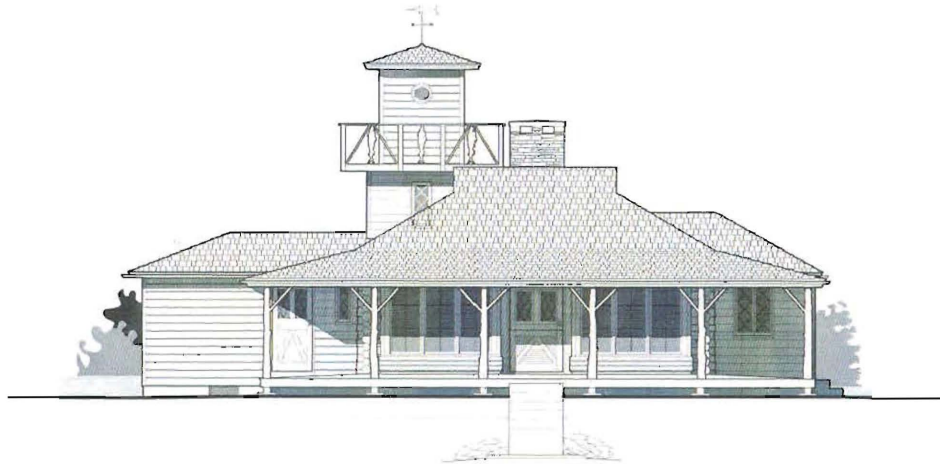


EPP E10029
10 PR 07470



Smith-Taylor Cabin Restoration Project

Town of Shelter Island,
New York



Architectural Specifications

08 May 2012



Scope of Work
Smith-Taylor Cabin Restoration Project
Town of Shelter Island, New York

24 January 2012
Revised 26 January 2012
Revised 24 February 2012
Revised 7 May 2012

1. General Scope Outline

- 1.0 This document and design drawings are put forth to outline the scope of work for a construction bid. The design calls for the restoration of an existing log cabin built circa 1900, with wood framed additions that were made in the 1940's. See Architectural Data document for a more detailed description.
- 1.1 All work to conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties with guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Building (<http://www.nps.gov/history/hps/tps/standguide/>)
- 1.2 The Contractor is responsible for visiting the job site prior to preparing the construction bid. Please note: the cabin is on a peninsula which is only accessible from the mainland at low tide. Coordinate visit through Taylor's Island Foundation (631.749.1603).
- 1.3 At the discretion of the Owner and Architect, certain items listed below may be deferred to a second phase of construction, as funding permits. The top priority is to protect the structure from further damage due to water infiltration.
 - a. Roof
 - b. Log Walls
 - c. Windows
 - d. Replacement of board and batten siding
 - e. Remaining items listed in the proposal will be included and executed as funding permits.

2. Foundation

- 2.0 Locate and patch cracks in existing concrete foundation walls.
- 2.1 Basement bulkhead door
 - A. Repair and reinforce, and paint, existing wood doors (001-1)
 - B. Install new hinges, handles, and hasp for padlock. Acorn Manufacturing or approved equal. Provide cutsheets for approval.

3. Roof

- 3.0 Remove all existing roofing material down to sheathing.
- 3.1 Demolish existing small brick chimney.
- 3.2 Inspect existing sheathing for deterioration and selectively replace as necessary with like material.
- 3.3 Install 18 oz copper flashing over bituminous membrane at all ridges and valleys, and wall intersections at tower, as indicated in drawings. Remove siding as necessary for proper step flashing.
- 3.4 Install hipped gable roof at Bedroom 103. See drawings. Eaves to align with those of existing south bedroom wing.
- 3.5 Roofing

- A. Western Red Cedar Shakes with $\frac{3}{4}$ " butts, Certi-Split® Tapersawn Shakes, or approved equal. Provide sample for approval. Provide alternates for Cypress Shakes, and Asphalt Shingles.
- B. Install according to Cedar Shake & Shingle Bureau Manual specifications for Solid Deck Application/High Humidity Area Details.
- C. Use Benjamin Obdyke Cedar Breather, or approved equal for continuous ventilation product. Provide alternate for lath.

3.6 Gutters

- A. Install 20 oz, 5" round copper gutters. Gutters to be installed at a later date.
- B. Hangers: #30 Shank copper adjustable hangers. Provide sample for approval. (<http://www.guttersupply.com/m-copper-shanks-30.gstml>)
- C. Downspouts into rain barrels. See drawings for locations.

4. Balcony

- 4.0 Remove existing railing, posts and decking.
- 4.1 Examine condition of existing cantilevered joists. Sister reinforcement if necessary.
- 4.2 Flash tops of exposed joists with 18 oz copper, and as indicated in drawings.
- 4.3 Install new Western Red Cedar decking, 3" x 1-1/4" with +/- 1/4" gaps. Provide alternate for Cypress.
- 4.4 Install new Western Red Cedar railing as shown in drawings. Provide alternate for Cypress.

- A. Template fish balusters from existing inside staircase. Verify height.

5. Chimney

5.0 Demolish existing chimney to roof level.

- A. Stone to be safely stored for use in reconstruction.

5.1 Provide “thru-flashing” and reconstruct.

5.2 Confirm make-up of existing mortar and match existing tooling profile and depth.

5.3 Install new precast concrete chimney cap, per drawings. Provide concrete sample for approval prior to casting. Barrasso and Sons or approved equal.

5.4 Repoint mortar where necessary at interior cracks.

6. Exterior Walls

6.0 Log walls

- A. Provide shoring for roof and bay window header at northeast corner. See drawings for exact location and extent.
- B. Remove existing porch decking as necessary.
- C. Demolish log wall.
- D. Examine condition of rubble trench foundation and repair/supplement as necessary.
- E. Rebuild wall with logs to match existing in species and dimensions.
- F. Examine entirety of log walls to determine if any other areas are in decay and need of replacement.
- G. Re-chink entire log structure with chinking to match historic (analysis provided by independent consultant, Jablonski Berkowitz Conservation Inc.). Provide color samples and mock-up for approval.

6.1 Framed Walls

- A. Existing siding to remain. Install battens and corner boards where missing.
- B. Remove existing louver in southwest corner of kitchen volume. Replace siding.
- C. Provide alternate for board and batten siding to be replaced with faux log siding to match existing.

7. Doors and Windows

7.0 General conditions

- A. Each window and door is to be assessed individually for specific restoration requirements.
- B. Inspect condition of wood members and replace any severely deteriorated pieces.
- C. If a window is too deteriorated to repair using the same sash and pane configuration and other design details, replacement may be necessary. If using the same kind of material is not technically or economically feasible when replacing windows deteriorated beyond repair, then compatible substitute materials may be considered. The new work should be unobtrusively dated to guide future research and treatment.

7.1 Glazing

- A. Inspect condition of glazing and mullions.
- B. Replace broken glass and/or deteriorated mullions.
- C. Glass to be Restoration Glass by Bendheim or approved equal. Provide samples. Provide alternate for conventional plate glass.
- D. Silicone caulk, color TBD. Provide samples for approval.

7.2 Hardware

- A. Inspect condition of all door and window hardware (hinges, latches, strikes, etc)
- B. Refurbish existing where feasible; replace in kind with similar if not. Acorn Manufacturing or approved equal.
- C. Front entry door (101-3) is to be returned to its former Dutch door operability.

7.3 Weatherproofing

- A. At all exterior doors and windows install weather stripping. Specific type TBD.

7.4 New windows

- A. (107, 108, 109, 110) to be latticed casement windows to match existing.
- B. Missing brass porthole window in tower door to match existing.

8. Paint

- 8.0 Historic paint analysis provided by independent consultant, Jablonski Berkowitz Conservation Inc. (JBC)
- 8.1 Paint entire exterior of framed walls (faux log siding and board and batten) with paint as specified by JBC.
- 8.2 Log ends of historic log structure to be painted the same as faux logs.
- 8.3 Strip paint from brass porthole windows in tower.

9. Weathervane

- 9.0 Existing weathervane to be removed, refurbished to full functionality, and reinstalled, with new flashing.

10. Clean-up

- 9.1 Clean-up, remove, and recycle and/or dispose of all waste.

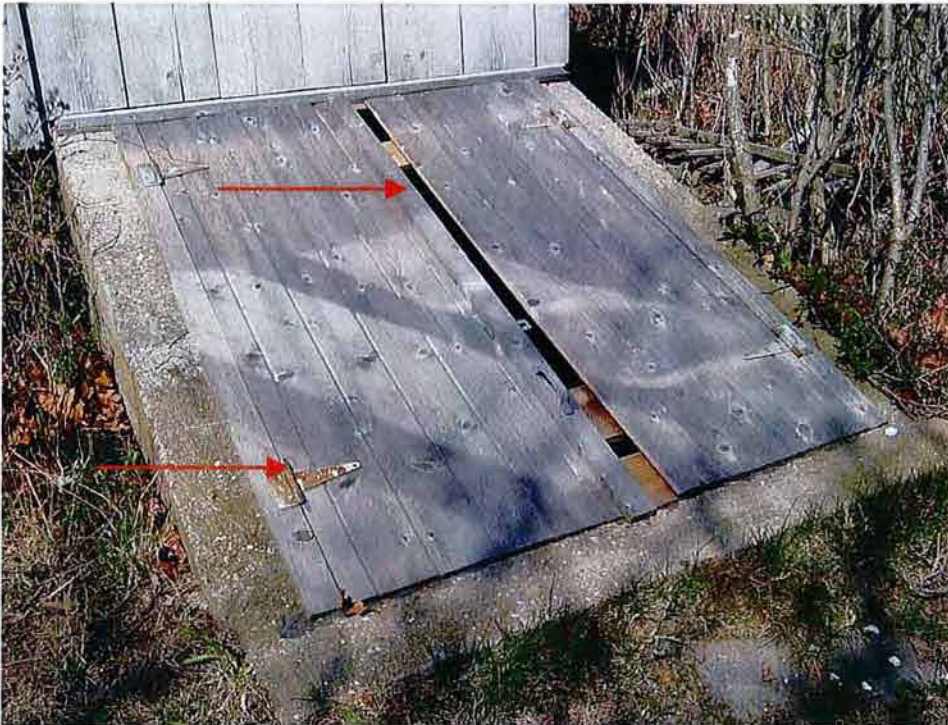


Photo 1: Inadequate and unsecured cellar entry. The hinged batten doors will be repaired and reinforced.

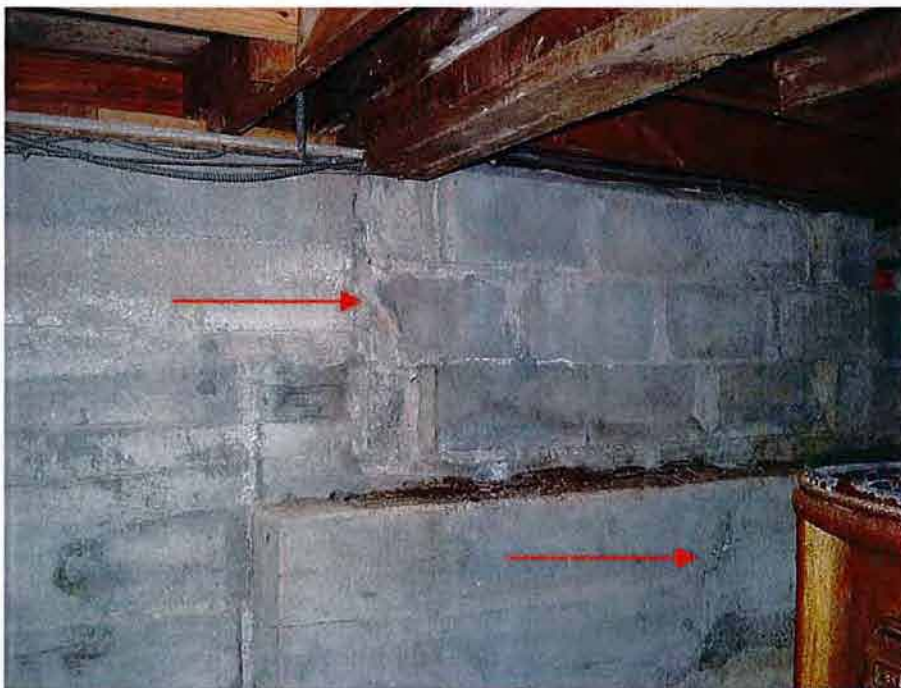
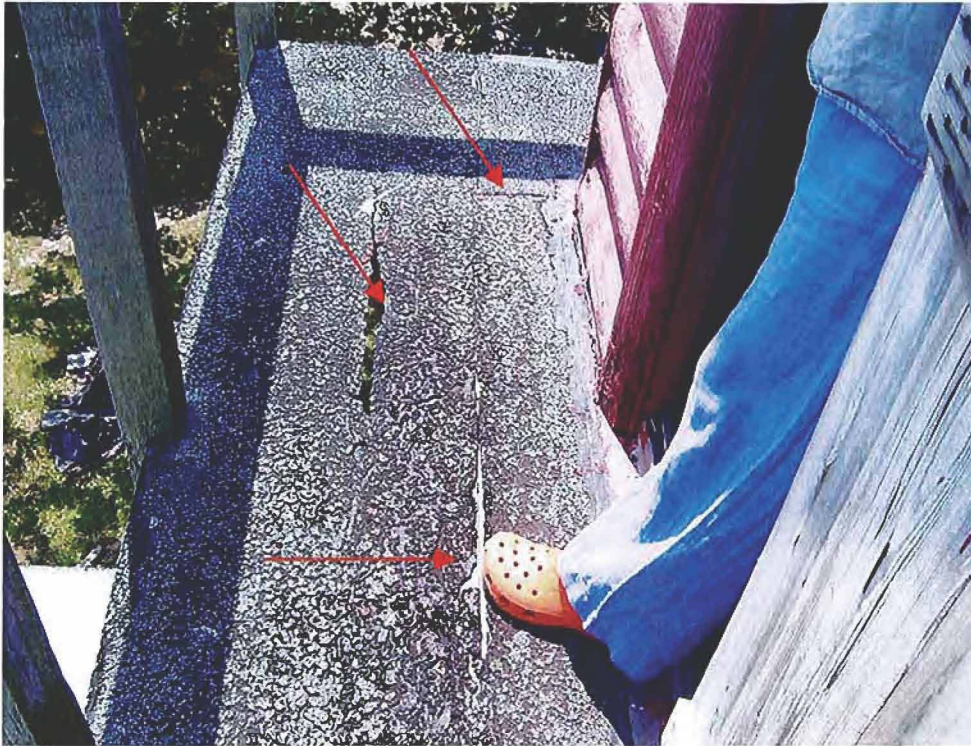


Photo 2: Foundation cracks. The foundation is cracking and will be repaired and/or reinforced.



Photo 3: Roof failure. Patches and layers of flashing reveal an attempt to correct the problem originating from when the building was enlarged and the tower constructed. The building was not engineered for the long-term success and functionality of the roof, which has failed because of inadequate water drainage, and has resulted in water penetration in the interior. A new, engineered roofing system will be installed.



Photos 4 & 5: Tower balcony. The tower's narrow balcony is currently covered in an asphalt material that is deteriorating and cannot withstand foot traffic. The wooden railings are also unsafe. The balcony structure, decking and railing will be repaired to a safe condition.



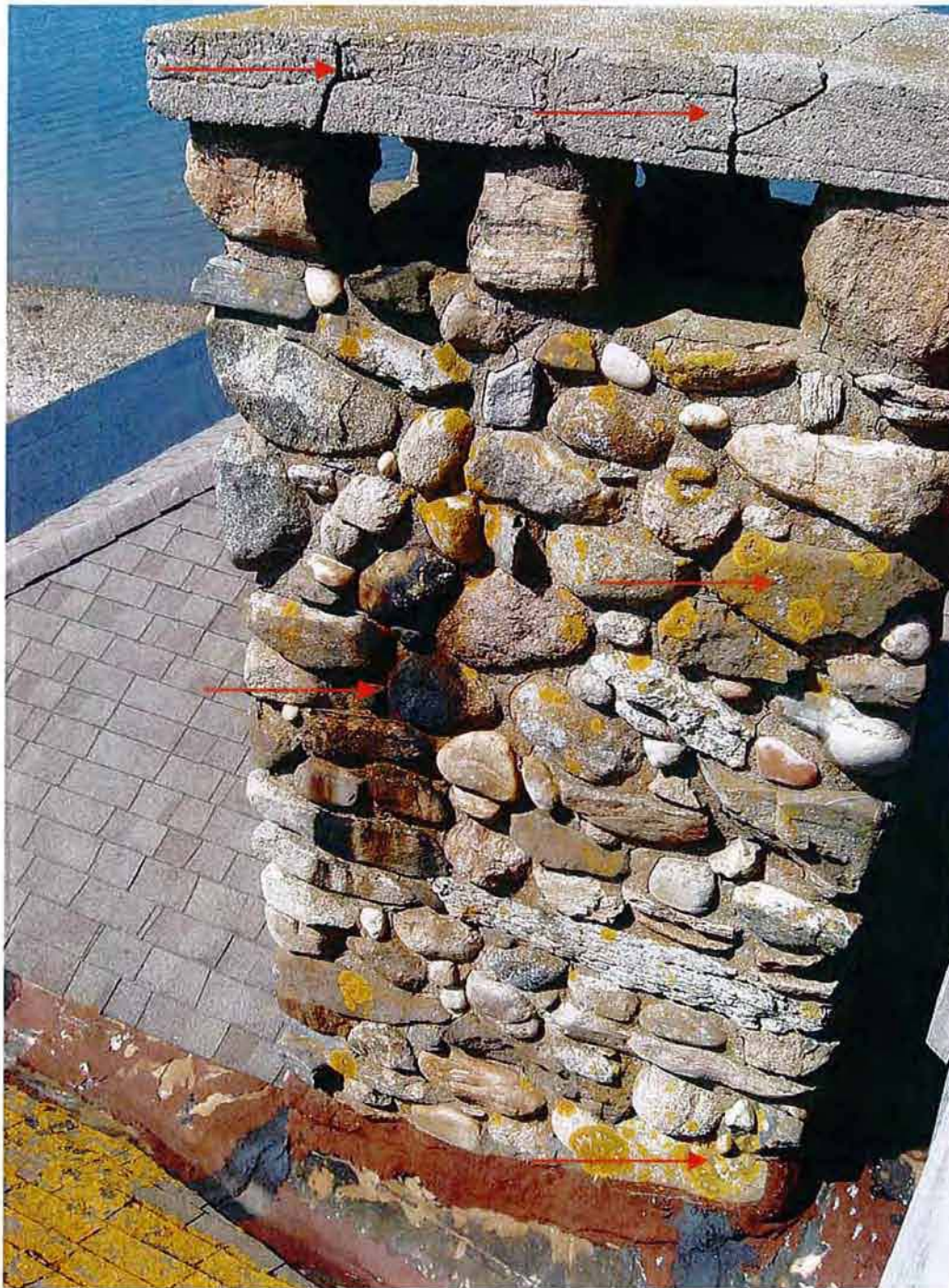


Photo 6: Large stone chimney. This chimney is associated with the original building. Its concrete cap is cracked. The build-up of bio-growth on the concrete cap and on the face of the chimney is an indication of excessive moisture. A new concrete cap will be installed, as well as repointing and new flashing.

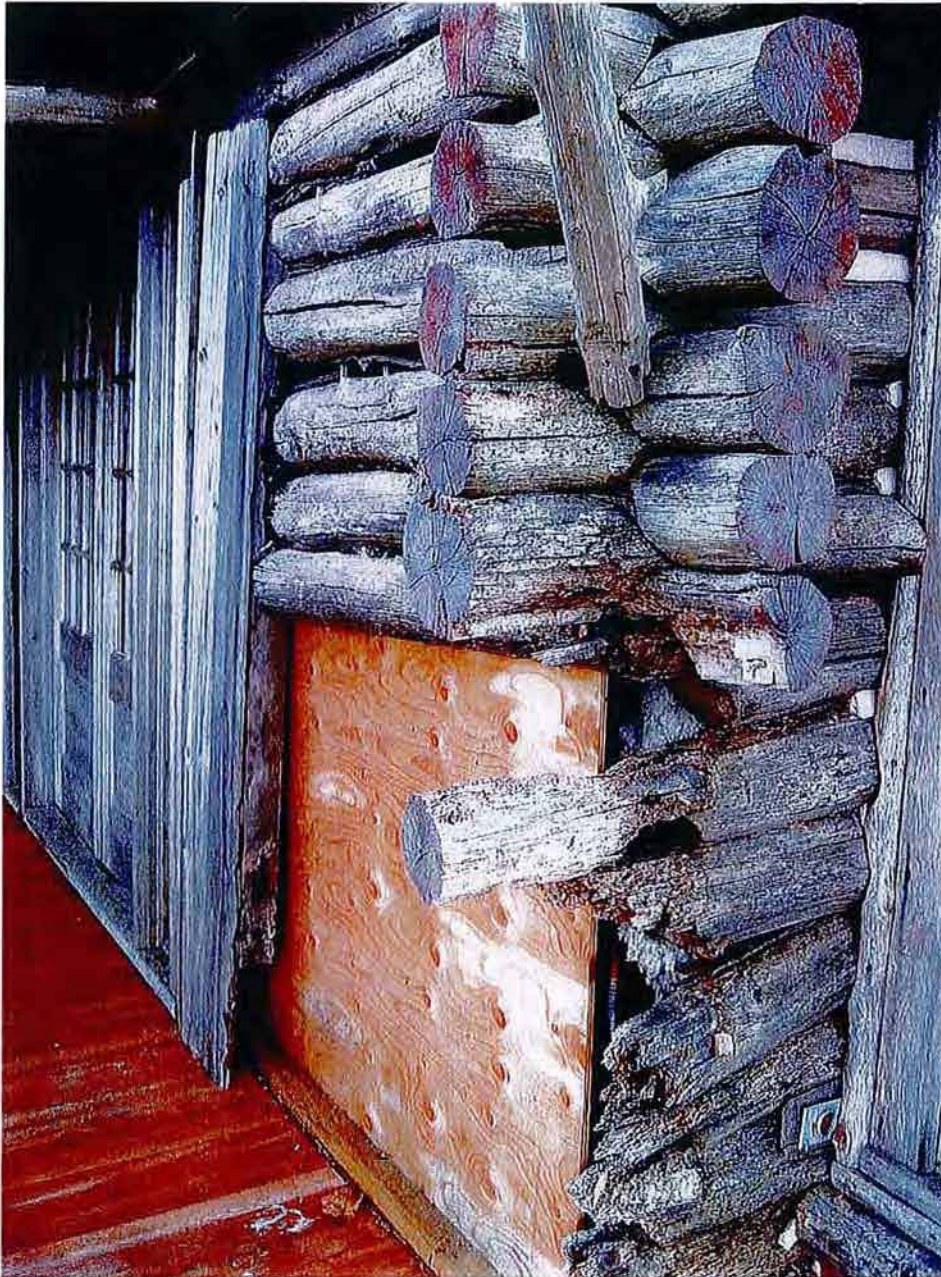
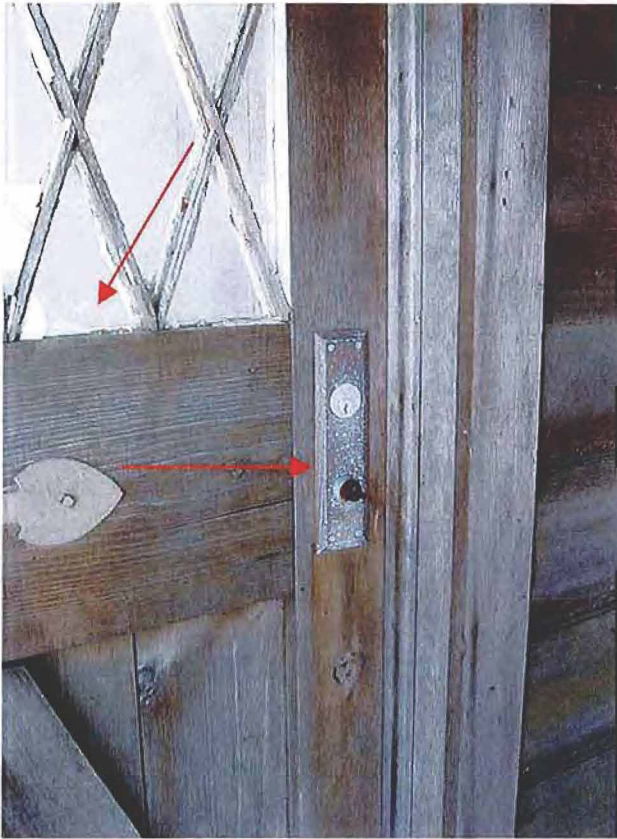


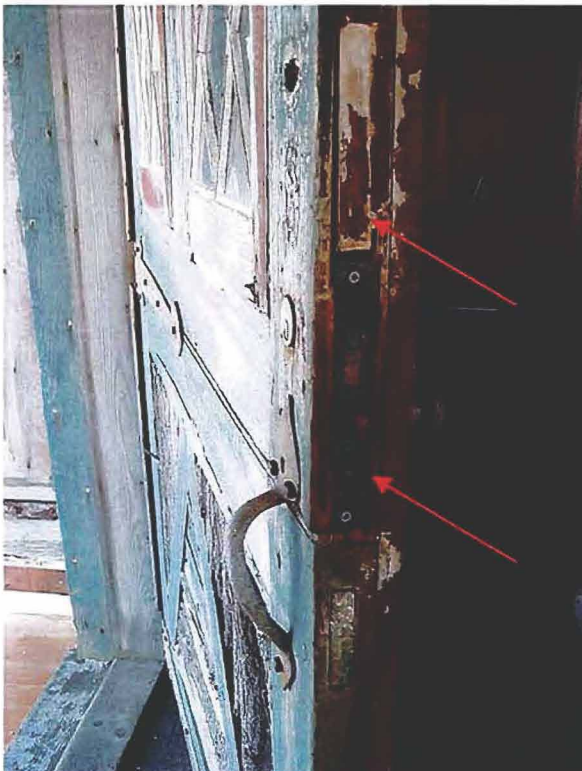
Photo 7: Northeast corner deterioration. Total loss of the log fabric has occurred due to prolonged water penetration and resulting decay. This corner has suffered the most damage and, along with other damaged sections, will be reconstructed using materials and techniques of construction that match the existing.



Photo 8: Non-historic board-and-batten siding is present throughout the exterior. These sections of the building in which original siding has been removed will be restored; these include the bedroom and kitchen wings, as well as the tower. The specification for this siding is readily available (pieces have been saved and stored in the basement). New siding will be milled to match the original and installed using historic photographs as a guide.



Photos 9 & 10: Damaged door. Doors that have broken windowpanes or damaged and/or missing hardware will be repaired or replaced with equivalent materials. The broken glass will be repaired or replaced and all locking devices and handles will be made operational.



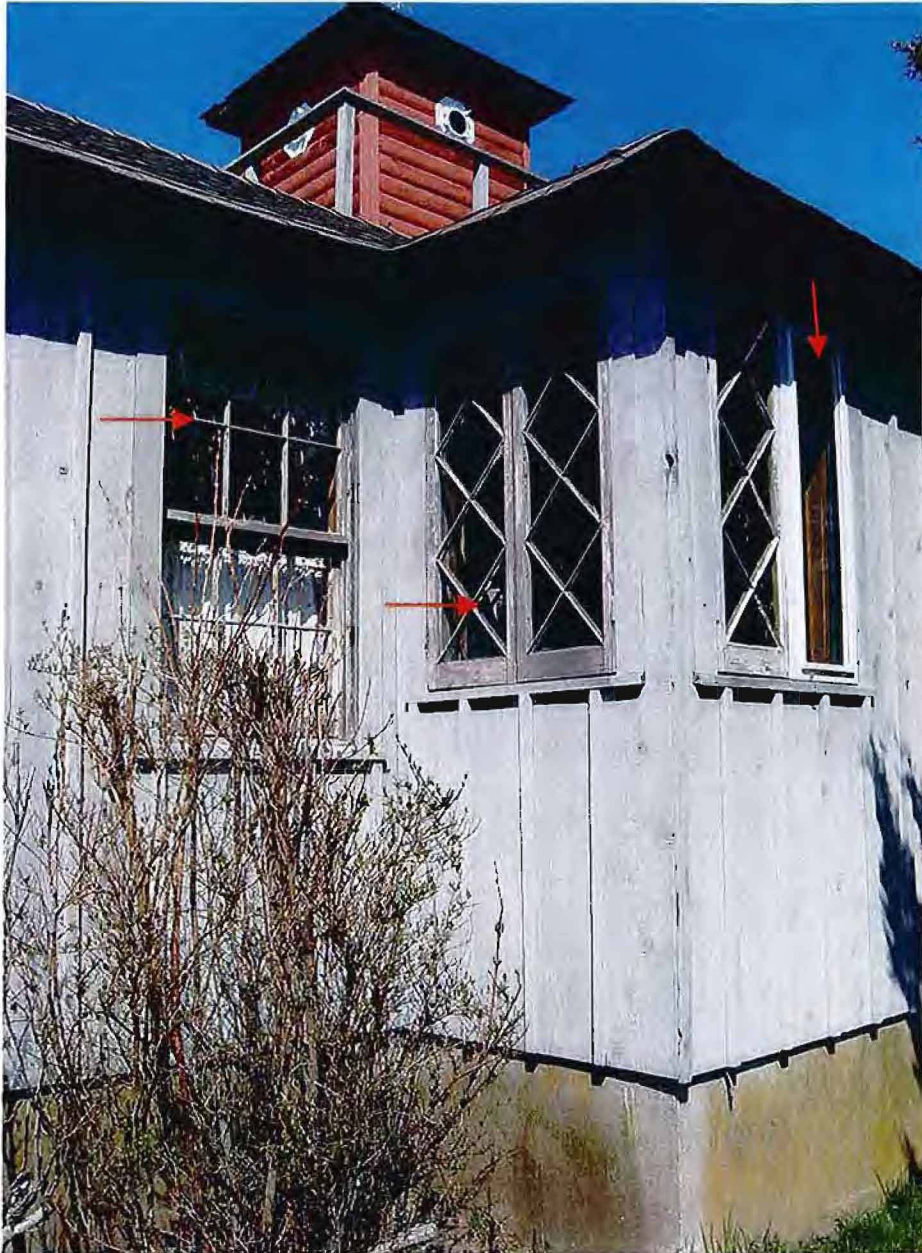


Photo 11: Windows. Many windows have deteriorated casement units and many have non-historic replacements. An individual assessment of each window will be performed in order to determine proper restoration procedures.

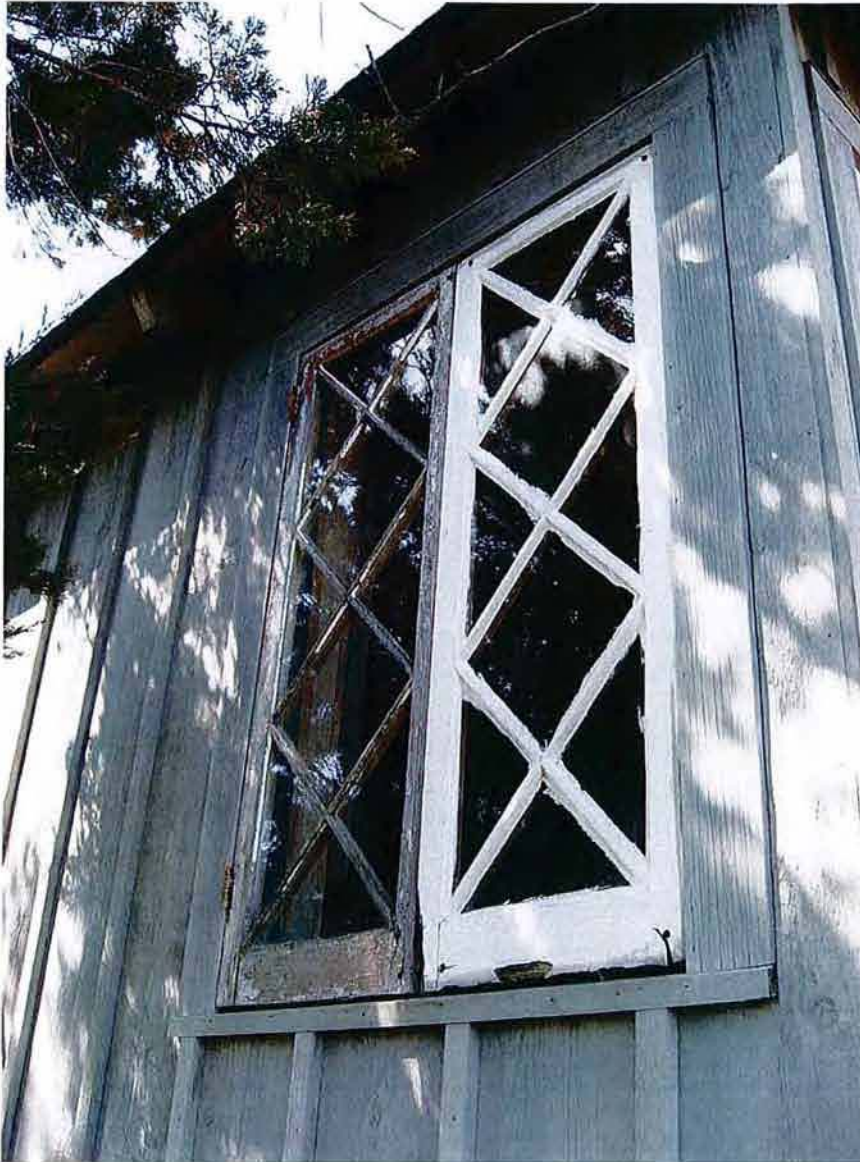


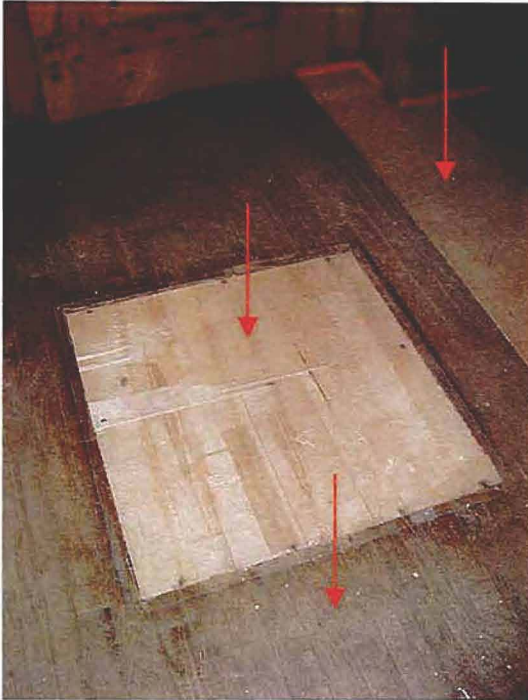
Photo 12: Windows, continued. Units that are non-historic such as the casements that have been replaced, and those that are significantly deteriorated, require restoration with windows that match the historical evidence. Many windowpanes lack adequate caulking. As noted above, each window will receive an individual assessment.



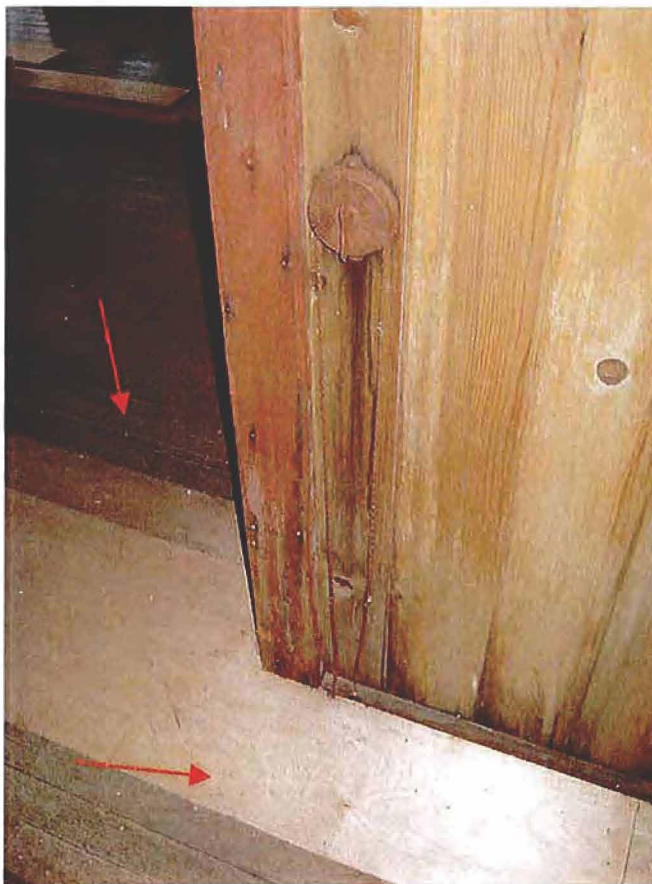
Photo 13: Historic weathervane is non-functioning. The weathervane will be restored to functioning and weatherproofed.



Photo 14: Historic paint and debris. The exterior of the building was originally painted red. A scientific paint analysis will be undertaken to determine the precise shade of red that was used and the building will be repainted accordingly. All debris on site will be removed and recycled.



Photos 15 & 16: Interior floors. Floors throughout the building are of narrow pine or fir and some areas require extensive repair. This is a section at the base of the tower where a heating grille was removed, resulting in a non-historic plywood infill to the floor. It will be removed and replaced with a historically appropriate section. Other sections require sanding and refinishing.





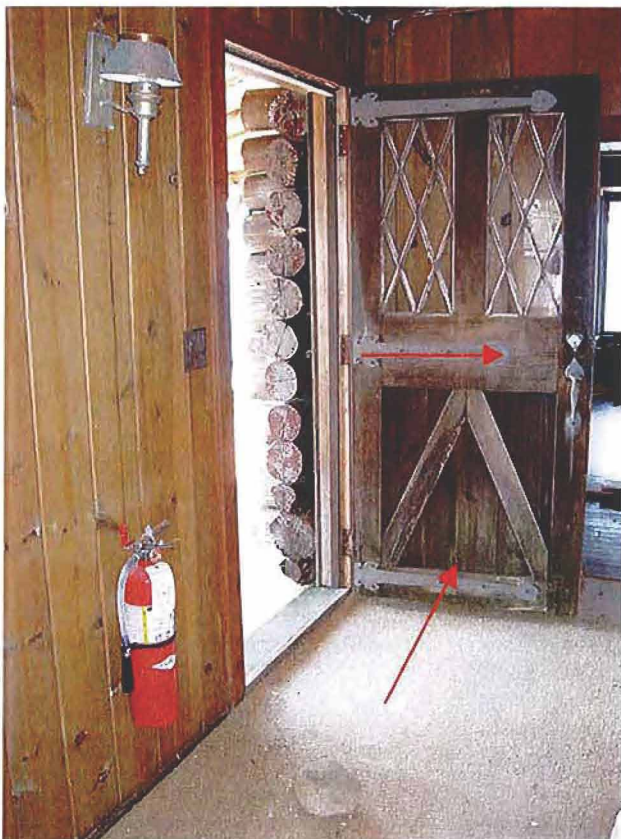
Photos 17 & 18: Walls & ceiling water damage. Water penetration has occurred in the east bedroom, resulting in failure of the ceiling and corner joints. Wall and ceiling coverings have been removed, and the areas will be cleaned and refurbished with historically appropriate material. Minor water damage has occurred in other areas of the Cabin, which will be repaired.



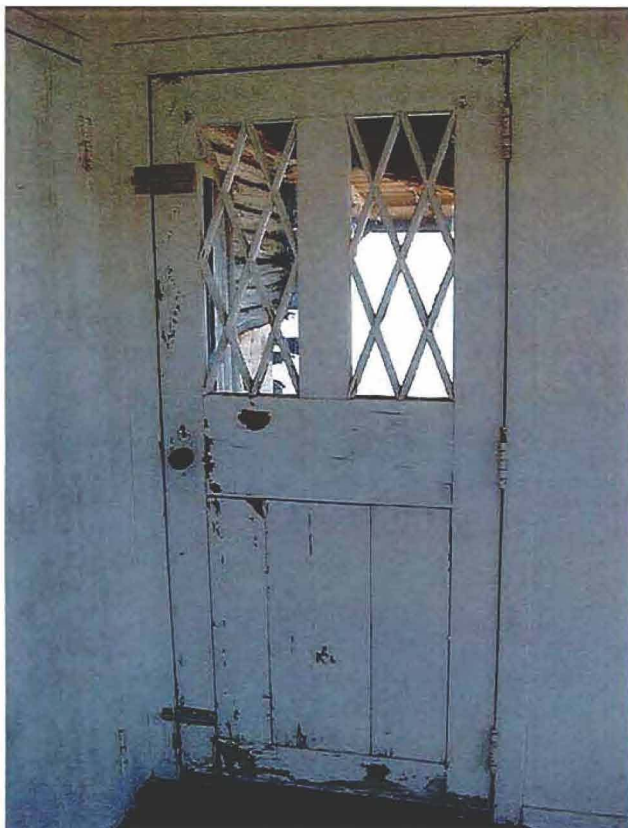


Photos 19 & 20: Damage to fireplace. The bio-growth that is evidence of water intrusion can be cleaned from the surfaces of the exposed chimney column. The cracks that have appeared between the large pebbles, in the brick of the firebox and in the cast concrete hearth can be filled, with care being taken to match the color and texture of the existing mortar.





Photos 21 & 22: Doors. Many doors have worn frames and paint and suffer from water damage. All doors will be cleaned, repaired and repainted as necessary and appropriate.





Photos 23 & 24: Interior finishes. Many interior finishes are soiled and unprotected. All wood surfaces will be cleaned and refinished with a clear protective coating. All historical applications will be restored where appropriate.



ANDRE TCHHELISTCHEFF ARCHITECTS

TABLE OF CONTENTS

DIVISION 1 - GENERAL REQUIREMENTS

00300 BID FORM
00800 SUPPLEMENTARY GENERAL CONDITIONS
01200 BASIC REQUIREMENTS

DIVISION 2 - SITE CONSTRUCTION

02050 SELECTIVE DEMOLITION AND PROTECTION

DIVISION 3 - CONCRETE

NOT USED

DIVISION 4 - MASONRY

04510 MASONRY CLEANING

DIVISION 5 - METALS

NOT USED

DIVISION 6 - WOOD AND PLASTICS

06100 ROUGH CARPENTRY

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07310 ROOF WOOD SHINGLES
07620 SHEET METAL, GUTTERS AND LEADERS
07900 SEALANTS AND CAULKING

DIVISION 8 - DOORS AND WINDOWS

08605 WOOD WINDOWS
08705 DOOR HARDWARE
08800 GLASS AND GLAZING

DIVISION 9 - FINISHES

09555 WOOD FLOORING
09900 PAINTING AND WOOD FINISHES

SECTION 00300: BID FORM

PART I. GENERAL

1.1 SCOPE

- A Bidding Requirements
See Town of Shelter Island requirements.

1.2 CONTRACT DOCUMENTS

- A Agreement and General Conditions
- B Drawings
- C Project Manual including Specifications and Scope of Work
- E Addenda as issued

1.3 INTERPRETATIONS OF BID DOCUMENTS

- A Requests for interpretations of the Drawings and Specifications must be made in writing and addressed to the Town and Architect.
Verbal interpretations will not be given.
- B Requests for interpretations must be made 7 calendar days prior to due date of bids.
- C The Architect will issue an addendum (or addenda) to address all questions.
These addenda will be sent to all Bidders.

1.4 GENERAL SCOPE OF THE PROJECT

- A See attached Scope of Work document.

END OF SECTION

SECTION **00800** - **SUPPLEMENTARY GENERAL CONDITIONS**

DEFINITION:

The Supplementary General Conditions constitute amendments in the form of changes, modifications, substitutions, additions, and/or deletions to the General Conditions, AIA 201, 1992 Edition. Where any part of the General Conditions is modified or voided by these Supplementary General Conditions, the unaltered provisions shall remain in effect.

ARTICLE 1, GENERAL PROVISIONS, Subparagraph 1.2.3; Add the following:

A. Computed dimensions shall take precedence over scale dimensions; large scale details and plans over smaller scale details, the written word over detailed symbol and arrangement. In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.

ARTICLE 1, GENERAL PROVISIONS

1.6 DEFINITIONS

1.6.1. Drawings: The Contract Drawings comprise the graphic documents consisting of sheets, or exact reproductions thereof, which show the locations, character, dimension and details of the Work including any amendments thereof permissible under the Contract and authorized by duly approved written orders. The word "Plans" may be used interchangeably with the word "Drawings."

1.6.2. Furnish: The term "Furnish" means to purchase, obtain, or otherwise secure at the Contractor's expense, complete with applicable taxes, insurance, delivery charges to the Job Site, and storage, unless specified otherwise in the Project Specifications. The word "Supply" may be used interchangeably with the word "Furnish."

1.6.3. Install: The term "Install" means to properly place, anchor, or fasten, align, and completely finish specific items, equipment or material into the Project at the expense of the Contractor in a superior workmanship manner in strict accordance with manufacturer's instructions and specification, unless specified otherwise in the Project Specifications.

1.6.4. Job Site: Also referred to as "Site" or "Premises", consists of real property bounded by the limits or property lines indicated on the Drawings.

1.6.5. Provide: The term "Provide" means to "Furnish and Install" (as defined herein above) all such items, equipment, and materials complete in all respects at the sole expense of the Contractor, unless specified otherwise in the Project Specifications.

1.6.6. Specifications, Project Specifications Or Sections: The written documents containing the definitions, standards of quality of materials and performance, administrative and environmental conditions; and the method, manner and technique of installation either as written descriptions are arranged in Sections and divided into Divisions of Work and are presented in Specifications.

ANDRETCHELISTCHEFFARCHITECTS

1.6.7. Substantial Completion: The term "Substantial Completion" shall be defined as the general completion of all Contract Work in its finished or operating condition, exclusive of all final touch-ups, adjustments, or minor corrections. Completion of miscellaneous "punchlist" items may be carried on after the Date of Substantial Completion in certain locations and under daily routine business conducted on the Premises, as determined by the Architect or Owner.

1.6.8. The words: "as directed", "as permitted", "as required," or words of like effect: These shall mean that direction permission or requirement of the Architect is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import shall mean approved by or acceptable or satisfactory to the Architect, unless otherwise provided herein. The words "necessary," "suitable," "equal," or words of like import shall mean necessary or equal in the reasonable opinion of the Architect.

ARTICLE 2 - OWNER, Paragraph 2.1; Add the following subparagraph:

2.1.3. The "Owner" shall be understood to be the Town of Shelter Island.

ARTICLE 3 - CONTRACTOR, Subparagraph 3.2.1; Add the following subparagraph:

3.2.1.1. The Contractor shall carefully study and compare the Contract Documents with existing conditions at the Job Site and shall at once report in writing to the Architect any error, inconsistency, or omission discovered, or any materials, systems, procedures or methods of construction, either shown on the Drawings or specified, which the Contractor feels are incorrect, inadequate, obsolete, unsuitable for the purpose intended, or which cannot, in the Contractor's judgment, be guaranteed as specified. The Contractor shall not proceed with any work in such areas until written instructions are received from the Architect.

ARTICLE 3 - CONTRACTOR, Subparagraph 3.2.2; Add the following subparagraphs:

3.2.2.1. The Contractor shall be responsible for having ascertained pertinent local conditions readily determined by inspection relating to the location, accessibility and general character of the site or building, labor conditions, the character and extent of existing and proposed work within or adjacent thereto, and any other work within or adjacent thereto, and any other work being performed thereon. Prior to bid the Contractor shall visit the site, take field measurements, and verify condition of existing construction, measurements drawn, other items and information as indicated. The Contractor shall make his own judgment as to current conditions. Neither the Owner, the Architect nor any of their Consultants are responsible for the accuracy of information supplied.

3.2.2.2. Direct questions regarding lack of dimensional information or dimensional conflicts, sizes, quantities, and performance criteria, the answers to which cannot be reasonably inferred from the Contract Documents, are to be brought to the attention of the Architect for resolution prior to award of Contract.

3.2.2.3. In the event that discrepancies occur between ordered material and actual conditions, of which the Architect was not notified beforehand, costs to correct such

discrepancies shall be borne by the Contractor. Commencement of the Work of this Contract is representation that the Contractor has examined the site, become familiar with the local conditions under which the Work is to be performed, resolved questions regarding dimensional, quantity, sizes, performance criteria and other concerns, and correlated those observations with the requirements of the Contract Documents.

ARTICLE 3 - CONTRACTOR, Paragraph 3.5; Add the following subparagraph:

3.5.2. The warranty provided in this paragraph shall be in addition to and not in limitation of any other warranty or remedy required by law or by the Contract Documents.

ARTICLE 3 - CONTRACTOR, Paragraph 3.7; Add the following subparagraphs:

3.7.5. It shall be the Contractor's responsibility to obtain from the governing authorities the Certificate or Certificates of Occupancy.

3.7.6. The Contractor must Perform the Work of this Contract in full compliance with applicable Local, State, and Federal laws, rules and regulations; including the State of New York Building Code; the Town of Shelter Island Fire Department; the Federal Occupational Safety and Health Act and the Construction Safety Act. In particular comply with regulations pertaining to Demolition and Alteration work; the protection of the public during demolition and alterations; safety of operations; noise control; removal and disposal of waste materials; control of dust, dirt, pollutants, flammable materials, explosive materials, corrosive substances; and protection against fire

3.7.7. The Contractor must file, obtain and pay for fees for permits and approvals required by law, including inspections, independent testing agency approvals, and final sign-offs for Project completion. Forward copies of such documents to the Owner and Architect during construction and prior to final payment. No work under this Contract will commence before the Permits have been received and copies of the Permits have been forwarded to the Architect.

3.7.8. The Contractor is responsible for arranging all inspections required for this work. The Contractor will be present for any and all such inspections whenever they occur; and will make any and all changes required to obtain approval by the Department of Buildings or the Architect, until such approvals are received, at no additional cost to the Owner.

ARTICLE 3 - CONTRACTOR, Paragraph 3.12; Add the following subparagraph:

3.12.12. Architect's stamp: Each Shop Drawing, Product Data submittal or Sample submittal will be stamped by the Architect indicating the appropriate action as follows:

Reviewed - Means fabrication, manufacture, or installation may be undertaken, provided submittal complies with the Contract Documents. Approval does not authorize changes to Contract Sum or Contract Time.

Reviewed as Noted - Means the same as "Reviewed", providing Contractor complies with the Architect's corrections noted on submittal. Resubmission required only if Contractor is unable to comply with noted corrections.

Revise and Resubmit - Fabrication and/or installation may not be undertaken. Make appropriate revisions and resubmit entire submittal, limiting changes to items marked.

Resubmit for Record Only - Means the same as “Reviewed as Noted”, but resubmission is requested for record purposes only.

Rejected - Means that fabrication and/or installation may not be undertaken. Submission substantially does not comply with requirements and submission will not be reviewed.

Contractor shall not permit submittals marked "Revise and Resubmit" or "Rejected" to be used at the Project site, or elsewhere where Work is in progress.

ARTICLE 7 - CHANGES IN THE WORK; Add the following new paragraph:

7.5 SUBSTITUTIONS

7.5.1. Requests for substitution of “approved equals” shall be made no later than seven (7) days after award of Contract. Each request must include description of substitution, name of material or equipment for which it is to be substituted, and any costs, test data, etc., which the Architect deems necessary for evaluation.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY, Paragraph 10.2; Add the following subparagraph:

10.2.8. The contractor shall be solely responsible for all penalties resulting from failure to observe all the provisions of the “Manual of Accident Prevention in Construction,” published by Associated General Contractors of America, Inc., latest edition, the requirements of the Occupational Safety and Health Act (OSHA) of 1970, and the Construction Safety Act of 1969, including all standards and regulations that have been or shall be promulgated by the governmental authorities which administer such acts, and shall hold the Owner, the Architect and all their employees, consultants, and representatives harmless as a result of non-compliance.

END OF SECTION

SECTION 01200: BASIC REQUIREMENTS

PART I. GENERAL

1.1 SCOPE

- A The scope of this Section is to provide the labor, materials, and equipment noted herein and as required to provide the basic requirements of this Project.

1.2 CONTRACT

- A. The Owner/ Contractor agreement shall be;
 - 1. *AIA A-101 Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM - 1997 Edition, or as directed and approved by Owner.*

1.3 PERMITS AND FEES

- A. Contractor shall pay for permits required for individual trades.
- B. Contractor shall be responsible for all fees related to subsequent issuance of permit.

1.4 APPLICATIONS FOR PAYMENT

- A Applications for payment shall be made according to progress of work, as agreed to in AIA document A107.

1.5 CHANGE PROCEDURES

- A Change Orders will be prepared by the Contractor on AIA Form G-701.
- B Change Orders will be based on a fixed price basis when scope of work is quantifiable.
- C Change Orders will be used to adjust Allowances where necessary.
- D Change orders will be used to document work done on a Unit Price Basis.
- E Request for extension of Date of Completion due to increased scope of work by Change Orders shall be reviewed and approved based on the Work's impact on the Overall Construction Schedule.

1.6 WORK OR ITEMS SUPPLIED BY OWNER OR OTHERS

- A Items noted on Drawings "NIC" or "By Others" will be furnished and installed by Owner.
- B Items to be supplied by the Owner and installed by the Contractor will be so noted in each specification section or on the Drawings.
- C For items furnished by Owner (F.B.O.) and installed by the Contractor the Contractor shall be responsible for the following and shall include the cost of these services in the base bid:
 - 1. Accepting deliveries of material at the job and storing and protecting the material once on site.
 - 2. Inspecting delivered goods for damage prior to accepting them.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

3. Installing all Owner supplied items unless item is supplied and installed under separate contract.

D For items supplied and installed by the Owner or the Owner's subcontractor, the contractor shall coordinate his or her work with the work supplied and installed by the other subcontractors.

1.7 CASH ALLOWANCES

- A Allowances are to include the actual cost of the raw material. The fabrication, delivery, uncrating, protection, taxes, subcontractor mark-up, and installation are to be part of the base bid.
- B Allowances, if required, are noted in individual specification Sections

1.8 UNIT PRICES

- A As part of Bid, Contractor shall identify unit prices for providing those noted as unit items. The price shall include the installed or supplied price as noted. Overhead and Profit and General Conditions associated with these items shall be priced separately.

1.9 ALTERNATES

- A Scope of work of Alternates is noted on the Drawings and noted in the respective specification section.
- B Where alternates are requested the price for these alternates is to include adding or deducting all substrates and accessories required for, and particular to, each system.

1.10 PRECONSTRUCTION and PREINSTALLTION MEETINGS

- A The GC will schedule a Preconstruction Meeting at the Site after awarding the contract prior to start of construction.
- B When required by individual specification section, pre-installation meetings shall be held at the Site prior to commencement of that work.
- C Contractor shall notify the Architect five (5) working days in advance of such meetings.

1.11 FUTURE WORK

- A There will be no future work to accommodate.

1.12 CONTRACTOR USE OF PREMISES

- A Contractor has full use of the site. Coordination with Architect and Owner is required.
- B Extent of work area is noted on the Drawings.
- C Areas for storing materials will be designated at preconstruction meeting.
- D Work hours and noise ordinances as stipulated by the Town of Shelter Island must be obeyed. These rules will be reviewed at the preconstruction meeting.

1.13 SITE SAFETY

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

- A Construction is to be limited only to those areas agreed upon at the preconstruction meeting. Contractor shall be responsible for insuring that all subcontractors are aware of these rules and adhere to them.

1.14 CONSTRUCTION SCHEDULE

- A Contractor shall present a Critical Path Construction Schedule with his or her Bid. This schedule shall become part of the Contract Documents. The schedule shall identify all major categories of Work, including Owner supplied items, work done by Owner's subcontractors and others, their start and completion dates, lag times for non-critical activities, the dates required for submittals and shop drawing approval, and the completion date of the Project, noting allowance for weather delays.
- B This schedule shall be revised and updated as required to incorporate extended duration of project due to delays caused by weather, Change Orders, or other factors.
- C Time for Extended General Conditions will not be approved unless adequately documented on this schedule.

1.15 PROGRESS MEETINGS

- A Meetings shall be held at the Site on a scheduled basis. Time and day of the meetings shall be decided after award of Contract. It shall be a weekday mutually agreeable to all parties.
- B Contractor shall have the Job Superintendent and the Project Manager at these meetings and subcontractors as is deemed necessary.

1.16 INSPECTION AND TESTING

- A The Contractor will pay an independent testing agency to perform tests required under this contract.
- B The GC shall be responsible for contacting and coordinating with the testing agency and scheduling tests, as they are required.
- C The tests that are required are as follows:
 - 1. Concrete samples and testing.
 - 2. Tests as noted in the Structural Sections of these Specifications and Drawings.
- D Repair of work not conforming to the Specifications of this Project and re-testing of this work, will be performed by the Contractor at no additional cost to the Owner.

1.17 COORDINATION OF WORK

- A Contractor is responsible for coordinating scheduling, submittals, and Work of the various specification sections to ensure efficient and orderly sequence of interdependent construction elements.
- B All pipes, wiring, and ducts shall be concealed in finished spaces.
- C Contractor shall coordinate and verify space requirements and installation of mechanical, plumbing and electrical work, which are shown on the Plans diagrammatically. Follow routing of pipes as shown on plans as closely as possible.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

- D Coordinate layout of outlets, switches, lights, thermostats, plumbing fixtures, and like items with framing plans and interior finishes to achieve indicated or implied alignments.

1.18 PREPARATION AND EXAMINATION

- A Clean all surfaces prior to applying next material.
- B Prepare all surfaces including priming, cleaning, and application of sealer or bonding agent as per manufacturer's written specifications.
- C Verify that existing site and substrate conditions are acceptable prior to starting subsequent Work. Beginning new Work is an implied acceptance of the existing conditions.
- D All substrates shall be prepared for the finish work as required of each Section. Contractor shall be responsible for coordinating the work of all trades to ensure that all work is properly prepared.

1.19 CUTTING AND PATCHING

- A Contractor shall provide cutting and patching as required to:
 - 1. Uncover and install ill-timed Work.
 - 2. Correct defective work.
 - 3. Remove samples of installed Work for testing.
 - 4. Provide openings in completed work for penetrations of mechanical and electrical work.
- B Contractor shall obtain written directions or drawings from Architect or Engineer prior to cutting any structural members.
- C All holes cut in concrete or masonry walls or floors shall be core drilled.
- D If cutting and patching is for Work done under a Change Order, the cost shall be part of the cost of that Change Order.
- E All patches shall be finished to match adjacent surfaces.

1.20 SUBMITTAL PROCEDURES

- A Submittals shall be made in a timely manner in accordance with the Construction Schedule.
- B Submittals shall be sent with a transmittal noting the Project, Contractor, Subcontractor, Supplier and the type of response needed.
- C Revise and re-submit submittals as required by Architect. Note changes made from prior submittals.
- D Keep one copy of all approved submittals on site for reference throughout job, and one copy for inclusion in Project Manual.
- E Architect will review shop drawings and other submittals within 3 working days from date of receiving drawings.
- F All work done for which submittals have been made and approved will conform to the approved submittals or manufacturer's recommendations.
- H Shop drawing procedure:
 - 1. Submit 2 sets of all required shop drawings to Architect for review
 - 2. Architect/ Engineer will review shop drawings for compliance with design intent only. Contractor is responsible for coordinating Work on shop drawings with field conditions.

ANDRE TCHELISTCHEFF ARCHITECTS

3. All shop drawings "approved as noted" shall be corrected and resubmitted to the Architect as a record copy. Return two corrected sets to the Architect.

I Product literature and data:

1. Submit 3 (three) copies of product literature required by individual specification sections.
2. Literature shall be from the manufacturer's catalogues or other printed literature and shall include the information to confirm that the product or material described conforms to the specifications for this project.
3. Product literature shall be specific regarding the conditions under which the product must be installed.
4. Include manufacturer's warranties in all submittals.
5. Where the printed literature contains more than one product on a page, indicate the product being submitted for review.

J Samples and Mock-ups:

1. Submit samples as required by the individual specification sections.
2. Samples and mock-ups used for the approval of installation of material shall remain intact and visible during installation and shall be the standard by which the installation of that material is judged.
3. Samples of materials and finishes shall be kept in a protected area for reference throughout the duration of the Project.
4. Submit at least two samples for each submittal required. The architect will keep one and the other approved sample will be kept on the job for reference.
5. Samples shall be labeled as follows:
 - a. Labels shall be affixed to back of samples.
 - b. Labels shall include the date of submittal.
 - c. Labels shall include the project name and address.
 - d. Labels shall note the name of the contractor, subcontractor and manufacturer.
 - e. Labels shall note the specifics of the finish applied.

1.21 SUBSTITUTIONS

A Where a particular product is specified, provide that material except where an alternate is requested in writing and approved by the Architect and Owner.

B Substitutions shall be considered only under the following conditions:

1. Unavailability of Product. The Contractor shall have placed orders for specified materials promptly upon award of contract. The reason for the unavailability must be beyond the control of the contractor. Unavailability will be construed as being due to strikes, lockouts, bankruptcy, and discontinuance of the manufacture of the product or materials, or Acts of God. Proposed substitutions due to unavailability will not be considered unless proof is submitted that firm orders were placed within 10 days after the execution of the contract.
2. Superiority of Proposed Substitute products. The proposed product

ANDRE TCHELISTCHEFF ARCHITECTS

must clearly meet or exceed the performance characteristics of the specified product. The product must cost the same or less than the originally specified product and must match or exceed the aesthetic of the originally specified product in the opinion of the Architect. The Contract amount will be adjusted by Change Order to compensate the Owner for materials costing less than those specified.

- C No substitutions may be made by the Contractor without written approval by the Architect.

1.22 REFERENCES

- A Conform to reference standards by "latest date of issue" shall be as of date of submitting Bids.
- B If reference standard is in conflict with Contract Documents, request clarification from the Architect before proceeding. In general, the more restrictive requirements will apply.
- C The Contractor shall be responsible to require his employees, subcontractors and any persons performing job-related services to comply with municipal & building regulations and standard practices for construction activities regarding working hours, parking, noise and protection of the property.
- D Work and equipment shall conform to the standards noted in each specification Section.

1.23 DEFINITIONS

- A "Provide" means to supply, install, and finish a product or material in its entirety.
- B "Submit" means to submit item for review and approval prior to ordering, manufacturing, or installing that item.

1.24 INSURANCE REQUIREMENTS

- A The following requirements are minimal requirements for insurance.
- B The Contractor shall verify with Owner's insurance agent, Landlord or lease any additional requirements.
- C The Contractor, prior to commencement of the work, shall obtain all necessary insurance as required by Law as well as for his sub-contractors and shall provide copies of verification of such coverage to the Owner and local building officials and other parties as noted herein. This insurance is to include Bodily Injury, Property Damage, Workman's Compensation, etc. as carried by an insurer in the State of New York. The Contractor assumes responsibility for all loss of materials and tools, destruction of equipment and other machinery and shall indemnify and save harmless the Owner and Architect against all claims arising out of the performance of this Contract. Insurance limits shall be:
 - 1. Workmen's Compensation as required by all applicable Federal, State or other laws including employer's liability with a limit of at least
 - a. \$2,000,000
 - 2. Comprehensive General Liability including Subcontractor's liability, contingent liability, contractual liability, completed operations and products liability, all on the occurrence basis with personal injury

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

coverage and broad form property damage. Limits shall be at least the following:

- a. Personal injury: Each person, \$3,000,000
- b. Property damage: Each occurrence, \$3,000,000
- c. Aggregate: \$5,000,000

- D Each Subcontractor shall provide Proof of insurance to the Contractor prior to commencement of work. Insurance coverage shall remain in effect throughout the duration of the Subcontractor's work. Should a Subcontractor's coverage expire, the Subcontractor shall notify the Contractor, the Architect, and the owner thirty days prior to expiration. The Owner or Contractor may insure the work and deduct the costs from the Contract.

1.25 PROTECTION OF SITE AND OF STORED AND INSTALLED WORK

- A All existing items to remain on site shall be protected at all times.
- B Contractor is responsible for adequate protection of all installed work.
- C Protection requirements for each finish are noted in the Sections herein. Contractor shall provide materials and installation for the protection of finish surfaces and shall maintain that protection throughout course of the job.
- D Installed Work shall be protected from extreme heat and cold.
- E Contractor is responsible for repairing damage to any installed Work.
- F Material shall be stored in a neat and orderly manner and adequately protected from damage.
- G Each type of material shall be stored in accordance with the requirements of each specification Section and the manufacturer's requirements.

1.26 PROGRESS CLEANING AND WASTE REMOVAL

- A Contractor shall provide for waste removal.
- B Contractor shall keep the site and structures clean and free of debris at all times.
- C Debris shall be picked up and site cleaned daily. Work areas shall be broom cleaned daily and all debris removed.
- D Common hallway should be returned to building standard by 5 p.m. each day.

1.27 STARTING SYSTEMS

- A Start-up of equipment shall be done by qualified technicians trained to install and operate the equipment.
- B Testing and commissioning of mechanical equipment shall follow the following general procedure. Specific tests required are noted in the Mechanical and Electrical Sections.

- 1. The testing shall be performed in at least two phases:
 - a. The first tests shall be performed at completion of rough-in of equipment, piping, and ductwork. Installation of insulation and closing of walls may not proceed until these tests have been completed and the system found to be performing as specified.
 - b. The second test shall be performed when job is at substantial completion. Full balancing reports, pipe pressure tests and

ANDRE TCHELISTCHEFF ARCHITECTS

other tests as required by the Mechanical Sections shall be performed.

1.28 MANUFACTURER'S CERTIFICATES AND WARRANTIES

- A When called for by an individual specification section, submit certification by the manufacturer or supplier that the installed Product is installed (and operating) in accordance with the manufacturer's specifications. Distribute two copies of this to the Architect and keep one copy for inclusion in the Project Manual.
- B The Contractor warrants to the Owner that all workmanship by all trades involved and all materials provided shall be of the best quality.
- C The Contractor shall correct any defective or rejected work prior to acceptance and warrants to the Owner that any defects in workmanship and materials occurring within one year from final acceptance will be corrected expeditiously at the Contractor's expense.

1.29 PROJECT CLOSEOUT

- A Remove all construction debris from site.
- B Cleaning:
 - 1. Clean and polish all glass, metal, wood work and mirrors.
 - 2. Vacuum clean all floors.
 - 3. Damp mop all hard surface floors unless otherwise noted.
- C Store all spare parts and maintenance materials as required by individual specification sections in areas as designated by Owner.
- D Ensure that all systems and appliances are functioning properly.
- E Demonstrate to Owner the operation and maintenance of equipment.
- F Follow close out and cleaning procedures as specified in each specification section.
- G Upon notification of Substantial Completion, Contractor shall organize and host a gathering (2) weeks thence. Written notification of the gathering shall be sent to the Architects, Designer, primary Consultants and Subcontractors involved in successfully meeting the project objectives. The purpose of the gathering is to celebrate the completion of the work, and shall be at a suitable location within a five mile proximity of the project site. Such celebration shall include sufficient quantities of Federally Approved Controlled Substances to satisfy the means and methods of all parties involved.
- H Contractor shall submit to Owner the Project Manual containing the following:
 - 1. Copy of all Product Literature and Operation Manuals.
 - 2. Provide lists of all Subcontractors and their emergency service phone numbers.
 - 3. Copies of warranties from all Subcontractors and Suppliers.
 - 4. Copies of Final Lien Wavers from all contractors, subcontractors, and suppliers.

END OF SECTION

SECTION 02050: SELECTIVE DEMOLITION AND PROTECTION

PART I. GENERAL

1.1 SCOPE

- A. Selective demolition of existing structure required on the Drawings to accommodate new construction.
- B. Shoring of existing structure as required for demolition.
- C. Protection of items and surfaces to remain.
- D. Removal and storage of items to be re-used or salvaged.
- E. Protection fencing.
- F. Legal removal and disposal of debris from site.
- G. Hazardous waste removal, if required.
- H. Submittals.
- I. Shop drawings.
- J. Controlled inspections.

1.2 SUBMITTALS AND PRE-DEMOLITION SCHEDULING

- A. Shop drawings and protection plans are required for the following;
 - 1. Shoring plan for structural demolition.
 - 2. Shop drawings for shoring are to be prepared by a structural engineer licensed in the state of the project.
 - 3. Fencing plan for protection of site.
 - 4. Protection plan and details showing areas to be protected, methods of attachment and materials to be used.

PART II. PRODUCTS

2.1 PROTECTION AND SHORING MATERIALS

- A. Provide all materials required for shoring and protection.

PART III. EXECUTION

3.1 DEMOLITION

- A. Demolition is to include removing items noted on the demolition plan and all other items as required to be removed to accommodate the new construction.
- B. Provide shoring as required and carefully stabilize building as work proceeds. Shoring shall be installed as specified in Section 02251.
- C. Install shoring, temporary rails and other protection required as work progresses for a safe work place.

3.2 HAZARDOUS WASTE REMOVAL

- A. Remove hazardous waste noted on plans, in attached reports, or as encountered during course of demolition.
- B. Remove all hazardous waste in accordance with federal, state and local regulations. Use only subcontractors licensed to do this work. Dispose of all hazardous waste in a legal manner.

END OF SECTION

SECTION 04510: MASONRY CLEANING

PART 1 - GENERAL

1.1 SUMMARY

- A. The work of this section consists of the cleaning of all surfaces of the brick and stone.
- B. Surfaces fabricated of brick and stone covered in this section include, but are not limited to: all wall surfaces, rusticated base, balusters, string courses, copings, decorative panels, lintels, sills, dormers and window surrounds.

1.2 COORDINATION

- A. The Contractor shall coordinate the work of this section with all other sections for the successful completion of the Contract.
- B. Cleaning of brick and stone shall be carried out prior to pointing or other masonry repair work.
- C. General Cleaning shall not be performed within 30 days of composite patching, pointing or masonry repair techniques to allow for repairs to fully cure.

1.3 QUALITY ASSURANCE

- A. Standards: Comply with the cleaning recommendations of the National Park Service Technical Preservation Services Division as outlined in: Keeping it Clean: Removing Exterior Dirt, Paint, Stains and Graffiti from Historic Masonry Buildings (Preservation Assistance Division, 1988), except as modified by these Specifications.
- B. Workmanship: Foreperson shall submit resume demonstrating a minimum of five (5) years of experience cleaning historic masonry structures.
 - 1. The Contractor will be required to provide at least three references for buildings of similar size and materials.
 - 2. Mechanics shall have skill and experience of sufficient level to accomplish the work described.
 - 3. Mechanics shall be carefully supervised to ensure that the work is accomplished to meet the highest standards of the trade.
 - 4. In acceptance or rejection of cleaning, no allowance will be made for lack of skill on the part of the mechanics.
- C. All environmental restrictions (City, State and Federal) and safety code requirements regarding items in this section should be observed. This will likely entail effluent collection and neutralization.

1.4 SUBMITTALS

- A. Submit written description of method to be used for general brick and stone cleaning.
- B. Submit all manufacturer's literature for cleaning materials to be used including product data, use limitations, and MSDS.
- C. Submit samples of each cleaning agent, in their original unopened containers, to be tested.

ANDRE TCHELISTCHEFF ARCHITECTS

- D. Submit sample of agent proposed for protection of all glass, metal, and polycarbonate materials from acids and alkaline cleaning agents.
- E. Submit sample of solvent-resistant polyethylene sheeting for protection from acid and alkaline cleaning agents.
- F. Cleaning Tests:
 - 1. Provide two (2) test panels, measuring four (4) square feet that are representative of the effect of each cleaning material and method on the most heavily soiled and generally soiled areas of the facade. The proposed areas to be tested shall be approved by the Architect in advance of the testing. See Article 1.7 of this Section.
 - 2. Repeat cleaning tests as required until desired results are reached and approval of materials and methods are obtained. Do not proceed with cleaning until Architect's approval has been given.

1.5 SAMPLE OF CLEANING AGENTS AND METHODS

- A. Purpose of testing: To determine most appropriate cleaning agent, strength and dwell time of cleaning agent, method of application, method and duration of rinsing, and to ensure that cleaned masonry surfaces can be obtained with no detrimental effect to masonry or other materials on or adjacent to the building. The lowest strength cleaning agent bringing the desired degree of cleaning shall be used.
- B. Execution of testing: Apply materials as specified to at least two (2) designated areas, each approximately two (2) feet by two (2) feet. Modify soak and dwell time as needed to achieve satisfactory results. Rinse until pH of wet wall is equal to that of clean water from tap.
- C. Follow all product manufacturer's application instructions unless otherwise noted in this Specification.
- D. Supervision of testing: The Architect will be on-site at all times during the testing process and will provide instruction and guidance throughout duration of process. Location of test areas will be determined prior to testing by the Architect.

1.6 EVALUATION OF CLEANING SAMPLE

- A. Sample shall be evaluated by the Architect.
- B. Cleaning method, agent, concentration, and dwell time shall be selected by the Architect.
- C. Items to be evaluated:
 - 1. Cleanliness of the test area.
 - 2. Discoloration of masonry.
 - 3. Alteration to texture, sheen, or loss of material.
 - 4. Duration of water rinse and pressure.
- D. After receiving approval of cleaning materials and cleaning methods, the Contractor shall clean one (1) sample of 2 square feet. The approved samples shall serve as the standards of quality for the rest of the cleaning.

1.7 PRODUCT HANDLING

- A. All materials are to be delivered to the job site in original unopened containers bearing manufacturer name and label. Store and handle materials in strict compliance with manufacturer's instructions. Do not store on the ground.

ANDRE TCHELISTCHEFF ARCHITECTS

- B. Protect materials from tampering, acts of vandalism, possible injury to workers, the general public, intrusion of foreign materials and moisture. All vessels shall have tight fitting covers. At no time shall vessels containing chemicals be carried to working levels when vessels are open.

1.8 JOB PROTECTION

- A. Prevent chemical cleaning agents from spilling or dripping down surfaces, onto projections (sills, ledges, etc.), or on to the ground. Remove any spilled or dripped materials immediately and rinse well.
- B. Provide adequate protection from chemical cleaning agents and rinse water for all glass, metal, painted surfaces, and polycarbonate surfaces around and beneath the surfaces being worked on and any adjacent surfaces not included in this work. Ventilate as necessary to prevent fume build-up. Apply masking agent to comply with manufacturer's recommendations. Do not apply liquid masking agent to painted or porous surfaces.
- C. Cleaning shall not begin until average daily temperatures remain above 50°F, Fahrenheit. Do not clean during adverse weather conditions, except to wash down any cleaning agent already applied. The Contractor shall alter cleaning procedures if considered necessary because of temperature changes.
- D. Cold weather protection: Do not clean if the temperature of air or masonry drops below 40°F, Fahrenheit. Do not clean within seven days of anticipated freezing temperatures.
- E. Hot weather protection: If temperatures rise above 85°F, Fahrenheit, protect areas being worked on with tarps or other shading devices to reduce heat from direct sun. Do not allow chemicals to dry on masonry.
- F. Do not clean during rain or when rain is imminent.
- G. Protection from wind: Protect all surrounding areas and the general public from wind carried chemicals. Beware of wind drift.
- H. Surrounding areas shall be protected from contact with chemical cleaning agents and rinse water. Surrounding areas shall include, but shall not be limited to, adjacent surfaces and structures, private property including automobiles, vegetation, and all other surfaces that would be adversely affected if placed in contact with the cleaning agents.
- I. Do not allow run off from the cleaning process to enter sewer system, contaminate water supplies or to enter natural bodies of water. Dispose of effluent in safe and legal way.
- J. The Contractor shall take all necessary precautions for the protection of property and public safety from cleaning agents, rinse water, and wind-drifting chemical cleaners and water.
- K. The Contractor will use all necessary precautions to protect persons performing the work and others from harmful effects of the cleaning agents and rinse water. Workers shall be required to wear protective clothing, goggles, face shields, gloves, and other clothing or equipment in compliance with governing Federal, State, and local safety codes and regulations.
- L. Erect temporary protection covers over pedestrian walkways and at points of entrance and exit for persons and vehicles which must remain in operation during the course of masonry restoration work.
- M. Staging must be well maintained and equipped with steel cables. Use only polypropylene ropes and safety lines, as cleaning compounds will damage other types.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

- N. Avoid exposing building occupants to fumes. When applying cleaning chemicals outside the occupied building, all windows, air intakes and exterior air conditioning vents shall be covered (and air handling equipment shut down) during and for 30 minutes following application.
- O. The Contractor shall provide, erect, and maintain barricades, danger signals, and warning signs as needed.

PART 2 - MATERIALS

2.1 EQUIPMENT

- A. Brushes shall be stiff natural bristle brushes or soft-fiber masonry washing brushes, never metal.
- B. No spray application of chemicals shall be allowed on this project.
- C. Pressure Washer: Use pressure (50-500 psi) washer equipped with a fan-shaped spray tip which disperses water at an angle of 45 degrees. Washer shall be capable of operation at maximum 500 psi, and must be capable of providing a flow rate of 6 gallons per minute.
- D. No metal fittings that can corrode or deposit corrosive materials on the masonry are to be used.
- E. Backer Rod: Use non-staining closed-cell polyethylene foam backer rod stock for placing in open joints. Diameter of backer rod shall be 25% greater than joint width.
- F. Masking: Polyethylene sheeting affixed with tape that will not leave residue or strippable, liquid, film-forming type for protection of glass, metal, and polycarbonate materials from acidic cleaner. Acceptable products:
 - 1. Diedrich Acid Guard, manufactured by Diedrich Chemicals
 - 2. Sure Klean Acid Stop, manufactured by ProSoCo

2.2 CLEANING AGENTS

- A. Chemical Cleaner shall be a maximum 2% solution of hydrofluoric acid with trace of phosphoric acid and surfactants in water, such as Sure Klean Restoration Cleaner, diluted with water as recommended by the manufacturer. Areas of heavy soiling may require a higher chemical concentration. The most dilute combination of water and chemical which is found to effectively clean the brick and stone shall be used. Chemical cleaning shall be used only if detergent cleaning is determined to be inadequate by the Architect.
 - 1. HydroClean's Brick, Granite, and Sandstone Cleaner, manufactured by Hydrochemical Techniques, Inc., Hartford, Connecticut.
 - 2. Enviro Klean Restoration Cleaner, manufactured by ProSoCo, Inc., Kansas City, Kansas.
 - 3. Sure Klean Restoration Cleaner, manufactured by ProSoCo, Inc., Kansas City, Kansas.
 - 4. Diedrich 101 Masonry Restorer, manufactured by Diedrich Chemicals-Restoration Technologies, Inc., Oak Creek, Wisconsin.
 - 5. A masonry prewash may be necessary to achieve desired cleaning results if none of the above products proves satisfactory. Consult Architect if selection of a masonry prewash such as ProSoCo's 766 becomes necessary.
- B. Water: Water shall be clean, potable, and free of amounts of oils, acids, alkalis, salts, organic materials or other substances that may be deleterious to mortar, masonry units, or any metal in the walls.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Before starting any work of this section, the Contractor shall make a complete inspection of entire facade to identify and confirm all surfaces to be cleaned and all areas that will require special care in cleaning. Review the Contract Drawings describing existing conditions of concern (e.g. open joints, deteriorated brick and stone) and carefully inspect these areas on the building. Notify the Architect immediately if discrepancies or changed conditions exist. Do not proceed until such discrepancies are resolved.
- B. Prior to cleaning, determine degree of cleaning to be carried out and review areas requiring additional treatment with the Architect. Approved cleaning test panels will serve as the standard for cleaning brick and stone.

3.2 PREPARATION FOR CLEANING

- A. Open joints:
 - 1. Remove deteriorated mortar carefully from joints.
 - 2. Flush all debris and residual mortar dust from joints with water.
 - 3. When joints are dry, point to depth equal to one-half the joint width. Maintain strict tolerance throughout installation. (Backer rods may be installed in lieu of pointing if approved by the Architect).
 - a. Thoroughly wet surfaces prior to application of detergent. Wet surfaces with low-pressure water spray. Surfaces shall not be allowed to dry prior to application of detergent.
- B. Dry brush any areas with loose dirt or soil, or extreme dirt build-up, to remove as much material as possible, prior to wet cleaning.

3.3 GENERAL CLEANING PROCEDURES

- A. Detergent cleaning is the preferred method for cleaning the brick and stone portion of the facades. Under no circumstances should chemical cleaning of the facade be attempted until two attempts at detergent cleaning have been made and found to be inadequate. The Architect shall make this determination.
- B. Cleaning shall begin at the bottom of the facade and slowly and continuously progress upward.
- C. To avoid streaking on walls, all wall surfaces immediately below the area being cleaned shall be kept wet and rinsed free of dripping detergent.
- D. Thoroughly prewet the area to be cleaned and that surrounding and below it. Take pH reading of masonry prior to the application of cleaning chemicals. A pressure water spray not to exceed 200 p.s.i. shall be used for prewetting and 500 p.s.i. for rinsing of masonry surfaces. Sprayer shall be equipped with fan tipped nozzle (45 degrees) and be capable of providing a minimum flow rate of 5 gallons per minute.
- E. Apply a coating of diluted detergent to surface using a natural or synthetic fiber brush (i.e., soft bristled nylon).
- F. Allow the detergent to remain on the surface for 3 to 5 minutes, or as otherwise determined in the approved sample, scrubbing lightly with a brush.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

- G. Rinse, making sure to wash each portion of the masonry surface with concentrated water pressure spray. Pressure rinse from the bottom of cleaned area upward and then down again. Take great care to ensure that all detergent is rinsed from masonry.
- H. Reapply detergent as necessary until masonry is clean to the satisfaction of the Architect and matches approved sample.
- I. Allow area of application and areas below and surrounding to fully dry after rinsing.
- J. Rinsing:
 - 1. Application of the rinse water is extremely important. As much water pressure as possible (without damaging the surface) shall be used to apply the rinse water so all traces of the chemical cleaning agents are completely removed. Thoroughly rinse from the bottom of the treated area to the top, and down again covering each section of the surface.
 - 2. Rinse until the wet masonry surface is of the same pH as the rinse water. Surfaces shall be tested with pH strips.
- K. All scaffolding, platforms, and barricades shall be water-washed in the middle and at the end of each work day. Ground area shall be water-washed at the end of each work day.

3.4 CHEMICAL CLEANING PROCEDURES

- A. Cleaning shall begin at the bottom of the facade and slowly and continuously progress upward.
- B. Thoroughly prewet the area to be cleaned and that surrounding and below it. Take pH reading of masonry prior to the application of cleaning chemicals. A pressure water spray not to exceed 200 p.s.i. shall be used for prewetting and 500 p.s.i. for rinsing of masonry surfaces. Sprayer shall be equipped with fan-tipped nozzle (45 degrees) and be capable of providing a minimum flow rate of 5 gallons per minute. Surfaces shall not be allowed to dry prior to application of cleaning agents.
- C. To avoid streaking on walls, all wall surfaces immediately below the area being cleaned shall be kept wet and rinsed free of dripping cleaning agent.
- D. Apply coatings as directed by manufacturers instructions using a synthetic brush (soft bristled nylon) or deep nap roller (NOT NATURAL BRISTLE).
- E. Application of cleaning agent:
 - 1. Apply in strict accordance with Manufacturer's written instructions, unless modified by Architect.
 - 2. Brush apply in an even coating, by the method and in the concentration recommended by the Manufacturer, to the prewetted surface. Cleaning agent shall not be spray applied.
 - 3. Allow cleaning agent to dwell on surfaces for the time period determined during testing and approved by the Architect.
 - 4. Agitate cleaner by stippling with a brush during the dwell period in a manner determined during the testing.
 - 5. Do not allow cleaning agent to dry on surface.
- F. Allow the material to remain on the surface as directed by the manufacture's instructions or as otherwise determined in the approved sample. Total dwell time shall not exceed what has been determined in the sample or recommended by the manufacturer. Do not allow cleaner to dry on masonry surface. If surface shows signs of drying, rinse and reapply as needed.
- G. Rinse, making sure to wash each portion of the masonry surface with concentrated water pressure spray. Pressure rinse from the bottom of cleaned area upward and then down again. Take great care to ensure that all chemical is rinsed from masonry.

- H. Rinsing:
 - 1. Application of the rinse water is extremely important. As much water pressure as possible (without damaging the surface) shall be used to apply the rinse water so all traces of the chemical cleaning agents are completely removed. Thoroughly rinse from the bottom of the treated area to the top, and down again covering each section of the surface.
 - 2. Rinse until the wet masonry surface is of the same pH as the rinse water. Surfaces shall be tested with pH strips.
- I. Reapply cleaner combination as necessary (not to exceed two applications) until masonry is clean to the satisfaction of the Architect.
- J. Allow area of application and areas below and surrounding the area to fully dry after rinsing.
- K. All scaffolding, platforms, and barricades shall be water-washed in the middle and at the end of each work day. Ground area shall be water-washed at the end of each work day.
- L. Detergent cleaning is the preferred method for cleaning the brick and stone portion of the facade. Under no circumstances should chemical cleaning of the facade be attempted until two attempts at detergent cleaning have been made and found to be inadequate. The Architect shall make this determination.

3.5 COMPLETION

- A. Clean adjacent areas and remove any debris or accumulated matter.
- B. Clean and restore all sidewalks, paving and adjacent areas/objects soiled or damaged as the result of cleaning operations.
- C. Remove all protective materials.

SECTION 06100: ROUGH CARPENTRY

PART I. GENERAL

1.1 SCOPE

- A. Sheathing and infiltration barrier.
- B. Rigid insulation acting as sheathing.
- C. Blocking and backing.
- D. Fasteners and framing accessories.
- E. Installation of exterior fascias and soffits.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200.
- B. Concrete, Section 03300.
- C. Unit Masonry, Section 04300.
- D. Structural steel, Section 05120.
- E. Interior Finish Carpentry, Section 06200.
- F. Architectural Woodwork, Section 06400.
- G. Gypsum Board Systems, Section 09250.

1.3 QUALITY ASSURANCE

- A. All framing lumber and details of wood construction shall conform to latest edition of the "National Design Specification for Wood Construction" (NDS), published by the American Forest & Paper Association.
- B. All new dimensional framing lumber shall be grade marked at mill and be surfaced dry to a maximum of 19% moisture content.
- C. All panel material shall be grade stamped at mill and conform to APA-The Engineered Wood Association requirements for materials specified herein.
- D. Material required to be fire treated shall be stamped at mill treating wood with the treatment and rating noted on each piece of wood.
- E. Material required to be ACQ pressure treated shall be stamped at mill treating wood with the treatment and rating noted on each piece of wood.
- F. Framing material and installation shall comply with all state and local building codes.

PART II. PRODUCTS

2.1 GENERAL FRAMING

- A. Materials specified herein are the general framing materials for the project. The Drawings may have more restrictive requirements for certain conditions. The structural requirements of the Drawings and structural notes should be reviewed carefully.
- B. Framing grades are based on Western Wood Products, "Western Lumber Grading Rules and Standards".
- C. Panel grades are based on APA-The Engineered Wood Association designations and shall conform with Voluntary Products Standard, PS 1-95.

2.2 DIMENSIONAL FRAMING MATERIALS

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

A. Blocking, plates, and miscellaneous non-structural framing:

1. No. 3 Douglas Fir or Hem-Fir.
2. Standard grade Douglas-Fir.

B. Wood in contact with concrete or soil:

1. ACQ pressure treated grade 20, No. 2 Southern Yellow Pine.
2. Redwood.

2.3 SHEATHING MATERIALS:

- A. All plywood to be from Douglas fir veneers, Group 1, unless otherwise noted.
- B. All plywood to be Exposure 1 where exposed to weather during construction only.
- C. All plywood that is permanently exposed to weather is to be Exterior grade.
- D. Exterior wall sheathing:
 1. 3/4" CDX APA Rated sheathing.

2.5 EXTERIOR TRIM:

- A. Refer to Section 06300 for materials.

2.6 BUILDING PAPERS:

- A. Infiltration barrier at exterior walls:
 1. 2 layers 15# felt paper

2.7 ACCESSORIES

- A. Nails, screws, bolts and other fasteners shall be:
 1. Stainless steel.
- B. Exposed fasteners to be stainless steel:
 1. Grade 316 for sites near salt water.
- C. Bolts, nuts, and washers to be chrome/nickel plated steel.
- D. Insect screening at continuous soffit vents to be black fiberglass screen.

PART III. EXECUTION

3.1 FRAMING:

- A. Set all framing members level, plumb and square.
- B. Provide adequate bracing during construction so that walls stay plumb, square and straight.
- C. Provide fireblocking at tops of all walls, at tops of walls below soffits, and at midpoints of walls over 12 feet in height. Provide any other fireblocking as required by local codes.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

- D. Provide solid, continuous blocking for insect screen at soffit vents.
- E. Install reinforcement plates for bathroom accessories.

3.2 SHEATHING AND BUILDING PAPER:

- A. Install all sheathing so that ends are staggered from sheet to sheet and the ends bear fully on framing members. Use plywood clips at unsupported edges on plywood sheathing less than 3/4".
- B. Glue and screw all floor sheathing to joists.
- C. Nail wall sheathing and floor sheathing per nailing schedule or local code.
- D. Space plywood 1/8" apart for expansion.

3.3 EXTERIOR WINDOW AND DOOR INSTALLATION

- A. Coordinate Window and Door installation with Section 06300.
- B. Exterior windows and doors shall be installed by the work of this Section.
- C. Windows and exterior doors shall be installed per the requirements of their respective Sections in Division 8.

3.4 TOLERANCES

- A. Each wall shall be plumb to within 1/8 in. per 8 foot of length.
- B. Building to be square within 1/2" on the diagonal.
- C. Each room to be square to within 1/4" on the diagonal.
- D. Each wall shall be straight to within 1/4 in per 10 feet of length.
- E. All floors shall be level to within 1/4 in. per 20 foot of length.
- F. All floors shall be true to within 1/4' in. per 10 feet.
- G. Before insulation is installed or framing otherwise covered, remove and replace all studs, joists, rafters, and any other framing members that have bowed or warped out of tolerance after their initial installation.
- H. Replace any plywood that has delaminated prior to installation of finish surfaces.

END OF SECTION

SECTION 07315 – ROOF WOOD SHINGLES

PART 1 - GENERAL

1.1 SUMMARY

- A. Cover all indicated roof surfaces with Wood shingles
- B. Underlayment.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Roof and wall framing and sheathing.
- B. Section 07460 - Siding: Flashing conditions at adjacent siding locations
- C. Section 07620 - Sheet Metal Flashing and Trim: Headwall, sidewall (step), and valley flashing, drip edge, plumbing vent flashing and flashings for other roof accessories.
- D. Section 07710 - Manufactured Roof Specialties: Gutters and downspouts.
- E. Section 08600 - Skylights: Fixed or operable skylights and roof windows

1.3 REFERENCES

- A. ASTM D 226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- B. ASTM D 1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
- C. ASTM D 4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
- D. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials
- E. STM E 108 - Standard Test Methods for Fire Tests of Roof Covering.
- F. NRCA Steep Slope Roofing and Waterproofing Manual, Current Edition.
- G. Underwriters Laboratories (UL) UL 790: Standard Test Methods for Fire Tests of Roof Coverings

1.4 PERFORMANCE REQUIREMENTS

- A. Completed roof system must be capable of shedding water and resisting moisture penetration during wind driven rain.
- B. Fire Rating: CedarPlus Fire Rated System.
 - a. UL Class A as tested in accordance with UL 790
 - b. UL Class B as tested in accordance with UL 790
 - c. UL Class C as tested in accordance with UL 790
 - d. CedarPlus CCA Preservative Treatment, .40 retention
 - e. Wind Speed: Roof must be capable of withstanding straight-line non-tornadic winds up to 70 MPH (112 kmh) without loss or damage.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

C. Roofing Installer's Warranty: 5 years.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300

B. Product Data: Manufacturer's data sheets on each product to be used, including
a. Preparation instructions and recommendations
b. Storage and handling requirements and recommendations.
c. Installation methods

D. Detail Drawings: Submit detail drawings depicting the approved methods of installation at all flashing conditions located on the project. Coordinate flashing details with the contract drawings.

E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

F. Verification Samples: For each finish product specified, two shingles representing actual product, finish color, and texture

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of thirty (30) years experience.

B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1.1 Finish areas designated by Architect

1.2 Do not proceed with remaining work until workmanship and product are approved by Architect.

1.3 Refinish mock-up area as required to produce acceptable work

1.7 DELIVERY, STORAGE AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

A. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

1.10 EXTRA MATERIALS

A. At project closeout, provide additional roof shakes or shingles to Owner or Owners representative in the amount listed

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

PART 2 - PRODUCTS

2.1 MANUFACTURES

- A. Substitutions will be considered in accordance with provisions of Section 01600.

2.2 ROOF BOARD

- A. Existing sheathing to remain. Patch with similar material if deteriorated.
- B. Cap Sheet Underlayment: 72lb mineral surface cap sheet conforming to ASTM D 3909.

2.3 UNDERLAYMENTS

- A. Leak Barrier Membrane: Self-adhering bituminous membrane meeting or exceeding the requirements of ASTM D 1970.
- B. Felt Underlayment:
 - a. 15 Lb Organic asphalt saturated felt meeting or exceeding the requirements of ASTM D 226 or ASTM D 4869 Type I.
 - b. 30 Lb Organic asphalt saturated felt meeting or exceeding the requirements of ASTM D 226 or ASTM D 4869 Type II.
 - c. 18-inch wide roofing felt, 30 Lb Organic asphalt saturated felt meeting or exceeding the requirements of ASTM D 226 or ASTM D 4869 Type II.

2.4 SHINGLES

- A. Western Red Cedar Shakes with ¾" butts (sawn, not split)
 - a. Length: 24 inch (610mm)
 - b. Certi-split ® Tapersawn Shakes
 - c. Thickness: ¾" butts
 - d. Width: Variable from 4 inches (102mm) to 14 inches (356mm)
 - e. Exposure: 7 1/2 inch

2.5 SHEET METAL

- A. Materials
 - a. Copper - Minimum 16 oz
 - b. Material: Aluminum - Minimum 26 gauge
 - c. Material: Galvanized Steel - Minimum 26 gauge
 - d. Stainless Steel - Minimum 26 gauge.

2.6 FABRICATIONS

- A. Valley Flashing: 24 inch (610mm) wide metal fabrication with a 1 inch (25mm) raised splash diverter at the flow line.
- B. Step Flashing: 9 inch (228mm) wide metal fabrication with a 5 inch (127mm) leg up the wall and a 4 inch (102mm) leg under the shake. Length sufficient to provide a 4 inch (102mm) minimum headlap.
- C. Headwall Flashing: 8 inch (203mm) wide metal fabrication with two 4 inch (102mm) legs.
- D. Eaves and Rake Drip Edge: 8 inch (203mm) wide metal fabrication. Profile as noted in the Contract Drawings.
- E. Plumbing Vent Flashing: Molded flashing with a self sealing santoprene boot. Material to match field fabricated flashings.
- F. Plumbing Vent Flashing: Soldered metal flashing formed to return into plumbing stack. Material to match field fabricated flashings

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding
- C. Roof pitch must not be less than 4 inches per foot or 4:12 (102mm : 305mm).

3.2 SUBSTRATE PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Install solid sheathing extending from all eaves to extend 36 inches (914mm) horizontally inside the warm edge of the exterior wall beneath.

3.3 ROOF BOARD

- A. Follow roof board manufacturer's installation guidelines for achieving optimum results for the conditions present on the project.
- B. Install roof board over existing substrate using a minimum of four (4) fasteners, limiting shifting and movement prior to roofing installation.
- C. Where spaced sheathing is present, horizontal joints must land on the substrate beneath.

3.4 UNDERLAYMENT INSTALLATION

- A. Install using methods recommended by manufacturer in accordance with local building code.
- B. Eaves: Place eave edge metal flashing tight with fascia boards; lap joints 2 inches (50 mm) and nail at top of flange.
- C. Valleys: Install leak barrier at least 36 inches wide centered on valley; lap ends 6 inches (150 mm) and seal.
- D. Roof Deck:
 - a. Install one layer of roof deck underlayment over entire area not protected by eave or valley membrane.
 - b. Apply underlayment horizontally, lapping to shed water.
 - c. Lap edges no less than 2 inches (50 mm) horizontally and 4 inches (100 mm) vertically.
 - d. Stagger vertical joints at least 36 inches (915 mm).
- E. Roof Penetrations:
 - a. At vent pipes, install a 24 inch (610 mm) square piece of leak barrier lapping over roof deck protection; seal tightly to pipe.
 - b. At vertical walls, install leak barrier extending at least 6 inches (150 mm) up the wall and 12 inches (305 mm) on to the roof surface lapping over roof deck protection.

- c. At skylights and roof hatches, install leak barrier up the sides of the frame and 12 inches (305 mm) on to the roof surface on all sides, lapping over roof deck underlayment.
- d. At chimney, install leak barrier around entire chimney extending at least 6 inches (150 mm) up the wall and 12 inches (305 mm) on to the roof surface lapping over roof deck protection.

3.5 ROOF INSTALLATION

- A. Starter Course: Install a starter course at the eaves to align and undercourse roof. Project shingle butts from 1 to 2 inches (51 - 76mm) beyond eaves.
- B. Offset: Space roofing shakes or shingles 1/4 inch to 3/8 inch (6 - 10mm) apart to allow for possible expansion. Offset subsequent courses at least 1 1/2 inches (38mm).
- C. Fastening: Install shakes or shingles with two (2) stainless steel fasteners. Length must be sufficient to penetrate at least 3/4 inch into dimensional lumber or through plywood or OSB sheathing.

3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.7 FLASHING

- A. Eaves: Install eave edge metal flashing tight with fascia boards; lap joints 2 inches (50 mm) and nail at top of flange.
- B. Valleys: Install metal valley flashing over leak barrier membrane prior to roofing installation. Do not nail into flashing; secure by nailing just beyond edge of flashing so that nail heads hold down edge every 18 inches (457 mm).
- C. Headwalls: Install headwall flashing tight with wall extending 4 inches (102mm) onto the roof plane and 4 inches (102mm) up the headwall. Where possible, maintain continuous lengths of flashing. Counterflash with siding.
- D. Sidewalls: Install step flashing at sidewalls on every course, extending 4 inches (102mm) onto the roof plane and 4 inches (102mm) up the sidewall. Overlap subsequent courses to provide a headlap of no less than 4 inches (102mm). Counterflash with siding.
- E. Penetrations: Follow SMACNA guidelines for fabrication and installation of flashings at all roof penetrations.

END OF SECTION

SECTION 07620: SHEET METAL, GUTTERS AND LEADERS

PART I. GENERAL

1.1 SCOPE

- A. Copper flashing.
- B. Stainless steel flashing.
- C. Copper gutters and leaders.
- D. Aluminum.
- E. Bonderized metal.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200.
- B. Masonry, Division 4.
- C. Carpentry, Division 6.
- D. Roofing, Division 7.
- E. Doors and Windows, Division 8.

1.3 PERFORMANCE CRITERIA

- A. The gutters and leaders for this project are detailed on the Drawings. They show the design and appearance expected of these items. It is the responsibility of the Contractor and installer to confirm and verify that the gutters and leaders are sized correctly for the specified volume and that the work is detailed, fabricated, and installed to be water tight per the standards noted herein. Final detailing shall be reviewed with the Architect prior to start of fabrication.

1.4 SUBMITTALS

- A. Provide shop drawings on all exposed custom sheet metal work.

1.5 PERFORMANCE CRITERIA

- A. Verify that gutter and leader system is designed for a 10 year storm.

1.6 SUBMITTALS

- A. Provide samples of the following items for approval:
 - 1. Gutters, downspout, collector with all fastening and accessories.
 - 2. All exposed flashing, fascias and copings.
- B. Provide in place mock-ups of the following:
 - 1. Gutters, downspout, collector with all fastening and accessories.
 - 2. All exposed flashing, fascias and copings.

1.7 QUALITY ASSURANCE

- A. Work shall be performed in accordance with the latest recommendations and details of the Architectural Sheet Metal Manual, 5th Edition published by SMACNA; 4201 Lafayette Center Drive, Chantilly, VA, 20151.

ANDRE TCHHELISTCHEFF ARCHITECTS

- B. Copper flashing shall be in accordance with SMACNA, Copper and Common Sense, by Revere Copper Products, Inc., and "Copper in Architecture" by the Copper Development Association.
- C. Specification references;
 - 1. Stainless steel, Type 302 or 304 to conform to ASTM A 167.
 - 2. Red copper to conform to ASTM B 370
 - 3. Lead coated copper to conform to ASTM C 101
- D. Provide water test on the following:
 - 1. Built in gutter system: Plug downspouts and fill with water for 24 hours to test for leaks. Fill to the high water mark of the system.
 - 2. For concealed downspouts, testing shall be done by the Plumber, Division 15, and shall meet the requirements for waste lines.

PART II. PRODUCTS

2.1 FLASHING

- A. The weights of the flashing specified herein are adequate for most conditions noted. Where heavier weight flashing is called for by the above mentioned standards, those weights shall be used.
- B. Red copper flashing:
 - 1. Base, cap, and counter flashing to be 16 oz.
 - 2. Hip, valley and continuous flashing to be 20 oz.
 - 3. Head flashing, window pans, and through wall flashing to be 12 oz.
 - 4. Door pans to be 16 oz.
 - 5. Roof boots at pipes and ducts to be 20 oz.
- C. Lead coated copper flashing:
 - 1. Base, cap, and counter flashing to be 16 oz.
 - 2. Hip, valley and continuous flashing to be 20 oz.
 - 3. Head flashing, window pans, and through wall flashing to be 12 oz.
 - 4. Door pans to be 16 oz.
 - 5. Roof boots at pipes and ducts to be 20 oz.

2.2 GUTTERS AND LEADERS

- A. Approved gutter and leader manufacturers;
 - 1. Approved local sheet metal shop.
- B. Gutters to be:
 - 1. Custom fabricated per details on Drawings
- C. Material for hung gutters to be:
 - 1. Copper.
- D. Gauge of hung gutters to be:

ANDRE **TCH**ELISTCHEFF ARCHITECTS

1. Girth up to 15 inches.
 - a. Copper: 16 oz.
 2. Girth 16 to 20 inches
 - a. Copper: 16 oz.
 3. Girth 21 to 25 inches
 - a. Copper: 20 oz.
- E. Custom brackets or straps for hung gutters:
1. For girth of gutter up to 20 inches:
 - a. Copper: 1/8" x 1"
 2. For girth of gutter 20 to 24 inches:
 - a. Copper: 1/4" x 1 1/2"
 3. Stock brackets for manufactured gutters:
 - a. Combination circle hanger for half round gutters.
 - b. Circle hanger for half round gutters.
 - c. Hidden hanger for Type K gutter.
 4. Brackets for larger gutters shall be sized for the load and condition. Submit sizing and shop drawing details for review by Architect.
 5. Spacing of brackets is approximately 36 inches on center. This is to be confirmed in shop drawings and loading conditions.
- F. Built in gutters to be:
1. Copper 20 oz.
- G. Fabrication of gutters shall be in accordance with details on the Drawings and the details of the Architectural Sheet Metal Manual. All work shall be of architectural quality.
- H. Accessories for gutters:
1. Baffles to be of same material and gauge as gutter.
 2. Screening to be of same material as gutter and mechanically fastened to top of gutter.
 3. Downspout strainers to be removable, wire type of material compatible with gutter and downspout material.
- I. Conductor heads:
1. Conductor heads shall be fabricated and sized per details on Drawings.
 2. Materials shall be same as gutter and downspout material.
 3. Approved manufacturer:

ANDRE TCHELISTCHEFF ARCHITECTS

- a. Approved local sheet metal company.

J. Downspouts and leaders:

- 1. Downspouts shall be of same material as gutter.
- 2. Downspout shape shall be:
 - a. Round.
- 3. Gauge of downspouts shall be:
 - a. Copper: 16 oz.
- 4. Brackets for downspouts shall be:
 - a. Rack and key bracket on downspout.

- K. At flat roofs and internal concealed gutters, leaders are internal and provided under Plumbing, Section 15400. Provide flashing as required for these drains.

2.3 ACCESSORIES

- A. Nails at copper shall be 12 ga. hard copper or brass.
- B. Nails at aluminum or galvanized steel to be steel.
- C. Solder to be 50/50 tin/ lead.
- D. Nailing clips to be same material as metal being clipped.
- E. Primer shall be asphaltic type to be used at dissimilar metals and aluminum or steel contact with lime and mortar.
- F. Plastic cement to be fibrated asphalt type.
- G. Sealants to be compatible with metal. Sealants are specified in Section 07900.

2.4 FABRICATION, GENERAL

- A. Fabricate flashing and other sheet metal in accordance with details on Drawings and Architectural Sheet Metal Manual for item fabricated.
- B. Neutralize solder flux after soldering.
- C. Site-fabricate all door and window pans, plumbing vent and exhaust fan flashing and other exposed flashing. Use field measurements for exact fits.
- D. Hem all exposed edges with 1/2" hem.

PART III. EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify that all roof penetrations, fascia and roof trim, window and door framing are complete before starting respective flashing.
- B. Verify that all base sheets and ice shields are in place before roof flashing is started.
- C. Prime any dissimilar metal with asphaltic primer if metal will come in contact with copper flashing.
- D. Coordinate the work of this section with all related trades.
- E. Provide and fabricate flashing as required to be installed by other trades.

3.2 DELIVERY AND PROTECTION

ANDRE **TCH**ELISTCHEFF ARCHITECTS

- A. Carefully store flashing, gutters, and leaders on job so that they do not get damaged.
- B. After work is installed, protect as necessary to keep work from being damaged.

3.3 INSTALLATION

- A. Install all work per Drawings, CDA and SMACNA standards for a particular item.
- B. Make all flashing connections water tight by soldering if copper, galvanized steel, or stainless steel.
- C. Provide expansion connection in gutters approximately every 30 feet or as per manufacturer's recommendation. Sealant shall be applied to at least a 1 inch wide section of the overlap. Seal with a urethane sealant.
- D. Provide expansion joints in all flashing as per details in the Architectural Sheet Metal Manual.
- E. Before spotting downspouts, review location of downspouts with Architect. Coordinate this work with Section 02700, Site Utilities.
- F. All sheet metal work shall have concealed connections and be installed with clips wherever possible.

3.4 CLOSEOUT

- A. Provide water tests to ensure water tightness of all flashing and gutters.
- B. At job closeout repair any loose connections or leaks in gutters.
- C. Leave copy of manufacturer's warranty and detailed written instructions on maintenance of gutters, leaders and other flashing for inclusion in Owner's manual.

END OF SECTION

SECTION 07900: SEALANTS AND CAULKING

PART I. GENERAL

1.1 SCOPE

- A. Sealants at exterior vertical surfaces.
- B. Sealants at exterior horizontal surfaces.
- C. Sealants at interior vertical surfaces.
- D. Sealants at interior horizontal surfaces.
- E. Sealants at tile and showers and other wet areas.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200.
- B. Finish Carpentry, Section 06200.
- C. Flashing, Section 07620.
- D. Waterproofing, Section 07900.
- E. Wood Doors, Section 08210.
- F. Gypsum Board Systems, Section 09250.
- G. Tile, Section 09300.
- H. Painting, Section 09900.

1.3 SUBMITTALS

- A. Submit manufacturer's printed product literature for review for each sealant specified. Keep one copy of literature for each system on the job site for reference. Literature shall include test results showing compliance with ASTM numbers and complete installation instructions for each material.
- B. Submit color charts for preliminary color selection of all exposed sealants by Architect.
- C. Install sample of sealants at each condition for Architect's approval prior to proceeding with work of this section. Sample shall show color and quality of workmanship.

1.4 QUALITY ASSURANCE

- A. Each product for each type of joint shall be purchased from a single manufacturer.
- B. Each trade is responsible for sealing joints of their work as part of a single source responsibility unless noted otherwise.
- C. All materials shall conform to the ASTM numbers noted herein for each type of material and installation. These qualifications shall be clearly marked on each container of sealant.

PART II. PRODUCTS

2.1 SEALANTS

- A. Exposed, non-paintable sealants at doors, windows and other openings at exterior wood, concrete, stucco, or masonry to be:
 - 1. Polyurethane conforming to ASTM C 920, Grade NS, Class 25, Use M, G, or A, single component gun grade. Approved products are:

ANDRE TCHELISTCHEFF ARCHITECTS

- a. Tremco DYMONIC.
- b. Sonneborn NP 1.

B. Sealants at horizontal concrete expansion joints to be:

- 1. Self-leveling, polyurethane sealant conforming to ASTM C 920, Type S, Grade P, Class 25, Use T, M. Approved products are:
 - a. Sonneborn SL 1, one part, gun grade.
 - b. Tremco THC-901, multi part.
 - c. Sonneborn NP-2.

C. Exposed, non-paintable sealants at doors, windows and other openings at interior wood, concrete, plaster, or masonry to be:

- 1. Polyurethane conforming to ASTM C 920, Grade NS, Class 25, Use M, G, or A, single component gun grade. Approved products are:
 - a. Tremco DYMONIC.
 - b. Sonneborn NP 1.

D. Paintable sealants at doors, windows and other openings at interior wood, concrete or masonry to be:

- 1. Butyl sealant conforming to ASTM C 1085, Grade NS, Class 12.5 Use G, single component gun grade. Approved products are:
 - a. BC-158, Pecora Corp.
 - b. Tremco Butyl Sealant.

F. Acoustical caulking at sound rated walls and partitions:

- 1. Acoustical sealants at concealed joints:
 - a. Pecora Corp., BA-98.
 - b. Tremco, Tremco Acoustical Sealant.

2.2 ACCESSORIES

- A. Primers to be as required by sealant manufacturer for proper adhesion to surfaces being caulked.
- B. Backer rods to be closed cell polyethylene of size appropriate for condition.
- C. Backer rods to be open cell polyurethane foam of size appropriate for condition.
- D. Bond breaker tape to be polyethylene tape of type as recommended by sealant manufacturer.
- E. Masking tape for masking adjacent surfaces to be to non-staining type that will not damage surfaces or sealants.

PART III. EXECUTION

3.1 EXAMINATION AND PREPARATION

ANDRE TCHELISTCHEFF ARCHITECTS

- A. Clean all surfaces of dust and dirt before applying sealant.
- B. Prime surfaces as per manufacturer's specifications prior to applying sealant.
- C. Ensure that backer-rod is of proper size for joint being sealed. Backer rod should be compressed about 25% of it's size for a proper fit.
- D. Install backer-rods and bond breaker tape as required. Do not install any flat caulk joints without bond breaker tape. Do not install any three-sided caulk joints.
- E. Apply bond breaker tape to backs of joints less than 3/8 inch deep.
- F. Do not apply sealant if surfaces are wet or damp.
- G. Do not start sealant work until colors of sealants have been approved and in-place samples of workmanship approved.
- H. Tape off surrounding areas to get clean, straight edges.
- I. Use mechanics with at least 5 years experience in this type of work.

3.2 INSTALLATION

- A. Install all sealants exactly as per manufacturer's specifications and details. Keep a copy of the manufacturer's installation details on the job for reference for each type of product .
- B. Install sealants in accordance with ASTM C 1193.
- C. Install acoustical sealants in accordance with ASTM C 919 and details of STC rated system.
- D. Carefully coordinate sealant system with other systems so that all systems perform as a total waterproof system.
- E. Install all caulk joints carefully and professionally.
- F. Tool all joints carefully to the shape as approved by the Architect.

3.3 CLEANING AND PROTECTION

- A. Protect all sealants from damage and dirt after installation.
- B. Keep traffic off sealants used in paving and other horizontal surfaces until sealants are cured.
- C. Remove and replace any sealants that are damaged. Patched areas to match existing caulking perfectly.
- D. Clean all sealants from adjacent surfaces immediately after installation.
- E. At close out, provide Owner with all manufacturers maintenance instructions for sealants.

END OF SECTION

SECTION 08605: WOOD WINDOWS

PART I. GENERAL

1.1 SCOPE

- A. Fixed and operable stock wood windows
- B. Fixed and operable custom wood windows.
- C. Window screens.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200
- B. Interior Finish Carpentry, Section 06200
- C. Exterior Finish Carpentry, Section 06300
- D. Architectural Woodwork, Section 06400
- E. Wood Doors, Section 08210
- F. Hardware, Section 08705
- G. Glass and Glazing, Section 08800

1.3 SUBMITTALS

- A. Provide shop drawings for review and approval on custom windows. Shop drawings shall show all details of window and frame fabrication. Include in submittal a list of all options included in window order.
- B. Provide manufacturer's printed product literature, cut sheets and details on each type of window. Clearly identify all items to be include in order.
- C. Provide complete printed data on factory primer and/ or finish.
- D. Submit one sample of each type of window including proposed finish, operating hardware, weatherstripping, trim and sill details, glazing, and muntins. Samples are required for both stock and custom units.

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with manufacturer's specifications and details for the grade of window specified.
- B. Windows are to be manufactured to the performance standards specified in NWWDA 101/I.S.2-97 for grade and type of window specified.
- C. All the materials used in the fabrication of windows shall conform to the qualities referenced by the above noted standards.

1.5 WARRANTY

- A. All windows are to be warranted per manufacturer's standard written warranty to remain within the specified tolerances and performance criteria for the length of the warranty.

PART II. PRODUCTS

ANDRE TCHELISTCHEFF ARCHITECTS

2.1 MANUFACTURERS

- A. Window types, sizes and functions are shown on the Drawings and Window Schedule.
- B. Window types required for this project are as follows. Model numbers are noted on the Window Schedule:
 - 1. Double hung
 - 2. Casement
 - 3. Fixed

2.2 WOOD TYPES

- A. Wood for stock units to be:
 - 1. Clear white pine, AWI Grade 1
 - 2. Use of fingerjointed wood is not permitted
- B. Wood for custom units to be AWI Grade 1:
 - 1. Clear white pine, AWI Grade 1
 - 2. Use of fingerjointed wood is not permitted

2.3 WEATHER-STRIPPING

- A. Weather-stripping shall be manufacturer's standard as used on tested assembly.
- B. Weather-stripping for custom windows shall be:
 - 1. Compression neoprene

2.4 GLAZING

- A. Glazing shall be as per Section 08800.
- B. Glazing shall be insulating, Northern low-e glass, tempered where required.
- C. Glazing shall conform to the standards for the grade of window specified per NWWDA requirements.
- D. The desiccant channel shall have the closed face facing the space between the glass.
- E. The aluminum desiccant channels shall be colored. Color to be selected.

2.5 WINDOW HARDWARE

- A. Operating hardware, locks, and exposed hardware to be manufacturer's standard on stock windows.
- B. Operating hardware, locks, and exposed hardware on custom windows to

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

be manufacturer's standard unless otherwise noted on the Drawings and reviewed shop drawings.

C. Finish on exposed hardware:

1. To match existing.

2.6 WINDOW FABRICATION

A. Windows to have the following Design Pressure Rating based on NWWDA I.S. 2-93:

1. DP 20

B. Stock windows to be manufactured per manufacturer's details.

C. Custom windows are to be manufactured per AWI Section 1000, Grade:

1. Premium grade

D. Custom windows to be manufactured per details on Drawings, reviewed shop drawings, and per grades specified herein.

E. Muntins are to be constructed as follows:

1. Simulated divided lights with fixed muntins.
2. Glazing shall have internal dividers at muntins.

F. Windows shall be completely assembled at factory.

G. Windows are to be fully weather-stripped at the factory unless otherwise noted.

H. Windows shall be shop glazed.

I. Fixed units to be shop glazed.

J. Exterior trim is to be:

1. Custom trim, field applied.
2. Coordinate sill construction with trim details on Drawings. Sub sills are to be shipped loose with ears left long to accept trim.

K. Interior extension jambs to be field installed.

2.7 FINISH

A. All wood window parts shall be treated in wood preservative after machining but prior to assembly per NWWDA, I.S.4.

B. Exterior of windows are to be factory primed only.

C. Interior of windows to be factory primed.

PART III. EXECUTION

3.1 EXAMINATION AND PREPARATION

ANDRE TCHELISTCHEFF ARCHITECTS

- A. Prior to window installation, insure that all sheathing is nailed securely and is flush and true at window openings.
- B. Prior to window installation, insure that all building paper is properly installed at window openings.
- C. Prior to window installation insure that jamb and sill flashing are properly installed and coordinated with window and trim details.
- D. Prior to window installation insure that window trim details are coordinated with exterior and interior finish details. If there is a conflict, contact Architect prior to proceeding with installation.

3.2 DELIVERY AND PROTECTION

- A. Windows shall be delivered to job after roof is on.
- B. Windows shall be protected from damage throughout course of job.
- C. Windows shall be stored in a clean and dry environment until hung.

3.3 INSTALLATION

- A. Windows shall be installed as per manufacturer's details and shop drawings.
- B. Windows shall be hung with nails through trim unless otherwise noted. Do not fasten through jamb unless instructed to do so by manufacturer.
- C. Windows shall be installed true, level, plumb and coplanar with opening.
- D. Flash head of window after windows are installed. Coordinate with Section 07620.
- E. Apply sealant at trim as shown on Drawings. Coordinate this with Section 07900
- F. Prior to installation of final trim at windows, insure that windows operate freely and smoothly. Make any adjustments as required before proceeding with trim installation. Prior to installation of final trim at windows, insure that windows operate freely and smoothly. Make any adjustments as required before proceeding with trim installation.

3.4 CLOSEOUT

- A. Check all windows for proper operation. Insure that all operable windows open, close, and lock easily. Make the required adjustments.
- B. Remove all labels, tape and protection and clean all windows and glass at end of job. Insure that cleaners and cleaning process does not harm the finish of the sashes and frames and does not scratch the glass.
- C. Clean all wood work around windows.
- D. Touch-up or other wise re-finish any paint or wood on windows damaged during construction.
- E. Provide all written factory warranties and maintenance instructions for inclusion Owner's Manual.

END SECTION

SECTION 08705: DOOR HARDWARE

PART I. GENERAL

1.1 SCOPE

- A. Supply and installation of door hardware.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200.
- B. Finish Carpentry, Section 06200.
- C. Architectural Woodwork, Section 06400.
- D. Doors, Division 8.
- E. Painting, Section 09900.

1.3 WARRANTY

- A. All hardware purchased by Contractor shall be warranted for proper functioning and exposed finish per manufacturer's warranty, or at least 2 years.
- B. Installation shall be warranted for 1 year.

PART II. PRODUCTS

2.1 HARDWARE SCHEDULE

- A. Contractor is responsible for preparation of hardware order once hardware has been selected and preparation of submittals, unloading and storage of hardware, installation, and adjustments. This work shall be part of base bid for hardware installation.
- B. Contractor shall ensure that hardware shall be supplied with all necessary templates backplates, screws, etc. for a complete installation.
- C. All exposed parts to hardware shall match finish of hardware.

PART III. EXECUTION

3.1 EXAMINATION AND COORDINATION

- A. Contractor shall coordinate supplying hinges to door installer for doors job hung per Division 8.
- B. Contractor shall ensure that door shop drawings are coordinated with hardware schedule and cut sheets.

3.2 DELIVERY AND PROTECTION

- A. When hardware is delivered to site, select one room that is clean and secure to store hardware. Contractor is responsible for accepting, checking, and storing all hardware.
- B. When hardware is delivered, inspect all sets for completeness and proper finish. Notify Architect and Owner of missing parts and re-order missing or damaged parts immediately.
- C. Mark door number on each box and check for proper function.
- D. Protect all hardware from damage before and after installation. Repair or replace any damaged hardware.

ANDRE TCHHELISTCHEFF ARCHITECTS

3.3 INSTALLATION

- A. Contractor shall install all door hardware including but not limited to the following:
 - 1. Latches, locksets, and trim.
 - 2. Hinges, not factory installed
 - 3. Door stops
 - 4. Door hold-opens
- B. Hinges are to be supplied by this Section and installed by Door supplier or installer under Division 8.
- C. Verify that hardware is correct for doors before prepping doors for hardware.
- D. Install all hardware in accordance with manufacturer's instructions and approved shop drawings.
- E. Use only mechanics with at least 5 years experience installing finish hardware.
- F. Install all hardware so that it works smoothly and freely without binding or sticking.
- G. Prep all doors for hardware before final painting.
- H. Install finish plates, handles, and rosettes after final painting.

3.4 CLOSEOUT

- A. Clean all finished hardware at close out of job. Ensure that cleaners are compatible with finishes and will not mar or corrode the finish.
- B. Adjust all hardware and tighten all handles prior to Owner's moving in. For handles that have been removed and re-installed, apply Lock-tite to threads of set screws as handles are re-installed.
- C. Ensure that all hardware is working properly and smoothly.
- D. Provide cut sheets and maintenance instructions for Owner's Manual.
- E. Review with Owner the procedure for minor adjustment to knobs and levers.
- F. Leave 2 sets of Allen wrenches for each size nut for Owner's use.

END OF SECTION

SECTION 08800: GLASS AND GLAZING

PART I. GENERAL

1.1 SCOPE

- A. Glass and glazing for doors and windows.

1.2 RELATED WORK

- A. Basic Requirements, Section 01200
- B. Finish Carpentry, Section 06200
- C. Architectural Woodwork, Section 06400
- D. Doors, Division 8
- E. Windows, Division 8

1.3 QUALITY ASSURANCE

- A. Materials and work of this section to be in accordance with the Glass Association of North America (GANA), "Glazing Manual."
- B. Safety glass shall conform to ANSI Z97.1 and CPSC 16 CFR 1201, Cat. I or Cat II.
- C. Float and patterned glass shall conform to ASTM C 1036.
- D. Heat treated glass shall conform to ASTM C 1048.
- E. Laminated glass shall conform to ASTM C 1172 and ASTM C 1036 and ASTM C 1048 for the type of glass used in the lamination.
- F. Bendheim Restoration Glass or approved equal..

1.4 SUBMITTALS

- A. Provide manufacturer's literature on the following:
 - 1. Sealants.
 - 2. Glazing gaskets
- B. Provide shop drawings on the following:
 - 1. Shop drawings from other Sections shall show the glazing in place with stops, desiccant channels, and divided lite details drawn to full scale or larger.
- C. Provide samples of the following:
 - 1. Each type of glass for doors.
 - 2. Shower enclosure.
 - 3. Each type of mirror.

ANDRE TCHHELISTCHEFF ARCHITECTS

4. Each type of glass for walls.

1.5 PERFORMANCE CRITERIA

- A. Glass type and thickness shall be determined by using ASTM E 1300: "Standard Practice for Determining the Minimum Thickness of Glass Required to Resist a Specified Load".
- B. Loads are to be determined using:
 1. Applicable local building code requirements
 2. Requirements as defined in ASCE 7, "Minimum Design Loads for Buildings and Other Structures".
- C. Glass and glazing installation at exterior surfaces shall be designed to withstand the design wind loads for the location of the project and conform to structural requirements of state and local codes.
- D. The probability of breakage to use in calculating the thickness of glass shall be:
 1. Eight lites per thousand.
- E. Glass and glazing installation at interior partitions shall be able to withstand a lateral load of 5 psf and a point load of 200 pounds anywhere on it's surface.

1.6 WARRANTY

- A. Provide the following warranty for replacement of insulating glass units, coated glass, and mirrors due to defects caused by their manufacture or installation:
 1. Ten years

PART II. PRODUCTS

2.1 GLASS MATERIALS, GENERAL

- A. Thickness, stop and bite dimensions, and strengths of glass shall be determined:
 1. By the manufacturer of the unit being glazed for factory glazed units, based on the size of the glass and the loading criteria due to impact and wind based on local code requirements and ASTM C 1300.
- B. The manufacturer or glazier shall verify in the shop drawings that glass and detailing of the installed unit meets or exceeds the structural requirements

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

of the unit based on governing building and safety codes and ASTM E 1300.

- C. All clear flat glass shall conform to ASTM C 1036, Type I, Class 1, quality q 3.
- D. All heat treated, clear flat glass shall conform to ASTM C 1036 and ASTM C 1048, Type I, Class 1; Kind HS for heat strengthened and Kind FT for fully tempered glass.
- E. Laminated glass shall conform to ASTM C 1172 and ASTM C 1036 and ASTM C 1048 for the type of glass used in the lamination.
- F. Safety glass and tempering labels are to be submitted in written form by glass manufacturer. Do not etch or otherwise mark labels on the glass itself unless required by code.

2.2 TEMPERED GLASS, GENERAL

- A. All tempered glass shall be Kind FT and shall conform to ASTM C 1036 and C 1048.
- B. Maximum distortion permitted in glass shall be:
 - 1. .003 in. peak to valley distortion.

2.3 FLAT GLASS

- A. The following glass types are required for this job. The location of a particular type of glass is noted on the Drawings and Schedules. The types of glass are designated by paragraph number, i.e., Glass Type "2.2.c.1" for "laminated safety glass, clear".
- B. Mirror Glass, 1/4", clear float glass with copper and silver coating with organic overcoating. See Drawings for locations of each type.
 - 1. Polished edge
 - 2. Beveled edge
- C. Glass for doors, single glazed, non-insulating, thickness as required for the condition; see drawings for type and manufacturer.
- D. Glass for windows, single glazed, non-insulating, thickness as noted on the Drawings;
 - 1. Laminated safety glass (where required by code or noted on the Drawings).

ANDRE TCHELISTCHEFF ARCHITECTS

2.4 SEALED INSULATING GLASS MATERIALS

- A. Insulating units to be manufactured per ASTM E 774.
- B. Insulating glass for doors, thickness as per details on Drawings or door manufacturer's standard details:
 - 1. Clear tempered flat glass on inner and outer panes with bronze spacer bars.
 - 2. Clear laminated safety flat glass on inner and outer panes with bronze spacer bars.

2.5 GLAZING COMPOUNDS

- A. Polyurethane Sealant, single component, chemical curing, non-bleeding, non-staining.
- B. Silicone Sealant, single component, chemical curing, non-bleeding, non staining.
- C. Butyl glazing tape of size and thickness detailed.

2.6 SETTING ACCESSORIES

- A. Setting blocks shall be neoprene, EPDM, or silicone.
- B. All setting blocks shall be of the same material and size for any given lite.
- C. Edge blocks shall be neoprene, EPDM, or silicone with a Shore A Durometer
- D. hardness of between 50-70. Verify with manufacturer of unit.
- E. Setting blocks shall be 1/8" wider than thickness of glass.
- F. Setting blocks shall be of the following lengths:
 - 1. Neoprene, EPDM, silicone; .1" per sq.ft. of glass area.
 - 2. Not less than 4" each for glass widths of 48" or more.
- G. Glazing gaskets shall be of the style and size as noted on the Drawings.

2.7 ADHESIVES

- A. Mirror adhesives to be:
 - 1. Mirro-Mastic by Palmer Products Corporation, 800-431-6151.
 - 2. Ensure that product is compatible with backing of mirror.
- B. Primer for mirror backing to be:
 - 1. Mirro-Bac by Palmer Products if backing is not compatible with mastic.

PART III. EXECUTION

3.1 GENERAL

- A. Windows and doors and other items that are factory glazed are specified to conform to certain standards or Grades. The glazing of the units for this project shall conform to the details and installation methods used for those standards and grades.
- B. For factory or site glazing, all glass stops shall have the face and edge clearance between the glass and the stops and the bite on the glass at the stops as per Table 12 of the GANA Glazing Manual, 1997 Edition.
- C. All installation methods and details shall conform to the GANA "Glazing Manual", 1997 Edition.
- D. Do not proceed with glazing until compatibility of all materials is verified by glazier. Insure that sealants and other finishes will not react with and damage seals on insulating glass, laminates in laminated glass, or glazing gaskets.
- E. Prior to glazing the installer shall verify that all openings to be glazed are square to within 1/8" when measured on the diagonals. Frames shall be coplanar to within 1/32".

3.2 DELIVERY AND PROTECTION

- A. Loose glass shall be delivered to the job in crates and remain protected until set.
- B. Reject any glass that arrives on the job chipped or cracked or gets chipped or cracked before, during, or after installation.
- C. Protect all glass from damage or breakage after installation.
- D. All insulating and laminated glass shall be stored vertically on foam or rubber blocks.

3.3 FACTORY GLAZED UNITS

- A. Factory glazed units are to be glazed to achieve the grade of the unit specified and per approved shop drawings or literature.
- B. Glazing materials and details shall be compatible with the finishing system.

3.4 FIELD GLAZED INTERIOR MILLWORK

- A. Glass for interior millwork, doors, and panels shall be dry glazed at wood unless otherwise noted on drawings.

ANDRE **TCH**ELISTCHEFF ARCHITECTS

- B. Where wet glazed, a heal bead of sealant shall be place against the fixed stop. Setting blocks shall be placed in from edge of glass one fourth of glass width. Stops shall be set against glass and secured per Details on the Drawings. A cap bead of sealant shall be installed between the stop and the glass.

3.7 CLEANING

- A. Remove labels after work is complete.
- B. Remove all dirt and construction debris from glass and mirrors.
- C. Remove all sealants and glazing material from glass and mirrors to sight lines at stops of glass.

2.8 SCHEDULE

- A. See door schedule, window schedule, and millwork drawings on Drawings for location of types of glass and mirrors needed for this job.

END SECTION

SECTION 09900: PAINTING AND WOOD FINISHES

PART I. GENERAL

1.1 SCOPE

- A. Preparation of new surfaces
- B. Exterior painting
- C. Interior painting
- D. Opaque finishes
- E. Stain and clear finishes

1.2 RELATED WORK

- A. Basic Requirements, Section 01200
- B. Ornamental Metal Work, Section 05700
- C. Finish Carpentry, Section 06200
- D. Architectural Woodwork, Section 06400
- E. Gypsum Board Systems, Section 09250
- F. Electrical, Division 16

1.3 SUBMITTALS

- A. Submit manufacturer's printed literature on each type of finish. Keep one copy of this literature on the job for reference throughout course of job.
- B. Provide three (3) samples of each type of finish and each color for preliminary color and finish selection. Samples to be on the type of material on which they will be painted on the job.
- C. Provide in-place mock-ups of approved color samples in locations noted by Architect.

1.4 ENVIRONMENTAL AND CODE REQUIREMENTS

- A. Paint must conform to the local VOC requirements.
- B. Paint must conform to the flame spread ratings of the local building codes.
- C. Paint must be stored as per manufacturer's written instructions.
- D. Paint may only be applied under environmental conditions as recommended by the manufacturer.

PART II. PRODUCTS

2.1 MANUFACTURERS

- A. Specialty primers and sealers; Wm. Zinsser and Co.

ANDRE **TCH**ELISTCHEFF ARCHITECTS

- B. Paints:
 - 1. Benjamin Moore
 - 2. Sherwin Williams
- C. Clear finishes:
 - 1. Sikkens
 - 2. Schreuder
- D. Exterior stains:
 - 1. Cabots
 - 2. Sikkens
- E. Interior Stains:
 - 1. Mohawk
 - 2. Cetol Interior Stain by Sikkens

2.2 PAINT SCHEDULE; (Colors to be selected by Architect.)

- A. All paint numbers listed below are Benjamin Moore numbers. Other products may be used if equal in every way to those specified. Requests for substitutions must be made to the Architect as specified in Section 01200 or 01300.
- B. All paints listed below are the manufacturer's Premium line of paints. The systems are based on those recommended in the latest edition of the Coating Systems of Benjamin Moore. Alternate manufacturers and systems may be used if submitted to and approved by the Architect.
- C. Interior trim and painted wood doors and windows;
 - 1. Semi-gloss alkyd:
 - a. Primer: 2 coats Alkyd Enamel Underbody #217. May be tinted to finish color.
 - b. Finish coats: 2 coats (minimum) Moore's Alkyd Dulamel #207.
- D. Interior gypsum board or plaster walls, dry areas:
 - 1. Satin finish, alkyd:
 - a. Primer: 1 coat Regal FirstCoat Primer and Underbody #216 at gypsum board.
 - b. Primer: 1 coat Alkyd Enamel Underbody #217 at plaster walls.
 - c. Finish coats: 2 coats (minimum) satin Impervo #235.
- E. Interior gypsum board or plaster ceilings:

ANDRE TCHELISTCHEFF ARCHITECTS

1. Flat, latex (Low odor, low VOC):
 - a. Primer: Pristine Interior Primer Sealer #211.
 - b. Finish coats: 2 coats (minimum) Pristine Acrylic Flat #212.
- F. Interior gypsum board or plaster in baths and kitchens;
 1. Satin finish, acrylic:
 - a. Primer: 1 coat Fresh Start #023.
 - b. Finish coats 2 coats (minimum) K& B for Kitchen and Baths #322.
- G. Interior ferrous metal:
 1. Semi-gloss alkyd:
 - a. Primer (over rust): 1 coat Rust Blok #369
 - b. Primer: 1 coat IronClad Low Luster Metal and Wood Enamel #163.
 - c. Finish 2 coats (minimum), Alkyd Dulamel #207.
- H. Exterior ferrous metal:
 1. Primer (where rust has formed): Moore's Rust Converter #M82
 2. Finish: 2 coats Moore's I.M.C. DTM Alkyd semi-Gloss #M24.
- I. Paint over anodized aluminum or galvanized steel:
 1. Semi gloss latex enamel
 - a. Cleaner: Trisodiumphosphate ("Mex" or "Soilex") powdered cleaner in water.
 - b. Primer: 1 coat Fresh Start #023.
 - c. Finish: Regal AquaGlo, #333
- J. Clear finish for interior wood using Sikkens:
 1. Solvent borne finish:
 - a. Seal raw wood with Cetol Wood Conditioner.
 - b. Stain, interior stain by Cetol or Mohawk.
 - c. First coat of finish, Cetol interior clear.
 - d. Top coat of finish, Cetol interior clear.
 - e. Solvent based stain by Mohawk or equal if wood is to be stained.
 - f. First and second coat, SCHREUDER Isotol High Gloss Varnish, #701.
- K. Clear finish for interior wood using Schreuder:
 1. Solvent borne finish:
 2. Solvent borne finish:

ANDRE TCHELISTCHEFF ARCHITECTS

- a. Top coat for Matte finish, SCHREUDER Isotol Matte Varnish, #703.
 - b. Top coat for Silk finish, SCHREUDER Isotol Silk Varnish, #702.
 - L. Exterior wood siding and trim to be stained with a clear finish:
 - 1. Cabots semi transparent stain, 3 coats.
 - 2. Colors to be selected from samples.
 - M. Exterior wood windows and doors with a clear finish:
 - 1. One base coat of Cetol TGL Plus, high gloss finish.
 - 2. One top coat of Cetol TGL Plus, high gloss finish.
 - N. Exterior wood to be painted:
 - 1. Low luster finish, Alkyd modified vinyl acrylic latex
 - a. Primer: 1 coat Latex Exterior Primer #102
 - b. Finish: 2 coats (minimum) Low Lustre Latex House Paint #103.
 - 2. High gloss finish, long oil alkyd
 - a. Primer: 1 coat Moorwhite Primer #100
 - b. Finish: 2 coats (minimum) Moore's House Paint #110
- 2.3 ACCESSORIES
- A. At walls to receive pre-pasted or heavy wall coverings, prime gypsum wallboard with Moore's Wall-Grip Latex Sealer III, #203-03, or approved equal.
 - B. At lime based plaster finishes or masonry use an alkali resistant primer: Moore's Alkyd Primer Sealer #200.
 - C. At walls to receive normal weight wallpaper, prime gypsum wallboard with Moore's Wall-Grip Latex Sealer II, #203-02, or approved equal.
 - D. At previously painted walls or hard glossy surfaces, prime gypsum wall boards with Moore's Wall-Grip Latex Sealer I, #203-01.
 - E. Other products such as thinners, linseed oils, turpentine shall be used as required per manufacturer's printed recommendations.
 - F. Spot prime any woods with knots with Zinsser's BIN Primer Sealer or Moore's QD-30 #202.
 - G. Filler for minor cracks in wood to be Moorlastic Vinyl Spackling Paste #058, or approved equal.
 - H. Caulking to be a paintable, urethane acrylic sealant, Moorlastic #465.

ANDRE TCHELISTCHEFF ARCHITECTS

- I. Putty for nail holes at clear and stained wood finishes to be by Mohawk, or equal. Colors are to match wood being filled.

PART III. EXECUTION

3.1 EXAMINATION AND GENERAL PREPARATION

- A. Follow procedures of SSPC's Good Painting Practice, vol. 1, 4th edition.
- B. Verify that substrates are ready to receive finishes. Notify the Architect in writing of any substrates that are not acceptable for painting. Substrates that are not ready shall be finished or repaired by the respective trade.
- C. Do not start interior finish painting until job is free of dust and air conditioning is operational.
- D. Verify that moisture content of surfaces being painted is below 12%. Check several locations in each room with an electronic moisture meter. Record these readings and submit one copy to the Architect noting the location, material and date of the test.
- E. Before priming is started, remove or tape off all electrical plates, finish hardware, air conditioning grilles, and other finish items not to be painted. Place items in clear plastic bags and label for each room. Store as required so that items do not get lost or damaged. Re-install all items when painting is complete.

3.2 PREPARATION OF SURFACES

- A. Preparation of new wood to receive a painted finish
 - 1. All interior and exterior painted wood is to be back-primed. This work is to be coordinated with the respective trades.
 - 2. Fix minor imperfections with wood filler. Sand surfaces after filler has dried.
 - 3. Wipe surfaces clean of dust and dirt.
 - 4. Seal knots, sappy sections, and pitch streaks with stain killing sealer.
 - 5. After sanding sealer is applied to wood, fill all nail holes with filler and sand smooth. Also fill any other imperfections in the wood that become apparent after sealer is applied. Sand, wipe clean and prime all surfaces.
 - 6. Sand lightly after primer has dried prior to application of finish coats. Wipe surfaces clean with a tack cloth after sanding.
- B. Preparation of gypsum board surfaces:
 - 1. Prime gypsum board surfaces per paint manufacturer's written instructions.
 - 2. Examine surfaces with lights to find defects in surfaces.
 - 3. Fill defects with Topping compound. Sand and spot prime these areas when compound is dry.
- C. Un-primed ferrous metals:
 - 1. Inspect metal surfaces for any defects and fill or repair as required.

ANDRE T C H E L I S T C H E F F A R C H I T E C T S

2. Remove any scaling or rust by wire brush. Wash with solvent and prime with rust inhibitor per paint schedule.
 3. Prime as per manufacturer's instructions.
 - D. Shop-primed ferrous metals:
 1. Sand and scrape surfaces to remove any loose primer or rust.
 2. Spot prime bare metal.
 - E. Plaster or stucco surfaces:
 1. Examine surfaces with lights to find defects in surfaces.
 2. Clean surfaces of all dust and dirt.
 3. Insure that moisture content of surfaces is at or below 12%.
 4. Prime with primer as noted in paint schedule.
 - F. Wood to receive a field applied clear finish:
 1. Coordinate preparation of wood with Sections 06200, 06300, 06400, and 06450.
 2. Insure that all planer and sanding marks are sanded out with fine sandpaper, 120 grit or finer.
 3. On woods to receive a filled grain, fill the grain with grain filler and wipe clean. Lightly sand when dry. Wipe clean with a tack cloth to remove all dust and grit.
 4. Stain woods to be stained to match approved samples.
 5. Back-prime all woods to receive a clear finish with specified finish cut 25% with thinner.
 - G. At galvanized or anodized metal:
 1. Wash with solution of trisodiumphosphate in clean water. Rinse thoroughly with clean water. Allow to dry thoroughly before priming.
 2. Prime with primer noted on paint schedule.
- 3.3 APPLICATION OF PAINT
- A. Use only paint from their original containers, clearly marked as to the paint they contain.
 - B. Paint is to be applied in accordance with manufacturer's instructions.
 - C. Primers may be tinted per manufacturer's written directions.
 - D. Keep all areas and rooms being painted clean and free of dust.
 - E. Paint is to be applied with rollers on walls and ceilings.
 - F. Paint is to cover completely without streaks or runs. Coats noted on paint schedule above are minimum required. Painter shall apply as many coats as necessary to provide complete cover and match approved samples.
 - G. Paint is to be brushed onto wood and metal. It may not be rolled on and brushed out. Sand between each coat of paint as per manufacturer's instructions.

ANDRE TCHELISTCHEFF ARCHITECTS

- H. All paint must be applied in a manner compliant with local VOC regulations.

3.4 PAINTING OF MECHANICAL ELECTRICAL EQUIPMENT

- A. Louvers and grilles shall be factory finished where required.
- B. Any louver or grille that is factory primed is to be painted.
- C. Prime and paint both sides and edges of all plywood back plates and panels for electrical, telephone, security, and cable TV equipment.
- D. Paint all access panels and cover plates to match surrounding walls.
- E. Paint flat black any ductwork visible through grille or register.
- F. Paint electrical, plumbing, and mechanical equipment as required per those sections. Color-code those items per the requirements of those Sections.

3.5 CLEANING

- A. Clean up paint spills and splatters as work proceeds.
- B. Clean paint from windows and glass as soon as it dries.
- C. Store paint, brushes, rollers, and cleaners in an area of the job that is not finished.
- D. Keep all paint, cleaners, and solvents sealed when not in use.

3.6 JOB CLOSEOUT

- A. Touch up all walls and other painted surfaces that are marred, nicked, or otherwise damaged. Surfaces shall be re-painted as required so that there is no evidence that they have been touched-up.
- B. Clean all surfaces of splatters and drips.
- C. Remove all tape and glue from tape from surfaces.
- D. Re-install all hardware, electrical plates and other items removed for painting.
- E. Leave one full gallon of each type and color of paint for repainting and touch-up for the Owner. Label each can clearly as to the color and location where it is to be used.
- F. Provide Owner with manufacturer's printed maintenance instructions.

END OF SECTION

SECTION 09555: WOOD FLOORING

PART I. GENERAL

1.1 SCOPE

- A. Wood floors, laying and finishing.
- B. Finish stair treads.

1.2 SUBMITTALS

- A. Submit shop drawings on all flooring requiring precut pieces and borders.
- B. Review layout of floor with Architect prior to starting work or ordering material.
- C. Submit for approval, two samples of each type of wood and finish showing profiles, grain, stain and finish which will be representative of the installed wood floor.
- D. Provide in place sample of approved stain for final review.

1.3 QUALITY ASSURANCE

- A. Perform work in accordance with NOFMA.
- B. Perform work in accordance with MFMA.
- C. Keep copy of these recommended installation practices on site.
- D. Provide written one year warranty that flooring installation will remain within tolerances specified herein and by NOFMA, or MFMA.

PART II. PRODUCTS

2.1 MATERIALS

- A. Wood for flooring:
 - 1. Oak Strip T&G to match existing.

2.2 ACCESSORIES

- A. Filler for subfloor to be premixed latex type.

2.3 FINISH

- A. See section 09900 for finishes.

PART III. EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify that subfloor is level and true to within 1/8 inch in 10 feet before starting floors. Do minor leveling with floor patching compound.
- B. Verify that moisture content in framing and subflooring or concrete substrate is 7% or below. Use an electronic moisture meter to take these measurements.
- C. Confirm layout of flooring with Owner and Architect before proceeding.
- D. Check all rooms for squareness. Review with Architect any steps necessary to adjust layout of floor in rooms that are out of square.

3.2 DELIVERY AND PROTECTION

ANDRE **TCH**ELISTCHEFF ARCHITECTS

- A. Do not stock job until all wet trades are completed.
- B. Insure that relative humidity is maintained between 30% and 50%.
- C. Insure that temperature is kept at or above 65 degrees.
- D. Protect flooring before, during, and after installation. Do not allow flooring to get wet or be subjected to extreme humidity or temperature changes.

3.3 INSTALLATION

- A. Allow 1/2" expansion gap at all walls unless otherwise detailed on the Drawings.
- B. Use only factory cut ends in the field. Cut ends only at edges.
- C. Stagger joints by minimum of 8 inches.

3.4 CLOSEOUT

- A. At job closeout repair any scratches in the floor.
- B. Remove, replace, and refinish to match existing any flooring that does not comply with NOFMA or MFMA standards or these specifications.
- C. Leave copy of manufacturer's warranty and detailed written instructions on maintenance of floor with Owner for inclusion in Owner's manual.

END OF SECTION