work to ensure fire sprinklers, fire alarms, smoke detectors, emergency lighting, exit signs and other life safety systems remain in full operation in occupied areas.

10.8 PREPARATION

- A. Erect, and maintain temporary barriers and security devices, including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.
- B. Erect and maintain weatherproof closures for exterior openings.
- C. Prevent movement of structure; provide temporary bracing and shoring required to ensure safety of existing structure.
- D. Provide appropriate temporary signage including signage for exit or building egress.
- E. Do not close or obstruct building egress path.
- F. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.

10.9 DEMOLITION

- A. Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Maintain protected egress from and access to adjacent existing buildings at all times.
- C. Do not close or obstruct roadways or sidewalks.
- D. Cease operations immediately when structure appears to be in danger and notify Owner immediately.
- E. Demolish in orderly and careful manner. Protect existing improvements.
- F. Remove demolished materials from site in a manner consistent with all lawful requirements. Do not burn or bury materials on site.
- G. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- H. Remove temporary Work.

END OF SECTION

SECTION 02 20 00 – ASBESTOS ABATEMENT

PART 11 - SECTION 02 20 00 – ASBESTOS ABATEMENT: GENERAL

11.1 SUMMARY

A. Section Includes:

1. The removal and disposal of asbestos containing materials (ACM).

B. Related Requirements:

1. See Section 01 90 00 – Construction Waste and Disposal for additional information in addition to requirements of this Section.

11.2 REFERENCE STANDARDS

A. The Contractor shall comply with the following codes and standards, except where more stringent requirements are required.

B. Federal Regulations:

1. 29 CFR 1910.1001, "Asbestos" (OSHA)
2. 29 CFR 1910.1200, "Hazard Communication" (OSHA)
3. 29 CFR 1910.134, "Respiratory Protection" (OSHA)
4. 29 CFR 1910.145, "Specification for Accident Prevention Signs and Tags" (OSHA)
5. 29 CFR 1926, "Construction Industry" (OSHA)
6. 29 CFR 1926.1101, "Asbestos, Tremolite, Anthophyllite, and Actinolite" (OSHA)
7. 29 CFR 1926.500 "Guardrails, Handrails and Covers" (OSHA)
8. 40 CFR 61, Subpart A, "General Provisions" (EPA)
9. 40 CFR 61, Subpart M, "National Emission Standard for Asbestos" (EPA)
10. 49 CFR 171-172, Transportation Standards (DOT)
11. Any additional regulations governing.

C. New York State Regulations:

1. 112 NYCRR, Part 56, "Asbestos", Industrial Code Rule 56 (DOL).
2. 6 NYCRR, Parts 360, 364, Disposal and Transportation (DEC)
3. 10 NYCRR, Part 73, "Asbestos Safety Program Requirements" (DOH)
4. Any additional regulations governing.

D. Standards and Guidelines Documents:

1. American National Standard Institute (ANSI) Z88.2-80, Practices for Respiratory Protection
2. ANSI Z9.2 79, Fundamentals Governing the Design and Operation of Local Exhaust Systems
3. EPA 560/585 024, Guidance for Controlling Asbestos Containing Materials in Buildings (Purple Book)
4. EPA 530-SW-85-007, Asbestos Waste Management Guidance
5. ASTM Standard E1368 "Standard Practice for Visual Inspection of Asbestos Abatement Projects."
6. Any additional applicable Standards.

11.3 SUBMITTALS

- ##### A. See Submittal Procedures section of this document for submittal requirements.

11.4 QUALITY ASSURANCE

- A. Perform Work according to all Rules and Regulations governing the removal of ACM by all local, state and Federal requirements and authorities having jurisdiction.
- B. Contractor shall provide any required documents, applications, forms, etc. with the authorities having jurisdiction in conjunction with ACM removal.
- C. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local laws, rules, and regulations pertaining to Work practices, protection of Workers, authorized visitors to the site, persons, and property adjacent to the Work.
- D. The Contractor performing hazardous material demolition and removal must maintain current licenses and Certificates pursuant to New York State Department of Labor, New York State Department of Environmental Conservation, and any other authority having jurisdiction for all Work related to this Project, including the removal, handling, transport, and disposal of asbestos containing materials.

11.5 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section to establish and communicate the requirements for the demolition and removal of ACM.

11.6 NOTICES

- A. Convene minimum one week prior to commencing work of this section to establish and communicate the requirements for the demolition and removal of hazardous materials.
- B. The Contractor shall provide notification of intent to commence asbestos abatement activities as indicated below.
 - 1. At least ten (10) Working days prior to beginning abatement activities, send written notification to: U.S. Environmental Protection Agency - National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Coordinator, and
 - 2. At least ten (10) days prior to beginning abatement activities send written notification to: New York State Department of Labor - Division of Safety and Health, Asbestos Control Program.
- C. The Contractor is required to send notifications to U.S. Environmental Protection Agency and New York State Department of Labor via mail or package delivery service that will provide proof of delivery and receipt.
- D. The Contractor shall be responsible for maintaining current project filings with regulatory agencies for the duration of the project.
- E. The Contractor shall post and/or provide Building Occupant Notification at least 10 days prior to beginning abatement activities.

11.7 PROJECT MONITORING AND SAMPLING

- A. Monitoring and Sampling shall be performed by Owner. G.C. to coordinate with Owner.

11.8 PROJECT SUPERVISOR

- A. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
 - 1. The Project Supervisor shall hold New York State DOL certification as an Asbestos Supervisor.

2. The Project Supervisor shall meet the requirements of a "Competent Person" as defined by OSHA 1926.1101 and shall have a minimum of one year experience as a supervisor.
 3. The Project Supervisor must be able to speak, read, and write English fluently, as well as communicate in the primary language of the Workers.
- B. If the Project Supervisor is not on-site at any time whatsoever, all Work shall be stopped. The Project Supervisor shall remain on-site until the Project is complete. The Project Supervisor cannot be removed from the Project without the written consent of the Owner and the Owner's Environmental Consultant. The Project Supervisor shall be removed from the Project if so requested by the Owner.
 - C. The Project Supervisor shall maintain the bound Daily Project Log that also includes the entry/exit logs as required by applicable regulations and section 2.03 of the specifications and the Waste Disposal Log required by section 4.04 of the specifications.
 - D. The Project Supervisor shall be responsible for the performance of the Work and shall represent the Contractor in all respects at the Project site. The Supervisor shall be the primary point of contact for the Asbestos Project Monitor.

11.9 PERSONELL

- A. Contractor shall provide personnel that have been medically examined. Contractor shall provide proof of examination for ACM removal per the requirements of the Authority having Jurisdiction.
- B. All personnel shall be trained with all aspects of the ACM removal process in accordance with all rules and regulations governing such training requirements.
- C. Respiratory protection, along with all other required protection requirements, shall be provided and utilized during the course of all ACM operations as required by all rules and regulations governing.
- D. Protective Clothing:
 1. Provide personnel utilized during the Project with disposable protective whole body clothing, head coverings, gloves and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape, or provide disposable coverings with elastic wrists or tops.
 2. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement Work.
 3. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.
 4. Authorized visitors shall be provided with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the Work Area.

11.10 SIGNS AND LABELS

- A. Provide bilingual (English-Spanish) warning signs and barrier tapes at all approaches to asbestos Work Areas. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area.
 1. Provide danger signs in vertical format conforming to 29 CFR 1926.1101, minimum 20" x 14" displaying the following legend.

DANGER
ASBESTOS CANCER AND LUNG DISEASE
HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

2. Provide 3" wide yellow barrier tape printed with black lettered, "DANGER ASBESTOS REMOVAL". Locate barrier tape across all corridors, entrances and access routes to asbestos Work Area. Install tape 3' to 4' AFF.
- B. Provide asbestos danger labels affixed to all asbestos materials, scrap, waste, debris and other products contaminated with asbestos.
 1. Provide asbestos danger labels of sufficient size to be clearly legible, displaying the following legend:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

2. Provide the following asbestos labels, of sufficient size to be clearly legible, for display on waste containers (bags or drums) which will be used to transport asbestos contaminated material in accordance with United States Department of Transportation 49 CFR Parts 171 and 172: (Note: Include "RQ" for friable asbestos waste only.) RQ, (WASTE) ASBESTOS, 9, NA2212, PGIII
3. Generator identification information shall be affixed to each waste container indicating the following printed in indelible ink:

GENERATOR NAME
FACILITY NAME
FACILITY ADDRESS

11.11 DAILY PROJECT LOG

- A. Provide a Daily Project Log. The log shall contain on title page the Project name, name, address and phone number of Owner; name, address and phone number of Environmental Consultant; name, address and phone number of Abatement Contractor; emergency numbers including, but not limited to local Fire/Rescue department and all other requirements.

11.12 TOOLS AND MATERIALS

- A. Provide all required ladders and scaffolding as required to carry out the work in a safe manner in accordance with all rules and regulations governing.
- B. Provide all surfactants, foams, disposable bags, drums, and containers to remove and dispose of ACM as required by all rules and regulations governing.
- C. Provide all tools and HEPA vacuum equipment necessary to carry out the work in accordance with all rules and regulations governing.

11.13 ENCLOSURES

- A. If required by any applicable rules and regulations governing, provide enclosures as necessary to carry out the work as follows:
 - 1. Personnel decontamination enclosure, and
 - 2. Waste decontamination enclosure.

11.14 WORK AREA AND ENTRY PROCEDURES

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. Entry to and exit from work area shall be in compliance with all rules and regulations governing and shall include all decontamination requirements per the rules and regulations governing.

11.15 WORK AREA PREPARATION

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. Provide tent enclosures in compliance with all rules and regulations governing if required for a project of this scope,
- C. Provide negative air pressure infiltration system if required according to the rules and regulations governing this particular project.

11.16 REMOVAL OF ACM

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
 - 1. Asbestos-containing materials shall be removed in accordance with the Contract Documents and the approved Asbestos Work Plan. Only one type of ACM shall be abated at a time within a Work Area. Where there are multiple types of ACM requiring abatement, applicable regulations procedures for sequential abatement shall be followed.
 - 2. Sufficiently wet asbestos materials with a low pressure, airless fine spray of surfactant to ensure full penetration prior to material removal. Re-wet material that does not display evidence of saturation.
 - 3. One Worker shall continuously apply amended water while ACM is being removed.
 - 4. Perform cutting, drilling, abrading, or any penetration or disturbance of asbestos containing material in a manner to minimize the dispersal of asbestos fibers into the air. Use equipment and methods specifically designed to limit generation of airborne asbestos particles. All power operated tools used shall be provided with HEPA equipped filtered local exhaust ventilation.
 - 5. Upon removal of ACM from the substrate, the newly exposed surfaces shall be HEPA vacuumed and/or wet cleaned. Surfaces must be thoroughly cleaned using necessary methods and any required solvents to completely remove any adhesive, mastic, etc.
 - 6. All removed material shall be placed into 6 mil plastic disposal bags or other suitable container upon detachment from the substrate. ACM is not permitted to lie on the floor for any period of time.

7. Large components shall be wrapped in two layers of 6 mil polyethylene sheeting. Sharp components likely to tear disposal bags shall be placed in fiber drums or boxes and then wrapped with sheeting.
8. Power or pressure washers are not permitted for asbestos removal or clean-up procedures unless approved in a Variance.
9. All open ends of pipe and duct insulation not scheduled for removal shall be encapsulated using lag cloth.
10. All construction and demolition debris determined by the Environmental Consultant to be contaminated with asbestos shall be handled and disposed of as asbestos waste.
11. The use of metal shovels, metal dust pans, etc. are not permitted inside the work area.

11.17 EQUIPMENT AND WASTE CONTAINER DECONTAMINATION AND REMOVAL PROCEDURES

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. External surfaces of contaminated containers and equipment shall be cleaned by wet cleaning and/or HEPA vacuuming in the Work Area before moving such items into the waste decontamination enclosure system airlock by persons assigned to this duty. The persons in the Work Area shall not enter the airlock. No gross removal operations are permitted when waste transfer is in progress.
- C. The containers and equipment shall be removed from the airlock by persons stationed in the washroom during waste removal operations. The external surfaces of containers and equipment shall be cleaned a second time by wet cleaning.
- D. The cleaned containers of asbestos material and equipment are to be dried of any excessive pooled or beaded liquid, placed in uncontaminated 6 mil plastic bags or sheeting, as the item's physical characteristics demand, and sealed airtight.
- E. The clean recontainerized items shall be moved into the airlock that leads to the holding area. Workers in the washroom shall not enter this airlock.
- F. Containers and equipment shall be moved from the airlock and into the holding area by persons dressed in clean personal protective equipment, who have entered from the holding area.
- G. The cleaned containers of asbestos material and equipment shall be placed in water tight carts with doors or tops that shall be closed and secured. These carts shall be held in the holding area pending removal. The carts shall be wet cleaned and/or HEPA vacuumed at least once each day.
- H. The exit from the decontamination enclosure system shall be secured to prevent unauthorized entry.
- I. Where the waste removal enclosure is part of the personnel decontamination enclosure, waste removal shall not occur during shift changes or when otherwise occupied. Precautions shall be taken to prevent short circuiting and cycling of air outward through the shower and clean room.

11.18 WORK AREA DECONTAMINATION, CLEANING, AND CLEARANCE PROCEDURES

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,

11.19 TRANSPORTATION AND DISPOSAL SITE

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. The Contractor's Hauler and Disposal Site shall be approved by the Owner.
- C. The Contractor shall give twenty-four (24) hour notification prior to removing any waste from the site. Waste shall be removed from the site only during normal working hours unless otherwise specified. No waste may be taken from the site unless the Contractor and Environmental Consultant are present and the Environmental Consultant authorizes the release of the waste as described herein.
- D. All waste generated as part of the asbestos project shall be removed from the site within ten (10) calendar days after successful completion of all asbestos abatement work.
- E. Upon arrival at the Project Site, the Hauler must possess and present to the Environmental Consultant a valid New York State Department of Environmental Conservation Part 364 Asbestos Hauler's Permit and any New York City required permit/license. The Environmental Consultant may verify the authenticity of the hauler's permit with the proper authority.
- F. The Hauler, with the Contractor and the Environmental Consultant, shall inspect all material in the transport container prior to taking possession and signing the Asbestos Waste Manifests.
- G. Unless specifically approved by the Owner, the Contractor shall not permit any off-site transfers of the waste or allow the waste to be transported or combined with any other off-site asbestos material. The Hauler must travel directly to the disposal site as identified on the notifications with no unauthorized stops.

11.20 WASTE STORAGE CONTAINERS

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. All waste containers shall be fully enclosed and lockable (i.e. enclosed dumpster, trailer, etc.). No open containers will be permitted on-site (i.e. open dumpster with canvas cover, etc.) unless specifically permitted by a Variance. When asbestos contaminated waste must be kept on the work site overnight or longer, it shall be double bagged and stored in accordance with Federal, State, and local laws, including New York City Department of Sanitation Title 16, Chapter 8 of the Rules of New York City.
- C. The Environmental Consultant shall verify that the waste storage container and/or truck tags (license plates) match that listed on the New York State Department of Environmental Conservation Part 364 permit. Any container not listed on the permit shall be removed from the site immediately.
- D. The container shall be plasticized and sealed with two (2) layers of 6 mil polyethylene. Once on site, it shall be kept locked at all times, except during load out. The waste container shall not be used for storage of equipment or contractor supplies.
- E. While on-site, the container shall be labeled with EPA Danger signage:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

- F. The New York State Department of Environmental Conservation Asbestos Hauler's Permit number shall be stenciled on both sides and back of the container.
- G. The container is not permitted to be loaded unless it is properly plasticized, has the appropriate danger signage affixed, and has the permit number appropriately stenciled on the container.
- H. Before an enclosed container is removed from the Project Site for transportation to the Disposal Site, a seal will be placed on the door(s) of the container by the Environmental Consultant. The door(s) shall also be locked. The seals and locks shall be removed at the Disposal Site by the operator of the Disposal Facility and the seals shall be returned by the Disposal Facility to the Contractor.
- I. If a lined and sealed open-top container is used pursuant to a Variance, a seal is not required.
- J. The Owner may initiate random checks at the Disposal Site to insure that the procedures outlined herein are complied with.

11.21 OWNER'S AND HAULER'S ASBESTOS WASTE MANIFESTS

- A. Provide acceptable procedure, materials, assemblies, etc. as required by the Authority having Jurisdiction, along with all other rules and regulations governing,
- B. An Asbestos Waste Manifest shall be provided by the Owner (Appendix A) and shall be utilized in conjunction with the Asbestos Hauler's Manifest.
- C. The Owner's Manifest and the Hauler's Manifest shall be completed by the Contractor and verified by the Environmental Consultant that all the information and amounts are accurate and the proper signatures are in place.
- D. The Manifests shall have the appropriate signatures of the Environmental Consultant, the Contractor, and the Hauler representatives prior to any waste being removed from the site.
- E. Copies of the completed Owner's Manifest and the Hauler's Manifest shall be retained by the Environmental Consultant and the Contractor and shall remain on site for inspection.
- F. Upon arrival at the Disposal Site, the Owner's Manifest and the Hauler's Manifest shall be signed by the Disposal Facility operator to certify receipt of ACM covered by the manifest.
- G. The Disposal Facility operator shall return the original Owner's Manifest and the Hauler's Manifest and the container seals to the Contractor.
- H. The Contractor shall forward copies of the Owner's Manifest and the Hauler's Manifest and the container seals to the Environmental Consultant within 14 days of the waste container being removed from the site. Failure to do so may result in payment being withheld from the Contractor.
- I. The Contractor shall utilize the Waste Disposal Log provided by the Owner. This log shall be maintained by the Project Supervisor and shall be kept on site at all times. (See Appendix B.)
- J. Originals of all waste disposal manifests, seals, and disposal logs shall be submitted by the Contractor to the Owner with the final close-out documentation.

SECTION 06 10 00 - MISCELLANEOUS ROUGH CARPENTRY

PART 12 - SECTION 06 10 00 – MISCELLANEOUS ROUGH CARPENTRY: GENERAL

12.1 SUMMARY

A. Section Includes:

1. Concealed wood blocking for support of aluminum fascia, aluminum eaves and gutters.

B. Related Requirements:

1. See 'Sheet Metal Flashing and Trim' and 'Manufactured Gutters and Leaders' sections.

C. Scope:

1. Replace all damaged and inadequate wood blocking at eave and fascia locations at building perimeter.
2. Provide additional blocking as necessary to support fascia and eave blocking where rafter tails or other structural members are insufficient to accept new fasteners.

12.2 REFERENCE STANDARDS

A. ASTM International:

1. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
4. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.

B. Forest Stewardship Council:

1. FSC Guidelines - Forest Stewardship Council Guidelines.

C. Southern Pine Inspection Bureau:

1. SPIB - Standard Grading Rules for Southern Pine Lumber.

D. U.S. Department of Commerce National Institute of Standards and Technology:

1. DOC PS 1 - Construction and Industrial Plywood.
2. DOC PS 2 - Performance Standard for Wood-Based Structural-Use Panels.
3. DOC PS 20 - American Softwood Lumber Standard.

12.3 SUBMITTALS

- A. See Submittal Procedures section of this document for submittal requirements.

12.4 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish two-year labor and material Warranty for repair work of lumber and associated components.

12.5 QUALITY ASSURANCE

A. Perform Work according to following:

1. Lumber Grading Agency: Certified by DOC PS 20.

12.6 MATERIALS

A. Lumber Grading Rules: RIS, SPIB, or WCLIB.

- B. Roof Blocking: Spruce, pine, or fir species; 19 percent maximum moisture content.

12.7 ACCESSORIES

A. Fasteners and Anchors:

1. Fasteners for wood-to-wood connections: ASTM A153, hot-dip galvanized steel for exterior, unfinished and treated wood locations, unfinished steel elsewhere.

12.8 EXAMINATION

- A. Verify that substrate conditions are ready to receive blocking, curbing, and framing.

12.9 PREPARATION

- A. Provide miscellaneous blocking between structural members as necessary to receive new fascia and eave lumber material.
- B. Coordinate placement of blocking, curbing, and framing items.

12.10 INSTALLATION

- A. Set members level and plumb, in correct position.
- B. Place horizontal members, crown side up.
- C. Space framing and furring 16 inches o.c.
- D. Do not fasten into end grain of adjacent materials.

12.11 ATTACHMENTS

- A. Roof Blocking: Spruce, pine, or fir species; 19 percent maximum moisture content; pressure-preservative treatment.

END OF SECTION

SECTION 07 10 00 - ASPHALT SHINGLES

PART 13 - SECTION 07 10 00 – ASPHALT SHINGLES: GENERAL

13.1 SUMMARY

A. Section Includes:

1. Asphalt shingles.
2. Ice dam membrane.
3. Underlayment.
4. Valley protection.
5. Prefabricated penetration boots and sleeves.
6. Metal flashings and accessories.

B. Related Requirements:

1. Section 07 30 00 - Gutters and Downspouts: Metal rainwater gutters and leaders.

13.2 REFERENCE STANDARDS

A. ASTM International:

1. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
2. ASTM A755 - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
3. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
4. ASTM B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
5. ASTM D225 - Standard Specification for Asphalt Shingles (Organic Felt) Surfaced With Mineral Granules.
6. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
7. ASTM D2178 - Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
8. ASTM D3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules. ASTM D3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
9. ASTM D3462 - Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules.
10. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
11. ASTM D7158 -- Standard Test Method for Wind Resistance of Asphalt Shingles (Uplift Force/Uplift Resistance Method).
12. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
13. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
14. ASTM G21 – Standard for Determining Resistance of Synthetic Polymers to Fingi

B. National Roofing Contractors Association:

1. NRCA - The NRCA Roofing Manual: Steep-slope Roof Systems.

- C. Underwriters Laboratories Inc.:
 - 1. UL 790 - Standard Test Methods for Fire Tests of Roof Coverings.
 - D. U.S. Environmental Protection Agency:
 - 1. ENERGY STAR - ENERGY STAR Voluntary Labeling Program.
- 13.3 COORDINATION
- A. Coordinate Work of this Section with products and materials that penetrate roof surfaces, overlap flashing systems specified herein.
- 13.4 PREINSTALLATION MEETINGS
- A. Convene minimum one week prior to commencing Work of this Section.
- 13.5 SUBMITTALS
- A. Section 01 30 00 - Submittal Procedures: Requirements for submittals.
 - B. Product Data: Submit data for shingles, underlayments, ice dam membranes, gutters and downspouts, prefinished flashing materials, and other accessories associated with the roofing installation.
 - C. Samples: Submit manufacturer's sample board for each shingle color, indicating full color range and finish texture/pattern for color and texture selection.
 - D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
 - E. Manufacturer's Instructions: Submit installation criteria and procedures.
 - F. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
 - G. Qualifications Statement:
 - 1. Submit qualifications for installer.
- 13.6 MAINTENANCE MATERIAL SUBMITTALS
- A. Section 01 80 00 - Execution and Closeout Requirements specifies requirements for maintenance materials.
 - B. Extra Stock Materials:
 - 1. Furnish two bundles of extra shingles of each color selected.
- 13.7 QUALITY ASSURANCE
- A. Perform Work according to manufacturer's installation requirement, guidelines and instructions and accepted industry standards.
- 13.8 QUALIFICATIONS
- A. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience.
- 13.9 DELIVERY, STORAGE, AND HANDLING
- A. Section 01 70 00 - Product Requirements specifies requirements for transporting, handling, storing, and protecting products.

- B. Deliver materials in manufacturer's unopened packaging. Do not deliver until roof deck is prepared for installation.
- C. When storing materials on roof deck, evenly distribute weight of bundles.

13.10 AMBIENT CONDITIONS

- A. Do not install ice dam membrane and shingles when surface ambient air or wind chill temperatures are below 45 degrees F or per manufacturer if they have additional installation restrictions.

13.11 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish lifetime manufacturer's warranty for asphalt shingles.
- C. Furnish two-year labor Warranty for repair work of roofing assembly and components.
- D. Warranty Transferability Clause: Make available to Owner shingle manufacturer's standard option for transferring warranty to a new owner.

13.12 ASPHALT SHINGLE PRODUCTS

- A. Manufacturers:
 1. CertainTeed Corporation: Landmark PRO.
 2. GAF Materials Corporation: Timberline HD.
 3. Owens Corning: True Definition Duration.
 4. Substitutions: Section 01 70 00 - Product Requirements.
- B. Description: ASTM D3462; UL 790 Class A; Type I, self-sealing; glass-fiber mat base, mineral-granule-surface type; 250 lb./100 sq. ft. weight; laminated overlay staggered-edge butt type; color and texture as selected by Owner.
- C. Performance and Design Criteria:
 1. Provide materials according to The NRCA Roofing Manual: Steep-slope Roof Systems.
 2. Roof Covering Fire Classification: Minimum Class A when tested according to ASTM E108 or UL 790.
 3. Roof Covering Wind Classification: ASTM D3161, Class F or ASTM D7158, Class H.
 4. Wind Rating: 130 mph.
 5. Roof Covering Impact Classification: ASTM D2218, Class IV.
 6. Apply label from agency approved by authority having jurisdiction to identify each roof-assembly component.

13.13 MATERIALS

- A. Ice Dam Membrane: ASTM D1970; self-adhering, polymer-modified bituminous sheet material, smooth surface, 40 mil to 50 mil thick, 36 inches wide, with strippable release paper to expose adhesive surface.
- B. Underlayment: Roofing manufacturing recommended asphalt-saturated glass-fiber felts.

13.14 FABRICATION

- A. Form flashings to protect roofing materials from physical damage and shed water.

- B. Form eave edge and gable edge flashing to extend minimum 2 inches onto roof and minimum 1/4 inch below sheathing.
- C. Form flashing sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.
- D. Hem exposed edges of flashings minimum 1/4 inch on underside.
- E. Apply bituminous paint on concealed surfaces of flashings.

13.15 ACCESSORIES

- A. Nails: According to ASTM F1667; standard round-wire roofing nails, hot-dip-galvanized-steel type; minimum 0.105-inch-diameter shank, minimum 0.375-inch-diameter head; of sufficient length to penetrate through plywood roof sheathing.
- B. Plastic Cement: Asphalt type with mineral fiber components, free of toxic solvents, capable of setting within 24 hours at a temperature of 75 degrees F and 50 percent RH.
- C. Lap Cement: Fibrated, cutback-asphalt type; recommended for use in application of underlayment; free of toxic solvents.
- D. Flashing Materials:
 - 1. Galvanized Steel: According to ASTM A653; structural steel sheet, G90 zinc coating; 0.024-inch-thick steel.
 - 2. Aluminum Sheet:
 - 1) According to ASTM B209.
 - 2) 3003 alloy, H14 temper.
 - 3. Prefinished Aluminum Sheet:
 - 1) According to ASTM B209.
 - 2) 3003 alloy, H14 temper.
- E. Bituminous Paint: Acid- and alkali-resistant type; black color.

13.16 EXAMINATION

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for installation examination.
- B. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.
- C. Verify that roof openings are correctly framed.
- D. Verify that deck surfaces are dry and free of ridges, warps, or voids.

13.17 PREPARATION

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for installation preparation.
- B. Fill knot holes and surface cracks with latex filler at areas of bonded ice dam membrane.
- C. Broom-clean deck surfaces under ice dam membrane and underlayment.

13.18 INSTALLATION

- A. Ice Dam Membrane Installation:

1. Place eave edge and gable edge metal flashings tight with fascia boards. Weather-lap joints minimum 2 inches and seal with plastic cement. Secure flange with nails at maximum 12 inches o.c.
 2. Install ice dam membrane parallel with eave edge, flush with face of eave edge flashing with edges lapped 3 inches shingle-style and ends lapped 6 inches and staggered between rows.
 3. Extend ice dam membrane minimum 2 feet up slope beyond interior face of exterior wall.
- B. Underlayment Installation:
1. Place one ply of underlayment over substrate not covered by ice dam membrane, with ends and edges weather lapped 2 inches. Stagger end laps of each consecutive layer. Weather-lap ice dam membrane minimum 2 inches. Nail underlayment in place.
 2. Place 19-inch-wide ply of underlayment over substrate not covered by ice dam membrane, with ends lapped minimum 2 inches. Weather-lap ice dam membrane minimum 2 inches. Nail underlayment in place.
 3. Place second ply of underlayment over first layer, lapping first layer 19 inches. Lap ends minimum 2 inches. Stagger end laps of each consecutive layer. Nail underlayment in place.
 4. Install underlayment according to manufacturer's instructions without distortions capable of preventing shingles from sealing. Nail underlayment overlap at 36 inches o.c.
 5. Weather-lap and seal items projecting through or mounted on roof watertight with plastic cement.
- C. Valley Protection Installation:
1. Ice Dam Membrane, Closed Valleys:
 - 1) Place ice dam membrane sheet, 36 inches wide, centered over valley as valley protection. Weather-lap joints minimum 3 inches.
- D. Roof Penetrations:
1. Place ice dam membrane sheet, 36 inches wide, at joint of roof plane and vertical surfaces, including walls and dormers. Extend vertically to top of curb or minimum 8 inches above level of roof. Weather-lap edge joints minimum 3 inches and lap end joints minimum 6 inches.
 2. Provide prefabricated pipe and penetration boots compatible with proposed roofing and underlayment materials.
- E. Metal Flashing and Accessories Installation:
1. Weather-lap joints minimum 2 inches and seal weathertight with plastic cement.
 2. Secure in place with nails. Conceal fastenings.
 3. Flash and seal Work weathertight, projecting through or mounted on roofing with plastic cement.
- F. Asphalt Shingles Installation:
1. Install shingles according to manufacturer's instructions, using no less than minimum number of fasteners per shingle than required for wind-load rating.

2. Place shingles in straight coursing pattern with manufacturer required weather exposure to produce standard thickness over full roof area. Install double course of shingles at eaves.
3. Project starter course and first course of shingles 3/4 inch beyond eave flashing and fascia boards.
4. Extend shingles 1/2 inch beyond face of gable edge flashing and fascia boards.
5. Extend shingles on both slopes across valley in weave pattern and fasten. Extend shingles minimum of 12 inches beyond valley center line to achieve woven valley, concealing valley protection.
6. Cap hips and ridges with individual shingles, maintaining 5-inch weather exposure. Place to avoid exposed nails.
7. Cap hips and ridges with individual shingles, maintaining 5-inch weather exposure. Place to avoid exposed nails.
8. Install roof vents according to manufacturer's instructions.
9. Coordinate installation of roof-mounted components or items projecting through roof with weathertight placement of ice dam membrane and counterflashings.
10. Complete installation to provide weathertight service.

13.19 FIELD QUALITY CONTROL

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.
- B. Before Substantial Completion, inspect roof to verify shingles self-sealed from exposure to prevent wind uplift. Apply plastic cement to secure shingles that failed to seal. Report results of inspection and required corrective measures.

13.20 PROTECTION

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for protecting finished Work.
- B. Foot traffic over finished roof surfaces limited to only that absolutely necessary to carry out the Work.

END OF SECTION

SECTION 07 20 00 - SHEET METAL FLASHING AND TRIM

PART 14 - SECTION 07 20 00 – SHEET METAL FLASHING AND TRIM: GENERAL

14.1 SUMMARY

- A. Section includes field-bent and preformed aluminum fascia, soffit and rake-board components.

14.2 REFERENCES

- A. American Architectural Manufacturers Association:
 - 1. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum.
 - 2. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 2604 - Voluntary specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 4. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. ASTM International:
 - 1. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- C. Sheet Metal and Air Conditioning Contractors:
 - 1. SMACNA - Architectural Sheet Metal Manual.

14.3 DESIGN REQUIREMENTS

- A. Sheet Metal Flashings: Conform to the following criteria of SMACNA "Architectural Sheet Metal Manual."
- B. Maintain one copy of document on site.

14.4 SUBMITTALS

- A. See Submittal Procedures section of this document for submittal requirements.
- B. Product Data: Submit data on manufactured components metal types, finishes, and characteristics.
- C. Samples:
 - 1. Submit two samples 3x3 inch in size illustrating metal finish color.

14.5 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish 20-year manufacturer's warranty.
- C. Furnish two-year labor Warranty for repair work of assembly and components.

14.6 QUALITY ASSURANCE

- A. Perform Work in accordance with industry acceptable best practices.

14.7 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal work with minimum three years' experience.

14.8 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials causing discoloration or staining.
- C. Recycle applicable discarded packaging materials according to the Construction Waste Management portion of this document.

14.9 SHEET METAL FLASHING AND TRIM PRODUCTS

- A. Pre-Finished Aluminum Sheet: ASTM B209; 0.032 inch thick; mill finish shop pre-coated with polyester top coat; color as selected from manufacturer's standard color to match existing.

14.10 ACCESSORIES

- A. Fasteners: Aluminum, color to match finished material being fastened.
- B. Underlayment: ASTM D226; Type I, No. 15 unperforated asphalt felt.

14.11 FABRICATION

- A. Form sections shape indicated on Drawings, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet metal, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- E. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
- F. Seal metal joints.

14.12 FACTORY FINISHING

- A. Class I Color Anodized Finish: AAMA 611; integrally colored anodic coating not less than 0.7 mils thick.

14.13 EXAMINATION

- A. Verify roofing termination and base flashings are in place, sealed, and secure.

14.14 INSTALLATION

- A. Secure trim in place using concealed fasteners. Use exposed fasteners only where permitted.
- B. Fit trim units tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- C. Seal metal joints watertight.

14.15 FIELD QUALITY CONTROL

- A. Inspection will involve surveillance of Work during installation to ascertain compliance with specified requirements.

END OF SECTION

SECTION 07 30 00 - GUTTERS AND DOWNSPOUTS

PART 15 - SECTION 07 30 00 –GUTTERS AND DOWNSPUTS: GENERAL

15.1 SUMMARY

- A. Section includes pre-finished aluminum gutters and downspouts.
 - 1. Provide precast concrete splash pads.
- B. Related Sections:
 - 1. Section 07 10 00 – Asphalt Shingles.

15.2 REFERENCES

- A. American Architectural Manufacturers Association:
 - 1. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum.
 - 2. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 2604 - Voluntary specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 4. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. ASTM International:
 - 1. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

15.3 DESIGN REQUIREMENTS

- A. Conform to applicable code for size and method of rain water discharge.

15.4 SUBMITTALS

- A. Section 01 30 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data on manufactured components, materials, and finishes.
- C. Samples: Submit two samples, inch long illustrating component design, finish, color, and configuration.

15.5 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish 20-year manufacturer's warranty.
- C. Furnish two-year labor Warranty for repair work of assembly and components.

15.6 QUALITY ASSURANCE

- A. Perform Work in accordance with all regulations set forth by authorities having jurisdiction.

15.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 70 00 - Product Requirements: Product storage and handling requirements.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope to drain.
- C. Prevent contact with materials during storage capable of causing discoloration, staining, or damage.

15.8 COORDINATION

- A. Coordinate Work with downspout discharge pipe inlet or direction of discharge flow onto existing impervious surfaces.

15.9 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for gutter and downspout finishes.

15.10 GUTTERS AND DOWNSPOUT PRODUCTS

A. Manufactures:

- 1. Berger Building Products, Inc.
- 2. Castle Metal Products.
- 3. Klauer Manufacturing Company.
- 4. Lynch Aluminum Mfg. Co.
- 5. Perimeter Systems; a division of SAF.
- 6. Or Approved Equal: Section 01 70 00 - Product Requirements.

B. Product Description:

- 1. Gutters: Aluminum; style profile to match existing.
- 2. Downspouts: Aluminum; style profile to match existing.
- 3. Splash Pads: Precast concrete type; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.

15.11 COMPONENTS

- A. Pre-Finished Aluminum Sheet: ASTM B209, manufacturer's standard alloy and temper for specified finish; 0.032 inch thick; shop pre-coated with modified silicone, acrylic polyester, or PVDF (polyvinylidene fluoride) coating; color as selected from manufacturer's standard color to match existing.

15.12 ACCESSORIES

A. Anchors and Supports: Profiled to suit gutters and downspouts.

- 1. Anchoring Devices: Type recommended by fabricator.
- 2. Gutter Supports: Brackets.
- 3. Downspout Supports: Brackets.

B. Fasteners: Same material and finish as gutters and downspouts.

- C. Solder: Soldering not permitted: use compatible mechanical fasteners (i.e. rivets, self-tapping screws, etc.)

15.13 FABRICATION

- A. Form gutters and downspouts of profiles and to match existing.
- B. Fabricate with required connection pieces.
- C. Form sections square, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- D. Hem exposed edges of metal.
- E. Fabricate gutter and downspout accessories; seal watertight.

15.14 FACTORY FINISHING

- A. Class I Color Anodized Finish: AAMA 611; integrally colored anodic coating not less than 0.7 mils thick.

15.15 EXAMINATION

- A. Verify surfaces are ready to receive gutters and downspouts.

15.16 PREPARATION

- A. Paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to minimum dry film thickness of 15 mi.

15.17 INSTALLATION

- A. Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts and accessories.
- B. Slope gutters 1/8 inch per foot minimum.
- C. Connect downspouts to downspout shoes above grade.
- D. Set splash pads under downspouts. Secure in place.

END OF SECTION

SECTION 08 10 00 - LOUVERS

PART 16 - SECTION 08 10 00 – LOUVERS: GENERAL

16.1 SUMMARY

- A. Section includes operable louvers, frames and accessories.

16.2 REFERENCES

- A. Air Movement and Control Association International, Inc.:
 - 1. AMCA 500- L - Test Methods for Louvers, Dampers, and Shutters.
- B. ASTM International:
 - 1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 2. ASTM A666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 3. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
 - 4. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
- C. California Department of Health Services:
 - 1. CA/DHS/EHLB/R-174 - Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.
- D. South Coast Air Quality Management District:
 - 1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.
- E. Underwriters Laboratories Inc.:
 - 1. UL - Electrical Construction Equipment Directory.

16.3 PERFORMANCE REQUIREMENTS

- A. Louver: To permit 45 percent free area.
- B. Wind-Borne Debris Loads: Design louvers located within 30 feet of grade to withstand ASTM E1996; large missile impact test.

16.4 SUBMITTALS

- A. Section 01 30 00 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate louver opening and clearance dimensions, tolerances; head, jamb and sill details; blade configuration, screens, and frames.
- C. Product Data: Submit data describing design characteristics, maximum recommended air velocity, design free area, materials and finishes.
- D. Samples: Submit two samples in adequate size illustrating finish and color of exterior surfaces.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

16.5 CLOSEOUT SUBMITTALS

- A. Section 01 80 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Operation and Maintenance Data: Submit Operation and Maintenance Data.

16.6 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish 2-year manufacturer's warranty for finish.
- C. Furnish two-year labor Warranty for repair work of assembly and components.

16.7 QUALITY ASSURANCE

- A. Perform Work in accordance with AMCA Certification for Water Penetration, Air Performance, and Wind Driven Rain, in compliance with AMCA 500-L. Attach AMCA seal to louvers.
- B. Perform Work in accordance with any and all authorities having jurisdiction.
- C. Maintain one copy of each document on site.

16.8 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum two years documented experience.

16.9 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

16.10 COORDINATION

- A. Coordinate Work in this Section with remaining Work of the Contract as necessary.

16.11 WARRANTY

- A. Section 01 80 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish twenty year manufacturer warranty for louvers.
- C. Warranty: Include coverage for degradation of finish.

16.12 WALL LOUVER PRODUCTS - NON-RECTANGULAR

- A. Manufacturers:
 - 1. Dowco Products Group
 - 2. Pottorff
 - 3. Ruskin Company
 - 4. Wonder Metals Corporation.
 - 5. Approved Substitutions: Section 01 70 00 - Product Requirements.
- B. Furnish materials in accordance with the New York State Building Code.
- C. Louver Construction: Aluminum.
- D. Louver Panel Thickness: minimum 2 inches deep, face measurements.
- E. Louver Blade Design: Sloped at minimum 30 degrees.

- F. Louver: To permit 45 percent free area.
- G. Water Penetration: Not more than 0.01 oz/sq ft of free area.

16.13 COMPONENTS

- A. Aluminum: ASTM B221 alloy, temper; extruded shape; prefinished with shop applied siliconized polyester or fluoropolymer finish.
- B. Insect Screen: Aluminum mesh set in aluminum frame.

16.14 ACCESSORIES

- A. Fasteners and Anchors: Compatible with Louver and substrate.
- B. Flashings: Of same material as louver frame.
- C. Sealants: High performance 30-year silicone product compatible with louver material and substrate.

16.15 FABRICATION

- A. Louver Blade Design: Slope and style as specified for each louver type; material thickness of 0.081 inch minimum.
- B. Louver Frame: Channel shape, mechanically fastened corner joints, material thickness of 0.060 inch minimum. Form perimeter of frames with recessed channel to retain backer rod for sealant application.
- C. Intermediate Mullions: Concealed of formed aluminum, profiled to suit louver frame.
- D. Head and Sill Flashings: Extruded to required shape, single length in one piece for each location.
- E. Screens: Install screen mesh in shaped frame, reinforce corner construction

16.16 FACTORY FINISHING

- A. Prepainted finish of white color as selected from manufacturer's standard white color.

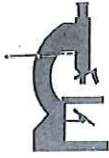
16.17 EXAMINATION

- A. Verify prepared openings and flashings are ready to receive Work and opening dimensions are as instructed by louver manufacturer.

16.18 INSTALLATION

- A. Install louvers level and plumb.
- B. Install flashings and align louver assembly to ensure moisture shed from flashings and diversion of moisture to exterior.
- C. Secure louvers in opening framing with concealed fasteners.
- D. Install insect screen and frame to interior of louver.
- E. Install perimeter sealant and backing rod in accordance with the manufacturer's requirements.
- F. Strip protective finish coverings and clean surfaces and components.

END OF SECTION



GEO-ENVIRONMENTAL CO., INC

Air Testing, Asbestos Inspections, Consulting

P.O. Box 491
Yorktown Heights, NY 10598

Laboratory / Office
170 Loder Road, Yorktown Heights, N.Y. 10598
GeoEnv.us

914-962-1086
Fax 914-962-3068
geoenv@verizon.net

October 12, 2010

Ken Rundle
Town of Yorktown -Water
1080 Spillway Road
Shrub Oak, N.Y.

Mr. Rundle,

Attached please find the results from the roofing samples taken at the **Brick Pump House** building located at **1080 Spillway Road** in Shrub Oak. The samples were collected by NYS-DOL certified Asbestos Inspector Robert Violante (88-09188) on October 4 and analyzed for asbestos content at Eastern Analytical Services, a NVLAP (#101646-0) and NYS-DOH approved ELAP (#10851) environmental laboratory.

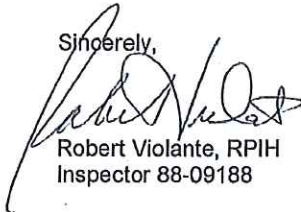
Samples of roofing tile and felt vapor barrier were multi-sampled and only the tile was found to containing greater than 1 percent asbestos content.

The roofing tile is found to contain chrysotile asbestos and totals approximately 1400 square feet. The material has become brittle due to age. As per 12NYCRR Part 56, a NYS-DOL licensed asbestos contractor using certified workers is required to remove this material.

If there are any questions regarding these results, please do not hesitate in contacting me.

Thank you for using GEO ENVIRONMENTAL CO., INC. for your environmental testing and consulting needs.

Sincerely,



Robert Violante, RPIH
Inspector 88-09188



GEO-ENVIRONMENTAL CO., INC

Air Testing, Asbestos Inspections, Consulting

P.O. Box 491
Yorktown Heights, NY 10598

Laboratory / Office
170 Loder Road, Yorktown Heights, N.Y. 10598
GeoEnv.us

914-962-1086
Fax 914-962-3068
geoenv@verizon.net

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1080 Spillway Road
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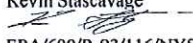
Sincerely,



Robert Violante, RPIH
Inspector 88-09188

Eastern Analytical Services, Inc.

Bulk Sample Results
RE: CPN X1125 - YWD

Date Collected : 10/05/2010
Collected By : Robert Violante
Date Received : 10/05/2010
Date Analyzed : 10/11/2010
Analyzed By : Kevin Stascavage
Signature : 
Analytical Method : EPA/600/R-93/116/NYS-DOH 198.1 (PLM)
NVLAP Lab No. 101646-0
NYS Lab No. 10851

Client: GEO Environmental Co., Inc.
170 Loder Road
P.O. Box 491
Yorktown Heights, NY 10598

Sample ID Number 1
Layer Number
Lab ID Number 1949105
Sample Location Not Given

Sample Description Roof Tile

Method of Quantification Point Count
Appearance Layered Yes
Homogenous No
Fibrous Yes
Color Gray


Sample Treatment Homogenized
Asbestos % Amosite 0.0
Content % Chrysotile 6.4
% Other 0.0
% Total Asbestos 6.4
Other Fibrous % Fibrous Glass 0.0
Materials % Cellulose 0.0
Present % Other 0.0
% Unidentified 0.0
Non-Fibrous % Silicates 0.0
Materials % Carbonates 0.0
Present % Other 0.0
% Unidentified 93.6



Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory.
Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
These Results Can Not Be Used To Claim That NOB Items Tested Are Non-Asbestos Containing. Overall Lab Accuracy $\pm 17\%$.
AIIA Accreditation No. 100263 Rhode Island DOH No. AAL-07213 Massachusetts DOL No. A A 600972 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095

Eastern Analytical Services, Inc.

Bulk Sample Results
RE: CPN X1125 - YWD

Date Collected : 10/05/2010
 Collected By : Robert Violante
 Date Received : 10/05/2010
 Date Analyzed : 10/10/2010
 Analyzed By : Eleonora Skulsky
 Signature : 
 Analytical Method : NYS-DOH 198.4
 NVLAP Lab No. 101646-0
 NYS Lab No. 10851

Client GEO Environmental Co., Inc.
 170 Loder Road
 P.O. Box 491
 Yorktown Heights, NY 10598

Sample ID Number	3	4
Layer Number		
Lab ID Number	1949107	1949108
Sample Location	Not Given	Not Given

Sample Description	Roofing Felt	Roofing Felt
--------------------	--------------	--------------

Analytical Method	Tem	Tem
Appearance		
Layered	No	No
Homogenous	Yes	Yes
Fibrous	Yes	Yes
Color	Black	Black

Asbestos			
Content	% Amosite	0.0	0.0
	% Chrysotile	< 0.1	< 0.1
	% Other	0.0	0.0
	% Total Asbestos	< 0.1	< 0.1

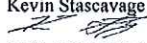
Other			
Materials	% Organic	93.5	92.2
Present	% Carbonates	3.6	3.3
	% Other Inorganic	2.9	4.5

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory.
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 AIIA Accreditation No. 100263 Rhode Island DOI No. AAL-072E3 Massachusetts DOL No. A A 000072 Connecticut DOI No. PH-0522 Maine DEP No. LA-024 Vermont DOI No. AAS-2095

Eastern Analytical Services, Inc.

Page 1 of 1

Bulk Sample Results
 RE: CPN X1125 - YWD

Date Collected : 10/05/2010
 Collected By : Robert Violante
 Date Received : 10/05/2010
 Date Analyzed : 10/08/2010
 Analyzed By : Kevin Stascavage
 Signature : 
 Analytical Method : NYS-DOH 198.6
 NVLAP Lab No. 101646-0
 NYS Lab No. 10851

Client GEO Environmental Co., Inc.
 170 Loder Road
 P.O. Box 491
 Yorktown Heights, NY 10598

Sample ID Number	3	4
Layer Number		
Lab ID Number	1949107	1949108
Sample Location	Not Given	Not Given

Sample Description	Roofing Felt	Roofing Felt
--------------------	--------------	--------------

Analytical Method	P1m	P1m
Appearance		
Layered	No	No
Homogenous	Yes	Yes
Fibrous	Yes	Yes
Color	Black	Black

Asbestos	% Amosite	0.0	0.0
Content	% Chrysotile	< 0.1	< 0.1
	% Other	0.0	0.0
	% Total Asbestos	< 0.1	< 0.1

Other	% Organic	93.5	92.2
Materials			
Present	% Carbonates	3.6	3.3
	% Other Inorganic	2.9	4.5

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory.
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 These Results Cannot Be Used To Claim That NOB Items Tested Are Non-Asbestos Containing (Unless "% Other Inorganic", As Reported Above, Is Less Than One Percent).
 AHA Accreditation No. 100263 Rhode Island DOH No. AAL-072T3 Massachusetts DOL No. A A 000072 Connecticut DOH No. P1F-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095

BULK SAMPLE DATA AND CHAIN OF CUSTODY

Project Name: YWD Project #: X1125

Email Results: geoenv@verizon.net Laboratory: EAS

Turnaround Time: 12 Hrs , 24 Hrs , 48 Hrs , 72 Hrs , 96 Hrs WORKING 5 DAYS 1-Week

Samples Taken By: R Violante Signature: [Signature]

Date: 10-5-10 Time: 1100 Cert. # 88-09188

NYS 198.1 PLM Friable NYS 198.6 PLM Non-Friable NYS 198.4 TEM Non-Friable
 Other: AS NEEDED NYS Positive Stop on Multi-Samples: Yes / No

Sample #	Sample Description	Multi-Sample ID
<u>1</u>	<u>Roof Tile</u>	<u>A</u>
<u>2</u>	<u>↓</u>	<u>A</u>
<u>3</u>	<u>Roofing Felt</u>	<u>B</u>
<u>4</u>	<u>↓</u>	<u>B</u>
 	 	
 	 	
 	 	
 	 	
 	 	
 	 	
 	 	
 	 	

Total Samples: 4 Relinquished [Signature] Date/Time 10/5/10 11:17
 Received [Signature] Date/Time OCT 5 2010 14:15
 Page 1 of 1