EIFS OVER-CLADDING PROJECT

AT

THE CURRENT HOTEL at ROCKY POINT

2545 North Rocky Point Dr. Tampa, Florida

PROJECT SPECIFICATIONS

CONSTRUCTION DOCUMENTS / BID SET

December 21, 2022

IVY Group
CONSULTANTS
Forensic Architecture | Building Sciences

Division 1 – GENERAL REQUIREMENTS

Division 7 – THERMAL AND MOISTURE PROTECTION

Division 9 – FINISHES

SECTION 01010 - SUMMARY OF WORK

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. All General Conditions, Supplements to General Conditions, any Addenda issued by the Architects are a part of this Section in the same manner as if fully written herein, and shall govern the Work of this Section, except where more stringent articles or requirements are stipulated then they shall govern this Section.

1.2 SUMMARY OF WORK

A. Project Identification: EIFS Overcladding Project – The Current Hotel

B. Special Phasing Requirements: (To be determined by the Owner and Architect.)

C. Contract: AIA A-101

D. General Conditions: AIA A-201

E. Special Warranty: 5 Year Material And Workmanship Warranty.

1.3 WORK UNDER OTHER CONTRACTS

A. Cooperate fully with separate Contractors so that Work under those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract.

1.4 CONTRACTOR USE OF PREMISES

A. Use of the Site: Limit use of the site to the exterior of the buildings where the Work is specified. Contractor and sub-Contractors are not to enter the building unless prior written authorization is granted by the Owner. Do not disturb portions of the site beyond the areas in which the Work is indicated. Protect all elements of the building, landscaping and adjacent property (i.e. buildings, automobiles, hardscape).

1. Site and Area Utilization: Should be finalized and discussed during the preconstruction conference, and approved by the Owner.

1.5 ASSEMBLIES

A. Building items or components which are manufactured and assembled off site are to be considered “assemblies” and all related engineering Work to meet functional, building code, structural, attachment or wind loading requirements are assumed to be done by outside engineers as part of their product development. If not specifically detailed on the plans, it is a requirement that the engineering is to be supplied by the subContractor or vendor. If required by the architect or engineer, calculations and/or certifications shall be supplied for review by the design professionals to assure compliance with the appropriate building codes.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01025 - SCHEDULE OF VALUES

PART 1 GENERAL

1.01 SUMMARY

A. Related Section:

1. 01027 – Applications for Payment
2. 01310 – Progress Schedules

1.02 SUBMITTALS

A. Immediately after contract award and before preconstruction meeting, submit a proposed Schedule of Values to the A/E and Owner.

1. Determine with A/E additional data, if any, required to be submitted.

a. Provide copies of the subcontracts or other data acceptable to the A/E and Owner, substantiating the sums described.

2. Schedule of Values shall be compatible with and related to Section 01310 – Progress Schedules.

a. Tasks shall be cost loaded, organized, and coded to allow schedule to be summarized according to the Construction Specifications Institute (CSI) 16 division format.

b. Provide a detailed breakdown of the Contract Amount showing values assigned to each of the various parts of the Work coded and organized by area of Work according to Section 01310.

3. Provide separate labor and material values of, but not limited to, the following:

a. Each major and minor construction stage and trade operation of Work sequence identified by project specification section number, name of operation, and trade.

b. SubContractors and suppliers individually broken down.

c. Monthly applications for payments in relation to the CPM.

4. Secure the A/E's and Owner’s approval of the Schedule of Values before submitting first requisition for payment.

PART 2 NOT USED

PART 3 NOT USED

END OF SECTION

SECTION 01027 - APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 SUMMARY

A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
   1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, List of Subcontracts, and Submittal Schedule.

B. The Contractor's Construction Schedule and Submittal Schedule are included in Section 01340 - Submittals

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. Check other Division One Sections for sections related to project closeout.

1.3 SCHEDULE OF VALUES

A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.

B. Each Subcontractor shall coordinate preparation of their Schedule of Values for inclusion into the Contractors' Construction Schedule.

   1. The line items shall be broken down in a manner such that all distinct phases of Work are adequately broken down and defined.

   2. Each line item on the initial submittal shall have listed a breakdown of the Work scope associated with that item. This breakdown will be the basis for analysis at the time of each pay application request. In case of omission or ambiguity, the Architect’s judgment will govern.

   3. Sub-Schedules: Where the Work is separated into phases that require separately phased payments, provide sub-schedules showing values correlated with each phase of payment.

C. Format and Content: Use the Project Schedule as a guide to establish the format for the Schedule of Values.

   1. Identification: Include the following Project identification on the Schedule of Values:
      a. Project name and location.
      b. Name of the Architect.
      c. Project number.
      d. Contractor's name and address.
      e. Date of submittal.
   2. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.

3. Payment for materials stored off-site will not normally be made. Under exceptional circumstances payment will be made, contingent on receipt of the following: a) an insurance binder covering the stored material is submitted with the Owner listed as an additional insured, and, b) a lien waiver/bill of sale, contingent upon receipt of the requested amount, is provided granting Ownership of the stored materials to the Owner .
4. On lump sum projects, the overhead and profit shall be proportionally distributed among all line items except other overhead items. On cost plus type of Work where the fee is negotiated or otherwise known, provide the profit as a separate line item. Itemize indirect costs for Architect's approval.
5. Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Change Orders can be inserted as line items with Architect's approval.

1.4 APPLICATIONS FOR PAYMENT:

A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.

B. Payment Application Times: Each progress payment date is as indicated in the Agreement. The period of construction Work covered by each Application or Payment is the period indicated in the Agreement.

C. Payment Application Forms: Use AIA Document G 702 and Continuation Sheets G 703 as the form for Application for Payment unless noted otherwise in the agreement.

D. Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.

1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.

E. Transmittal: Submit 3 executed copies of each Application for Payment to the Architect by means ensuring receipt within 24 hours; one copy shall be complete with original waivers of lien and similar attachments, if required.

1. Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Architect.

F. Waivers of Mechanics Lien: With each Application for Payment submit waivers of mechanics liens from subcontractors and suppliers for the construction period covered by the previous application. Provide a waiver of lien from the General Contractor for the payment being received.

1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
2. When an application shows completion of an item, submit final or full waivers.
3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.

4. Waiver Forms: Submit waivers of lien on forms acceptable to Owner.

G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:

1. List of subcontractors.
2. List of principal suppliers and fabricators.
3. Schedule of Values.
4. Contractor's Construction Schedule (preliminary if not final).
5. List of long-lead items and applicable timeframes.
6. Submittal Schedule (preliminary if not final).
7. List of Contractor's staff assignments.
8. List of Contractor's principal consultants.
9. Copies of building and related permits
10. Copies of authorizations and licenses from governing authorities for performance of the Work.
11. Initial progress report.
12. Report of pre-construction meeting.
13. Certificates of insurance and insurance policies.
14. Performance and payment bonds (if required).
15. Data needed to acquire Owner's insurance.

H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

I. Administrative actions and submittals that shall proceed or coincide with this application include:

1. Occupancy permits and similar approvals.
2. Warranties (guarantees) and maintenance agreements.
3. Test/adjust/balance records.
4. Maintenance instructions.
5. Meter readings
6. Start-up performance reports.
7. Change-over information related to Owner's occupancy, use, operation and maintenance.
8. Final cleaning.
9. Application for reduction of retainage, and consent of surety.
10. Advice on shifting insurance coverages.
11. Final progress photographs.
12. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.

J. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include the following:

1. Completion of Project closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Assurance that unsettled claims will be settled.

4. Assurance that Work not complete and accepted will be completed without undue delay.
5. Transmittal of required Project construction records to Owner.
6. Proof that taxes, fees and similar obligations have been paid.
7. Removal of temporary facilities and services.
8. Removal of surplus materials, rubbish and similar elements.
10. Final lien waivers from all subcontractors

1.05 SUBMITTALS

A. Submit proposed schedule of values, including the scope of the breakdown items, at the time of the initial startup meeting. In no case should the proposed schedule of values be submitted later than 15 days before the date scheduled for the initial submittal.

B. Provide backup or substantiating information if requested by Architect to clarify or substantiate the various line items.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01027

SECTION 01028 - CHANGE ORDER PROCEDURE

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion or any combination thereof, as are described in written Change Orders issued by Architect and signed by the Owner and issued after execution of the Contract, in accordance with the provisions of this Section.

1.02 RELATED REQUIREMENTS

A. Changes in the Work are further described in the General Conditions and in the Supplementary General Conditions.

1. Provide full written data required to evaluate changes.

2. Maintain detailed records of Work done on a time and material force account basis.

3. Provide full documentation to Architect for Owner on request.

B. General Contractor will designate, in writing, the person who is authorized to execute Change Orders.

1. Designate, in writing, the member of Contractor's organization:

a. Who is authorized to accept changes in the Work.

b. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.

1.03 SUBMITTALS

A. Make submittals directly to the Architect at the address shown on the Project Directory in the Project Manual.

1.04 PRODUCT HANDLING

A. Maintain a “change order log” at the job site, accurately reflecting current status of all pertinent data. Such log shall tract all proposed changes from initiation thru final disposition.

1. Make the Log available to the Architect and Owner for review at their request.

1.05 QUALITY ASSURANCE

A. Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.

1.06 CHANGES - CONSTRUCTION CHANGE DIRECTIVES

A. The architect will utilize a Construction Change Directive (CCD) for the Contractor to proceed with changes in the Work or project scope. Changes which do not affect time or cost may also be handled using the Request for Information (RFI) Form initiated by the Contractor

B The Directive will be used for both the changes requiring no change to project time or cost, and those changes which require a change in either time, cost or both. The Construction Change Directive will designate the method of determining any change in the Contract Sum and any changes in Contract Time.

C The Owner and Architect will sign and date the Construction Change Directive as appropriate. Upon receipt the Contractor shall promptly respond to the category noted. If the Contractor has no disagreement with the CCD, he should sign and return a copy. Any disagreements with the directive shall be addressed in accordance with the General and Supplemental Conditions and the agreement. The categories noted in the CCD are as follows:

1. Proceed with Work without change in price or time.
2. Submit itemized proposal, do not proceed until directed
3. Proceed with Work, submit documented costs and time within 30 days
4. Proceed with Work, submit costs/time when available.

D. When requested, support each CCD with sufficient substantiating data to allow the Architect to evaluate the quotation. All responses shall be detailed and broken down into sub-components. Provide the following data to support each specific response:

1. Labor time and hours required or used.

2. Equipment rate and hours required or used.

3. Material quantities, pricing, data, and delivery time required.

4. Applicable taxes and insurance

5. Credit for Work deleted from Contract, similarly documented.

6. Overhead and profit percentages used.

7. Justification for any change in Contract Time..

8. Fragment schedule changes.

1.07 CHANGE ORDER REQUESTS

A. Change Order Requests may be initiated by the Owner or Contractor to address changes in contract scope, costs, or timing.

B. Change Order Requests shall be initiated on a form approved by the architect and contain all information necessary to evaluate the proposed changes. Include all pricing and timing backup information as noted below.

C. A complete list of all Change Order Requests shall be kept by the Contractor and submitted with each new Change Order Request. The list shall show the disposition of prior Change Order Requests.

1.08 PROCESSING OF CHANGE ORDER REQUESTS

A. The Contractor shall include with each Change Order Request the following information:

1. State proposed change in the Contract Sum, if any.

2. State proposed change in the Contract Time of Completion, if any.

3. Clearly describe other changes in the Work, if any, required by the proposed change or desirable therewith.

4. Include full back-up information such as subContractor's letter of proposal or similar information.

B. Support each quotation with sufficient substantiating data to allow the Architect to evaluate the quotation. All responses shall be detailed and broken down into sub-components. Provide the following data to support the noted costs:

1. Labor time and hours required.

2. Equipment rate and hours required.

3. Material quantities, pricing, data, and delivery time required.

4. Applicable taxes, insurance and bonds.

5. Credit for Work deleted from Contract, similarly documented.

6. Overhead and profit.

7. Justification for any change in Contract Time.

B. The Change Order Request will be reviewed by the Architect and forwarded to the Owner for his evaluation. Additional information may be requested to substantiate the information submitted. After receipt of all substantiation the Owner will approve or deny this request.

C. Approved Change order requests will be periodically grouped for payment.

D. Change Orders shall include all related costs and impacts. The Contractor, by submitting the change order, warrants that all applicable changes and impacts have been included in the costs and that no further charges will occur for the designated Work.

1.09 PROCESSING OF CHANGE ORDERS

A. Change Orders will be dated and will be numbered in sequence when issued. The Change Orders will be issued based upon the AIA documents.

B. The Change Order will describe the change or changes, will refer to the Proposal Requests or Change Order Requests or other back-up document involved and will be signed by the Owner, the Architect, and the Contractor. A Change Order may combine a group of Change Order Requests.

C. The Architect will issue three (3) copies of each Change Order to the Contractor:

1. The Contractor shall promptly sign all three (3) copies and return all original copies to the Architect. The Architect will sign all three (3) copies and forward these to the Owner.

2. The Owner will return one copy of the Change Order to the Contractor and Architect after signature by all parties.

D. Should the Contractor disagree with the stipulated change in Contract Sum or change in Contract Time of Completion, or both:

1. The Contractor promptly shall return three (3) copies of the Change Order, unsigned by him, to the Architect with a letter signed by the Contractor stating the reason or reasons for the Contractor's disagreement.

2. The Contractor's disagreement with the Change Order shall not in any way relieve the Contractor of his responsibility to proceed with the change as further ordered and/or to seek settlement of the dispute under pertinent provisions of the Contract Documents.

1.10 CORRELATION WITH CONTRACTOR SUBMITTALS

A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.

B. Periodically revise the Construction Schedule to reflect each change in Contract Time.

1. Revise sub-schedules to show changes for other items of Work affected by the changes.

C. Upon Completion of Work under a Change Order, enter pertinent changes in Project Record Documents.

PART 1 - PRODUCTS (Not Applicable)

PART 2 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01040 - CONTRACT COORDINATION

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. Coordination of Work of the Contract.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
B. Section 01010 - Summary of Work.
C. Section 01045 - Cutting and Patching.
D. Section 01340 - Submittals
F. Section 01500 – Construction Facilities and Temporary Controls
G. Section 01700 - Contract Closeout.

1.03 COORDINATION OF SITE ACTIVITIES

A. The Contractor is responsible to coordinate and control all construction activities so that a minimum of interruption and convenience occurs to existing office building tenants. A detailed plan of operations shall be developed for each phase of the Work and approved by the Owner before commencing operations on site. This plan shall conform to all requirements of The Owner. Note specifically the requirements of Section 01500 as they apply to this Work.

1.04 COORDINATION OF VARIOUS TRADES

A. Coordinate scheduling, submittals and Work of the various sections of specifications to assure efficient and orderly sequence of installation of construction elements. Coordinate and accommodate items to be installed that are furnished by others or to be installed at a later date, such as Furniture and Owner's Equipment.

1.05 MEETINGS

A. In addition to meetings specified in Section 01200, hold additional meetings and conferences as required with personnel and sub-Contractors to assure coordination of Work.

1.06 COORDINATION OF SUBMITTALS

A. Schedule and coordinate submittals as specified in Section 01340.

B. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to and placing in service, such equipment.

C. Coordinate requests of substitutions to assure compatibility of space of operating elements and effect on Work of other Sections.

1.07 COORDINATION OF SPACE AND WORK AREAS

A. Coordinate use of the site in order to accommodate job trailers, staging, and storage areas. Use only those areas specifically designated for Contractor use. Do not use existing facilities and/or utilities. Coordinate utility use and regulate traffic and deliveries in order to minimize impact on the Owners operations. When construction activity disturbs normal traffic flow, provide appropriate individuals to maintain and control proper traffic flow.

B. In finished areas (except as otherwise shown) conceal pipes, ducts and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

C. Coordinate use of Work site and sequence of installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routings shown for pipes, ducts and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance and for repairs.

D. Verify the need for coordination drawings if required by the mechanical specifications. If required, coordinate the trades producing these drawings.

1.07 COORDINATION OF CONTRACT CLOSEOUT

A. Coordinate completion and cleanup of Work of separate sections in preparation for Substantial Completion.

B. After the Owner's occupancy of premises, coordinate access to site by various sections for corrections to defective or incomplete Work not in accordance with Contract Documents. Such efforts shall minimize disruption of Owner' or tenants activities.

C. Assemble and coordinate closeout submittals specified in Section 01700.

1.08 SEQUENCING AND SCHEDULING

A. The Contractor is responsible for the proper sequencing and scheduling of Work, including updating sequences as needed due to various change factors. The Owner will not be responsible for additional costs due to out of sequence issues such as proceeding with Work ahead of shop drawing approvals, or additional finishing required for items installed ahead of surrounding Work, or similar changes due to the out of sequence Work.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION - Not Used.

END OF SECTION

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SECTION 01045 - CUTTING AND PATCHING

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. The General Contractor may, at his option, include Work as part of the various SubContractor Work. However, by so doing does not relieve him of any responsibilities for proper execution of the Work and in accordance with the Contract Documents.

B. Contractor shall be responsible for all cutting, fitting and patching, including attendant excavation and backfill required to complete the Work or to:

1. Make its several parts fit together properly.

2. Uncover portions of the Work to provide for installation of ill-timed Work.

3. Remove and replace defective Work.

4. Remove and replace Work not conforming to requirements of Contract Documents.

5. Remove samples of installed Work as specified for testing.

6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. Section 01040 - Contract Coordination.

1.03 SUBMITTALS

A. Submit a written request to Architect well in advance of executing any cutting or alteration that affects:

1. Work of the Owner or any separate Contractor.

2. Structural value or integrity of any element of the Project.

3. Integrity of effectiveness of weather-exposed or moisture-resistant elements or systems.

4. The efficiency, operational life, maintenance or safety of any operational elements.

5. Visual qualities of sight-exposed elements.

B. Request shall include:

1. Identification of the Project.

2. Description of affected Work.

3. The necessity for cutting, alteration or excavation.

4. Effect on Work of Owner or any separate Contractor, or on structural or weatherproof integrity of Project.

5. Description of proposed Work:

a. Scope of cutting, patching, alteration or excavation.

b. Trades who will execute the Work.

c. Products proposed to be used.

d. Extent of refinishing to be done.

6. Alternatives to cutting and patching.

7. Cost proposal, when applicable by change order only.

8. Written permission of any separate Contractor whose Work will be affected.

C. Submit advance written notice to Architect designating the date and the time the Work will be uncovered. If Work proceeds without proper notice, it is established that the Work will be of a "like-new" nature.

PART II - PRODUCTS

2.01 MATERIALS

A. Comply with specifications and standards for each specific product involved.

PART III - EXECUTION

3.01 INSPECTION

A. Inspect existing conditions of Project, including elements subject to change or to movement during cutting and patching.

B. After uncovering Work, inspect conditions affecting conditions installation of Products or performance of Work.

C. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with Work until Architect has provided further instructions.

3.02 PREPARATION

A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portions of Project from damage.

B. Provide devices and methods to protect other portions of Project from damage.

C. Provide protection from elements for that portion of the Project that may be exposed by cutting and patching Work, and maintain excavations free from water.

3.03 PERFORMANCE

A. Execute cutting and demolition by methods that prevent damage to other Work and will provide proper surfaces to receive installation of repairs.

B. Execute excavating and backfilling by methods that will prevent settlement or damage to other Work.

C. Employ original Installer or Fabricator to perform cutting and patching for:

1. Weather-exposed or moisture-resistant elements.

2. Sight-exposed finished surfaces.

D. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, function tolerances and finishes.

E. Restore Work that has been cut or removed; install new products to provide completed Work in accord with requirements of Contract Documents.

F. Fit Work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.

1. Fireproof as required.

2. Section 07840 - Fire Stopping.

G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

1. For continuous surfaces, refinish to nearest intersection.

2. For an assembly, refinish entire unit.

3. On existing Work, restore to an “as-was” condition.

END OF SECTION

SECTION 01060 - REGULATORY REQUIREMENTS

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. The work under this Section of the Specifications includes the listing of applicable codes, standards and fee requirements in the completion of the work. In addition, specific requirements by the Owner are also noted in this Section.

PART II - BUILDING CODES

2.01 APPLICABLE BUILDING CODES

A. The Contractor shall comply with all adopted and applicable Federal, State and Local Codes including, but not limited to, the following:

1. Florida Building Code - Latest Edition.
   a. Building (Including Energy, Accessibility & State Agency Regulations),
   b. Plumbing,
   c. Mechanical,
   d. Fuel Gas.
2. Fire Prevention Code Latest Edition, Incorporating: NFPA 1, Uniform Fire Code, & NFPA 101, Life Safety Code
3. National Electric Code, Latest Edition
4. Accessibility Code for Building Construction
5. American With Disabilities Title 3 Regulation and U.S. Public Law No.1.01-336
6. Codes of the City and County in which the Project is located.
7. Standards of National Board of Fire Underwriters.
8. Local Utility Company Regulations.
9. Local Authority Requirements and Enforcement Practices

2.02 STANDARDS

A. Conform to published Specifications of government agencies, industry organizations and regulating agencies as noted in the various sections of these Specifications.

1. All work shall be in accordance with the regulations and procedures issued and/or enforced by the Owner for construction activity at their communities.

2.03 FEES AND PERMITS

A. The contractor shall obtain and pay for all permits, fees and similar regulatory costs related to the construction and completion of this project, except as noted below. Fees shall be passed through to the owner at cost.

B. The Owner will obtain and pay for the project-related concurrency, impact, sewer connection, and water connection charges. All other fees and costs including permit fees are to be included in the contractor's base bid unless noted otherwise in the proposal.

PART III - EXECUTION

3.01 CURRENT EDITION

A. When reference is made to codes, reference specifications, industry standards, data published by regulating agencies or industry accepted organizations such reference is made to latest edition (including addenda) published and in effect on date of Contract Documents.

3.02 COMPLIANCE

A. Codes and Standards: The work shall be performed in compliance with all applicable codes and standards. If the Contractor performs any work knowing it is contrary to such codes and standards, he shall assume full responsibility and bear all resultant costs.

3.03 ASSEMBLIES AND FABRICATIONS

A. All components shall be designed to resist all code defined loads for both the assembly itself and any related fasteners. If the component and/or fasteners are not detailed by the structural engineer, the fabricator shall provide calculations for review and approval by the architect/engineer, or, provide an approval letter from a Florida registered engineer that the component and related fasteners meets all applicable building codes. A copy of the applicable calculations and assumptions shall be provided if requested by the architect.

END OF SECTION

SECTION 01310 - PROGRESS SCHEDULES

PART 1-GENERAL

1.01 SECTION INCLUDES

A. Format.

B. Content.

C. Revisions to schedules.

D. Submittals.

1.02 FORMAT

A. Prepare schedules in the form of a horizontal bar chart.
   1. Provide separate horizontal bar for each trade or operation.
   2. Horizontal Time Scale: Identify the first work day of each week.
   3. Scale and Spacing: Allow space for notations and future revisions.
   4. Size: Minimum of 11" x 17".

B. Critical Path Method: Show critical path by color or other obvious means, show dependencies.

C. Sequence of Listings: Chronological order of the start of each item of Work.

D. Identification of Listings: By major trade or activity, by floor. Major submittals and long lead ordering times need to be shown

E. Contractor shall use the same format established by the initial schedule in preparing future monthly updates.

1.03 CONTENT

A. Show complete sequence of construction by activity.

B. Show dates for the beginning and completion of each major element of construction including, but not limited to:

   1. Demolition
   2. Structural framing and Sheathing
   3. Balcony Remediation
   4. Waterproofing and Flashings
   5. Windows and Doors
   6. Lathing
   7. Stucco
   8. Railings
   9. Roofing and Skylights

10. Punch List
11. Substantial Completion
12. Final Completion

C. Show projected percentage of completion for each item as of the first day of each month.

D. Identify on what date of each month revised schedule will be submitted.

E. Indicate delivery dates required for Owner furnished items.
   1. Coordinate timing of arrival with Owner.

F. Identify work of separate floors, if more than one, or other logically grouped activities.

G. Provide sub-schedules to define critical portions of prime schedules.

H. Provide separate schedule of submittal dates for shop drawings, product data, and samples including Owner furnished products and the dates reviewed submittals will be required from Architect. Indicate decision date for selection of finishes. Allow time for revisions and resubmittals.

1.04 REVISIONS TO SCHEDULES

A. Indicate percent completion of each activity to date of submission and projected completion date of each activity.

B. Show changes occurring since previous submission of schedule:
   1. Major changes in scope.
   2. Activities modified since previous submission.
   3. Revised projections of progress and completion.
   4. Other identifiable changes.

C. Retain the original schedule and show the revised schedule so a comparison can be made.

D. Provide a narrative report as needed to define:
   1. Problem areas, anticipated delays, and the impact on the schedule.
   2. Corrective action recommended and its effect.
   3. The effect of changes on schedules to other prime contractors.

1.05 SUBMITTALS

A Provide a sample of schedule output and software program for architect's approval before beginning schedule.

B. Submit original CPM schedule in an electronic file complete with all related information.

B. Update Progress Schedules with each Application for Payment.

C. Submit two copies with each Application for payment.

D. Failure to submit initial schedule or subsequent monthly updates may result in rejection of Application for Payment.

1.06 DISTRIBUTION

A. Distribute copies of updated schedules to all interested parties.

B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

PART 2-PRODUCTS

Not Used

PART 3-EXECUTION

Not Used

END OF SECTION

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SECTION 01340 - SUBMITTALS

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. Make submittals for all material components of the Work as required by the Contract Documents; revise and resubmit as necessary to establish compliance with the specified requirements.

B. All submittals shall be provided in a timely manner and in accordance with the procedures noted herein. Unless noted otherwise in the individual sections, all submittals are due before the submittal date established in the Schedule of Submittals.

C. Non-required submittals will not be reviewed by the Architect.

D. Definitions:

1. Shop Drawings: Drawings, diagrams, schedules and other data specially prepared by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.

2. Product (Catalog) Data: Standard illustrations, schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the work.

3. Samples: Physical examples furnished by the Contractor to illustrate materials, equipment or workmanship and establish standards by which the work will be judged.

1.02 QUALITY ASSURANCE

A. The Contractor may require his subcontractors to provide additional drawings, setting diagrams and similar information to help coordinate the Work, but such data shall remain between the Contractor and his subcontractors and will not be reviewed by the Architect.

B. The Contractor is responsible for confirming and correlating all guarantees, dimensions, selecting fabricating process and techniques of construction, furnishing specified finishes and performing his work in a safe manner.

1. In addition to shop drawings, product data and samples, the procedures stated in this Section also apply to submittal of other items required in the various technical sections including certifications, warranties, guarantees, test data and reports, operating and maintenance manuals and parts lists.

1.03 CONTRACTOR'S REVIEW

A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers and conformance of submittal with requirements of Contract Documents.

1. Contractor's Responsibility for Coordination: Where the dimension, size, shape, location, capacity or other characteristic affect another item, and where the Contractor has selection or fabrication of the actual product to be used, the Contractor shall be responsible for coordination of the related items. The Contractor shall insure that a proper exchange of information takes place prior to or during preparation of each submittal and that submittal shall reflect such coordination. The notation "verify" on the Drawings indicates the necessity for Contractor coordination in the particular instances used.

2. Contractor's Checking: When checking submittals of subcontractors and suppliers, the Contractor shall mark all sets, indicating his corrections and comments in blue or green. Copies marked in red may be returned for revision.

B. Apply Contractor's stamp to each sheet of Shop Drawings, product data and sample labels signed by General Contractor, certifying his approval, review and verification of products, field dimensions, construction criteria and coordination of information that submittals comply with Contract Documents.

1. Notify Architect, in writing, at time of submittal of any deviations from requirements of Contract Documents. If such deviations are not noted, they remain the responsibility of the contractor. In either case, deviations shall not alter the design intent and/or contract documents.
2. The substitution process, as noted elsewhere in these documents, shall always be followed for any significant change to these documents. The submittal process does not alter the contract documents.

C. Do not fabricate any products or begin any Work requiring submittals until the receipt of the approved submittals. Commencement of such work is solely at the risk of the contractor if such submittals have not been received and approved.

D. Submittals without Contractor's signature, indicating his conformance to the above requirements, will be returned without any action by the Architect and will be considered as not submitted for review. Submittals without the contractors review comments (in those cases where the contractor should have commented or answered questions) indicate a non-review by the contractor. These may be returned before the architect review. Review time does not begin until the submittal is returned and accepted by the architect in the above instances.

E. The contractor is responsible to deliver and pick-up all submittals in a timely manner at the Architect’s designated office. The contractor is responsible for all related costs and expenses for the transmittal of such submittals.

1.04 ARCHITECT'S REVIEW

A. Corrections or comments made on shop drawings during review do not relieve the Contractor from compliance with the requirements of Drawings and Specifications. This check is only for review of general conformance with the design concept of the project and general compliance with information given in Contract Documents. Any substitutions or changes shall be properly noted.

B. The decision of the Architect in regard to the completeness or compliance shall be final.

C. No action will be taken on "rough-in" shop drawings for plumbing and electrical connections when the items of equipment are not included in the same submittal.

D. Review Time:

1. On a normal basis, each submittal will be returned to the Contractor within fifteen (15) working days of the date it is received.

2. If, for any reason, the above schedule cannot be met, the Contractor will be so informed and the Schedule of Submittals revised to allow for immediate processing of priority items. In the event of separate submittals of individual components of a system, these submittals may be held until all components of the system are submitted, and the Contractor will be so notified.

1.05 RETURN OF SUBMITTALS

A. After review, each submittal will be returned to the Contractor accompanied by a standard transmittal form.

1.06 SUBMITTALS

A. Make submittals of shop drawings, samples, substitution requests and other items in accordance with the provisions of this Section.

B. Completeness of Submittal: Submittals must be complete.

C. Contract Changes: It is not the function of the submittals to modify or change the contract documents. This procedure is handled in other sections.

1.07 SCHEDULE OF SUBMITTALS

A. Provide Submittals for the Following

1. Paints
2. Sealants
3. Stucco
4. Water Resistive Barriers
5. Paper and Lath
6. Flashings
7. Stucco Accessories
8. ~~Roofing and Skylights~~
9. ~~Scuppers~~
10. ~~Balcony Systems~~
11. ~~Railings~~
12. Windows and Doors
13. ~~Decking~~
14. Balustrade at Front Entry

B. Submit Shop Drawings for the Following:

15. ~~Roofing~~
16. ~~Railings~~
17. Windows
18. <u>Sloping Diagram for Balcony</u>

1.8 RESUBMITTALS

A. Make revisions required by the Architect.

1. If noted by the Architect, only resubmit the rejected sections.

1.9 TRANSMITTAL LETTER

A. Each submittal shall be accompanied by a transmittal letter.

1.10 MANUFACTURER'S LITERATURE – PRODUCT DATA

A. Where contents of submitted literature from manufacturer's includes data not pertinent to the submittal, clearly mark in high-liter to show which portions of the contents are being submitted for review.

1.11 SAMPLES

A. Provide sample or samples identical to the precise article proposed to be provided.

B. Provide full range of manufacturer's standard finishes, except when more restrictive requirements are specified, indicating color, textures and patterns for Owner and Architect selection.

C. Submit samples to illustrate functional characteristics of products, including parts and attachments.

D. Number of samples required:

1. Unless otherwise specified, submit samples in the quantity that is required to be returned, plus two (2) which will be retained by the Architect or Owner.

2. By pre-arrangement in specific cases, a single sample may be submitted for review and, when approved, will be retained by the Architect.

E. Label each sample with identification required for transmittal letter.

F. Provide field samples of finishes at Project, at location acceptable to Owner and Architect, as required by individual Specification Section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed Work.

1.12 OPERATING MANUALS

A. Submit all manuals in accordance with requirements of Technical Sections involved.

1.13 WARRANTIES, GUARANTEES AND BONDS

A. Provide as required by Technical Section of the Specifications. They are to be submitted on a timely basis as Work progresses.

1. Their receipt and approval by the Architect shall be considered a part of the requirements for the Architect to certify to Substantial Completion.

PART II - PRODUCTS - Not Used.

PART III - EXECUTION - Not Used.

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1-GENERAL

1.01 SECTION INCLUDES

A. Temporary Utilities including, but not limited to: electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.

B. Temporary Controls including but not limited to: barriers, enclosures and fencing, protection of the Work, and water and pollution control.

C. Construction Facilities including but not limited to: access roads, parking, progress cleaning, project signage, and temporary buildings.

D Restrictions on the use of the site and existing adjacent facilities.

1.02 RELATED SECTIONS

A. Section 01700 / 01710 - Contract Closeout / Final cleaning.

B. Section 01569 – Construction Cleaning

C. Section 01010 – Summary of Work

D. Section 01060 – Regulatory Requirements

1.03 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

1. Building code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, fire department, and rescue squad rules.
5. Environmental protection regulations.

1.04 ELECTRICITY

A. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.

B. Permanent convenience receptacles may be utilized during construction.

1.05 LIGHTING

A. Provide and maintain adequate lighting for construction operations to achieve a minimum lighting level of one (1) watt/sq ft.

B. Provide and maintain 2 foot candle lighting for exterior staging and storage areas after dark for security purposes.

C. Provide and maintain 0.25 watt/sq ft H.I.D. lighting to interior work areas after dark for security purposes.

D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.

E. Maintain lighting and provide routine repairs.

F. Permanent building lighting may be utilized during construction.

1.06 HEAT

A. Provide and pay for heat devices and heat as required to maintain specified conditions for construction operations or as required for proper conduct of operations included in the work.

B. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.

C. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

1.07 TEMPORARY VENTILATION

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.08 TELEPHONE SERVICE

A. Provide, maintain and pay for telephone service to field office at time of project mobilization. If office is unattended during any portion of workday, provide telephone answering or message answering service.

1.09 FACSIMILE and/or EMAIL SERVICE

A. Provide, maintain and pay for facsimile or email service to field office at time of project mobilization.

1.10 TEMPORARY WATER SERVICE

A. Provide, maintain, and pay for suitable quality water service required for construction operations.

B. Extend branch piping with outlets conveniently located. Water shall be accessible by hoses with threaded connections. Utilize ¾" heavy duty hose as required.

1.11 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures on site in accordance with the local health department and other applicable regulations. Maintain daily in clean and sanitary condition. Adjacent office toilet facilities are not to be used.

1.12 BARRIERS

A. Provide physical barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations. Unless noted otherwise, conform to the Site Utilization Plan in the latest edition of the "Joint Use Construction Staging Area" plans prepared specifically for this project.

B. Provide barricades required by governing authorities for public rights-of-way.

C. Provide protection for plant life designated to remain. Replace any damaged plant life to an "as-was" condition.

D. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

E. For vision barriers, provide minimum 3/8" thick exterior plywood. For safety barriers, sidewalk bridges and similar uses, provide minimum 5/8" thick exterior plywood. Tarpaulins shall be fire resistant, UL-labeled with a flame spread rating of 15 or less.

1.13 FENCING

A. N/A

1.14 EROSION AND WATER CONTROL

A. Plan and execute work so as to minimize erosion and off-site contamination. Design activities to minimize impact of construction activities on adjacent areas. Unless noted otherwise, conform to the Demolition and Site Utilization Plan in the latest edition of the "Joint Use Construction Staging Area" plans prepared specifically for this project.

B. Provide barriers as required to protect adjacent site from soil erosion and contamination of adjacent parking areas from water, soil or other sources.

C. Where work extends below water table, install and operate a system of well points, headers and pumps to create a dry condition for such work to proceed. Maintain all excavations free of water.

D. Maintain well points in operation until construction or waterproofing has been completed, inspected and accepted, and/or sufficient load has been imposed to prevent floating.

E. Do not finalize any activity where water is within one foot of the exposed surface.

F. Protect site from standing or running water. Dig ditches and sumps to collect water from low points of excavation and remove water by pumping or other method acceptable to Architect. Redirect existing drainage as necessary.

G. Keep all drains, culverts, storm sewers, and inlets clean and open for surface drainage.

1.15 DUST CONTROL

A. Execute work by methods to minimize rising dust from construction operations. If significant dust occurs resulting in complaints from adjacent tenants or properties, revise method of operation immediately upon notification from the architect or owner.

1.16 NOISE CONTROL

A. Significant sustained operations which generate high noise levels (such as pile driving, jack hammer work, etc.) shall be discussed with, and approved by, the Contractor and Owner before beginning operations.

1. Choice of equipment shall be such as to keep noise to a minimum. Gasoline or diesel powered equipment shall be provided with proper mufflers for noise abatement.

2.. If any on-going noise generating activity becomes objectionable by it's longevity, an activity/time schedule shall be prepared for approval of the owner to enable the activity to continue during mutually acceptable times.

1.7 POLLUTION CONTROL

A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of toxic, regulated or noxious substances from construction operations. Adhere to all applicable E.P.A regulations.

B. The contractor shall provide equipment and personnel to perform emergency abatement measures as required to contain any spillage, and to remove any contaminated soils or liquids occurring as a result of construction activities.

1. Excavate and dispose of any contaminated earth off-site and replace with suitable compacted fill, topsoil and landscaping to match present condition.

C. Take special measures to prevent harmful substances from entering public waters.

1. Prevent disposal of wastes, effluents, chemicals or other such substances in sanitary or storm sewers.

D. Provide systems for control of atmospheric pollutants.

1. Provide proper controls and containment for control of air-borne contaminants in excess of local standards or State or Federal E.P.A regulations. Prevent any harmful dispersal of pollutants into the atmosphere.

1.18 PERSONNEL

A. The contractor shall direct removal from the site of any personnel who are disrupting the normal and orderly conduct of operations by their actions or activities. No drug usage, alcohol usage or fighting is to be allowed at any time. Conduct of the workers off-site shall conform to the standards established by the Owner.

1. Contractors shall not allow known employees convicted of violent crimes, or wanted for criminal offenses, to work on this project.

1.19 TEMPORARY CONSTRUCTION

A. Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the Work. Such construction shall be in compliance with all federal and state OSHA and other safety regulations.

1.20 PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual specification Sections.

B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials as approved by the Construction Manager.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from finished or surrounding landscaped areas.

1.21 PROTECTION OF EXISTING FACILITIES

A. The contractor shall at all times guard existing work to remain against damage or loss, and be held responsible for replacing or repairing any such damage or loss. The Owner may withhold payment or make such deductions as necessary for repair or replacement of such damaged work.
B. Coordinate any proposed underground work with the Owner before commencing work.
C. All damaged areas and items shall be replaced with an “as-was or better” quality of replacement or repair.

1.22 SECURITY

A. Provide security and facilities to protect Work and Owner's operations from unauthorized entry, vandalism, or theft.

B. Coordinate with Owner's security program.

1.23 SAFETY

A. Furnish, place and maintain barriers, signs, and warning lights required for safety and protection of site personnel and adjacent existing facilities.

1. Include safeguards to minimize risk to unauthorized persons.

2. Install all ladders, supports, shoring, sheet piling and other related items in accordance with applicable OSHA regulations.

1.24 ACCESS ROADS

A. Provide and maintain access to fire hydrants, free of obstructions.

B. Designated existing on-site roads may be used for construction traffic. Repair or restore any damaged areas caused as a result of construction activity.

1.25 PARKING

A. Construction vehicles shall not park in non-designated areas and vehicles may be towed if improperly parked.

1.26 PROGRESS CLEANING

A. Maintain site areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition at all times.

B. Remove waste materials, debris, and rubbish from site a minimum of once every two weeks and dispose legally off site.

C. Weekly, and more often if necessary, inspect structures and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.

B. Weekly, and more often if necessary, sweep all interior spaces clean. "Clean" shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and hand-held broom.

1.27 PROJECT IDENTIFICATION

A. N/A

1.28 FIELD OFFICES AND SHEDS

A. N/A

1.29 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

A. Clean and repair damage caused by installation or use of temporary work.

B. Restore any existing facilities used during construction to original condition. Restore existing landscaping, drainage, paving, etc. to an “as-was” condition.

PART 2-PRODUCTS

Not Used

PART 3-EXECUTION

Not Used

END OF SECTION

SECTION 01530 - BARRIERS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: Suitable barriers required to prevent public entry and to protect Work, existing facilities, and landscaping from construction operations, and barrier removals when no longer needed or at completion of Work.

1.02 QUALITY ASSURANCE

A. Comply with applicable federal, state, and local codes and standards.

PART 2 PRODUCTS

2.01 MATERIALS

A. New or used, suitable for the intended purpose and complying with requirements of applicable codes and standards.

B. Fencing: Open-mesh materials per Contractor's option and a minimum height of 6'-0". Construct open-mesh fences according to industry standards.

C. Other Barriers: Materials per Contractor's option and as appropriate to serve the required purpose.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install barriers in a neat and uniform appearance.

B. Maintain barriers as needed during construction period.

C. Relocate barriers as required by progress of construction or as requested by the Architect or Owner.

D. Fences:

1. N/A

3.02 REMOVALS

A. Remove barriers, including foundations, when construction has progressed to the point when barriers are no longer needed and when approved by A/E.

B. Clean and repair damage caused by installation or removal of barriers.

END OF SECTION

SECTION 01569 - CONSTRUCTION CLEANING

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. This Section addresses cleaning and disposal of waste materials, debris and rubbish from the work areas during construction.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. Section 01710 - Final Cleaning.

C. Section 01500 – Construction Facilities and Temporary Controls

1.03 DESCRIPTION

A. Maintain areas under Contractor's control, free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.

B. Provide covered containers for deposit of debris and rubbish. Periodically dispose of accumulations of extraneous materials.

C. Periodically clean interior areas to provide suitable conditions for finish Work. Generation of dust and similar debris during cleaning shall be minimized.

PART II - PRODUCTS - Not Used.

PART III - EXECUTION

3.01 CLEANING

A. Remove all debris and rubbish from pipe chases, plenums, above ceilings, attics, crawl spaces and other closed or remote spaces prior to closing the space or area.

B. Broom clean interior areas prior to start of surface finishing, and continue cleaning on an as-needed basis. Areas shall be free of dust when installing clear finishes such as varnish on wood.

C. Control cleaning operations so that dust and other particles will not adhere to wet or newly-coated surfaces.

D. While work is being performed in the space in which finish materials have been installed, clean finish floor daily, and more often if necessary. "Clean" shall be interpreted as meaning free from all foreign materials that, in the opinion of Architect, may be injurious to finish floor material.

3.02 DISPOSAL

A. Remove waste materials, debris and rubbish from work areas daily and dispose of in dumpster or other means. Locations of dumpsters or similar containers shall be approved by the owner if not situated within the limits of construction. Transport off-site periodically to approved dump site.

END OF SECTION

SECTION 01700 - CONTRACT CLOSEOUT

PART I - GENERAL

1.01 REQUIREMENTS INCLUDE

A. This Section includes administrative and procedural requirements for contract closeout.

B. Contractor shall comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 16.

1.03 QUALITY ASSURANCE

A. Prior to requesting inspection by the Architect, use adequate means to assure that the Work is completed in accordance with specified requirements and is ready for the requested inspection.

PART II - PRODUCTS - Not Used.

PART III - EXECUTION

3.01 SUBSTANTIAL COMPLETION PREREQUISITES

A. Before requesting inspection for substantial completion, the Contractor shall complete the following:

1. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to the work area. Include occupancy permits, operating certificates, and similar releases as applicable.
2. Deliver tools, spare parts, extra stock, and similar items.

3.03 SUBSTANTIAL COMPLETION

A. When Contractor considers the Work substantially complete and ready for inspection, submit the following to the Architect:
1. A written notice that the Work or designated portion thereof, is substantially complete.

2. A comprehensive punch list of items to be completed or corrected. The punch list shall be in a format as approved by the architect.

B. Within a reasonable time after receipt of such notice, Architect and Engineers will make

observations to determine the status of completion.

C. Should Architect determine that the Work is not substantially complete:
   1. Architect will promptly notify the Contractor, in writing, giving the reasons therefore, including the incompleteness of the work.

   2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of Substantial Completion to the Architect.

   3. Architect will make his second observation of the Work areas. All corrections should be made at this time.

D. When Architect concurs that the Work is substantially complete, the Architect will:

   1. Review the administrative procedures, submittals and requirements to ascertain that all contract provisions have been met.

   2. Prepare a Certificate of Substantial Completion on an AIA Form G704, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Architect.

   3. Submit the Certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

3.04 FINAL COMPLETION

A. When Contractor considers the Work is finally complete; he shall submit written certification that:
   1. Contract Documents have been reviewed.

   2. Work has been inspected for compliance with Contract Documents.

   3. Work has been completed in accordance with Contract Documents.

   4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.

   5. Work is completed and ready for final observation by Architect.

   6. Sanibel issues a Building Permit Certificate of Completion and final inspection.

B. Architect will make an observation to verify the status of completion with reasonable promptness after receipt of such certification.

C. If the Architect considers that the Work is incomplete or defective:
   1. Architect will promptly notify the Contractor, in writing, listing the incomplete or defective Work.

   2. Contractor shall take immediate steps to remedy the stated deficiencies and send a

second written certification to Architect that the Work is complete.

D. When the Architect finds that the Work is acceptable under the Contract Documents, he shall review the closeout submittals. Upon approval of these documents, the Architect will issue a certificate of final completion.

3.05 OBSERVATION FEES

A. If the Architect has to perform additional observations, due to incompleteness of the work, the procedure will govern:

1. Owner will compensate Architect for such additional services.

2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

3.06 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ARCHITECT/ENGINEER

A. Before requesting final inspection for certification of final acceptance and final payment, complete the following

1. Certificate of Occupancy or equivalent format by governing agency

2. Submittal and approval of all Operating and Maintenance Manuals.

3. Project Record Documents and As-Builts

4. Evidence of Payment and Release of Liens (in accordance with conditions of each Contract).

5. General letter on Contractor’s letterhead stating completion of work in accordance with the contract documents and the guarantee period of the work.

3.07 OPERATION OF SYSTEMS AND EQUIPMENT

A. N/A

3.08 FINAL ACCOUNTING

A. Submit final Application for Payment reflecting adjustments to Contract Sum indicating as applicable:

1. Original Contract Sum.

2. Previous Change Orders.

3. Changes under unit prices.

4. Deductions for Uncorrected Work.

5. Penalties.

6. Deductions for liquidated damages.

7. Deductions for reinspection fees.

8. Other adjustments to Contract Sum.

9. Total Contract Sum as adjusted.

10. Previous payments.

11. Sum remaining due.

B. Architect will prepare a final Change Order reflecting approved adjustments to the Contract Sum that were not previously made by Change Orders.

3.09 APPLICATION FOR FINAL PAYMENT

A. Submit application for final payment in accordance with provisions of Conditions of the Contract.

END OF SECTION

SECTION 01710 - FINAL CLEANING

PART I - GENERAL

1.01 DESCRIPTION OF WORK

A. Final cleaning of project.

B. Execute cleaning prior to inspection for Substantial Completion of each designated portion of the Work.

1.02 RELATED REQUIREMENTS

A. All Contract Documents are complementary and what is required by any one shall be as binding as if required by all.

1.03 QUALITY ASSURANCE

A. Conduct full inspection of all areas as necessary to verify that requirements for cleanliness are being met.

B. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

C. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws ***including Sanibel requirements.***

D. Burning on the site will not be permitted.

PART II - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

A. Provide required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

2.02 COMPATIBILITY

A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

1. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.

PART III - EXECUTION

3.01 SCHEDULE FOR FINAL CLEANING

A. Schedule final cleaning as approved by the Architect to enable the Owner to accept a completely clean Project.

B. "Clean" for the purpose of this Section, and except as may be specified provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.

C. Prior to completion of the Work, remove from job site all tools, surplus materials, equipment, storage sheds, debris, waste and temporary services.

D. Site:

1. Unless otherwise specifically directed by Architect, broom clean paved areas on the site and public paved areas adjacent to the site.

2. Completely remove resultant debris.

E. Structures:

1. Exterior:

a. Visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges and other foreign matter.

b. Remove all traces of splashed materials from adjacent surfaces.

c. If necessary to achieve a uniform degree of cleanliness, hose down exterior of the structure.

d. In the event of stubborn stains not removable with water, the Architect may require light sandblasting or other cleaning at no additional cost to the Owner.

2. Interior:

a. Visually inspect interior surfaces and remove all traces of soil, waste materials, smudges and other foreign matter.

b. Remove all traces of splashed materials from adjacent surfaces.

c. Remove paint droppings, spots, stains and dirt from finished surfaces.

3. Glass: Clean inside and outside.

4. Polished Surfaces: To surfaces requiring routine application of buffed polish, apply the polish recommended by the manufacturer of the material being polished.

5. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from visible exposed interior and exterior surfaces.

6. Wash and shine glazing and mirrors.

7. Polish glossy surfaces to a clear shine.

8. Remove temporary protection.

9. Clean floors, polish those required to have polished finish. Vacuum clean all carpets, remove all stains from carpets.

10. Clean all ceramic tile work.

11. Clean and polish all furnishings supplied by this Contract.

12. Clean all ornamental work, polish or shine as may be required.

13. Clean all lighting fixtures and assure proper lamping.

    a. Upon approval by the owner, the contractor may provide one set of replacement lamps for fixtures in lieu of the one year warranty.

14. Clean all Finish Hardware.

15. Ventilating Systems:

    a. Clean permanent filters and replace disposable filters if units were operated during construction.

    b. Clean ducts, blowers and coils if units were operated without filters during construction.

3.02 FINAL INSPECTION OF CLEANING

A. Prior to final completion or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces, and all Work areas to verify that the entire Work is clean.

B. Notify Architect, in writing, that final cleaning has been completed and ready for occupancy by Owner.

3.03 CLEANING DURING OWNER'S OCCUPANCY

A. Should the Owner occupy the Work or any portion thereof prior to its completion by the Contractor, and acceptance by the Owner, responsibilities for interim and final cleaning shall be as determined by the Architect in accordance with the General Conditions of the Contract.

3.04 CLEANING DURING WARRANTY OR FINAL COMPLETION

A. The Contractor is responsible for the execution of this section during any repairs, corrections or adjustments made during the period between substantial completion and final completion and also during any warranty repair work.

END OF SECTION

SECTION 01740 – WARRANTIES AND GUARANTEES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. See Section 01745 for required 5 Year Special Materials and Workmanship Warranty. This shall be signed by the Contractor and included with the Contractor's Substantial Completion request letter.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 1 - Section 01340 Submittals
2. Division 1 – Section 01700 Contract Closeout
3. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.03 DEFINITIONS

A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.04 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure, or construction that must be removed and replaced to provide access for correction of warranted construction.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by a new replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

E. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

F. The construction manager is required to warrant all work for a minimum of one (1) year in accordance with State of Florida statutes. A special Materials and Workmanship Warranty of Five (5) Years is required on this project and the construction manager will warrant all work for that period. See SPECIAL MATERIALS AND WORKMANSHIP WARRANTY form included in the Project Manual at the end of this Section. Other special warranties are indicated within the materials specification sections.

G. All warranties must be the original documents. Where the warranties are general in nature and not job specific, they must be included as an attachment to a project specific letter from the contractor or supplier. This letter should note that (1) the attached warranty is specific for this project, (2) the start date of the warranty, and (3) the length of the warranty.

1.05 SUBMITTALS

A. Submit all written warranties to the Architect as part of the Maintenance Data. Provide a list of warranties for the owners review at least **60 days** prior to anticipated project substantial completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Final Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

B. When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Architect, for approval prior to final execution.

C. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper. Binders shall not exceed 3 inches in width.

PART 3 - EXECUTION

NOT USED

END OF SECTION

Section 01745

SPECIAL MATERIALS AND WORKMANSHIP WARRANTY

WARRANTY: **EIFS Over-Cladding Project**

Location / Property: **The Current Hotel at Rocky Point**

2545 North Rocky Point Drive Tampa, Florida 33607

WHEREAS,

_____

(The Contractor)

_____

(Address) (Telephone)

has performed the Work for the Project in Accordance with the Contract Documents, for **EIFS Over-Cladding Project.**

WHEREAS, Contractor has agreed to warrant said Work to be new, unless otherwise specified in the Contract Documents, and that all Work is good quality, free from faults and defects, and in accordance with the Contract Documents.

NOW THEREFORE, Contractor hereby warrants said Work in accordance with terms hereof, complying with terms of the Contract Documents, and The Contract with Owner dated _____20____, that:

Contractor agrees to repair or replace to the satisfaction of the Owner, all Work that may prove defective in workmanship or materials together with all other Work which may be damaged or displaced in so doing, except for abuse, modifications not executed by Contractor, insufficient maintenance, improper operation, or normal wear and tear under normal usage.

All repairs or replacements shall have a correction period for such Work equal to the original correction period of **FIVE (5) YEARS**, dated from the date of Final Completion as certified by the Architect.

CORRECTION PERIOD FOR THE WORK: STARTING:

_____

TERMINATING:

_____

In the event of our failure to comply with the above mentioned conditions within a reasonable time after being notified in writing, we hereby authorize the Owner to proceed to have defects repaired and made good at our expense, and we will pay the costs and charges therefore immediately upon demand.

IN WITNESS THEREOF, this instrument has been duly executed this _____, day of _____, 20__ for The Contractor, and has been countersigned in accordance with terms and conditions, for

Contractor_____

Dated _____

Owner _____

Sto Corp.
3800 Camp Creek Parkway
Building 1400, Suite 120
Atlanta, GA 30331
Tel: 404-346-3666
Toll Free: 1-800-221-2397
Fax: 404-346-3119
www.stocorp.com

Sto Specification R103

Exterior Insulation and Finish (EIFS) Wall Assemblies over Existing Wall Cladding

Section No. 07240
Sto reStore Level 3

Table of Contents

PART 1 GENERAL

1.1 SUMMARY

A. Prepare existing stucco surfaces, including patching existing stucco reveals and repairing existing stucco cracks per the details.

B. Remove and extend wall mounted uni-strut attachments and seal to wall per the details.

C. Install new water-resistive barrier membrane system to existing stucco façade.

D. Install flashing required to direct water to the exterior of the wall and integrate the flashing with the water-resistive barrier membrane system in accordance with manufacturer's requirements.

E. Install exterior insulation and finish system (EIFS) with drainage.

1.2 SUBMITTALS

A. EIFS, repair materials, and coating manufacturers' specifications, details, installation instructions and product data.

B. Samples for approval as directed by architect, engineer, or owner.

C. Manufacturer's standard material warranty for each product or system to be used.

D. Minimum three job references.

1.3 REFERENCES

A. ASTM Standards

ASTM C 578	Specification for Foam Plastic Insulation
ASTM C 920	Specification for Elastomeric Joint Sealants
ASTM C 1382	Specification for Sealants for EIFS
ASTM E 2430	Specification for EIFS Reinforcing Mesh
ASTM E 2568	Specification for EIFS
ASTM E 2570	Specification for Water-resistive Barrier Coatings

B. Other References

StoTherm EIFS	Reference Guide: Repair and Maintenance
Sto Specification RC 100	reStore Guideline Specification for Cleaning Wall Surfaces
Sto Specification A100G	StoTherm ci Classic Guide Specification

1.4 DESIGN REQUIREMENTS

A. A qualified engineer, architect or repair contractor shall perform the actions specified in Section 1.04 of this specification:

B. Determine repair scope and detail design requirements based on inspection of the field conditions.

C. Identify and design repairs to the structure and to the existing façade as required to provide a sound substrate for installation of the water-resistive membrane, metal lath support and EIFS.

D. Provide flashing installation, repair and/or replacement details for applicable conditions and indicate locations of each repair on project drawings. Flashing remediation shall be based on standard flashing requirements listed below and indications of distress or leakage observed during inspection:

1. Provide head flashing above and sill flashing below all window and door openings, and similar through wall penetrations.
2. Provide flashing at the bottom of the EIF system.
3. Provide flashing at floor line expansion joints in multi-story construction.
4. Terminate EIFS minimum 2-inches (51 mm) above paved grade and roofing materials.
5. Terminate EIFS minimum 6--inches (152 mm) above soil and landscaped finished grades.
6. Provide metal cap flashing for parapets. Cap flashing shall be sloped to drain water onto the roof system.
7. Provide metal flashing for non-vertical or low slope projections to drain water away from the wall exterior.

E. Integrate all flashing repair and replacement with the water-resistive barrier system to provide direct and continuous drainage to the exterior of the wall.

F. Pre-wrap exterior insulation terminations at grade, expansion joints, and perimeters of wall openings and mechanical penetrations. Provide minimum ½-inch-wide (12.5 mm) space between the pre-wrapped insulation and window/door frames. Install backer rod and sealant joint at perimeters of window, doors and mechanical penetrations.

G. Provide detail drawings consistent with Sto guideline details and Sto product installation instructions.

H. As an option to flashing described in 1.04 D7, apply waterproof base coat with reinforcing mesh to standard EIFS base coat on the top surfaces of projecting elements and immediately above and below the projecting elements. Slope projecting elements sufficiently to provide drainage to the exterior. Protect these surfaces with horizontal grade coating. IMPORTANT:

I. Limit this option to small, easily accessible areas. Dirt pick-up, bird droppings, excess wear, and other issues may occur that necessitate frequent maintenance of projecting elements.

1.5 QUALITY ASSURANCE

A. Manufacturer's requirements

1. EIFS material manufacturer shall have minimum 25 years of experience producing cementitious and polymer-based materials for use in EIFS construction and repair..
2. EIFS manufacturer shall have a manufacturing quality control system that is certified to comply with ISO 9001-2008 and an environmental quality management system certified to comply with ISO 14001-2004.
3. EIFS manufacturer shall have current valid code evaluation reports which list the EIFS materials to be used.

B. Contractor requirements

1. Contractor shall be licensed and insured and shall have been engaged in EIFS and EIFS repair construction for minimum ten (10) years.
2. Contractor shall be knowledgeable in the proper handling, use and installation of Sto materials.
3. Contractor shall employ skilled mechanics who are experienced and knowledgeable in the repair procedures and requirements of the specified project.
4. Contractor shall have completed minimum three projects of similar size, scope and complexity to the project being specified.
5. Contractor shall provide the proper equipment, manpower and supervision on the job site to perform the repair procedures in accordance with Sto's published repair specifications, applicable Sto details and the contract documents.

C. Inspection requirements

1. Quality control inspections shall be provided for by the Contractor. Contractor shall provide written photo reports during the course of the project. Findings will be reviewed by the Owner and Architect.
2. Inspections shall be provided at key intervals during each repair.

3. Inspect the condition of the water-resistive barrier, transition elements and newly installed or replaced flashing for visible evidence of material integrity and continuity of the system before installing lath. Verify that flashing and water-resistive barrier installation is in accordance with the repair detail design. Verify visible continuity of the water-resistive barrier system to direct water to the exterior of the wall via the flashing.
4. Inspect the final appearance of each repair location to verify compliance with owner requirements.
5. Resolve any visible construction detail conflicts with the repair designer before allowing the contractor to proceed with the repair.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in their original sealed containers bearing manufacturer's name and product identification.

B. Protect liquid products (pails) from freezing and temperatures greater than 90 degrees F (32 degrees C). Do not store in direct sunlight.

C. Protect portland cement based materials (bag products) from moisture and humidity. Store under cover and off of the ground in a dry location.

1.7 PROJECT/SITE CONDITIONS

A. Apply materials only when surface and ambient temperatures are above 40 degrees F (4 degrees C) and are expected to remain above 40 degrees F (4 degrees C) for 24 hours after application.

B. Provide supplementary heat for installation in temperatures less than 40 degrees F (4 degrees C).

C. Provide protection of surrounding areas and adjacent surfaces from spillage, splatter, overspray or other unintended contact with the materials that are being applied.

1.8 COORDINATION AND SCHEDULING

A. Schedule and conduct a preconstruction conference with all trades providing work for this section. At minimum discuss:

1. Full scope of repairs
2. Repair locations as noted on project drawings,
3. Coordination and location of repairs that specifically require coordination between trades to set the proper sequence of installation.

B. Schedule repairs to permit inspections where specified in Section 1.05.

C. Do not start repairs in an area unless sufficient work can be completed such that the area is weather-tight at the end of the work shift. Alternatively allow sufficient time before the end of the work shift to provide temporary weather protection until work can resume.

D. Coordinate with all trades involved to schedule work to result in the proper sequencing of materials within the repair (proper lapping of water resistive system components and flashing).

E. Schedule finish and coating application to large areas such that each day's application will end at an architectural break.

1.9 WARRANTY

A. Provide manufacturer's 12Year Material & Labor for products used.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Provide EIFS component materials and coatings (as applicable) from single manufacturer:

1. Sto Corp., 3800 Camp Creek PKWY, Building 1400, Suite 120, Atlanta, GA 30331; www.stocorp.com, 1-800-221-2397

B. Provide EIFS accessory components from qualified manufacturers.

C. Provide metal plaster base (expanded metal lath) and fasteners from qualified manufacturer.

2.2 WATERPROOF AIR BARRIER

A. Provide waterproof air barrier coating and transition membrane system.

1. Waterproof Air Barrier: Sto Gold Coat – fluid-applied waterproof air-barrier coating for moisture protection of sheathing, masonry and concrete substrates behind EIFS.
2. Rough Opening Protection, and Joint Treatment, including membrane counterflashings
   a. Sto Gold Fill with StoGuard Mesh – trowel-applied treatment for waterproof air barrier system terminations and transitions to flashing and other construction elements. To be applied over EPS in reveals
   b. StoGuard RapidSeal – gun-grade waterproof air barrier sealant for use to seal between water-resistive barrier and flashing elements. *(may be alternate to or used with Sto Gold Fill and StoGuard Tape)*
   c. StoGuard Fabric – non-woven fabric tape for use with Sto Gold Coat as a transition element by embedment of the StoGuard Fabric into wet Sto Gold Coat. Used as transition membrane from Sto Gold Coat onto top edge of StoGuard Tape. *(in some cases may be used as an alternate to StoGuard Transition Membrane).*

3. Transition Membrane

   a. StoGuard Transition Membrane – flexible air barrier membrane used with Sto Gold Coat for transitions where dynamic movement may occur at flashing and system terminations.

2.3 ADHESIVE

A. Cementitious Adhesives

1. Primer/Adhesive-B – one component, polymer-modified, adhesive.

2.4 INSULATION BOARD

A. Nominal 1.0 pcf (16 kg/cu.m.) Expanded Polystyrene (EPS) insulation board in compliance with ASTM E 2430 and ASTM C 578, Type I requirements. 2” thick.

2.5 BASE COAT

A. Cementitious Base Coat

1. Primer/Adhesive-B

B. Waterproof Base Coat

1. Sto Flexyl – two component fiber-reinforced acrylic-based waterproof base coat mixed in the field with portland cement (provided by others). Use with reinforcing mesh where waterproofing is required.

2.6 GLASS FIBER MESH REINFORCEMENT

A. Provide alkali resistant, open weave glass fiber mesh reinforcing for surface leveling and waterproof base coat.

1. Products:

   a. Sto Mesh – alkali-resistant, glass-fiber reinforcing mesh for use with Sto base coat products to provide crack resistance.

   b. Sto Detail Mesh – alkali-resistant, glass-fiber reinforcing mesh for use with Sto base coats to provide crack resistance and at system terminations.

   c. StoGuard Mesh – self-adhesive mesh for use with Sto Gold Fill water resistive barrier joint and transition treatment.

   d. Sto Armor Mat – high impact resistant, 15 oz. per sq.yd. (509 g/sq.m.) alkali resistant, glass-fiber reinforcing mesh for locations up to 6”.

2.7 PRIMER

A. Provide acrylic primer (choose one).

1. Sto Primer Sand
2. Sto Primer Smooth

2.8 POLYMERIC FINISH

A. Provide polymeric acrylic EIFS finish. Color and texture to be determined based on mockup.

1. Acrylic Finish Products

a. Stolit – Acrylic textured finish (better than industry standard acrylic finish)

SEALANT

B. Sealant shall be low-modulus, comply with ASTM C 920, ASTM C 1382 and be recommended for use with EIFS by the sealant manufacturer.

2.9 MIXING

A. Mix in accordance with manufacturer's printed instructions.

B. Mix cementitious products with clean, potable water.

PART 3 EXECUTION

3.1 ACCEPTABLE INSTALLERS

A. Prequalify repair contractor under Quality Assurance requirements of this specification (section 1.05.B).

3.2 PREPARATION

A. Conduct preconstruction conference with all installers. At minimum discuss:

1. Full scope of repairs
2. Repair locations as noted on project drawings,
3. Coordination and location of repairs that specifically require coordination between trades to set the proper sequence of installation.

B. For painted surfaces, perform bond tests to verify adhesion of StoGuard materials to existing coatings.

3.3 WATERPROOF AIR BARRIER INSTALLATION

A. Clean wall surface in accordance with Sto Specification RC100, *Guideline Specifications for Cleaning Wall Surfaces.*

B. Do not proceed until all loose or unsound paint, coating, or substrate materials have been removed.

C. Install corrosion resistant flashing at locations indicated on the project drawings.

D. Install system transition details and termination details in accordance with project requirements and product specifications (product specifications and published use and installation instructions are available at www.stocorp.com).

E. Apply Sto Gold Coat to prepared surface, minimum 10 wet mils, and as necessary to achieve a void free and pinhole free application.

F. Repair localized voids and pinholes with brush or roller to provide continuous coating application.

G. Allow Sto Gold Coat to dry completely (minimum 4 hours, depending on ambient conditions).

3.4 EIFS INSTALLATION

A. Mix adhesive in accordance with product instructions for the material being used and apply to the insulation board using a notched trowel such that the ribbons of adhesive will be oriented vertically in-place.

B. Install remainder of EIF system in accordance with Sto published installation instructions and specifications for the system being used as referenced in section 1.03 of this specification.

END OF SECTION

SECTION 07620 SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following sheet metal flashing and trim:
   1. Formed roof flashing and trim.
   2. Formed wall flashing and trim.
   3. Formed penetration flashings.
   4. Formed Balcony Edge and Diverter flashings.
   5. All other system and individual flashings required to complete the work of the Contract Documents.

1.03 PERFORMANCE REQUIREMENTS

A. General: Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failing, rattling, leaking, and fastener disengagement.

B. Fabricate and install roof edge flashing and copings capable of resisting the following forces according to recommendations in FMG Loss Prevention Data Sheet 1-49:

C. Thermal Movements: Provide sheet metal flashing and trim that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of sheet metal and trim thermal movements. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

   1. Temperature Change (Range): As typical for the project environment.

D. Water Infiltration: Provide sheet metal flashing and trim that do not allow water infiltration to the building interior.

1.04 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Show layouts of sheet metal flashing and trim, including plans and elevations. Distinguish between shop- and field-assembled work. Include the following:

1. Identify material, thickness, weight, and finish for each item and location in Project.
2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
3. Details for fastening, joining, supporting, and anchoring sheet metal flashing and trim, including fasteners, clips, cleats, and attachments to adjoining work.
4. Details of expansion-joint covers, including showing direction of expansion and contraction.

C. Samples for Initial Selection: For each type of sheet metal flashing and trim indicated with factory-applied color finishes.

1. Include Manufacturer’s standard color chart for color selection.

1.05 QUALITY ASSURANCE

A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual”, Most Recent Edition. Any clarifications will be in accordance with this standard. Conform to dimensions and profiles shown unless more stringent requirements are indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver sheet metal flashing materials and fabrications undamaged. Protect sheet metal flashing and trim materials and fabrications during transportation and handling.

B. Unload, store, and install sheet metal flashing materials and fabrications in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack materials on platforms or pallets, covered with suitable weathertight and ventilated covering. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.

1.07 COORDINATION

A. Coordinate installation of sheet metal flashing and trim with interfacing and adjoining construction to provide a leak proof, secure, and noncorrosive installation.

1.08 WARRANTIES

A. Furnish Manufacturer's Standard Twenty (20) Year Warranty Finish warranty.

B. All sheet metal flashings, trim and components shall be included in the State of Florida General Contractor's Roofing Guarantee for a period of five (5) years.

PART 2 - PRODUCTS

2.01 SHEET METALS

A. Galvanized Aluminum

1. Sheet Thickness: 0.040 nominal thickness.
2. Exterior Finish: Kynar 500 / Hylar 5000.
3. Color: As selected by Architect from manufacturer's full range.

2.02 UNDERLAYMENT MATERIALS

A. Flashing and counterflashing membranes shall be compatible with the Wall Water Resistive Barrier System.

B. Self Adhered Rubberized Membrane under flashing and copings. Grace Ice and Water shield or approved equal.

2.03 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.

1. Exposed Fasteners: Heads matching color of sheet metal by means of plastic caps or factory-applied coating.
2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with hex washer head.
3. Blind Fasteners: High-strength stainless-steel rivets.

C. Solder for Galvanized Steel: ASTM B 32, ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead.

D. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.

E. Elastomeric Sealant: ASTM C 920, hybrid or silicone, refer to specifications section 07900; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

F. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant, polyisobutylene plasticized, heavy bodied for hooked-type expansion joints with limited movement.

2.04 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.

1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
2. Obtain field measurements for accurate fit before shop fabrication.
3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.

B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.

D. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.

E. Fabricate cleats and attachment devices from galvanized aluminum.

1. Thickness: As indicated; minimum 20-gauge

F. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

G. Do not use graphite pencils to mark metal surfaces.

2.05 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. General: Any clarifications will be in accordance with National Roofing Contractors Association (NRCA) standards.

B. Roof-Edge Flashing and Fascia Cap: Fabricate in minimum 96-inch- long, but not exceeding 10-foot- long, sections. Furnish metal edge flashing with strip flange width as required by the Primary Roofing System Manufacturer.

1. Joint Style: Lap, 4 inches.
2. Fabricate from the following materials:

a. Galvanized Aluminum: 0.040 thick.

C. Copings: Fabricate in minimum 96-inch- long, but not exceeding 10-foot- long, sections. Fabricate joint plates of same thickness as copings. Furnish with continuous cleats to support edge of external leg and drill elongated holes for fasteners on interior leg. Miter corners, and seal watertight.

1. Joint Style: 1 inch standing seam unless otherwise indicated.
2. Fabricate from the following materials:

a. Galvanized Aluminum: 0.040 thick.

D. Continuous Cleats: Fabricate from the following material:

1. Galvanized Aluminum: 20-gauge thick.

E. Counterflashing: Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

F. Flashing Receivers (other than through-wall): Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

G. Eave and Rake Flashing: Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

H. Roof Penetration Pockets: Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

I. Splash Pans: Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

2.06 WALL SHEET METAL FABRICATIONS

A. Through-Wall Flashing: Fabricate continuous flashings in minimum 96-inch- long, but not exceeding 12-foot- long, sections, under copings, at shelf angles, and where indicated. Fabricate discontinuous lintel, sill, and similar flashings to extend 6 inches beyond each side of wall openings. Form with 2-inch- high, end dams where flashing is discontinuous. Fabricate from the following materials:

1. Galvanized Aluminum: 0.040 thick.

B. Opening Flashings in Frame Construction: Fabricate head, sill, jamb, and similar flashings to extend 4 inches beyond wall openings. Form head and sill flashing with 2-inch- high, end dams. Fabricate from the following materials:

1. Galvanized Aluminum: 0.040 thick.

2.07 MISCELLANEOUS SHEET METAL FABRICATIONS

A. Equipment Support Flashing: Fabricate from the following material:

1. Galvanized Aluminum: 0.040 thick.

2.08 FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of work.

1. Verify compliance with requirements for installation tolerances of substrates.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 UNDERLAYMENT INSTALLATION

A. General: Install underlayment as indicated on Drawings.

B. Self Adhered Rubberized Membrane (SARM): Install SARM under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.03 INSTALLATION, GENERAL

A. Clarifications: Any clarifications will the minimum standards set forth by Sheet Metal & Air Conditioning Contractors' National Association, Inc. (SMACNA) and National Roofing Contractors Association (NRCA).

B. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Install continuous cleats spaced not more than one (1) inch apart. Anchor each cleat with fasteners through the vertical leg face at twelve (12) inch centers.
4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
5. Install sealant tape where indicated.
6. Torch cutting of sheet metal flashing and trim is not permitted.
7. Do not use graphite pencils to mark metal surfaces.

C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.

1. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a SARM.
2. Bed flanges in approved sealant where required for waterproof performance.

D. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with elastomeric sealant concealed within joints.

E. Fasteners: Use fasteners of sizes that will penetrate substrate not less than 1-1/4- inches for nails and not less than 3/4 inch for wood screws.

1. Galvanized Aluminum: Use stainless-steel fasteners.

F. Seal joints with elastomeric sealant as required for watertight construction.

1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement either way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
2. Prepare joints and apply sealants to comply with requirements in Division 7 Section "Joint Sealants."

G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pretin edges of sheets to be soldered to a width of 1-1/2 inches except where pretinned surface would show in finished Work.

1. Do not solder Galvanized Aluminum.
2. Do not use open-flame torches for soldering. Heat surfaces to receive solder and flow solder into joints. Fill joints completely. Completely remove flux and spatter from exposed surfaces.

3.04 ROOF DRAINAGE SYSTEM INSTALLATION

A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

B. Hanging Gutters: Join sections with riveted and soldered joints or with lapped joints sealed with elastomeric sealant. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchored straps spaced not more than 30 inches apart. Provide end closures and seal watertight with sealant. Slope to downspouts.

1. Loosely lock straps to front gutter bend and anchor to roof edge blocking/nailer.
2. Install gutter with expansion joints at locations indicated but not exceeding 50 feet apart. Install expansion joint caps.

C. Downspouts: Join sections with 1-1/2- inch telescoping joints. Provide fastener straps designed to hold downspouts securely 1 inch away from walls; locate fastener straps at top and bottom and at approximately 96 inches centers in between.

1. Provide elbows at base of downspout to direct water away from building.
2. Connect downspouts to underground drainage system indicated.

D. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints a minimum of 4 inches (100 mm) in direction of water flow.

E. Splash Pans: Install where downspouts discharge on lower roofs.

F. Splash Blocks: Install where downspouts discharge unto landscape with no underground piping system.

3.05 ROOF FLASHING INSTALLATION

A. General: Install sheet metal roof flashing and trim to comply with performance requirements, NRCA's "Roofing and Waterproofing Manual" and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight.

B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in FMG Loss Prevention Data Sheet 1-49 for specified wind zone but not less that 4 inch centers in staggered pattern.

1. Interlock bottom edge of roof edge flashing with continuous cleats anchored to substrate at 12 inch centers through the vertical leg face.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending a minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.

D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints a minimum of 4 inches and bed with elastomeric sealant.

1. Secure in a waterproof manner by means of snap-in installation and sealant or lead wedges and sealant; interlocking folded seam or blind rivets and sealant as indicated.

E. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Install flashing as follows:

1. Install roof penetration flashings as indicated and in compliance with the primary roofing manufacturer's written instructions.

3.06 WALL FLASHING INSTALLATION

A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to SMACNA recommendations and as indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.

B. Through-Wall Flashing: Installation of through-wall flashing is specified in Division 04 Section "Unit Masonry."

C. Saw-Cut Reglets: Saw-cut reglet joints a minimum of one (1”) inch deep by one quarter (1/4”) inch wide into masonry substrate/wall at locations indicated.

3.07 MISCELLANEOUS FLASHING INSTALLATION

A. Equipment Support Flashing: Coordinate installation of equipment support flashing with installation of roofing and equipment. Weld or seal flashing with elastomeric sealant to equipment support member.

3.08 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.

D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 07620

SECTION 07900 - JOINT SEALERS (including Wet Glazing Protocol)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to Work of this Section. The Contractor and Installer of the Work shall examine the specifications and shall thoroughly familiarize himself with all provisions regarding the Work of this Section.

1.02 DESCRIPTION OF THE WORK

A. Extent of Work: The Extent of Work of this Section is indicated on the drawings, details and by the provisions of this Section.

B. Scope of Work: The Scope of Work of this Section is indicated in the Contract Documents and by the provisions of this Section and includes all labor, materials, incidentals, tools, both consumable or not, equipment, rentals, rolling stock, transportation, freight, taxes, permits, licenses, fees and administration required to do all sealant work called for, scheduled or reasonably implied by the Drawings and/or by these specifications, so that no leakage into the system occurs.

    1. Provide exterior joints in the following vertical surfaces and non-traffic horizontal surfaces:

        i. Control and expansion joints in unit masonry,

        ii. Joints between different materials listed above.

        iii. Perimeter joints between materials listed above and frames of doors and windows,

        iv. Control and expansion joints in ceiling and overhead surfaces,

        v. Other joints as indicated.

C. Related Work Specified Elsewhere: Related work is specified in other Sections of these Specifications. The Contractor shall consult and become familiar with all other Sections to determine that part of the work which will come into contact with his Work.

1.03 QUALITY ASSURANCE

A. General: Materials and work shall conform to the requirements of the latest version of the following codes, specifications, and standards. Should conflicts arise between these codes, specifications and standards, the more stringent shall apply.

1. AAMA 800 - Voluntary Specifications and Test Methods for Sealants;
2. ACI (American Concrete Institute) publication No. 504, "Guide to Joint Sealants for Concrete";
3. ASTM C719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle);
4. ASTM C793 - Standard Test Method for Effects of Accelerated Weathering on Elastomeric Joint Sealants;
5. ASTM C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants;
6. ASTM C834 - Standard Specification for Latex Sealants;
7. ASTM C920 - Standard Specification for Elastomeric Joint Sealants;
8. ASTM C1085 - Standard Specification for Butyl Rubber-Based Solvent-Release Sealant;
9. ASTM C1193 - Standard Guide for Use of Joint Sealants;
10. ASTM C1311 - Standard Specification for Solvent Release Sealants;
11. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants;
12. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants;
13. ASTM C1311 - Standard Specification for Solvent Release Sealants;
14. ASTM D1056 - Standard Specification for Flexible Cellular Materials-Sponge or Expanded Rubber;
15. ASTM D1667 - Standard Specification for Flexible Cellular Materials--Vinyl Chloride Polymers and Copolymers (Closed-Cell Foam);
16. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements;

17. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials;

18. Manufacturer's product literature and instructions;

19. SWRI - Sealant, Waterproofing and Restoration Institute;

20. Where no specific information is given in this Section, then the recognized industry reference standard or authority shall apply.

1.04 DEFINITIONS

A. Contractor: Refer to General Conditions.

B. Installer: Shall mean the installer of the Work of this Section.

C. Work of this Section: When reference is made to the "Work of this Section" it shall mean the work specified and described under the CSI Narrow Scope Section 07900.

1.05 SYSTEM DESCRIPTION

A. The Work described herein involves various installations of new specified sealant indicated in the Construction Documents.

B. Provide joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

C. Provide joint sealants for interior applications, where required, that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.06 SUBMITTAL

A. Where product literature is submitted, submittals shall clearly show with dark circle those selections that apply. Do not use yellow highlighter.

B. All submittals shall be approved in writing by the Architect prior to commencement of any work of this section. Approved submittals shall constitute and shall become part of the Contract Documents. A

copy of the submittals shall be present at the job site during the Work.

C. The following submittals shall be presented to Architect in triplicate, (3 sets), unless otherwise indicated, via transmittal form, itemizing products submitted with reference to specification section and/or applicable drawing prior to performing Work:

1. Time and sequence schedule.
2. Location of equipment and method of storage of products at the site.
3. Product Literature:
    a. Submit product data for each joint-sealant product indicated and/or required.
    b. Provide installation instructions, and material safety data sheets (MSDS).
4. Shop Drawings: Provide shop drawings for details differing from those indicated on drawings.
5. Certify compliance with requirements of these Specifications for those details not submitted.
6. Contractor's and Manufacturer's Warranty/Guarantee Forms:
    a. Manufacturer's material warranty for the term specified.
    b. Contractor's workmanship Guarantee for the term specified.
7. Product Certificates: Signed by manufacturers of joint sealants certifying that products furnished comply with requirements and are suitable for the use indicated.
8. Compatibility: If manufacturer’s warranties are to be issued, submit a statement from sealant manufacturer that the sealant application system is acceptable and is eligible for the specified warranty.
9. Also see other requirements for submittals specified elsewhere in these Specifications.

1.07 QUALITY ASSURANCE

A. Qualifications:

1. Contractor: Contractor shall be duly licensed and shall have been successfully engaged in this type of work for not less than (5) years prior to Bid Date and shall be capable of showing successful installation similar to work required herein. Contractor shall employ only "TRAINED APPLICATORS" as required by the material manufacturer for the type of work specified herein.
2. Subcontractor: An experienced installer who has specialized in installing joint sealants similar in

material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.

C. Performance Criteria: The sealant work shall be expected to be jointly guaranteed by the Contractor and Manufacturer for a minimum of (10) years against defects in labor, material and workmanship.

D. Supervision: The work of this section shall be under the direction of a full time supervisor or foreman with a minimum of (5) years experience in the type of work involved herein.

E. Workmanship: All sealant work shall be installed as indicated and specified and in accordance with manufacturer's printed instructions, and shall result in completely waterproof sealed joints which are straight and true with uniform texture.

F Mock-ups: Construct mock-ups indicated to verify selections made under Sample submittals and to demonstrate aesthetic effects as well as qualities of material and execution. Build mock-ups to comply with the following requirements, using materials indicated for final unit of Work.

1. Locate mock-ups on-site in the location and of the size indicated or, if not indicated, as directed by Architect.
2. Notify Architect on week in advance of the dates and times when mock-ups will be constructed.
3. Obtain Architect’s approval of mock-ups before start of final unit of Work;
4. Retain and maintain mock-ups during construction in an undisturbed condition as a standard of judging the completed work. Only approved mock-ups in an undisturbed condition at the time of Substantial Completion may become part of the completed Work.

1.08 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in sufficient quantity to assure continuity of work. Select and utilize handling equipment so as to avoid damage to materials handled and damage to other construction.

B. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multi-component materials.

1.09 PROJECT/SITE CONDITIONS

A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer.

2. When joint substrates are wet due to rain, frost, condensation or other causes.

B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.

C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

D. Surface shall be clean, dry and free of extraneous debris and mildew prior to application.

E. Upon completion of work, remove trash and debris from the site caused by the Work under this Section.

1.10 GUARANTEE

A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Special Installer's Warranty: Written warranty, signed by Installer agreeing to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: (5) years from date of Final Completion.

C. Special Manufacturer's Warranty: Written warranty, signed by elastomeric sealant manufacturer agreeing to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: (20) years from date of Final Completion.

D. Special warranties specified in this Article exclude deterioration or failure of elastomeric joint sealants from the following:

1. Movement of the structure resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.

2. Disintegration of joint substrates from natural causes exceeding design specifications.

3. Mechanical damage caused by individuals, tools, or other outside agents.

4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

1.11 SAFETY

A. The Contractor shall be fully and solely responsible for all matters of safety of persons and property arising from this contract, including the liabilities and responsibilities of all subcontractors. Neither the Architect nor the Owner or any of their representatives or employees are to be assumed to have any role of responsibility of matters of safety except they (including the Architect) shall have the authority to order stopping of a portion of the Work which they notice may endanger occupants, employees of the Owner, or the public, or employees of the Contractor or subcontractors.

PART 2 - PRODUCTS

2.01 GENERAL

A. The following products and manufacturers are approved subject to the provisions of these specifications and are not intended to exclude other manufacturers with equivalent materials, systems and warranties. Where “approved substitutions” is indicated, other acceptable manufacturers may be utilized, provided their systems and warranties are equivalent in all respects and submitted for approval in accordance with these Contract Documents.

B. It is intended that materials or products specified by name of manufacturer, brand, trade name or by catalog reference shall be the basis of the bid and furnished under the contract, unless changed by mutual agreement. Where two or more materials are named, the choice of these shall be optional with the contractor.

2.02 MATERIALS - GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

B. Colors of Exposed Joint Sealants: Color to match adjacent surfaces, unless otherwise indicated.

2.03 ELASTOMERIC JOINT SEALANTS

A. Joint Sealant Standard: Comply with ASTM C920 and other requirements indicated for each liquid-applied chemically curing sealant.

B. Additional Movement Capability: Where additional movement capability is specified, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C719, to withstand the specified percentage change in the joint width existing at the time of installation and remain in compliance with other requirements of ASTM C920 for uses indicated.

C. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C1248 and have not stained porous joint substrates indicated for Project.

D. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

E. Sealant Classification: Any sealant qualifying under this specification shall be classified per ASTM C920 (except where otherwise noted) as to type, grade, class, and use as follows:

1. Type S: A single component sealant (cures by reaction with moisture);
2. Type M: A multi-component sealant (cures by chemical reaction);
3. Grade NS: A nonsag or gunnable sealant that permits application in joints on vertical surfaces without sagging or slumping when applied at temperatures between 40 and 122 degrees F;
4. Grade P: A pourable or self-leveling sealant that has a suffiecient flow to form a smooth, level surface when applied in a horizontal joint above 40 degrees F;
5. Use T (Traffic): A sealant designed for use in joints in pedestrian and vehicular traffic areas;

6. Use NT (Non-Traffic): A sealant designed for use in joints in nontraffic areas.
7. Use I (Liquid): A sealant designed for use in joints which are submerged continuously in a liquid;
8. Use M (Mortar): A sealant that meets the requirements of ASTM C920 when tested on mortar specimens in accordance with ASTM C719 and C794.
9. Use G (Glass): A sealant that meets the requirements of ASTM C920 when tested on glass specimens in accordance with ASTM C719, C794 and C794 again after ultraviolet exposure through glass.
10. Use A (Aluminum): A sealant that meets the requirements of ASTM C920 when tested on aluminum specimens in accordance with ASTM C719 and C794.
11. Use O (Other): A sealant that meets the requirements of ASTM C920 when tested on substrates other than the standard substrates in accordance with ASTM C719 and C794.

2.04 SILICONE SEALANTS

A. Silicone – Low Modulus (Designation S-25LM), ASTM C 920, Type S, Grade NS:

1. Low modulus, single component, neutral curing, non-staining, non-bleeding silicone sealant.
2. Class: 25. Joint movement range without cohesive/adhesive failure: Plus 25 percent to minus 25 percent of joint width.
3. Uses: NT, M, G, A, and O.
4. Color: Selected by Architect from manufacturer's full color range.
5. Applications: Exterior non-painted surfaces such as vertical surfaces of concrete and masonry; between metal and concrete or mortar; exterior perimeter joints of metal frames in exterior walls, exterior overhead joints; porous to porous materials, porous to non-porous materials.
6. Products: Provide one of the following:

    a. 790 Silicone Building Sealant; Dow Corning.

    b. Pre-Approved Equal.

B. Silicone – Medium Modulus (Designation S-25MM), ASTM C 920, Type S, Grade NS:

1. Medium-Modulus, single component, neutral-curing, silicone sealant.
2. Class: 25. Joint movement range without cohesive/adhesive failure: Plus 25 percent to minus 25 percent of joint width.
3. Uses: NT, G, A, and O.
4. Color: Selected by Architect from manufacturer's full color range.
5. Applications: Exterior non-painted surfaces such as expansion and control joints; metal panel joints; curtainwall joints; joints between natural stone; and perimeter seals around window frames.
6. Products: Provide one of the following:

    a. 756 SMS Building Sealant; Dow Corning,

C. Silicone – Structural (Designation S-50MM), ASTM C 920, Type S, Grade NS:

1. Medium-Modulus, single component, neutral-curing, silicone sealant.
2. Class: 50. Joint movement range without cohesive/adhesive failure: Plus 50 percent to minus 50 percent of joint width.
3. Uses: NT, G, A, and O.
4. Color: Selected by Architect from manufacturer's full color range.
5. Applications: Structural and nonstructural glazing; structural attachment of panel systems and panel stiffener applications; and weathersealing common materials including glass, aluminum, steel, painted metal, EIFS, granite and other stone, concrete, brick and plastics.
6. Products: Provide one of the following:

    a. 795 Silicone Building Sealant; Dow Corning®,

A. Urethane – Pourable (Designation U-P), ASTM C 920, Type S, Grade P:

1. Single component, moisture curing, pour-grade, polyurethane joint sealant.
2. Class: 25. Joint movement range without cohesive/adhesive failure: Plus 25 percent to minus 25 percent of joint width.
3. Uses: T, M, A, and O.
4. Color: Selected by Architect from manufacturer's full color range.
5. Applications: Exterior and interior joints in horizontal surfaces, between concrete and masonry.
6. Products: Provide one of the following:
    a. Vulkem 45, One-Part Pourable Polyurethane Sealant; Tremco International.
    b. Urexpan NR-201, Self-Leveling,Traffic-Grade Polyurethane Sealant; Pecora Corp.
    c. Flexiprene PSI-952; Polymeric Systems, Inc.
    d. SL-1; Sonneborn Building Products Div., ChemRex Inc.

2.06 SOLVENT-RELEASE JOINT SEALANTS

A. Butyl-Rubber-Based Solvent-Release Joint Sealant (Designation SRS-B), ASTM C1085:

1. One-component, gun grade, butyl rubber sealant.
2. Applications: Concealed joints in roof flashings.
3. Products: Provide one of the following:
    a. Chem-Calk 300; Bostik Inc.
    b. PTI 757; H.B. Fuller Company.
    c. BC-158, One-Part Butyl Rubber Sealant; Pecora Corp.

2.07 SILYL-TERMINATED POLYETHER SEALANTS

A. Silyl-Terminated Polyether Sealant – Very Low Modulus (Designation STP-150), ASTM C 920, Type S, Grade NS:

1. One component, very low-modulus, high-movement, non-sag, fast-curing, gun-grade, silyl-terminated polyether sealant.

2. Class: 100/50. Joint movement range without cohesive/adhesive failure: Plus 100 percent to minus 50 percent of joint width.

3. Uses: NT, M, A, G, and O.

4. Color: Selected by Architect from manufacturer's full color range.

5. Applications: General purpose Exterior sealant for active, vertical interior, exterior joints, including expansion wall joints, curtain walls, panel walls, precast walls, window frames, structural components. Substrates include stucco, concrete, masonry, aluminum, wood and EIFS.

6. Products: Provide one of the following:

   a. MasterSeal 150 NP – BASF

   b. SW Loxon H-1.

2.09 JOINT-SEALANT BACKING

A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

   1. Type C: Closed-cell material with a surface skin.

   2. Type: Any material indicated above.

C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 degrees F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.

D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of

joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.10 MISCELLANEOUS MATERIAL

A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

C. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way? and formulated to promote optimum adhesion of sealants with joint substrates.

D. Miscellaneous items not previously mentioned but shown on drawings.

2.11 MIXES

A. Mixing (multi-component sealants): Mechanically mix in strict accordance with manufacturer's instructions. Run mixing blade up and down the sides of the container and around the bottom of the container. Scrape sides and bottom of container during mixing to assure all materials are thoroughly blended together. Do not thin. Do not hand mix. Do not estimate mixtures.

2.12 SILICONE JOINT SEALANTS (WET-SEALING EXISTING WINDOWS)

A. Silicone Joint Sealant: Silicone - Structural, Designation S-50MM, ASTM C 920, Type S, Grade NS, Class 50. Color as selected by the Owner and Architect from Manufacturer’s full color range.

1. Products: Subject to compliance with requirements, provide one of the following:

a. Dow; DOWSIL 795 Silicone Building Sealant
b. Pecora; Pecora 895 NST Silicone Sealant
c. Tremco; Tremco Spectrem 2 Silicone Sealant

PART 3 - EXECUTION

3.01 EXAMINATION

A. This Contractor shall examine the area of work to determine that conditions are acceptable for the work of this and subsequent Sections. Report unsatisfactory conditions to the Architect immediately and confirm in writing. Do not proceed until unsatisfactory conditions are corrected. All unacceptable conditions shall be corrected before work begins. The execution of work shall be construed as an acceptance of conditions by the Contractor.

B. The work of prior Sections shall be ascertained to be complete and the substrate ready for the work of this Section.

C. Those joints which are inaccessible and have no indication of failure or deterioration may be left in place subject to approval by Architect, or sealed over with new specified sealant, and any sealant joint not resealed shall be warranted by the Contractor to the same extent as resealed joints.

D. Joint Width: Verify joints are greater than minimum widths required by manufacturer.

1 If joints are narrower than minimum required widths, widen narrow joints to indicated width.

2 Do not place sealant in joints narrower than manufacturer’s required minimum.

3.02 PREPARATION

A. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

B. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint sealant manufacturer's written instructions and the following requirements:

1. All areas to receive sealant shall be raked, cleaned and all old sealant and loose material and/or debris completely removed before any sealant work starts. All existing sealants and sealant patches, shall be removed to original substrate which shall be thoroughly cleaned, scraped or abraded to provide a uniform, dry, uncontaminated substrate.

2. Remove all existing backer rod (if any).

3. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
4. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include the following:
   a. Concrete,
   b. Masonry,
   c. Unglazed surfaces of ceramic tile.
5. Remove laitance and form-release agents from concrete.
7. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous surfaces include the following:
   a. Metal,
   b. Glass.
   c. Porcelain enamel.
   d. Glazed surfaces of ceramic tile.

C. Joint Priming:

1 Prime ALL joint substrates unless otherwise recommended by joint sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience.

2 Apply primer where joint sealant is to adhere in compliance with joint sealant manufacturer's instructions.

3 Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

4 Install sealant to primed substrates after primer has cured.

D. Masking Tape.

1 Use masking tape to prevent contact of primer and sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods used to remove primer and sealant smears:

2 Place continuously along joint edges.

3 Apply masking tape so it does not shift in position after placement.

4 Remove tape immediately after tooling without disturbing joint seal.

E. Surfaces shall be dry before sealant is applied. Keep sufficient supply of clean rags to prevent contamination. If required, the Contractor shall call for an inspection by the sealant manufacturer of all surfaces to receive sealant, to insure that the Warranties/Guarantees will not be voided by applying sealant on unacceptable surfaces.

3.03 INSTALLATION

A. General: Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations of ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Install specified backer rod (1/4-inch to 1/2-inch diameter wider than joint width) into joint if hollow behind joint, otherwise, 25 percent wider than joint width. Backer rod shall fit snug into joint to provide a firm backing for applying and tooling sealant without movement. Use care not to puncture or stretch backer rod when installing. Install backer rod to control the depth of the sealant as follows: joint width less than 1/4-inch, sealant depth shall equal joint width; joints over 1/2-inch, sealant depth shall be one-half the joint width but not less than 1/4-inch; joint width over 1-inch, sealant depth shall be 1/2-inch. Sealant depth is measured from top of backer rod to top of tooled sealant at thinnest point.

2. Do not leave gaps between ends of sealant backings.

3. Do not stretch, twist, puncture, or tear sealant backings.

4. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and back of joints.

E. Install sealants by proven techniques to comply with the following and at the same time backings are installed:

1 Provide nozzle of proper size and shape to suit joints.

2 If necessary, apply masking tape to adjacent surfaces to protect against contamination.

3 Place sealants so they directly contact and fully wet joint substrates.

4 Completely fill recesses provided for each joint configuration.

5 Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

6 Install sealant free of air pockets, foreign embedded matter, ridges, and sags.

7 Apply sealant in one continuous direction. For vertical joints, proceed from bottom to top. Force sealant into joint with the nozzle against the backer rod to avoid trapping air into the sealant.

F. Tooling of Non-sag Sealants: Comply with manufacturer's tooling method requirements.

1 Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

2 Remove excess sealants from surfaces adjacent to joint.

3 Tool sealant to force out any entrapped air and to assure adhesion to substrate

4 Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

5 Provide concave joint configuration per Figure 5A in ASTM C1193, unless otherwise indicated.

6 Provide flush joint configuration, per Figure 5B in ASTM C1193, where indicated.

7 Provide recessed joint configuration, per Figure 5C in ASTM C1193, of recess depth and at locations indicated.

8 Finish surface of sealant slightly concave, smooth and free of wrinkles. In the event joints are adjacent to surfaces which are to receive coatings or sealers, complete sealant work prior to such work.

3.04 FIELD QUALITY CONTROL

A. Report any unforeseen adverse conditions immediately during the course of Work.

B. Contractor shall cooperate with testing of installed sealant joints be removing and resealed those joints at test locations identified by the Architect to establish that the installation is acceptable, without additional cost to the Owner.

3.05 UNIT COSTS

A. Records for Unit Price Work: Where products are installed on a unit price basis, this Contractor shall provide the Architect all required data showing the location and extent of such work, the type and amount of materials employed, and the time required for such work.

3.06 CLEANING AND PROTECTION

A. Remove all objectionable contamination to the satisfaction of the Owner or Architect. Restore contaminated areas to original condition at no additional cost to the Owner.

B. Clean off excess sealants or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

C. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from the original work.

D. Repair or replace defaced or disfigured finishes caused by work of this Section and replace where installation techniques result in unsatisfactory joining of materials and unsightly conditions.

3.09 SCHEDULE

A. Joint sealant schedule for interior locations, where required:

1. Wall and ceiling joints subject to movement: Designation STP-150
2. Wall and ceiling joints not subject to movement: Designation LS
3. Joints at dissimilar materials, subject to movement: Designation STP-150
4. Joints at dissimilar materials, not subject to movement: Designation LS
5. Interior side of exterior openings: Designation STP-150
6. Floor joints subject to heavy pedestrian and vehicular traffic: Designation U-TB
8. Wall and ceiling joints between frames and their rough opening: Designation LS
9. Wall and ceiling joints between frames and adjoining surfaces: Designation LS
10. Interior sanitary joints: joints between plumbing fixtures and adjoining floor, wall, and ceiling surfaces; joints between back splashes and wall substrates and between back splashes and countertops; joints in ceramic tile; and joints subject to in-service exposures of high humidity and temperature extremes: Designation S-MR
11. Caulking and sealing joints where little or no joint movement can be expected, such as in perimeter joints of window frames and door jambs, bedding thresholds, secondary seals in glazing, and where a seal is required against neoprene gaskets: Designation SRS-B

B. Joint sealant schedule for exterior locations:

1. Wall joints (General):

a. Bordered on both sides by porous building material (concrete, stone, masonry, and EIFS): Designation S-25LM.

b. Bordered on both sides by non-porous building material (coated and uncoated metals,

anodized aluminum, and glass): Designation S-50MM.

c. Bordered on one side by porous building material (concrete, stone, masonry) and other side by non-porous building material (coated and uncoated metals, anodized aluminum, and glass): Designation S-25LM.

2. Perimeter of penetrations through EIFS: Designation S-25LM.
3. Control joints and perimeter of penetrations in ceilings, soffits, and overhead surfaces: Designation S-25LM
4. Joints and perimeter of penetrations in horizontal pedestrian and vehicle traffic surfaces: Designation U-TB
5. Exterior and interior joints in horizontal surfaces, between concrete and masonry: Designation U-P
6. Exposed sealing applications on low-slope commercial roofing used to permanently bond structural assemblies such as coping, metal edge, skylights and pitch pans: Designation STP-M1
7. Bonding sealant for preformed silicone seals: Designation S-50MM
8. All vertical, exterior wall joint and crack repair in EIFS: Designation S-25LM
9. Wet-glazing window repairs: Designation S-50MM
10. Metal-to-metal sheet metal lap joints: Designation STP-150
12. All inside corner metal-to-masonry or metal-to-stucco joints at counter flashing “sealant trays”: Designation STP-150
13. All exterior fascia, door and/or window trim joints, wood-to-wood, wood-to-metal, and wood-to-stucco: Designation STP-150
14. Perimeter of exterior vertical penetrations and attachments through concrete, stucco and masonry surfaces, such as, but not limited to pipes, counter flashing and conduits: Designation STP-150

3.10 WET SEALING EXISTING WINDOWS

A. General: Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. DO NOT Remove the exposed exterior portion of exterior glazing seals. Install appropriate sized bond breaker tape over the seals.

C. Clean all metal and glass surfaces per the Manufacturer's written directions.

D. Use painter's tape or equivalent to control lines. Ensure lines are straight, clean and without undulations or other anomalies.

E. Apply continuous fillet cap bead of Specified Silicone Sealant to all glass to metal joints. Provide minimum 3/8" sealant bite to both glass and metal surfaces

F. Sealant color: As Selected by the Owner from Manufacturer's standard color selections

G. Contractor will be responsible for coordination with the Manufacturer for Adhesion Testing to be performed as soon as the Contract is awarded

H. At least one, in-place complete mock-up will be required and will serve as the job standard

I. ***Verification Water Leakage Testing*** of the mock-up(s) will be required prior to commencing with the remainder of the work. Testing shall be paid for by the Contractor. Testing shall be observed by the Consultant, Architect and Owner. Failures will require the specimen to be repaired and retested, and an additional window shall be tested as well, for each failed test.

J. Contractor shall provide a 5-year Labor Warranty and a 20-year Manufacturer's Warranty

K. Verify that all weeps are open and not blocked with sealant or other material

END OF SECTION 07900

09220 Portland Cement Plaster (Stucco) Wall Assemblies

PART 1 GENERAL

1.01 SUMMARY

A. Provide for a new Portland Cement Stucco system as indicated on the Contract Documents.

B. Repair distress and construction deficiencies in portland cement-based plaster (stucco) walls.

C. Repair nonstructural cracks in stucco brown coat and finish.

D. Repair flashing and waterproofing deficiencies at stucco system terminations.

E. Resurface damaged areas to provide uniform appearance in accordance with owner's requirements and to match the existing finish.

1.02 SECTION INCLUDES

A. Portland cement plaster for installation over metal lath, masonry, concrete, and solid surfaces.

B. Fluid Applied Air and Water Resistive Barrier

C. Metal Lath.

D. Accessories.

1.03 SUBMITTALS

A. Repair and coating manufacturers' specifications, details, installation instructions and product data.

B. Samples for approval as directed by architect, engineer, or owner.

C. Manufacturer's standard material warranty.

1.04 REFERENCES

A. ASTM Standards

1. ASTM C 926, Specification for Portland Cement Plaster
2. ASTM C 1063, Specification of Installation of Lath and Furring to Received Portland Cement-based Plaster
3. ASTM C 920, Specification for Elastomeric Joint Sealants

4. ASTM C 91 - Standard Specification for Masonry Cement
5. ASTM C 150 - Standard Specification for Portland Cement
6. ASTM C 206 - Standard Specification for Hydrated Lime for Finishing Purposes
7. ASTM C 207 - Standard Specification for Hydrated Lime for Masonry Purposes
8. ASTM C 847, C 933, & C 1032; Standard Specification for Metal Lath
9. ASTM C 897 - Aggregates for Job Mixed portland Cement-Based Plaster
10. ASTM C 954 - Steel Drill Screws for the application of Gypsum Panel products or Metal Plaster Bases to Steel Studs
11. ASTM C 1116 - Fibers-Reinforced Concrete and Shotcrete

B. Other References

1. Sto reStore Cleaning Specification
2. Sto Stucco Repair and Maintenance Guide
3. Northwest Wall and Ceiling Bureau (NWCB) Portland Cement Plaster Resource Guide
4. International Concrete Repair Institute (ICRI) Guidelines for Surface Preparation
5. Sealant Waterproofing and Restoration Institute (SWRInstitute) Validation Program for Wall Coatings

1.05 QUALITY ASSURANCE

A. Manufacturer's requirements

1. Stucco and finish material manufacturer shall be experienced provider of cementitious and polymer-based materials for use in stucco construction and repair for minimum 20 years.
2. Stucco and finish manufacturer shall have a manufacturing quality control sytem that is certified to comply with ISO 9001-2008 and an environmental quality management system certified to comply with ISO 14001-2004.

B. Contractor requirements

1. Contractor shall be licensed and insured and shall have been engaged in stucco and stucco repair construction for minimum three years.

2. Contractor shall be knowledgeable in the proper handling, use and installation of materials.
3. Contractor shall employ skilled mechanics who are experienced and knowledgeable in the repair procedures and requirements of the specified project.
4. Contractor shall have completed minimum three projects of similar size, scope and complexity to the project being specified.
5. Contractor shall provide the proper equipment, manpower and supervision on the job site to perform the repair procedures in accordance with manufacturer's published repair specifications, applicable details and the contract documents.
6. Contractor shall provide for the manufacturer to perform inspections and certify compliance with manufacturer documents and warranty requirements.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in their original sealed containers bearing manufacturer's name and product identification.

B. Protect liquid products (pails) from freezing and temperatures greater than 90 degrees F (32 degrees C). Do not store in direct sunlight.

C. Protect portland cement based materials (bag products) from moisture and humidity. Store under cover and off of the ground in a dry location.

1.07 PROJECT/SITE CONDITIONS

A. Apply materials only when surface and ambient temperatures are above 40 degrees F (4 degrees C) and are expected to remain above 40 degrees F (4 degrees C) for 24 hours after application.

B. Provide supplementary heat for installation in temperatures less than 40 degrees F (4 degrees C).

C. Provide protection of surrounding areas and adjacent surfaces from spillage, splatter, overspray or other unintended contact with the materials that are being applied.

1.08 COORDINATION AND SCHEDULING

A. Schedule repairs to permit inspections where specified in Section 1.05.

B. Do not start repairs in an area unless sufficient work can be completed such that the area is weather-tight at the end of the work shift. Alternatively allow sufficient time before the end of the work shift to provide weather protection until work can resume.

C. Coordinate with all trades involved to schedule work to result in the proper sequencing of materials within the repair (proper lapping of water resistive system components and flashing).

D. Schedule finish and coating application to large areas such that each day's application will end at an architectural break.

1.09 WARRANTY

A. Provide manufacturer's standard warranty for products used.

PART 2 PRODUCTS

2.01 PLASTER MATERIALS

A. Base-Coat Cements: Portland Cement, ASTM C 150, Type I.

B. Job-Mixed Finish-Coat Cement: Portland Cement, ASTM C 150, Type I.

1. Cement Color: White or Gray.

C. Masonry Cement: ASTM C 91.

D. Lime: Special non air-entraining hydrated lime for finishing purposes per ASTM C 206, Type S; or special non-air-entraining hydrated lime for masonry purposes per ASTM C 207, Type S.

E. Aggregate

1. Base Coat: Conform ASTM C 897 and be clean, free from organic impurities, loam, clay, and vegetable matter; Natural silica sand, shall be graded as follows (US Standard Sieve Per Cent Retained by Weight for Natural Sand):

    a. No. 4 (4.75 mm): Max 0 Min 0
    b. No. 8 (2.36 mm): Max 10 Min 0
    c. No. 16 (1.18 mm): Max 40 Min 10
    d. No. 30 (600 micron): Max 65 Min 30
    e. No. 50 (300 micron): Max 90 Min 70
    f. No. 100 (150 micron): Max 100 Min 95

2. Finish Coat: Same aggregate as basecoat, except:

    a. All sand shall be grade to pass No. 16 (1.18 mm) mesh sieve.
    b. All sand shall be White and washed sand.
    c. Special textures may require modification of the plaster formulation and application to compensate for the effect of aggregate gradation.

F. Water: Mixing water should be clean and fit to drink (potable), be free of harmful amounts of any mineral or organic substance that would discolor or affect the set of the plaster or cause corrosion of metal lath or accessories.

G. Fibers. Include in Scratch and Brown Coats: ASTM C 1116; Alkaline resistant composition such as polypropylene, nylon, or alkali resistant glass, 1/2 inch nominal length, free of contaminates, manufactured for use in portland cement plaster.

H. Bonding Admixture: A non-re-emulsifiable acrylic emulsion. Approved products include Lawson D-LINK, Thoroseal Acryl 60, manufactured by Harris Specialties Chemicals, Inc.; Xycrylic,

manufactured by Xypex Chemical Corp.; and Sikalatex, manufactured by Sika Chemical Corp. The bonding compounds shall be used in the scratch coat AND on the wall per the MANUFACTURER'S DUAL APPLICATION PROCEDURE DIRECTIONS.

I. Provide self-furring galvanized metal lath (where applicable) and stucco accessory components from qualified manufacturer.

J. Provide acrylic crack filler to fill all cracks less than 1/16".

a Sto Flexible Crack Filler – acrylic-based crack filler packaged in sealant tube for use (unreinforced) in repair of cracks not wider than 1/16-inch (1.6 mm) and up to 1/8-inch (3.2 mm) wide with mesh reinforcement.

b Approved Equal.

K. WATER-RESISTIVE BARRIER

1. Provide water-resistive barrier coating and transition membrane system as required by the design details and documents over sheathing on frame construction.

a Sto Gold Coat – fluid-applied waterproof air-barrier coating for moisture protection of sheathing, masonry and concrete substrates behind stucco cladding.

b Sto Gold Fill – knife-grade, trowel-applied transition material for use with Sto Gold Coat and StoGuard Mesh as transition at flashing, windows, mechanical penetrations and at system terminations.

c StoGuard RapidSeal – gun-grade waterproof air barrier sealant for use to seal between water-resistive barrier and flashing elements.*(may be alternate to or used with Sto Gold Fill and StoGuard Tape)*

d StoGuard Tape – fabric-faced, self-adhesive modified asphaltic flashing tape for use with Sto Gold Coat as transition at flashing, windows, mechanical penetrations and at system terminations. *(may be alternate to or used with Sto Gold Fill).*

e StoGuard Fabric – non-woven fabric tape for use with Sto Gold Coat as a transition element by embedment of the StoGuard Fabric into wet Gold Coat. Used as transition membrane from Sto Gold Coat onto top edge of StoGuard Tape. *(may be alternate to Sto Gold Fill with StoGuard Mesh)*

f Approved Equal.

L. Provide ASTM D 226 compliant asphalt saturated kraft building paper, Grade D, No. 15 over WRB over sheathing on frame construction.

M. Provide STO Drain Mat behind Stucco over frame. Install per Manufacturers Instructions.

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS

A. Prequalify repair contractor under Quality Assurance requirements of this specification (section 1.05.B).

3.02 EXAMINATION, SOUNDING AND MARKING

A. Inspect and sound the building, marking locations identified as for repair. Locations will be reviewed by the Architect prior to removal of any material.

B. Establish clear understanding of the repair scope and process with the mechanics that will perform the work for each individual location.

3.03 SELECTIVE DEMOLITION

A. Use hearing, eye, ear and respiratory personal protective equipment when performing demolition.

B. Provide adequate protection to persons and property from potential falling debris from demolition and repair construction.

C. Stucco Removal:

1. Saw cut perimeter of repair area with a masonry blade set to a depth that will not cut into the sheathing.
2. Chip stucco at the edges of the saw cut to provide a minimum ½-inch perimeter of exposed lath where lath is to be repaired or replaced.
3. Remove stucco such that patches will be square or rectangularly shaped. Avoid re-entrant corners within patches and constructing patches with greater than 2.5 : 1 length-to-width ratios.

D. Finish removal:

1. Remove finish where required to cosmetically match finish texture with surrounding unaltered stucco. Finish shall be removed minimum 1-inch (25mm) around the perimeter of saw-cut or chipped areas, and on both sides of cracks to be repaired using crack-filling and bridging techniques. (Note: removal of finish can be omitted along crack repairs. However, a trial area should be done to verify that the finished appearance will comply with owner requirements because the crack repair will likely be visible.)
2. Finish removal shall be by grinding, scraping, or chemical stripping product approved by the specifier.
3. Use chemical stripping products in accordance with the product manufacturer's written instructions.
4. Dispose of waste and rinse water from chemical stripping of finish in accordance with local regulations.

3.04 FLASHING REPLACEMENT

A. Repair flashing and/or correct conditions in locations indicated on the project drawings and as described in section 1.04 of this specification.

B. Remove stucco in accordance with section 3.01 of this specification.

C. Remove enough area to permit proper installation of flashing.

D. Inspect the condition of the water-resistive barrier membrane and transition materials.

E. Repair or replace damaged water resistive barrier system components.

F. Install replacement components in a sequence and manner to provide shingle-laps and provide a continuous path for moisture drainage to the exterior of the wall via the flashing.

G. Mix and apply stucco scratch and brown coats in accordance with ASTM C 926 to match existing stucco thickness. Cover with polyethylene sheeting or otherwise moist-cure for minimum 48-hours.

3.05 SURFACE DEFECT REPAIR

A. Localized finish repair

1. Remove affected finish in accordance with section 3.03.C of this specification.
2. Clean exposed brown coat surface to remove all dust, dirt, and other bond-inhibiting materials.
3. Apply primer in accordance with written product instructions.
4. Apply finish to match surrounding stucco texture and color.

B. Localized brown coat repair within field of wall

1. Remove stucco in accordance with section 3.03 fof this specification.
2. Remove stucco minimum 2-inch (50 mm) in all directions beyond area of concern where lath replacement is required.
3. Remove and replace damaged or corroded lath.
    a Remove damaged lath minimum 1-inch (25 mm) in all directions beyond area of concern.
    b Repair water-resistive barrier system as necessary to correct any damage that is either existing or caused by stucco and lath removal actions.

c Cut replacement lath to provide minimum 1/2-inch (12.5 mm) overlap on all sides.

d Wire tie new lath to existing lath at maximum spacing of 8-inches (203 mm).

e Provide minimum 4 wire ties for small lath replacements.

4. Mix and apply stucco scratch and brown coats in accordance with ASTM C 926 to match existing stucco thickness. Cover with polyethylene sheeting or otherwise moist-cure for minimum 48-hours.
5. Where finish is specified directly to new stucco, prime the new stucco brown coat surfaces prior to finish application.
6. Where further surface leveling or surface applied waterproofing is specified, apply leveler or waterproof base coat after completion of the 48-hour cure period.

C. Remedial accessory installation

1. Remove stucco in accordance with section 3.03 of this specification.
2. Remove stucco a sufficient distance from accessory to permit removal of the existing accessory and wire-tie connection of new accessory.
3. Remove and replaced damaged accessories

a Cut damaged section of existing accessory and remove from wall.

b Repair water-resistive barrier system if damage is present or occurs as a result of the accessory removal.

c Wire tie new accessory to existing lath at maximum spacing of 8-inches (203 mm).

d Provide minimum 4 wire ties for small lengths of replacement.

4. Align new sections of corner and casing beads carefully to match adjacent accessories.
5. Set both ends of all accessory replacements pieces in wet sealant. Mix and apply stucco scratch and brown coats in accordance with ASTM C 926 to match existing stucco thickness. Cover with polyethylene sheeting or otherwise moist-cure for minimum 48-hours.

6. Where finish is specified directly to new stucco, prime the new stucco brown coat surfaces prior to finish application.
7. Where further surface leveling or surface applied waterproofing is specified, apply leveler or waterproof base coat after completion of the 48-hour cure period.

D. New accessory installation
1. Remove stucco in accordance with section 3.03 of this specification in locations where required accessories are not present.
2. Install new corner beads, casing beads, weep screeds or other accessories in accordance with ASTM C 1063.
3. Set ends of accessories in wet sealant.
4. Mix and apply stucco scratch and brown coats in accordance with ASTM C 926 to match existing stucco thickness. Cover with polyethylene sheeting or otherwise moist-cure for minimum 48-hours.
5. Where finish is specified directly to new stucco, prime the new stucco brown coat surfaces prior to finish application.
6. Where further surface leveling or surface applied waterproofing is specified, apply leveler or waterproof base coat after completion of the 48-hour cure period.

3.06 STUCCO DELAMINATION FROM CONCRETE SUBSTRATES

A. Define repair area based on sounding and remove stucco to sound substrate.
B. Extend repairs laterally to adjacent well-bonded material.
C. Scarify or chip concrete substrates to provide a surface profile sufficient for bonding of new stucco application.
1. ICRI surface profile minimum SP-3
D. Clean prepared surface to remove all dust, dirt, laitance, oils and other potentially bond inhibiting materials.

E. Check ability of surface to receive directly bonded stucco by checking for absorption of water into the concrete. If water does not readily absorb into concrete, provide additional surface preparation or mechanical anchorage for stucco.

F. Install stucco in accordance with product instructions.

NOTE: A surface-applied bonding agent may be used, however, use of a bonding agents is not a substitute for mechanical surface preparation of cast-in-place or pre-cast concrete surfaces to receive directly bonded stucco. In all cases, with or without a bonding agent, verify adhesion of the stucco with adequate field testing after at least 28 day age of repair. Conduct field adhesion verification tests throughout the course of the project with agreed upon frequency established by the design professional and owner or owner's representative.

END OF SECTION

SECTION 09900 - PAINTS AND COATINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to Work of this Section. The Contractor and Installer of the Work shall examine the specifications and shall thoroughly familiarize himself with all provisions regarding the Work of this Section.

1.02 DESCRIPTION OF THE WORK

A. Extent of Work: The Extent of Work of this Section is indicated on the drawings, details and by the provisions of this Section.

B. Scope of Work: The Scope of Work of this Section is indicated in the Contract Documents and by the provisions of this Section and includes all labor, materials, incidentals, tools, both consumable or not, equipment, rentals, rolling stock, transportation, freight, taxes, permits, licenses, fees and administration necessary to integrate the specified paint work so that no leakage into the system occurs.

C. Related Work Specified Elsewhere: Related work is specified in other Sections of these Specifications. The Contractor shall consult and become familiar with all other Sections to determine that part of the work which will come into contact with his Work.

1.03 SCOPE

A. Work required under this Section consists of all necessary services, tools, equipment, material and labor required to do all painting work called for, scheduled or reasonably implied by the Drawings and/or by these specifications.

B. The Paint/Coatings Contractor shall examine the Specifications and shall thoroughly familiarize himself with all provisions regarding painting; he shall understand that all surfaces that are left unfinished by the requirements of other Sections shall be painted under this Section and shall be in addition to shop and mill coats, priming and field coats specified in other Sections.

C. Paint, painting, painting work: As used herein, the term(s) shall mean all coating systems not specifically described in other Sections of these Specifications or which are not explicitly excluded from this Section, including primers, emulsions, enamels, sealers, fillers, and finishing coats.

D. Paint all exposed surfaces whether or not materials are designed in "schedules" except where unfinished "natural" finish of material is obviously intended or specifically noted as surface not to be painted. Where items are surfaces not specifically mentioned, paint these the same as adjacent similar materials or areas. If color or finish is not designated, the Architect will select such from standard colors available for materials systems specified.

1.04 REFERENCES

A. Referenced Standards (all standards refer to the latest edition of the standard unless otherwise indicated): All work shall incorporate materials and/or procedures that comply with the following:

1. ASTM D 16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products;
2. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers--Tension;
3. ASTM D 1308 - Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes;
4. ASTM D 1653 - Standard Test Methods for Water Vapor Transmission of Organic Coating Films;
5. ASTM D 2369 - Test Method for Volatile Content of Coatings (Solids Content);
6. ASTM D 3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber;
7. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test;
8. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test;
9. ASTM D 3960 - Practice for Determining Volatile Organic Compound Content (VOC) Content of Paints and Related Coatings;
10. ASTM D 4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser;
11. ASTM D 4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers;
12. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials;
13. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials;
14. ASTM E 284 - Terminology of Appearance;
15. FED-STD-141 - Paint, Varnish, Lacquer and Related Materials: Methods of Inspection, Sampling and

Testing; Method 2601: Humidity Test; Federal Specifications and Standards;

16. FS-TT-C-555B - Resistance to Wind-Driven Rain;
17. Manufacturer's product literature and instructions;
18. National Paint & Coating Association's Painting Manual;
19. Painting and Decorating Contractor Association's Specification Manual;
20. SSPC-SP 1, Solvent Cleaning. Society for Protective Coatings;
21. SSPC-SP 2, Hand Tool Cleaning. Society for Protective Coatings;
22. SSPC-SP 3, Power Tool Cleaning. Society for Protective Coatings;
23. SSPC-SP-11, Power Tool Cleaning to Bare Metal. Society for Protective Coatings;
24. SSPC-SP-13, Surface Preparation of Concrete. Society for Protective Coatings;
25. SSPC-SP-15, Commercial Grade Power Tool Cleaning. Society for Protective Coatings;
26. SSPC-PA 1, Shop, Field, and Maintenance Painting of Steel. Society for Protective Coatings;
27. SSPC-PA 2, Measurement of Dry Coating Thickness with Magnetic Gages; Society for Protective Coatings;
28. SSPC Painting Manual, Volume 1,Good Painting Practice; Society for Protective Coatings;
29. SSPC Painting Manual, Volume 2, Systems and Specifications; Society for Protective Coatings;
30. Where no specific information is given in this Section, then the recognized industry reference standard or authority shall apply.

1.05 WORK NOT INCLUDED IN THIS TRADE SECTION

A. Following categories of work are not included as part of painter-applied finish work:

1. Pre-finished items: Except where specifically called for otherwise, do not include painting when full factory-finishing or installer-finishing is specified for such items (but not limited to): Toilet partitions, acoustical materials, finished mechanical and electrical equipment such as light fixtures, panels, switch gear, motors, pumps, air handling equipment, and the like.

2. Concealed surfaces: Unless otherwise specifically called for, finish painting is not called for on surfaces above ceilings, behind walls or partition surfacing, nor in inaccessible areas, foundation spaces and duct shafts.

3. Finished metal surfaces: Except where specifically called for otherwise, finished metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished metal materials will not require finish paint.

4. Operating parts: Do not paint any moving parts of operating units, mechanical and electrical parts such as valve and damper operators, linkages, sensing devices, motor and fan shafts. Do not paint over fire labels,

code required labels, equipment identifications, performance ratings, name or nomenclature plates.

1.06 DEFINITIONS

A. Paint Film: DFT = Dry Film Thickness: Measured on the surface of the material to be coated at the thinnest part of the film. WFT = Wet Film Thickness: Measured on the surface(s) of the material to be coated.

B. Mil: 1/1000th of an inch.

C. Paint, painting, painting work: As used herein, the term(s) shall mean all coating systems not specifically described in other Sections of these Specifications or which are not explicitly excluded from this Section, including primers, emulsions, enamels, sealers, fillers, and finishing coats.

D. Contractor: Refer to General Conditions.

E. Subcontractor: Shall mean the installer of the Work of this Section.

F. Work of this Section: When reference is made to the "Work of this Section" it shall mean the work specified and described under the CSI Narrow Scope Section 09900.

1.07 SUBMITTAL

A. Where product literature is submitted, submittals shall clearly show with dark circle those selections that apply. Do not use yellow highlighter.

B. All submittals shall be approved in writing by the Architect prior to commencement of any work of this section. Approved submittals shall constitute and shall become part of the Contract Documents. A copy of the submittals shall be present at the job site during the Work.

C. The following submittals shall be presented to Architect in triplicate, (3 sets), unless otherwise indicated, via transmittal form, itemizing products submitted with reference to specification section and/or applicable drawing prior to performing Work:

1. Time and sequence schedule.

2. Location of equipment and method of storage of products at the site.
3. Product Literature:
    a. Contractor shall submit copies of manufacturer's technical information, application instructions, and

material safety data sheets. The manufacturer's technical information and application instructions shall be submitted by the manufacturer's representative.

b. MSDS (Material Safety Data Sheet): This Contractor will provide three (3) complete sets of MSDS sheets for all products used for the Work. Copies shall be distributed as follows: (1) to Architect; (2) Owner; and (3) to the site of the Work and available to any authorized persons.

4. Contractor shall submit written certification from the Material Supplier that the Paint/Coatings which he/she is supplying for this specific project meet these specifications and has not changed since laboratory approval.

   a. If requested, Contractor shall submit laboratory results prepared by an independent laboratory provided by the material supplier which clearly verify that the Paint/Coatings being supplied for this project meet these specifications.

5. Samples:
   a. Contractor shall submit full color chip lines for color selection;

   b. Contractor shall submit samples of each product to be used. Samples shall be properly dated and identified.

   c. Label all samples as to location, type and application.
6. Also see other requirements for submittals specified elsewhere in these Specifications.
7. Mock Ups
   i. Up to 7 mock ups will be applied by contractor. These mock up locations will be determined by the Architect
   ii. These mock ups will be the job standard when approved and will include paint finish, crack repair etc.

1.08 QUALITY ASSURANCE

A. Manufacturer's Qualifications and Responsibilities:

1. Manufacturers shall have at least ten (10) years of successful field experience with the types of paint specified for this project.
2. All products shall have been tested regionally by industry-recognized test methods and procedures in the Manufacturer's research and development facilities or by recognized testing laboratories. All testing facilities and methods and personnel shall conform to ASTM C670, E-177 and E-329.
3. The products specified shall have been thoroughly tested in use under circumstances that approximate

the conditions under which the materials are expected to perform.

B. Contractor Qualifications: Contractor shall be duly licensed and shall have been successfully engaged in this type of work for not less than (10) years prior to Bid Date and shall be capable of showing successful installation similar to work required herein. Contractor shall employ only "TRAINED APPLICATORS" as required by the material manufacturer for the type of work specified herein.

1. The Work of this Section shall be accomplished by skilled workmen familiar with and trained to do this type of work and they shall be further qualified to operate or use the equipment or rigging needed to accomplish this work.

C. Supervision: The work of this section shall be under the direction of a full time non-working supervisor or foreman with a minimum of ten (10) years experience in the type of work involved herein.

D. Contractor shall remove and redo or otherwise correct (in a manner approved by the Architect) all work under this Section which peels, crazes, blisters, fails to adhere or otherwise fails to properly serve its intended purpose at no additional cost to Owner.

E. Contractor shall be wholly responsible for finish appearance and satisfactory completion of the work under this Section. Therefore, he shall not begin painting work until surfaces and environmental conditions are satisfactory. Commencement of painting work shall imply acceptance of surfaces and environmental conditions. Submit in writing to Architect if such surfaces or conditions are not satisfactory. Nothing in these Specifications shall be considered as implying less work or a lesser number of coats than necessary to produce first quality work, and, in event a greater amount of work or more coats are required than mentioned in these Specifications.

F. Comply with recommendations of the following national trade organizations who promulgate standards of workmanship:

1. The Steel Structures Painting Council Good Painting Practices Manual.
2. Painting & Decorating Contractor Association's Specification Manual.
3. National Paint & Coatings Association's Painting Practices.

G. All materials mentioned in these specifications are intended to be the manufacturer's "first line" retail product. If reference of a product appears to be other than the intent of the above sentence, notify the Architect in writing requesting clarification. If such notification occurs earlier than ten (10) days prior to bid opening, a written addendum will be issued by the Architect.

H. All materials not otherwise specified shall be the manufacturer's best quality.

I. Manufacturer's technical data shall be read and complied with.

J. Except as may be specified otherwise, paint materials shall be applied only at temperatures above 50 degrees Fahrenheit or comply with a more exacting temperature range for each particular paint material as recommended by the manufacturer.

K. Comply with the minimum Dry Film Thickness (DFT) for each entire system of paint materials based upon multiple thin coats rather than fewer thicker coats. All coverage rates specified herein are provided as a guide only. Specified film thickness shall always govern.

L. Provide undercoat paint material supplied by same manufacturer as that of finish coat materials. Use only thinners recommended by paint manufacturer and only within manufacturers recommended limits.

M. Where there are no compatible same manufacturer systems, the Contractor shall submit his requested manufacturer’s data to the Owner's representative for approval. See submittals sections.

N. Substitutions to Specifications: Bids shall be based on the use of the products as specified. Any substitution requested by the Contractor shall be submitted with proof of equivalency and approved by the Architect ten (10) calendar days prior to the date and time of opening of the Bids.

O. Project Meeting: Approximately one week prior to commencement of work, Contractor shall attend a preconstruction conference with all parties involved to answer questions and resolve various aspects of the work, such as, but not limited to, location of equipment, sequencing, coordination, and scheduling. work out schedules, location of setup areas, traffic patterns and protection methods, etc.

1.09 DELIVERY, STORAGE AND HANDLING

A. General: Obtain owners agreement for site storage and material deliveries during preconstruction conference.

B. Ordering of Products: Order all products so as not to delay any work.

C. Delivery of Products: Deliver all materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label. Deliver materials in sufficient quantity to assure continuity of work. Select and utilize handling equipment so as to avoid damage to materials handled and damage to other construction.

D. No Products other than those approved may be delivered to the jobsite. Labels or shipping tickets are to indicate all lot numbers and quantities of the materials as specified. Repackaging or otherwise changing containers will not

be permitted.

E. Containers not bearing the manufacturer's identifying labels shall be removed from the site.

F. Storage of Products:

1. Owner will not provide closed storage facilities or be responsible for loss or damage of products and equipment.

2. Store to protect all products from weather, including moisture and temperature as specified by the manufacturer. Outdoor storage will not be allowed. All products must be keep paint at room temperature and stored in an enclosed space, trailer or truck provided by the Contractor.

3. Particular care shall be observed in the storage of flammable liquids (red label). Coordinate with the safety and insurance requirements of the Owner. All soiled or used rags, waste and trash must be removed from this storage place each night and every precaution taken to avoid the danger of fire. Provide suitable fire extinguishing equipment within the storage area at all times.

4. All onsite products will be stored and protected before leaving the site each day.

1.10 PROJECT/SITE CONDITIONS

A. Do not leave equipment on premises unattended or unlocked overnight without authority, and provide protection against theft, malicious mischief and acts of vandalism.

B. Existing Conditions: Before starting any Work required in this section, notify the Owner of any existing damage to building or grounds or conditions that would not allow performance of the contract.

C. Protection of personnel, property and adjoining surfaces:

1. Provide all necessary protection to building exterior and interior property, vehicles (both parked and moving), people and premises, as required, to prevent damage, contamination, wet paint, overspray and to prevent injury. Remove and repair damage, soiling, or contamination immediately at no additional cost to Owner. Provide barricades to restrict access to work area and fresh paint by unauthorized people. Remove protection when no longer required.

2. Complete protection shall be furnished from paint drippings to the Work, personnel, and equipment of other trades, and to the Owner’s property by the use of tarpaulins, drop cloths, masking or other protective covering. All protective measures shall be taken to prevent accident and fire, to safeguard

equipment and personnel, and to prevent interference with normal operations. All tarpaulins and drop cloths used shall be flamed-proofed by chemical treatment. Paint droppings and overflows shall be cleaned off as they occur.

3. All exterior substrates not designated to receive paint coatings shall be kept free of paint residue and over spray, e.g. windows, walkways, driveways, floors, etc. Contractor shall be held responsible for any staining of other work and must either entirely remove the stains or replace the stained surface.

4. All shrubbery, landscaping, outside carpeting and sprinkler systems shall be fully protected against damage during each stage of the painting project.

5. Keep dust, dirt and debris away from work before and during painting.

D. Weather: Proceed with the work only when actual or predicted weather will not adversely affect installation or performance. Weather includes wind as well as precipitation. Do not apply paints/coatings when ambient temperature is expected to be below 50 degrees F or greater than 95 degrees F. Stop exterior work early enough to permit paint film to set up before condensation occurs (caused by night temperature drops). Do not begin painting until surfaces are moisture free.

E. A progress schedule shall be furnished by the contractor to the Owner or the Owner's agent for approval and shall be based on the contract completion date. Contractor shall advise the Owner or Owner's agent of those areas in which work is to be performed sufficiently in advance of the work schedule to permit the Owner to prepare for the work, advise employees, move vehicles, etc.

1.11 GUARANTEE

A. In addition to any other warranties in this contract, the Contractor warrants that work performed under this Section conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

B. Warranty Period: (10) years (Material & Labor) from date of Final Completion.

1.12 SAFETY

A. The Contractor shall be fully and solely responsible for all matters of safety of person and property arising from this contract, including the liabilities and responsibilities of all subcontractors. Neither the Architect nor the Owner or any of their representatives or employees are to be assumed to have any role of responsibility of matters of safety except they (including the Architect) shall have the authority to order stopping of a portion of the Work which they

notice may endanger occupants, employees of the Owner, or the public, or employees of the Contractor or subcontractors.

B. Normal safety signs, necessary lighting and temporary fencing around work areas shall be installed and maintained and work performed in accordance with OSHA requirements while the job is in progress.

PART 2 - PRODUCTS

2.01 GENERAL

A. The following products and manufacturers are approved subject to the provisions of these specifications and are not intended to exclude other manufacturers with equivalent materials, systems and warranties. Other acceptable manufacturers may be utilized, provided their systems and warranties are equivalent in all respects and submitted for approval in accordance with the Supplements to General Conditions.

B. It is intended that materials or products specified by name of manufacturer, brand, trade name or by catalog reference shall be the basis of the bid and furnished under the contract, unless changed by mutual agreement.

2.02 COVERAGE, THICKNESS AND ADHESION

A. Painting applications shall be in sufficient coats to provide full opacity, but in no event shall the Dry Film Thickness (DFT) be less than specified herein.

B. In event the in place DFT is questioned, a suitable dry film thickness gauge shall be used for sample tests. This may require destructive testing in which case it is the responsibility of the Paint/Coatings contractor to repair the affected area.

C. Finished coating system shall pass the ASTM D 3359-Test Method A Adhesion Test.

2.03 COLORS

A. The Owner shall select all Paint/Coatings material colors shades textures and finishes subject to approval by the Owner. The preset color standard shall be the Nuance Color System by Colwell-General.

B. The Paint/Coatings Supplier shall submit 5 each, 7” x 12” actual brush-out or drawn-down color samples (swatches for each Architect selected color and product).

C. Each color shall be tinted significantly lighter than the next coat as determined by the Architect.

D. In the rare occurrence, that the tinted color or the previous coat is more desirable than the finish coat, the

Painting/Coating Contractor shall supply 5, 7" x 12" color watches of the tinted color for distribution as indicated above. That color shall be used to paint the facility as directed by the Architect.

2.04 APPROVED MANUFACTURERS

A. Sto Corp.
3800 Camp Creek Parkway
Building 1400, Suite 120
Atlanta, GA 30331

B. Alternate: The Sherwin Williams Company.

2.05 PRODUCTS

A. **Masonry and Stucco** - Building Envelope

1. Surface Preparation. Refer to paragraph 3.03.

2. Field Finish (Existing Painted Stucco and masonry surfaces):

a. First Coat: 80648 StoColor Acryl Plus per Manufacturer's instructions.

Second Coat: 80648 StoColor Acryl Plus per Manufacturer's instructions.

PART 3 - EXECUTION

1.01 EXAMINATION

A. Contractor shall be responsible to conduct his own "due diligence" testing of all surfaces and substrates. Carefully inspect the related installed work of other trades and/or other contracts and verify that such work is complete to the point where this installation may properly commence. Do not proceed within any unsuitable areas until all discrepancies have been fully resolved.

B. Contractor will be expected to have testing equipment on the project site during any application or coating work, and be knowledgeable as to its proper calibration and use. Equipment shall include, but not be limited to, individual moisture testing devices specifically calibrated for the specified substrate and wet film thickness gauges.

C. If any surface to be painted cannot be put in proper condition by solvent cleaning or wiping, water blasting, cleaning, grinding, sand blasting, abrading, scuffing, sanding, scraping or filling and/or other accepted practices for surface preparation, the Contractor shall immediately notify the Architect in writing during the bidding process or assume responsibility for and rectify any unsatisfactory work resulting therefrom at his own expense.

D. Contractor shall notify the Architect in writing of any errors or omissions in the Project Manual. The Contractor shall not proceed with the painting of the surfaces in question until an agreement has been reached with the Architect concerning the alleged discrepancies. The starting of Work on any surface shall constitute that it has been inspected and accepted by the Contractor for the Work covered by this specification and environmental conditions.

E. At all times, the Architect shall be allowed complete access to the job, including the Contractor's storage area and all areas where material for this project is stored, for the purpose of determining whether the Work being performed is in accordance with the specifications. Architect shall not be required to inform the Contractor of his observation schedule.

F. The Architect at his discretion may employ an independent professional Paint/Coatings consultant to periodically visit the site of painting work.

1.02 JOB CONDITIONS

A. Apply paints/coatings when surface conditions are in accordance with manufacturer's recommendation, printed instructions and industry standards.

B. Do not apply paint in rain, fog, or mists or when relative humidity exceeds that specified by the Manufacturer; nor to wet or damp surfaces. Painting may be continued during inclement weather only if areas and surfaces to be painted are enclosed and heated to temperature, relative humidity and time parameters as specified by the Manufacturer.

C. Paint/Coatings are not to be applied to any type of plaster surface which exceeds a moisture content of 5% as measured by the Delmhorst Moisture Meter or as recommended by the Paint/Coatings manufacturer.

1.03 SURFACE PREPARATION

A. General:

a. Paint application shall be in accordance with manufacturers printed instructions, and as specified herein.

b. All surfaces to be painted shall be clean, smooth, free from scratches and dust, thoroughly dry and well sanded (where appropriate) before painting work is started. Minor defects shall be corrected, as required.

c. If trowel marks or other minor defects on gypsum plaster necessitate sanding the surface, follow by thoroughly washing and wiping with clean potable water or as per manufacturer's recommendation.

d. After the prime coat has been applied on wood surfaces, nail holes shall be filled with putty. Putty shall be brought flush with the surface of woodwork and sanded.

e. Knots, sap and pitch streaks in lumber shall be sealed before the prime coat is applied.

f. Concrete and masonry surfaces shall be grouted, rubbed, pointed and cleaned prior to painting.

g. All ferrous metal: Remove oil, grease or other foreign matter. Ensure that the surfaces to be painted are rust free and spot primed as necessary prior to painting.

h. Galvanized metal: Thoroughly clean to remove grease, residue, and corrosion products on surface with washes recommended by and in manner recommended by Paint/Coatings manufacturer.

B. Crack Repair - Previously Painted Exterior Masonry, Concrete, or Stucco

1. Remove all previous patches and repairs where crack repair material plasticizers have leached through the existing paint system.

2. Hairline or Shrinkage Cracks (1/32" or smaller)

a. Coat affected area by applying one coat of Sherwin-Williams Loxon Masonry Acrylic Primer (A24W300) at 8.0 wet mils.

3. Hairline or Shrinkage Cracks (1/32" to 1/16")

a. Apply Sherwin-Williams' ConSeal Brush Grade Smooth Patching Compound (A5W620) generously over the center of the crack. Use a broad knife or a brush and "feather" the material to either side of the crack so as to go from 1/16" to 0, over a 2" area.

4. Large Cracks (1/16" up to 1/4")

    a. Do not attempt to repair cracks caused by structural deficiencies in the building. Nonstructural movement cracks can range from 1/16" to in excess of 1/4" Rout out cracks larger than 1/16" to 1/4" wide by 1/4" deep. Flush with water. Prime with Sherwin-Williams Loxon Surface Conditioner, Guide Coat White. Insert Bond Breaker Tape. Fill joint completely with Sherwin-Williams ConSeal Brush Grade Patching Compound. Build a small crest to compensate for shrinkage. Allow to cure for a minimum of 24 hours and apply a cap of Sherwin-Williams' ConSeal Brush Grade Patching Compound (A5W620). Refer to the manufacturer's specification guidelines for specific application and recommendations.

    b. Sound all masonry cracks to determine if there is a bond to the substrate. If hollow sound or disbonding is present, repair using the following products and per the instructions listed on the attached product data page. Loose substrate must be removed and the area primed with Gardner Liquid Bonding Agent. Install Sherwin Williams (S-W) SherCrete Trowelable mortar with corrosion inhibitors to vertical surfaces in the void and finish to match the adjacent substrates in texture and uniformity, SherCrete Vertical/Overhead mortar with corrosion inhibitors to be used on horizontal surfaces (ceilings) and finished to match the adjacent substrate in texture and uniformity, SherCrete ThinCoat patching material for traffic surfaces.

    c. Rust areas under stucco, corner beads, etc. Stucco must be removed to metal surface. Metal should be cleaned of rust scale. Treat with Sherwin Williams Macropoxy 920 Pre-Prime Rust Penetrating Primer according to label directions. Repair stucco using concrete patching so to match adjacent surfaces in uniformity and texture following accepted ICRI practices before coating.

C. Caulking/Putty Procedures

1. All construction joints, expansion joints, window and door perimeters shall be cleaned prior to caulking to assure desired adhesion to both surfaces. Joints include metal-to metal, metal-to-masonry, masonry-to-masonry, wood-to-masonry, wood-to-wood, wood to-drywall. Refer to Section 07900.
2. All existing sealant is to be removed and replaced with new. Surfaces must be structurally sound, fully cured, free of dirt, moisture, loose particles, oil, grease and any bond inhibiting contaminants. In deep joints install a closed-cell baker-rod. Where the joint depth does not permit the use of a backer-rod, use a bond breaker to prevent three-sided adhesion
3. Do not apply caulking when rain or temperatures below 40EF are expected.
4. Apply caulk with conventional caulking gun or pressure equipment. Apply in continuous bead. Smooth and trim caulk with finger or appropriate tool immediately to ensure firm, full contact with the surfaces of

the joint.

5. Putty/spackling compound shall be applied directly from the container using finger, putty knife or broad knife wider than the hole, crack, or indention being repaired. Force into repair with slight excess overlapping edges or repair. Let dry and sand with fine or medium sandpaper or sanding block. For best results, priming may be required. Do not use putty or spackling compound in joints or crevices that flex or move.

D. Previously Coated Surfaces

1. Existing Coating systems shall be permanently and satisfactorily adhering to substrates. The Paint/Coatings subcontractor shall be responsible for the integrity of the substrate (for entire project to be painted) to accept the Paint/Coatings without failure of adhesion or delamination of previous coating. Contractor shall include an adequate sum in his bid proposal to do such work. Adhesion of existing coating systems shall be tested in accordance with ASTM D3359 - Method A. The tape used in this test shall be as identified in ASTM 3330 such as Scotch Brand No. 250.

2. Completely remove any loose, non-adhering coating system by appropriate means including pressure cleaning with 2500 to 3000 psi and 5.5 gpm of water minimum. Scrape and sand to remove curled edges then feather sand mechanically or by hand to provide a smooth edge.

3. Grinding of loose coating on ferrous and non-ferrous metals will be necessary to accomplish complete removal of non-adhering coating systems.

4. Feather edges of sound coating systems by grinding or sanding. No sharp edges will be allowed.

5. Patch any areas where paint removal procedure has damaged substrate. Patching material shall have positive adhesion and shall match texture of existing substrate. Patching materials shall be of type and brand recommended by Paint/Coatings manufacturer.

6. All existing gloss surfaces to be recoated, as described in these specifications and drawings, shall be de-glossed. De-glossing shall be accomplished by use of sandpaper of steel-wool. Hand or mechanical sanding may be used (providing lead base paint is not present). No marks or gouges by sandpaper will be allowed. Remove dust caused by sanding and steel-wooling with clean, damp, soft cloth. Allow to dry. A uniform flat surface shall result when viewed at a 20 degree angle.

E. Rusted Metal Surfaces

1. Hand Tool clean rusty areas per SSPC-SP2 or Power Tool clean per SSPC-SP3. Surface must be clean, dry and

sound. Spot prime cleaned rusted areas with specified primer the same day as prepared.

F. Wood

1 Painted wood surfaces shall be carefully inspected for evidence of deterioration or imperfections.

2 Sandpaper any hard, glossy surfaces to ensure proper adhesion. Fill nail holes, cracks and imperfections with putty (Dap Painters Putty). Edges, corners and raised grain shall be eased by sanding.

G. Cleaning and Mildew Control

1. All exterior surfaces to be painted shall be free of all loose, scaling, and marginally adhering paint, all chalk, mildew, stains, dirt, oils, grease or other foreign material.

2. Thoroughly clean all exterior surfaces to be painted with pressure equipment spraying water at a pressure of 3000 psi minimum and 5.5 gpm minimum.

3. Remove mildew using a solution of chlorine bleach and water mixed to a ratio of 1 part chlorine bleach and 3 parts water. Allow solution to remain on the surface for 10 minutes before rinsing thoroughly with clean water. CAUTION: DO NOT ADD HOUSEHOLD DETERGENTS OR AMMONIA TO THE BLEACH SOLUTION. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off with soap and clean water any solution that touches the skin. Washing shall be followed by rinsing with same equipment, using tap water.

4. Surface must be firm, clean and dry before proceeding. All loose and scaling paint not removed by pressure cleaning shall be removed by wire brushing or other suitable power tool cleaning.

1.04 PROTECTION

A. Fixtures and hardware shall be removed or protected during the painting operation.

B. Contractor shall take particular care by use of clean drop cloths, masking and other suitable means, to protect adjoining surfaces, fixtures and materials of all kinds, and shall be held responsible for and shall repair or replace and damage work resulting from Paint/Coatings operations.

1.05 APPLICATION (Shall Be Per Manufacturers Recommendations)

A. When applying block filler, masonry surface primers, stucco and gypsum board primer by spray application, backrolling is required.

B. When a roller is used, the roller nap size shall be appropriate for the existing surface condition, porosity, and

finish in a manner to assure a textured, uniform finish will result.

C. Metal primers shall be applied by brush.

D. Quality of Finish:

1. Specified gloss of top coats shall be uniform and shall be applied in a manner which will not show differences in gloss or appearance finish when viewed at a 20° angle with a light source at far end of surface being viewed.

2. Dry film thickness (DFT) will be uniform throughout surface being painted.

E. Adhesion of entire paint system shall pass a tape pull from a cross hatch cut as described in ASTM D 3359.

F. Block filler shall be applied in a manner to fill all holes and pores of concrete block. This is possible with specified block fillers when manufacturer's instructions are followed "Two (2) coats minimum".

G. Apply Paint/Coatings evenly spread and well rolled or brushed.

1.06 TOUCH-UP AND CLEANING

A. Upon completion of the project, touch-up is required, by the Contractor. Paint/Coatings shall be removed from surfaces which are not specified to receive Paint/Coatings.

B. If touch up is of top coat of paint, color difference when viewed at 90°, 45°, and 20° shall not be acceptable. If entire wall or surface area involved needs to be recoated to insure color blending, it shall be recoated.

C. Remove all debris, tools, containers, temporary materials, scraps, etc., from the jobsite daily. Only empty debris which is non hazardous into refuse containers. Provide for refuse removal at intervals not to delay the Work. The Contractor will not be allowed to use Owner's refuse containers. Solid waste which has been evaluated and determined not to be hazardous can be disposed in state approved landfills as general construction debris. Remove all scaffolding, ladders, and equipment from each area as completed.

D. Contractor shall remove all paint smears and splatters caused by his work. All rubbish shall be removed from the job before the Work is presented to the Architect for final approval.

E. Remove excess and spillage of paint promptly as the work progresses. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage without damage to adjoining surfaces or finishes.

F. All surplus materials, equipment and scaffolding shall be moved from the job upon completion of Work.

1.07 WASTE DISPOSAL

A. At the end of each day, properly dispose of all materials including cloths and waste materials, which have been used in preparation and application of paint. Under no circumstances shall this Paint/Coatings Contractor empty his waste in plumbing fixtures, drains or cleanouts of the plumbing systems of the building.

1.08 TOUCH-UP PAINT (EXTRA MATERIAL)

A. Contractor shall provide the Owner with TEN (10) gallons of each product and color of finish coats only. Each container shall be new and unopened and properly identified as to type and color.

1.09 FIELD QUALITY CONTROL

C. The Architect shall have a fair opportunity to inspect each phase of preparation and painting. The Architect shall have the opportunity to inspect for general apparent compliance with the number of coats by inspecting each coat prior to the application of any additional coats, otherwise no credit shall be given for the coat in question and this Paint/Coatings Contractor shall, at no charge to the Owner, remove Paint/Coatings and/or recoat the surfaces. Forty eight (48) hours advance notification shall be given by the Contractor, prior to the required inspection.

D. The Architect and/or Consultant shall also have the authority to remove samples of the finished dry paint system from the building for analysis, cataloging or other reference. The Contractor will re-paint areas of paint removal at no cost to the Owner.

E. Samples of the Paint/Coatings may be periodically removed from unopened containers by the Architect and subjected to analysis per Part 2 (products).

F. The General Contractor and the Paint/Coatings Subcontractor shall allow access to in-place scaffolding, ladders, lift equipment etc. for inspection by the Paint/Coatings Consultant, the Architect, and the Inspector.

G. Paints and/or coatings shall be applied to a uniform thickness at the product's recommended maximum "dry film thickness" as published in these specifications for the product. Dry Film Thickness on any wall or surface shall not be averaged. Each individual chip or piece of film may be averaged by taking four (4) measurements of each chip.

H. If test results show material or installation does not comply with specified requirements, the Contractor shall remove non-complying paint, pay for all testing work, all lab charges, and any charges from outside consultants or Architect of record. He shall repaint surfaces coated with rejected paint and remove rejected paint from previously painted surfaces. Contractor shall provide a change in the color of prime and succeeding coats so that any testing

required will show a color change in multiple coats.

I. Wet film thickness will be checked with a properly calibrated Wet Film Thickness Gauge or by specifically approved instruments.

J. It will be the Subcontractor's responsibility to own and use a wet film gauge to check the application thickness as the painting proceeds. This method checked against volume solids and coverage rate is the best guide in determining what the dry film thickness will be.

K. A small sample area of each phase of the work shall be done and checked by a project representative. This will serve upon acceptance as the job standard for the remainder of that phase of work. This will also prevent misunderstandings as to interpretation of this specification's standards.

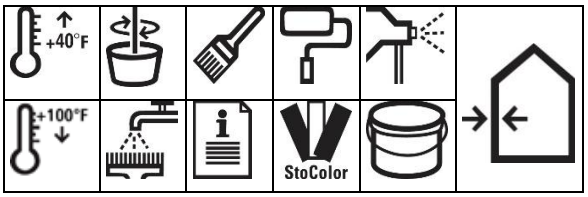
END OF SECTION 09900

Building with conscience.

PRODUCT BULLETIN

StoColor® Acryl Plus

Product Number: 80648



PRODUCT DESCRIPTION

StoColor Acryl Plus is an acrylic-based, high performance decorative, and protective wall coating that protects against weather, salts and environmental pollutants. Use it for protecting prepared vertical above grade concrete, concrete masonry, EIFS, stucco, and previously painted wall surfaces.

FEATURES	BENEFITS
Acrylic Based	Excellent adhesion; weather-resistant; promotes color stability
Weather/Pollution Resistant	Repels water; increases service life of substrate
Carbon Dioxide Resistant	Reduces CO2 diffusion into concrete, protecting embedded reinforcing steel
Vapor Permeable	Allows substrate to breathe naturally; resists blisters caused by trapped vapor
Easily Sprayable	Increases job-site productivity
Cleans up with Water	Tools can be reused; no hazardous solvents needed; environmentally friendly
Low VOC	Safe for workers and the environment

COVERAGE

720-940 ft² (65-90 m²) per pail per coat. Coverage will vary depending on substrate condition and texture, application technique, waste factor, final film thickness, and other variables that may exist.

Packaging: 5 gallon pail (19L)

Color: 800 Standard Colors or Custom Color Match

Sheen: Eggshell (sheen may vary slightly with colorant load and from roller versus spray application)

Shelf Life: 18 months, if properly stored in original unopened packaging.

Storage: Store in a dry area, between 50°F (10°C) and 85°F (29°C). Protect from direct sunlight, extreme heat [90°F (32°C)] and freezing.

SURFACE PREPARATION

All surfaces must be structurally sound, clean, dry, and free of frost and surface contamination such as dust, dirt, salts, grease, oils, efflorescence, mold, algae, mildew, or any other condition that may affect adhesion. Use appropriate repair methods for the substrate to repair pitting, spalls, cracks, peeling, blistering, delamination, weak surface conditions such as laitance, water damage, or other defects that may exist. If pressure washing, follow necessary safety precautions and adjust pressure to avoid damage to the underlying substrate. For mold, algae, and mildew removal, treat surfaces with a compatible commercial mildew removal and/or wash product, carefully following manufacturer's application and safety directions for use and handling, including any special requirements when used in preparation for application of paints or coatings.

MIXING

Use at a preconditioned temperature of 70 ± 5°F (21 ± 3°C). Mix undiluted product for 3 minutes using a slow-speed drill and a mixing paddle. Mix thoroughly to a uniform consistency. DO NOT THIN OR DILUTE.

HEALTH & SAFETY

WARNING: Causes eye and skin irritation.
Precautionary Statement: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
FIRST AID MEASURES: Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention. Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Store locked up.
Spills: Collect with suitable absorbent material such as cotton rags.
Disposal: Dispose of in accordance with local, state or federal regulations.
Warning: KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) on www.stocorp.com for further health and safety information.

PRODUCT BULLETIN

StoColor® Acryl Plus

Product Number: 80648

APPLICATION

Apply only to sound and clean, dry, properly prepared, frost-free surfaces. Do not apply over damp surfaces or during rain, hail, or snow events or if rain, hail, or snow is imminent. For best results apply in two uniform coats by brush, roller or with proper spray equipment to prepared substrate or primed substrate at 8-10 WFT to achieve 3.3-4.1 DFT per coat. For 1 coat applications apply appropriate primer to the prepared surface. Refer to Sto primer product bulletin. Apply coating in a continuous application, always working from a wet edge or architectural break to eliminate cold joints. Back roll open texture surfaces such as concrete masonry. Uncoated concrete masonry generally requires three coats (1 coat of StoPrime Block Surfacer HP and 2 coats of StoColor Acryl Plus). Allow sufficient time for drying between coats.

Substrate	Min. Age	Primer	WFT(DFT)
Concrete	7d	StoPrime Hot	5 (2.1)
Stucco	7d	StoPrime Hot	5 (2.1)
CMU	28d	StoPrime Block Surfacer HP	14-16 (7.3-8.3)
EIFS	N/A	StoPrime Sand	4-6 (1.6-2.3)
Painted Surface Primer	N/A	Depends on paint & its condition. Test to determine best primer	

Note: Selection of proper primer can vary depending actual substrate conditions such as pH, absorption, texture, and desired aesthetic look. In some cases, a primer may not be necessary. Evaluate surface condition and adhesion to surface.

IMPORTANT

ALWAYS check color for proper match. If color does not match, STOP-call your Sto representative. Avoid installing separate batches side-by-side and avoid application in direct sunlight. See Tech Hotline Nos. 0694-C, 0893-EC and 1202-CF for helpful tips on prevention of color problems. Prepare a job site mock-up of the final coating assembly to verify aesthetics and adhesion to properly prepared/primed surfaces as specified by design professional or owner's quality assurance agent.

Curing/Drying

Product dries within 24 hours under normal drying conditions [70°F (21°C), 50% RH]. Drying time varies with temperature/humidity and surface conditions. Protect installed product from rain, freezing, and continuous high humidity until completely dry.

Clean Up

Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

Maintenance

Repair cracks or other damage to façade and recoat at intervals as needed to maintain fresh appearance. Repair balconies, scuppers, flashing and similar water shedding elements that lack drip edges or that fail to shed water from the façade surface. Prevent or repair leaks from roofs, parapets, windows, sealants, or other components of construction, and prevent accumulation of water inside the wall assembly during and after construction. Water accumulation behind the coating can cause damage to the coating and/or underlying construction.

LIMITATIONS

- Apply when ambient and surface temperatures are 40°F (4°C) and rising, and below 100°F (38°C).
- Do not apply if the surface temperature is less than 5°F (2.8°C) above the ambient dew point temperature.
- Do not use below grade or in areas subjected to hydrostatic pressure, water immersion, ponding, or puddling.
- Do not overcoat with solvent-based materials.
- Efflorescence of Portland cement-based substrates such as concrete, stucco, and concrete masonry sometimes causes staining or discoloration on the surface of applied coatings. Efflorescence is neither caused nor prevented by the Sto coating.
- Not for use on wood or metal surfaces

LIMITED WARRANTY

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp.

Building with conscience.

PRODUCT BULLETIN

StoColor® Acryl Plus

Product Number: 80648

TECHNICAL DATA

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT*
Salt Spray	ASTM B117	300 hours	No deleterious effects at 1000 hours
Tensile Strength psi (MPa)	ASTM D2370	2 coats at 10 WFT each	932 (6.42)
Flexibility, Mandrel Bend	ASTM D522	at 70°F (21°C) at -14°F (-26°C)	No cracking No cracking
Alkali Resistance	ASTM D1308	4 hours exposure	No lifting, wrinkling, disintegration, or color change
Mold Resistance	ASTM D3273	28-day exposure	Rating=10, No growth at 90 days
Efflorescence Blocking	ASTM D7072	48 hours in humidity cabinet at 100°F (39°C)	No efflorescence observed
Adhesion to Concrete psi (MPa)	ASTM D7234	> 50 (0.344)	296 (2.04)
Resistance to Wind Driven Rain	ASTM D6904	No visible water leaks after 24-hour water spray with 98 mph (158 km/h) equivalent wind speed	No visible water leaks: -2 coats (0.02 lbs. gain) -1 coat over StoPrime Hot (0.04 lbs. gain) -1coat over StoPrime Block Surfacer HP (0.08 lbs. gain)
Surface Burning	ASTM E84	Flame Spread: ≤ 25 Smoke Develop: ≤ 450	FS: 0 SD: 0
Water Vapor Permeability Perms (ng/Pa·s·m²)	ASTM D1653** Wet-cup method	Unprimed	2 coats: 20.6 (1178)
Water Vapor Permeability (w primer) Perms (ng/Pa·s·m²)	ASTM D1653 Wet-cup method	StoPrime Block Surfacer HP StoPrime Hot	1 topcoat: 22 (1259) 2 topcoats: 20 (1144) 1 topcoat: 16 (915) 2 topcoats: 13 (744)
Freeze Thaw Resistance	ASTM E2485	60 cycles	Pass, no deleterious effects at 90 cycles when viewed under 5X magnification
Accelerated Weathering	ASTM G154	2000 hours	No deleterious effects at 5000 hours
CO2 Diffusion Resistance	PR EN 1062-6	Measure 2 coats at 8-10 WFT each	S_D = 150 m
Chloride Ion Penetration	NCHRP 244 Series 1	Measure percent change 2 coats at 8-10 WFT each	64% less chloride ion content on average compared to uncoated test specimens
% Solids by Volume	ASTM D2697	N/A	41%
VOC (g/L)	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 50 g/L.		

* Results are based on lab testing under controlled conditions. Results can vary between labs or from field tests.
**D1653 results are estimates based on E96 wet cup method

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80648R StoColor® Acryl Plus
Acrylic-Based, Vertical Above-Grade Exterior Wall Coating for Recoating EIFS, Concrete, Stucco, and Masonry

Section 09 01 90.92
COATING RESTORATION

or

Section 19.91 23
EXTERIOR PAINTS

This guide specification is intended for application of a Sto coating over existing wall construction. It does not address air sealing, construction detailing, flashing and other important aspects of design and construction that must be taken into consideration to prevent water infiltration, to prevent condensation caused by air leakage or water vapor diffusion, and to comply with applicable fire safety requirements. Consult with a qualified design professional for overall design of the wall assembly and any remedial measures that may be necessary, including those needed to comply with the applicable building code.

For purposes of this specification, primer is optional depending on the condition of existing coated wall surfaces. Primer is generally necessary for high pH surfaces, or highly weathered and absorbent surfaces, and to enhance adhesion, durability, and aesthetics. Primer products are included in this specification for consideration by the design professional based on existing project conditions. Whether or not a primer is necessary should be based on mock-up construction and field adhesion tests.

Notes in italics, such as this one, are explanatory and intended to guide the design/construction professional and user in the proper selection and use of materials. This guide specification should be modified as necessary to accommodate individual project conditions.

Building with conscience.

Table of Contents

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PART 1 GENERAL

1.1 SUMMARY

A. Provide acrylic-based primer and finish coating for recoating vertical, above-grade, existing coated concrete, stucco, masonry, and EIFS walls.

B. Related Sections: Other specification sections which relate directly to the work of this section include the following:

1. Section 07 92 00, Joint Sealants

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used. Include manufacturer's Safety Data Sheets.

1.3 REFERENCES

A. ASTM International (ASTM)

ASTM B117	Salt Spray
ASTM D1308	Alkali Resistance
ASTM D1653	Water Vapor Permeability
ASTM D2370	Tensile Strength
ASTM D2485	Freeze Thaw Resistance
ASTM D2697	Percent Solids by Volume
ASTM D3273	Mold Resistance
ASTM D4541	Field Adhesion Tests
ASTM D522	Mandrel Bend Flexibility
ASTM D6904	Resistance to Wind Driven Rain
ASTM D7234	Adhesion to Concrete
ASTM E2485	Freeze/Thaw
ASTM E84	Surface Burning
ASTM G154	Accelerated Weathering

B. European Norms

PR EN 1062-6	CO2 Diffusion Resistance

C. National Cooperative Highway Research Program

NCHRP 244 Series 1	Chloride Ion Penetration

D. South Coast Air Quality Management District (SCAQMD)

Rule 1113	VOC

1.4 QUALITY ASSURANCE

A. Manufacturer's Qualifications: The manufacturer shall be a company with at least forty years of experience in manufacturing specialty coatings and regularly engaged in the manufacture and marketing of products specified

herein. The manufacturer shall have an ISO 9001:2015 certified quality system and ISO 14001:2015 certified environmental management system.

B. Installer's Qualifications: The contractor shall be qualified to perform the work specified by reason of experience. Contractor shall have at least 5 years experience in commercial coating application, and shall have completed at least 3 projects of similar size and complexity. Contractor shall provide proof before commencement of work that he/she will maintain and supervise a qualified crew of applicators through the duration of the work. When requested Contractor shall provide a list of the last three comparable jobs including the name, location, and start and finish dates for the work.

C. Mock-ups: The contractor shall install a mock-up using appropriate surface preparation, and application means and methods to a wall area of at least 100 sq. ft. (9.29 sq.m.) for evaluation and approval by the design professional, building owner, or owner's representative/quality assurance agent. Mock up shall be of sufficient size to adequately demonstrate proposed application means and methods.

D. Field Quality Control Tests

1. Conduct tests in accordance with ASTM D4541 on mock-up to verify adhesion of installed primer and topcoat to prepared substrate. Test at least 3 specimens and report results to design professional, building owner, or owner's representative/quality assurance agent.

2. Conduct tests during coating installation as directed by design professional, building owner, or owner's representative/quality assurance agent to verify adhesion throughout the course of the installation.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver products in original unopened packaging, labeled with product identification, manufacturer, batch number, and shelf life.

B. Store products in a dry area with temperature maintained between 50 and 85 degrees F (10 and 29 degrees C). Protect from direct sunlight. Protect from freezing. Protect from extreme heat (>90 degrees F [32 degrees C]).

C. Handle products in accordance with manufacturer's printed instructions.

1.6 WARRANTY

A. Provide manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MATERIALS

NOTE: use conditioner or primer based on prepared surface condition as indicated below. A primer may not be required if existing prepared surface condition is suitable as is to receive finish coating. Construct a mock-up and conduct field adhesion tests to verify performance of primed and un-primed applications.

A. Surface Conditioner – for chalking or highly absorbent existing painted surfaces

1. StoPrime Conditioner: water-based surface conditioner

B. Primer: (choose one)

1. 80805 StoPrime Hot: acrylic-based, tinted, high-pH compatible primer/sealer for high pH surfaces, as manufactured by Sto Corp..

2. 81520 StoPrime Block Surfacer HP: acrylic-based masonry block-filler/primer for open texture porous surfaces (e.g., concrete masonry), as manufactured by Sto Corp.

C. Finish Coating: Single component acrylic-based coating, containing acrylic polymer, and colored pigments.

1. 80648 StoColor Acryl Plus, as manufactured by Sto Corp.

2. Testing Requirements: meet or exceed the following test results:

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT*
Salt Spray	ASTM B117	300 hours	No deleterious effects at 1000 hours
Tensile Strength psi (MPa)	ASTM D2370	2 coats at 10 WFT each	932 (6.42)
Flexibility, Mandrel Bend	ASTM D522	at 70°F (21°C) at -14°F (-26°C)	No cracking No cracking
Mold Resistance	ASTM D3273	28-day exposure	Rating=10, No growth at 90 days
Efflorescence Blocking	ASTM D7072	48 hours in humidity cabinet at 100°F (39°C)	No efflorescence observed
Adhesion to Concrete psi (MPa)	ASTM D7234	> 50 (0.344)	296 (2.04)
Resistance to Wind Driven Rain	ASTM D6904	No visible water leaks after 24-hour water spray with 98 mph (158 km/h) equivalent wind speed	No visible water leaks: -2 coats (0.02 lbs. gain) -1 coat over StoPrime Hot (0.04 lbs. gain) -1 coat over StoPrime Block Surfacer HP (0.08 lbs gains)
Surface Burning	ASTM E84	Flame Spread: ≤ 25 Smoke Develop: ≤ 450	FS: 0 SD: 0
Water Vapor Permeability Perms (ng/Pa·s·m²)	ASTM D1653** Wet-cup method	Un-primed	2 coats: 20.6 (1178)
Water Vapor Permeability (w primer) Perms (ng/Pa·s·m²)	ASTM D1653** Wet-cup method	StoPrime Block Surfacer HP w 1 and 2 topcoats StoPrime Hot w 1 and 2 topcoats	1 topcoat: 22 (1259) 2 topcoats: 20 (1144) 1 topcoat: 16 (915) 2 topcoats: 13 (744)
Freeze Thaw Resistance	ASTM E2485	60 cycles	Pass, no deleterious effects at 90 cycles when viewed under 5X magnification
Accelerated Weathering	ASTM G154	2000 hours	No deleterious effects at 5000 hours
CO2 Diffusion Resistance	PR EN 1062-6	Measure 2 coats at 8-10 WFT each	SD = 150 m
Chloride Ion Penetration	NCHRP 244 Series 1	Measure percent change 2 coats at 8-10 WFT each	64% less chloride ion content on average compared to uncoated test specimens
% Solids by Volume	ASTM D2697	N/A	41%
VOC (g/L)	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 50 g/L.		

* Results are based on lab testing under controlled conditions. Results can vary between labs or from field tests.
**D1653 results are estimates based on E96 wet cup method

PART 3 EXECUTION

3.1 INSTALLATION

A. Surface Preparation

1. All surfaces must be structurally sound, clean, dry, and free of frost and surface contamination such as dust, dirt, salts, grease, oils, efflorescence, mold, algae, mildew, or any other condition that may affect adhesion. Use appropriate repair methods for the substrate to repair pitting, spalls, cracks, peeling, blistering, delamination, weak surface conditions such as laitance, water damage, or other defects that may exist.
2. If pressure washing, follow necessary safety precautions and adjust pressure to avoid damage to the underlying substrate. For mold, algae, and mildew removal, treat surfaces with a compatible commercial mildew removal and/or wash product, carefully following manufacturer's application and safety directions, including any special requirements when used in preparation for application of paints or coatings.
3. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and installation of materials.

B. Mixing

1. Mix Sto products in accordance with published literature for the product. Mix for up to 3 minutes using a slow-speed drill and paddle to a uniform consistency. Avoid entrapping air in the liquid during mixing.

C. Application

NOTE: Do not apply primer or finish coating to StoPrime conditioner if it dries to a gloss. Remove gloss with mechanical abrasion. Omit conditioner if substrate condition is such that no conditioner is required based on mock-up and field adhesion tests.

1. Surface Conditioner
   a. Apply StoPrime Conditioner evenly with brush, roller or proper spray equipment to properly prepared mildly chalking substrates.
   b. Follow application instructions on StoPrime Conditioner, read product bulletin carefully.

NOTE: Select "a" or "b". Omit primer application if substrate condition is such that no primer is required based on mock-up and field adhesion tests, and apply two finish coats.

2. Primer
   a. StoPrime Hot: Apply uniformly with brush, roller, or proper spray equipment at 5-7 wet mils to prepared surface and allow to dry. Minimum final dry thickness shall be 2.1 mils.
   b. StoPrime Block Surfacer HP: Apply uniformly with brush, roller, or proper spray equipment at 14-16 wet mils to prepared surface and allow to dry. Minimum final dry thickness shall be 7.7-8.8 dry mils.
3. Finish Coat:
   a. 80648 StoColor Acryl Plus: Apply uniformly with brush, roller, or proper spray equipment at 8-10 wet mils to prepared surface and allow to dry. As specified or required by project specific documents, apply a second coat and allow to dry. Final thickness of coating shall be 3.3-4.1 dry mils, per coat.

D. Protection

1. Provide protection of installed materials from water infiltration into or behind them.
2. Provide protection of installed materials from dust, dirt, precipitation, freezing and continuous high humidity until they are fully dry.

3. Provide coping and/or flashing at sills, projecting features, deck attachments, roof/wall intersections, parapets and similar construction details to prevent water entry into wall assembly or into and behind the finish system. Seal penetrations through the finished wall surface with backer rod and sealant or other appropriate means to provide a watertight condition.

END OF SECTION

ATTENTION

Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the non-performance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to Sto products, and to the structure of the building or its components. **STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.** For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, www.stocorp.com.