



**SPECIFICATIONS FOR
EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION AND RELATED WORK**



SED PROJECT NO.: 66-04-06-03-0-008-023

F&D PROJECT NO.: 23501.00

OWNER: EDGEMONT UNION FREE SCHOOL DISTRICT
ADDRESS: 300 WHITE OAK LANE
CITY: SCARSDALE, NEW YORK 10583

**PROJECT NAME GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION AND RELATED WORK**



ARCHITECTS:
FULLER AND D'ANGELO, P.C.
Architects and Planners
45 Knollwood Road - Suite 401
Elmsford, NY 10523

The undersigned certifies that to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of the New York State Uniform Fire Prevention and Building Code, The State Energy Conservation and Construction Code Standards of the Department of Education.

ISSUED FOR BID: August 27, 2024

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

00 2113 - BIDDING REQUIREMENTS
00 2115 - RFI FORM
00 4100 - BID FORM – CONTRACT NO. 1 – GENERAL CONSTRUCTION
00 4110 - BID FORM – CONTRACT NO. 2 – SITE CONSTRUCTION
00 4401 - QUALIFICATION OF BIDDERS
00 4460 - CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT
00 4470 - DECLARATION OF BIDDERS'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN
DIVESTMENT ACT
00 4476 - INSURANCE CERTIFICATION
00 5200 - FORM OF AGREEMENT
00 6000 - BONDS AND CERTIFICATES
00 7200 - GENERAL CONDITIONS

DIVISION 1 - GENERAL REQUIREMENTS

01 1000 - SUMMARY OF CONTRACTS
01 2000 - PRICE AND PAYMENT PROCEDURES
01 2005 - PARTIAL RELEASE OF LIEN
01 2100 – ALLOWANCES
01 2300 - ALTERNATES
01 2500 - SUBSTITUTION PROCEDURES
01 3000 - ADMINISTRATIVE REQUIREMENTS
01 3307 – SED SPECIAL REQUIREMENTS
01 3553 - SITE SAFETY AND SECURITY PROCEDURES
01 3554 - PREVAILING WAGE RATES
01 4000 - QUALITY REQUIREMENTS
01 4100 - REGULATORY REQUIREMENTS
01 4216 - DEFINITIONS
01 5010 - TEMPORARY FACILITIES AND CONTROLS
01 6000 - PRODUCT REQUIREMENTS
01 6116 – VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS
01 7000 - EXECUTION
01 7132 - SELECTIVE REMOVALS SINGLE PRIME
01 7800 - CLOSEOUT SUBMITTALS
01 9113 – GENERAL COMMISSIONING REQUIREMENTS

DIVISION 4 - MASONRY

04 2000 – UNIT MASONRY

DIVISION 6 - WOODS, PLASTICS AND COMPOSITES

06 1000 - ROUGH CARPENTRY

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07 2119 – FOAMED-IN PLACE INSULATION
07 4213.13 – METAL COMPOSITE MATERIAL WALL PANELS
07 5010 – MODIFICATIONS TO EXISTING ROOFING
07 6200 – SHEET METAL FLASHING AND TRIM
07 9200 - JOINT SEALANTS

DIVISION 8 – OPENINGS

08 1116 - ALUMINUM DOORS AND ALUMINUM FRAMES
08 4313 – ALUMINUM-FRAMED STOREFRONTS
08 5113 – ALUMIUM WINDOWS
08 7105 – FINISH HARDWARE
08 8000 – GLAZING

DIVISION 9 – FINISHES

09 9000 - PAINTING AND COATING

DIVISION 12 – FURNISHINGS

12 2400 – ROLLER SHADES

12 3600 – SOLID SURFACING WINDOWSILLS AND COUNTERTOPS

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 1216 – ASPHALT PAVING

32 1623 – SIDEWALKS

32 1823 – ASPHALT TENNIS COURT SURFACE COLOR COATING SYSTEM

32 3113 – CHAIN LINK FENCES AND GATES

END OF SECTION

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**SECTION 00 2113
INSTRUCTIONS TO BIDDERS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DOCUMENT INCLUDES

- A. Bid Documents and Contract Documents
 - 1. Definition
 - 2. Contract Documents Identification
 - 3. Availability
 - 4. Examination
 - 5. Inquiries/Addenda
 - 6. Product/Assembly/System Substitutions
- B. Site Assessment
 - 1. Prebid Conference
- C. Qualifications
 - 1. Qualifications
- D. Bid Submission
 - 1. Bid Depository
 - 2. Bid Ineligibility
- E. Bid Enclosures/Requirements
 - 1. Bid Security
 - 2. Bid Form Requirements
- F. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - 2. Acceptance of Offer

1.3 RELATED DOCUMENTS

- A. Section 01 1000 - Summary of Contract
- B. Section 00 4100 - Bid Form .
- C. Section 00 4401 - Qualification of Bidders.
- D. Section 00 4460 - Certification of Compliance With the Iran Disinvestment Act **OR**:
- E. Section 00 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act.
- F. Section 00 4476 - Insurance Certification.
- G. Section 00 5200 - Form of Agreement.
- H. Section 00 6000 - Bonds and Certificates.
- I. Section 00 7200 - General Conditions.
- J. Section 01 5010 - Temporary Facilities and Controls
- K. Section 01 7000 - Execution.
- L. Section 01 7800 - Closeout Submittals

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1.4 BID SUBMISSION

- A. Bids signed and under seal, executed, and dated will be received at the office of the Edgemont School District, 300 White Oak Lane, Scarsdale, NY 10583, Scarsdale NY, 10583 before 11:00 AM local time on the 1st day of October, 2024.
- B. Offers submitted after the above time will be returned to the bidder unopened.
- C. Offers will be opened publicly and read aloud electronically, via live stream immediately after the time for receipt of bids.

1.5 INTENT

- A. The intent of this Bid request is to obtain an offer to perform work to complete Window Replacement, Tennis Court Renovation and Related Work located at the Greenville Elementary School for a Stipulated Sum, in accordance with the Contract Documents.

1.6 NEW YORK STATE WICK'S LAW

- A. This project is exempt from the New York State Wick's Law separate bid requirements.

1.7 LUMP SUM BIDS

- A. Bids will be received for two (2) Prime Contracts as follows:
 - 1. General Construction-Window Replacement ().
 - 2. Site Construction

1.8 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract comprises removal and replacement of existing window system , including ancillary Work.

1.9 CONTRACT TIME

- A. Perform the Work within the time stated in Section 01 1000 Summary of Contract.
- B. All work for this project shall not commence prior to the issuance of Letter of Award by the Owner. The items of work shall be scheduled and completed as stated in Section 01 1000 Summary of Contract. Failure to complete either date listed in Section 01 1000 Summary of Contract, shall subject the Contractor to be assessed liquidated damages list in Article 8 of the General Conditions and any additional costs incurred by the Owner, including but not limited to, Owner's Representative, Fuller and D'Angelo, P.C., Consultants, Owner's staff, overtime, and legal costs as required to complete the scheduled item.
- C. The attention of the bidders is specifically directed to the provisions of the General Conditions of the Contract Article 8 of the General Conditions that time is of the essence to the Contract and that on no account will the Contactor(s) be permitted to assert a claim for damages for delays.
- D. The bidder, in submitting an offer, accepts the Contract Time period stated for performing the Work. The completion date stated in the Agreement and Section 01 1000 Summary of Contract.

1.10 BID DOCUMENTS AND CONTRACT DOCUMENTS

- A. Definitions: All definitions set forth in the General Conditions of the Contract and Section 01 4216 are applicable to these Instructions to Bidders.
- B. Bid Documents: Contract Documents supplemented with Instructions to Bidders, Bid Form, Bid Securities, Hold Harmless Agreement, Certification of Compliance with Iran Divestment Act, Declaration of Bidders Inability to Provide Certification of Compliance, Contractor's Qualification Statement, Insurance certification, and Issued Addenda.
- C. Contract Documents: Defined in General Conditions. Refer to Section 00 7200 - General Conditions
- D. Bid, Offer, or Bidding: Act of submitting an offer.
- E. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

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1.11 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Number 23501 as prepared by Fuller and D'Angelo, P.C. 45 Knollwood Road, Elmsford, NY 10523, comprising drawings and specifications as identified in the Project Manual.

1.12 AVAILABILITY

- A. Bid Documents for a Stipulated Sum, in PDF format, may be obtained by Bidders, Sub-Contractors and Suppliers free of charge via e-mail, from the office of Fuller and D'Angelo, P. C.'s office, 45 Knollwood Road, Elmsford, NY 10523.
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

1.13 EXAMINATION

- A. Bid Documents may be viewed at the office of Fuller and D'Angelo, P.C. 45 Knollwood Road, Elmsford, NY 10523.
- B. Bid Documents may be viewed at the office of Edgemont School District which is located at 300 White Oak Lane, Scarsdale, NY 10583
- C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.
- D. Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated on the more costly method of doing the work, unless he shall have asked for and obtained a decision in writing from the Architect before the submission of his bid, as to what shall govern.

1.14 INQUIRIES/ADDENDA

- A. Direct questions to Architect.
- B. Questions: Any and all questions about the interpretation or clarification of the Bid Documents, or about any other matter affecting the Work or pertaining to the bid must be directed in writing on the form in Section 00 2115 - RFI Form to the: Architect
Fuller and D'Angelo, P.C.
45 Knollwood Road .
Elmsford, NY 10523 .
Attention: William Means, RA .
Voice: 914-592-4444
E-mail: WilliamM@fullerdangelo.com
- C. Answers: The Architect will issue addenda, if necessary, to answer such questions. Bidders shall rely on answers contained in such addenda and **shall not** rely upon any oral answers given by any employee or agent of the Owner, Owner's Representative, Architect, and Architect's Consultants.
 - 1. RFI's not resulting in an addendum may be issued to all plan holder at the discretion of Architect.
- D. Addenda are written or graphic instruments issued prior to the Bid Date which modify or interpret the bidding documents, including Drawings and Specifications, by additions, deletions, clarifications or corrections. Addenda will become part of the Contract Documents when the Construction Contract is executed
- E. Verbal answers are not binding on any party.
- F. Clarifications requested by bidders must be in writing not less than 5 days before date set for receipt of bids. The reply will be in the form of an Addendum, if required, a copy of which will be forwarded to known recipients .

1.15 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

- A. General Requirements for Substitution Requests:

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- B. Where the Bid Documents stipulate a particular product bidders shall comply with the specifications, performance and quality of the specification item. **The Architect will not review any substitutions during the bidding period.** The bidder assumes all responsibility to meet the requirements and the Architect shall be final authority as to a product is equal to the specification.
- C. Refer to Section 01 2500 - Substitution Procedures for substitution requirements.

1.16 PREBID CONFERENCE

- A. A Bidders Conference has been scheduled for 3:30 PM on the 3rd day of September, 2024. Bidders shall meet at the front of the Building. Prospective Bidders are strongly encouraged to attend.
- B. All bidders, subcontractors and suppliers are invited.
- C. Representatives of Owner's Representative, Architect, and Architect's Consultants will be in attendance.
- D. Summarized minutes of this meeting may be circulated to all known bidders. These minutes will not form part of the Contract Documents.
- E. Information relevant to the Bid Documents will be recorded in an Addendum, issued to plan holders.

1.17 QUALIFICATIONS

- A. Evidence of qualifications:
 - 1. Bidder shall submit with their bid proposal a properly executed Section 00 4401 - Qualification of Bidders .
 - 2. The Owner reserves the right to require additional information it deems appropriate concerning the history of the contractor's performance of each such contract.
- B. In accordance with the requirements of General Municipal Law §103-g, the bidder is required to include with its bid either (1) the "Certification of Compliance with the Iran Divestment Act" or, in the case where the bidder is unable to make such certification, (2) the form titled "Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act". Refer to Section 00 4460 & 00 4470.

1.18 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. Owner's Representative, Architect, and Architect's Consultants reserves the right to reject a proposed subcontractor for reasonable cause.
- B. Refer to General Conditions for additional requirements.
- C. Refer to 00 4336 - List of Subcontractors for further requirements.

1.19 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit two copies of the executed offer on the Bid Forms included in the project manual, signed and sealed with the required security in a closed opaque envelope, clearly identified with title of the project, trade, name, and address of the bidder and Edgemont School District's name clearly on the outside.
 - 1. Double Envelope: Insert the closed and sealed Bid Form envelope, listed above, and a Sealed envelope with requirements of Section 00 4336 List of Contractors for Non-Wicks projects in a large opaque envelope and label this envelope as noted above.
- C. Improperly completed information, irregularities in security deposit, may be cause not to open the Bid Form envelope and declare the bid invalid or informal.
- D. To submit a bid for a bid package, the bidder shall photo copy or remove the proposal form for each bid package from the Project Manual. Then the bidder shall complete, sign and submit the form as required therein. If a bidder is bidding on more than one bid package, there must be on fully completed and signed form for **each package being bid**. The bidder should not submit the entire Project Manual with the bid proposal.
- E. All bid prices shall be filled in, both in words and figures. Signatures shall be in ink and in longhand. Proposals which are incomplete, conditional or obscure may be rejected as informal.

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1. In case of a discrepancy between the words and figures, **the written word, not the figures**, will govern.
 2. Make no erasures, cross-outs, whiteouts, write-overs, obliteration's, or changes of any kind in the Bid Form phraseology, in the entry of unit prices, or anywhere on the Bid form. Fill in all blanks spaces legibly. An illegible entry may disqualify the bid in its entirety. If a mistake is made, use a new Bid Form. No post bid meetings will be afforded to any bidder to explain or clarify illegible or changed entries.
- F. Bidder's shall not rely on oral statements made by any employee or agent of the Owner, Owner's Representative, Architect, and Architect's Consultants. Before submitting a proposal, bidders shall fully inform themselves as to all existing conditions and limitations and shall include in the Proposal a sum to cover the cost of all items included in the Contract
- G. No oral or telephonic proposals or modifications of proposals will be considered.

1.20 BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, blanks, or irregularities of any kind, may at the discretion of the Edgemont School District, be declared unacceptable.
- B. Bid Forms, Appendices, and enclosures that are improperly prepared may, at the discretion of Edgemont School District, be declared unacceptable.
- C. Failure to provide security deposit, bonding or insurance requirements will, at the discretion of Edgemont School District, invalidate the bid.
- D. Failure to provide all costs, including Base Bid, Allowances, Alternate(s) and Total Base Bids may, at the discretion of Edgemont School District, invalidate the bid.

1.21 SECURITY DEPOSIT

- A. Bids shall be accompanied by a security deposit as follows:
 1. Bid Bond of a sum no less than 10 percent of the Bid Amount on AIA A310 Bid Bond Form, including Alternates, if any, will be required for all Proposals.
 2. Refer to Section 00 6000 - Bonds and Certificates for additional requirements.
- B. Endorse the Bid Bond in the name of the Edgemont School District as obligee, signed and sealed by the principal and surety.
- C. The security deposit will be returned after delivery to the Edgemont School District of the required Performance and Payment Bond(s) by the accepted bidder.
- D. Include the cost of bid security in the Bid Amount.
- E. After a bid has been accepted, all securities will be returned to the respective bidders .
- F. If no contract is awarded, all security deposits will be returned.

1.22 PERFORMANCE ASSURANCE

- A. Accepted Bidder: Shall provide a Performance and Payment bond, as described in Section 00 6000 - Bonds and Certificates prior to the execution of the Contract, the bidder to furnish bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder in such form and amount as the Owner may prescribe and with such sureties secured through the bidder's usual sources as may be agreeable to the parties.
- B. Include the cost of Performance and Payment Bonds in the Bid Amount.
- C. The bidder shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto an original certified and current copy of his power of attorney indicating the monetary limit of such power

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1.23 INSURANCE

- A. Provide an executed Insurance Certification Section 00 4476 - Insurance Certification attached as a supplement to the proposal.
- B. There are special insurance requirements on this project. Refer to Article 11 (AIA 201) of the General Conditions for a summary description of the required coverages. The Owner reserves the right to refuse the award of a Contract to any apparent low bidder who fails to provide the specified insurance certificates at the required time.
 - 1. The Owner, Architect, and Consultants shall be listed as "Additionally Insured" on all applicable policies.
- C. All insurance purchased by Contractor shall constitute primary insurance and primary coverage for all risks insured and that any other liability insurance that Owner, Architect, and Consultants may procure or maintain is secondary and that there shall be no contribution by such insurance until insurance provided by the Contractor is exhausted.

1.24 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form and Appendices.

1.25 SALES AND USE TAXES

- A. The Owner is a tax exempt entity, so there shall be no charge for sales or use taxes. The Owner will document this status as requested.

1.26 FEES FOR CHANGES IN THE WORK

- A. Refer to the General Conditions.

1.27 BID FORM SIGNATURE

- A. The Bid Form shall be signed by the bidder, as follows:
 - 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 - 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 - 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
 - 4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

1.28 EQUIVALENCY CLAUSE

- A. Where, in these specifications, certain kinds, types, brands, or manufacturers of material are named, they shall be regarded as the standard of quality. Where two or more are named the Contractor may select one of those items, subject to meeting the requirements of the specified product. If the contractor desires to use any kind, type, brand, or manufacture of material other than those named in the specification, he shall indicate in writing, and prior to award of the contract, what kind, type, brand, or manufacture is included in the base bid for the specified items. Submit information describing in specific detail, wherein it differs from the quality and performance required by the base specifications, and such other information as may be required by the Owner. Contractor shall refer to Form in Section 01 2500 Substitution Procedures.

1.29 NONDISCRIMINATION

- A. All Contractors and Subcontractors of all tiers and all vendors shall comply with all pertinent provisions of the State, Local and Federal law against discrimination in employment practices. Refer to Section 01 3306 - Non-Discrimination Clauses.

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1.30 PREVAILING WAGES

- A. New York State law requires the payment of prevailing wages on the project, as listed in Section 01 3554 - Prevailing Wage Rates.

1.31 ADDITIONAL BID INFORMATION

- A. Submit the following Supplements concurrent with bid submission:
 - 1. Section 00 4336 - List of Subcontractors: Include the names of all Subcontractors and the portions of the Work they will perform required for Non-Wicks projects.
 - 2. Section 00 6000 - Bonds and Certificates for Bid Bond, Performance and Payment Bond.
 - 3. Section 00 4476 - Insurance Certification.
- B. The bidder by making his bid represents that he has read and understands the bidding documents.
- C. The bidder by making his bid represents that he has visited the site and familiarized himself with the local conditions under which the work is to be performed. Visits to the site shall be arranged through the Architect

1.32 DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of 45 days after the bid closing date, except as otherwise provided in General Municipal Law §103 (11).

1.33 ACCEPTANCE OF OFFER

- A. Edgemont School District reserves the right to accept or reject any or all offers.
- B. The bidder acknowledges the right of the Edgemont School District to reject any or all bids and to waive any informality or irregularity in any bid received. In addition, the bidder recognizes the right of the Owner, at its discretion to reject a bid if the bidder fails to furnish any required bid security, or to submit the information required by the bidding documents, including Section 00 4401 "Qualifications of Bidders", or if the bid is incomplete or irregular.

1.34 POST-BID PROCEDURE

- A. The bid proposal, allowances, the proposed subcontractors, and information received from owners of other projects will be considered to determine whether the contractor is the "lowest responsible bidder" in making the award. The Owner and Architect may make such investigation as the Owner deems necessary to determine the responsibility of any bidder or to determine the ability of any bidder to perform the Work. Such investigation shall begin with a review of Section 00 4401 - Qualification of Bidders and shall include such additional information as shall be required herein.
- B. When requested by the Owner's Representative and Architect, bidders shall furnish all information and data required by the Owner's Representative and Architect within the time and in the form and manner requested by the Owner. Upon notification from the Owner's Representative and Architect, the apparent low bidder shall furnish, within Two (2) working days after the bid opening, Two (2) copies of the following information in writing:
 - 1. Evidence of the bidder's financial responsibility, including a certified financial statement prepared by a certified public accountant. The financial statement shall include, but not limited to the following:
 - a. Current assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses):
 - b. Net Fixed Assets:
 - c. Other Assets:
 - d. Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes):
 - e. Other Liabilities (e.g., Capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

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- f. The names, addresses and phone numbers of the subcontractors and suppliers that the bidder proposes to use on the project.
 - g. A bar-chart showing the bidder's proposed plan and schedule to complete the bidder's work in accordance with Section 01 1000 Summary of Contracts.
 - h. The insurance certificates required by the Bid Documents.
 - i. Resumes for Contractor's proposed supervisory staff, including qualifications for specialized expertise or any certification(s) required to perform the Work.
 - j. Names of proposed major sub-contractors (more than 15% of the bid amount) and a listing of the related trade of work and value.
 - k. Any special coordination requirements with other trades.
 - l. Any special storage and staging requirements for construction materials.
 - m. Any other special requirements.
 - n. A proposed schedule of values for the bidder's work.
 - o. A proposed list of submittals and a proposed schedule for making them, all keyed to the bar-chart.
2. After receipt of the above information, the Owner's Representative and Architect will designate a time and place for the meeting between the Owner's Representative and Architect and the apparent low bidder. The apparent low bidder's principal, project manager and site superintendent will attend that meeting, at which time the parties will discuss the bidder's responsiveness, responsibility and qualifications.
 3. The Owner reserves the right to disapprove the use of any proposed Subcontractor, and in such event, the bidder shall submit the name of another Subcontractor in like manner within the time Owner specified by the Owner, as set forth in the Agreement.
 4. To the fullest extent allowed by law, the Owner reserves the right to reject any bid if the evidence required by the Owner is not submitted or fails to satisfy the Owner that the bidder is responsible, able and qualified to carry out the obligations of the Owner Contract or to complete the Work as contemplated. The Owner will consider the information received in determining whether or not to accept a proposal.
 5. Acceptance of a proposal will be a notice in writing signed by a duly authorized representative of the Owner.
 6. Any bidder whose proposal is accepted will be required to sign the Owner/Contractor Agreement no later than ten (10) days after notification of Award of Bid or five (5) days following receipt of Contract, whichever is later.
 7. In the event that the Owner should reject the proposal of the bidder, the Owner may elect to meet with the next lowest bidder and to consider the information as provided above. In the event that the proposal of the next lowest bidder is rejected, the Owner may elect to meet with the third lowest bidder and repeat the above process. At all times the Owner retains the right to reject all bids.

END OF SECTION

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RFI FORM

SECTION 00 2115
RFI FORM

CONTRACTOR'S REQUEST FOR INFORMATION NO. _____

F&D RFI NO: _____

(F&D USE)

NAME OF PROJECT: Window Replacement, Tennis Court Renovation and Related Work

NAME OF OWNER: Edgemont School District

FACILITY: Greenville Elementary School

DATE: _____

A/E PROJECT NO: 23501

ARCHITECT: Fuller and D'Angelo, P.C.

45 Knollwood Road, Elmsford, NY 10523

Tel: 914-592-4444; Fax: 914-592-1717

William Means, RA

WilliamM@fullerdangelo.com

FROM (CO. NAME): _____

CONTACT NAME: _____ Tel: _____

SUBJECT: _____

DISCIPLINE/TRADE: _____

DWG./SPEC. REFERENCE: _____

QUESTION: _____

___ FIELD CONDITION _____

___ DRAWING/SPEC _____

___ DISCREPANCY _____

___ OWNER CHANGE _____

___ CLARIFICATION _____

___ CONTRACTOR'S SUGGESTION (IF APPLICABLE): _____

ANSWER

ARCHITECT'S SIGNATURE: _____ DATE: _____

Note: review and any responses to this request for information by the architect/engineer is strictly for design intent only and does not constitute acknowledgement or acceptance of any cost or schedule implications unless specifically presented by the contractor. By submission of this request for information, the contractor assumes all responsibility in the absence of an approved change order or work directive.

END OF SECTION

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BID FORM - CONTRACT NO. 1 - GENERAL CONSTRUCTION

SECTION 00 4100
BID FORM - CONTRACT NO. 1 - GENERAL CONSTRUCTION

THE PROJECT AND THE PARTIES

TO:

Edgemont School District
300 White Oak Lane, Scarsdale, NY 10583

FOR:

Window Replacement, Tennis Court Renovation and Related Work
Greenville Elementary School
100 Glendale Road

DATE: _____ (Bidder to enter date)

SUBMITTED BY: _____

Bidder's Full Name _____

Address _____

City, State, Zip _____

Contact Individual and Telephone No. _____

1.1 OFFER

A. Having examined the place of the work and all matters referred to in the Bidding Requirements and the Contract Documents prepared by Fuller and D'Angelo, P.C. for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform Contract Work for the Sum of:

1. BASE BID

a. The Base Bid of this Proposal for all work required by the Contract Documents for Contract No.1 Window Replacement and Related Work is as follows:

_____ (\$ _____) DOLLARS

2. TOTAL CASH ALLOWANCES

a. The Total Cash Allowance as indicated in Section 01 2100 - Allowances is as follows:

Twenty Thousand _____ (\$ 20,000.00) DOLLARS

B. TOTAL BASE BID

1. The Total Base Bid of this Proposal for all work required by the Contract Documents for Window Replacement and Related Work is as follows:

_____ (\$ _____), DOLLARS

(The Total Base Bid is sum of 1.1.A.1.a and 1.1.A.2.a)

C. The undersigned further understands and agrees that he is to furnish and provide all the necessary material, machinery, plant, implements, tools, labor, services, skill and other items of whatever nature required, and to do and perform all the work necessary under the Contract, to complete the work in accordance with the drawings and specifications and any addenda thereto, and to accept in full compensation therefore the amount of the Total Base Bid stated, modified by such additive- or deductive alternatives, if any as are accepted by the Owner.

D. We have included the required security Bid Bond as required by the Instruction to Bidders.

E. We have included the required Performance and Labor Payments bonds in the Bid Amount as required by the Instructions to Bidders.

F. All applicable federal taxes and NY taxes are included in the Bid Sum.

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 1 - GENERAL CONSTRUCTION

G. All Allowances described in Section 01 2100 - Allowances are included in the Bid Sum.

1.2 ALTERNATE .

A. The Alternates for this Proposal required by the Contract Documents are listed in Section 01 2300.

B. Alternate No. GC-1:

1. The Contractor for General Construction Contract #1 shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system in Classrooms B11, B12 and Gymnasium Office in accordance with the specifications and as shown on the contract drawings..

_____ (\$ _____), DOLLARS

C. Alternate No. GC-2:

1. The Contractor for General Construction Contract #1 shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and aluminum doors in Corridor C11 and Corridor A16 in accordance with the specifications and as shown on the contract drawings. :

_____ (\$ _____), DOLLARS

D. Alternate No. GC-3:

1. The Contractor for General Construction Contract #1 shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and aluminum doors in Classroom B9 and B10 in accordance with the specifications and as shown on the contract drawings.

_____ (\$ _____), DOLLARS

E. Alternate No. GC- 4:

1. The Contractor for General Construction Contract #1 shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and insulated metal panels at the Multi-Purpose Room C9 clerestory window in accordance with the specifications and as shown on the contract drawings.

_____ (\$ _____), DOLLARS

1.3 ACCEPTANCE

A. This offer shall be open to acceptance and is irrevocable for forty-five (45) days from the bid closing date.

B. If this bid is accepted by Edgemont School District within the time period stated above, we will:

1. Execute the Agreement within ten (10) days of receipt of Notice of Award or five (5) days following receipt of Contract, whichever is later.
2. Furnish the required bonds within ten (10) days of receipt of Notice of Award or with the executed Contract.

C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Edgemont School District by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

D. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

1.4 REJECTION OF BIDS

A. The undersigned agrees that the Owner shall have the right to accept or reject any or all bids.

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 1 - GENERAL CONSTRUCTION

1.5 CONTRACT TIME

- A. If this Bid is accepted, we will:
1. Complete all the work covered by this Proposal with a commencement date of NO EARLIER THAN Award of Contract by Owner. Work shall be phased as indicated in 01 1000 Summary of Contract. Failure to complete each phase of work by dates indicated will result in liquidated damages as stated in the AIA 201-2017 General Conditions of the Contract.

1.6 CHANGES TO THE WORK

- A. Refer to AIA 201-2017 General Conditions of the Contract Article 7.

1.7 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
1. Addendum # _____ Dated _____.
 2. Addendum # _____ Dated _____.

1.8 BID FORM SUPPLEMENTS

- A. The following information is included with Bid submission:
1. Bid Security.
 2. Section 01 2100 - Allowances.
 3. Section 01 2300 - Alternates.
 4. Section 00 4401 - Qualification of Bidders.
 5. Section 00 4460 - Certification of Compliance With the Iran Disinvestment Act OR
 6. Section 00 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act.
 7. Section 00 4476 - Insurance Certification.

1.9 NON-COLLUSIVE BIDDING CERTIFICATION

- A. By submission of this bid or proposal:
1. The undersigned bidder and the person or persons signing on behalf of the bidder, and should this bid be a joint bid, each party thereto, certifies as to its own organization, under penalty of perjury, that to the best of his/her knowledge and belief:
 - a. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
 - c. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

1.10 BIDDER'S FURTHER AFFIRMATION AND DECLARATION

- A. The above name bidder and should this bid be a joint bid each party thereto, further affirm and declares:
1. That said bidder is of lawful age and the only one interested in this bid; and that no other person, firm or corporation, except those herein above named, has any interest in this bid or in the contract proposed to be entered into.
 2. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same work, and is in all respects fair and without collusion or fraud.
 3. That said bidder is not in arrears to the Edgemont School District upon debt or contract, and is not a defaulter, as surety or otherwise upon any obligation to the said Edgemont School District

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 1 - GENERAL CONSTRUCTION

4. That no member of the Edgemont School District or any officer or employee of the Edgemont School District or person whose salary is payable in whole or in part from the Edgemont School District treasury, or the spouse of any foregoing is or shall be or become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise, in this bid, or in the performance of the Contract, or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof.
5. That he/she has carefully examined the site of the work and that, from his/her own investigations, he/she has satisfied him/herself as to the nature and location of the work, and character, quality and quantity of materials, and all difficulties likely to be encountered, the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions, and all other items which may, in any way, affect the work or its performance.
6. That if a corporation, this bid or proposal containing the Non-Collusive Binding Certification and the foregoing Affirmation and Declaration has been authorized by the Board of Directors of such Corporation, which authorization includes the signing and submission of this bid or proposal and the inclusion therein of the said Certificate of Non-Collusion and Affirmation and Declaration as the Act and Deed of the Corporation.

1.11 BID FORM SIGNATURE(S)

The Corporate Seal of

(Bidder - print the full name of your firm)

was hereunto affixed in the presence of:

(Authorized signing officer, Title)

(Seal)

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

Subscribed and sworn before me this day of _____ 2024 _____

Notary Public: _____

My Commission Expire: _____

END OF BID FORM

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 2 - SITE CONSTRUCTION

SECTION 00 4110
BID FORM - CONTRACT NO. 2 - SITE CONSTRUCTION

THE PROJECT AND THE PARTIES

TO:

Edgemont School District
300 White Oak Lane, Scarsdale, NY 10583:
Scarsdale NY, 10583

FOR:

Window Replacement, Tennis Court Renovation and Related Work
Greenville Elementary School
100 Glendale Road

DATE: _____ (Bidder to enter date)

SUBMITTED BY: _____

Bidder's Full Name _____

Address _____

City, State, Zip _____

Contact Individual and Telephone No. _____

1.1 OFFER

A. Having examined the Place of The Work and all matters referred to in the Bidding Requirements and the Contract Documents prepared by Fuller and D'Angelo, P.C. for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform Contract No. 2 Site Construction Work for the Sum of:

1. BASE BID

a. The Base Bid of this Proposal for all work required by the Contract Documents for Contract No. 2 Site Construction is as follows:

(\$ _____) DOLLARS

2. CASH ALLOWANCE

a. The Total Cash Allowance as indicated in Section 01 2100 - Allowances 1s as follows:

Twenty Thousand _____ (\$20,00.00) DOLLARS

B. TOTAL BASE BID

1. The Total Base Bid of this Proposal for all work required by the Contract Documents for Contract No. 2 Site Construction and Related Work work is as follows:

\$ _____), DOLLARS

(The Total Base Bid is sum of 1.1.A.1.a and 1.1.A.2.a)

C. The undersigned further understands and agrees that he is to furnish and provide all the necessary material, machinery, plant, implements, tools, labor, services, skill and other items of whatever nature required, and to do and perform all the work necessary under the Contract, to complete the work in accordance with the drawings and specifications and any addenda thereto, and to accept in full compensation therefore the amount of the Total Base Bid stated, modified by such additive- or deductive alternatives, if any as are accepted by the Owner.

D. We have included the required security Bid Bond as required by the Instruction to Bidders.

E. All applicable federal taxes and NY taxes are included in the Bid Sum.

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 2 - SITE CONSTRUCTION

- F. All Allowances described in Section - 01 2100 - Allowances are included in the Bid Sum.

1.2 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for forty-five (45) days from the bid closing date.
- B. If this bid is accepted by Edgemont School District within the time period stated above, we will:
1. Execute the Agreement within ten (10) days of receipt of Notice of Award or five (5) days following receipt of Contract, whichever is later.
 2. Furnish the required bonds within ten (10) days of receipt of Notice of Award or with the executed Contract.
- C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Edgemont School District by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.
- D. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

1.3 REJECTION OF BIDS

- A. The undersigned agrees that the Owner shall have the right to accept or reject any or all bids.

1.4 CONTRACT TIME

- A. If this Bid is accepted, we will:
1. Complete all the work covered by this Proposal with a commencement date of NO EARLIER THAN Award of Contract by Owner. Work shall be phased as indicated in 01 1000 Summary of Contract. Failure to complete each phase of work by dates indicated will result in liquidated damages as stated in the AIA 232- 2017 General Conditions of the Contract .

1.5 CHANGES TO THE WORK

- A. Refer to AIA 232- 2017 General Conditions of the Contract Article 7.
- B. When Architect establishes that the method of valuation for Changes in the Work will be a fixed fee or net cost plus a percentage fee shall be in accordance with General Conditions.

1.6 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
1. Addendum # _____ Dated _____.
 2. Addendum # _____ Dated _____.
 3. Addendum # _____ Dated _____.
 4. Addendum # _____ Dated _____.

1.7 BID FORM SUPPLEMENTS

- A. The following information is included with Bid submission:
1. Bid Security.
 2. Section 01 2100 - Allowances.
 3. Section 00 4401 - Qualification of Bidders.
 4. Section 00 4460 - Certification of Compliance With the Iran Disinvestment Act OR
 5. Section 00 4470 - Declaration of Bidder's Inability to Provide Certification of Compliance with the Iran Divestment Act.
 6. Section 00 4476 - Insurance Certification.

1.8 NON-COLLUSIVE BIDDING CERTIFICATION

- A. By submission of this bid or proposal:

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 2 - SITE CONSTRUCTION

1. The undersigned bidder and the person or persons signing on behalf of the bidder, and should this bid be a joint bid, each party thereto, certifies as to its own organization, under penalty of perjury, that to the best of his/her knowledge and belief:
 - a. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
 - c. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

1.9 BIDDER'S FURTHER AFFIRMATION AND DECLARATION

- A. The above name bidder and should this bid be a joint bid each party thereto, further affirm and declares:
 1. That said bidder is of lawful age and the only one interested in this bid; and that no other person, firm or corporation, except those herein above named, has any interest in this bid or in the contract proposed to be entered into.
 2. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same work, and is in all respects fair and without collusion or fraud.
 3. That said bidder is not in arrears to the Edgemont School District upon debt or contract, and is not a defaulter, as surety or otherwise upon any obligation to the said Edgemont School District
 4. That no member of the Edgemont School District or any officer or employee of the Edgemont School District or person whose salary is payable in whole or in part from the Edgemont School District treasury, or the spouse of any foregoing is or shall be or become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise, in this bid, or in the performance of the Contract, or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof.
 5. That he/she has carefully examined the site of the work and that, from his/her own investigations, he/she has satisfied him/herself as to the nature and location of the work, and character, quality and quantity of materials, and all difficulties likely to be encountered, the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions, and all other items which may, in any way, affect the work or its performance.
 6. That if a corporation, this bid or proposal containing the Non-Collusive Binding Certification and the foregoing Affirmation and Declaration has been authorized by the Board of Directors of such Corporation, which authorization includes the signing and submission of this bid or proposal and the inclusion therein of the said Certificate of Non-Collusion and Affirmation and Declaration as the Act and Deed of the Corporation.

1.10 BID FORM SIGNATURE(S)

The Corporate Seal of

(Bidder - print the full name of your firm)

was hereunto affixed in the presence of:

(Authorized signing officer, Title)

(Seal)

(Authorized signing officer, Title)

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BID FORM - CONTRACT NO. 2 - SITE CONSTRUCTION

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

Subscribed and sworn before me this day of _____ 2024

Notary Public: _____

My Commission Expire: _____

END OF BID FORM

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

**SECTION 00 4401
QUALIFICATIONS OF BIDDERS**

BID OR PROJECT NO. 23501

NAME OF PROJECT: WINDOW REPLACEMENT, TENNIS COURT RENOVATION AND RELATED WORK

1.1 REQUIREMENTS

- A. With the submittal of the Bid Proposal Form, **the bidder shall attach this Qualifications of Bidders** statement and shall answer the Questions herein. Failure to answer these questions in full may be cause for rejection of the bidder's proposal. If more space is needed, please attach other sheets with reference to subject paragraph.
- B. The Owner reserves the right to consider, but not limited to, the financial responsibility, experience and reputation in the construction industry, as well as the specific qualifications listed below and elsewhere in this document in considering bids and awarding the contract. The Board of Education reserves the right to waive any informalities if, at its discretion the interest of the Edgemont School District will be better served.
- C. The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

Submitted to: Edgemont School District

Address: 300 White Oak Lane, Scarsdale, NY 10583

City/Town: Scarsdale NY, 10583

SUBMITTED BY: _____

CORPORATION _____ PARTNERSHIP _____ INDIVIDUAL _____

ADDRESS: _____

PRINCIPAL OFFICE: _____

OTHER: _____

NAME OF PROJECT: Window Replacement, Tennis Court Renovation and Related Work

1.2 ORGANIZATION

- A. How many years has your organization been in business as a Contractor? _____
1. How many years has your organization been in business under its present business name? _____
2. Under what other or former names has your organization operated?

- B. What is the firm's bonding range?
Single _____
Aggregate _____
- C. If your organization is a corporation, answer the following:
1. Date of Incorporation: _____
- a. State of Incorporation: _____
- b. President's Name: _____
- c. Vice-president's name(s): _____
- d. Secretary's name: _____
- e. Treasurer's name: _____
- D. If your organization is a partnership, answer the following:

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

1. Date of organization: _____
a. Type of partnership (if applicable): _____
b. Name(s) of general partner(s): _____

- E. If your organization is individually owned, answer the following:
1. Date of organization: _____
2. Name of owner: _____

- F. If the form of your organization is other than those listed above, describe it and name the principals:

1.3 OWNERSHIP, MANAGEMENT, AFFILIATION

- A. Identify each person who is or has been ,within the past five years, an owner of 5.0% or more of the firm's shares, one of the five largest shareholders, a director, an officer, a partner or the proprietor, or a managerial employee.

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

- B. Joint Ventures: Provide information for all firms involved. Fill in name, % owned, office held; indicate by Y or N whether director, officer, partner and title

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

First Name: _____ MI _____ Last Name _____ DOB _____

% Owned: __ Director: Yes__ No__ Officer: Yes__ No__ Title _____ Partner: Yes__ No__

- C. Has the firm or any firm listed in response to questions above defaulted or been terminated and its surety called upon to complete, any contract awarded within the past five years Yes __ No __ If yes, give date(s), agency (ies)/owner(s), project(s), contract numbers, and describe including the result:

- D. List below any projects performed by the bidder in the past five (5) years on which any of the following events occurred:
1. Were any extension of time were requested by the contractor, Yes__ No __ and were such requests granted? Yes__ No __
 2. Was litigation and/or arbitration commenced by either the Owner or the bidder as a result of the work of the project performed by the bidder? Yes__ No __
 3. Were any liens filed on the project by subcontractors or material suppliers of the bidder? Yes__ No __
 4. Did the bidder make any claims for extra work on the project, and did said claim resulted in a change order? Yes__ No __

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

5. If Yes:

Project Name/Address _____

Type of Event _____

Name & Phone # of Owner: _____

Contact Person at Owner: _____

- E. For all contracts within the past five years: (a) List all liens or claims over \$25,000 filed against the firm and remaining undischarged or unsatisfied for more than 90 days; and (b) list and describe all liquidated damages assessed: _____

1.4 FINANCIAL INFORMATION

- A. Submit firm's most recent annual financial statement.

1.5 OTHER INFORMATION

- A. Within the past five years has the firm, any affiliate, any predecessor company or entity or any person identified in questions number 1.1 through 1.2 above been the subject of any of the following: (Respond to each question and describe in detail the circumstances of each affirmative answer: (Attach additional pages if necessary).
1. A judgment of conviction for any business-related conduct constituting a crime under state or federal law No__ Yes__
 2. A criminal investigation or indictment for any business-related conduct constituting a crime under state or federal law? No__ Yes__
 3. A grant of immunity for any business-related conduct constituting a crime under state and federal law? No__ Yes__
 4. A federal or state suspension or debarment? No__ Yes__
 5. A rejection of any bid for lack of qualifications, responsibility or because of the submission of an informal, non-responsive or incomplete bid? No__ Yes__
 6. A denial or revocation of prequalification? No__ Yes__
 7. A voluntary exclusion from bidding/contracting agreement? No__ Yes__
 8. Any administrative proceeding or civil action seeking specific performance or restitution in connection with any public works contract except any disputed work proceeding? No__ Yes__
 9. An OSHA Citation and Notification of Penalty containing a violation classified as serious? No__ Yes__
 10. An OSHA Citation or Notification of Penalty containing a violation classified as willful? No__ Yes__
 11. A prevailing wage or supplement payment violation? No__ Yes__
 12. A State Labor Law violation deemed willful? No__ Yes__
 13. Any other federal or state Citations, Notices, violation orders, pending administrative hearings or proceedings or determinations of a violation of any labor law or regulation? No__ Yes__
 14. Any criminal investigation, felony indictment or conviction concerning formation of or any business association with, an allegedly false or fraudulent women's, minority or disadvantaged business enterprise? No__ Yes__
 15. Any denial, desertification, revocation or forfeiture of Women's Business Enterprise, Minority Business Enterprise or Disadvantaged Business Enterprise status? No__ Yes__
 16. Rejection of a low bid on a State contract for failure to meet statutory affirmative action M/WBE requirements? No__ Yes__
 17. A consent order with the NYS Department of Environmental Conservation or a federal, state or local government enforcement determination involving a violation of federal or state environmental laws? No__ Yes__

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

18. Any bankruptcy proceeding? No__ Yes__
19. Any suspension or revocation of any business or professional license? No__ Yes__
20. Any citations, notices, violation orders, pending administrative hearings or proceedings or determinations for violation of hearings or proceedings or determinations for violation of:
- a. Federal, state or local health laws, rules or regulations public owner or a request by a public owner to withdraw a bid? No__ Yes__
 - b. Federal, state or local environmental laws, rules and regulations No__ Yes__
 - c. Unemployment insurance or workers compensation coverage or claim requirements. No__ Yes__
 - d. ERISA (Employee Retirement Income Security Act) No__ Yes__
 - e. Federal, state or local human rights laws. No__ Yes__
 - f. Federal, state or local human rights laws. No__ Yes__
 - g. Federal or state security laws. No__ Yes__
 - h. Withdrawal or an agreement to withdraw a bid submitted to a public owner or a request by a public owner to withdraw a bid? No__ Yes__
- B. During the five year period preceding the submissions of this bid, has the bidder been named as a part in any lawsuit in an action involving a claim for personal injury or wrongful death arising from performance of work related to any project in which it has been engaged? If the answer to this question is yes, list all such lawsuits, the index number associated with said suit and the status of the lawsuit at the time of the submission of this bid. No__ Yes__
- C. During the five year period preceding the submission of this bid, has the bidder been the subject of proceedings before the Department of Labor for alleged violations of the Labor Law as it relates to the payment of prevailing wages and/or supplemental payment requirements? If the answer to this question is yes, please list each such instance of the commencement of a Department of Labor proceeding, for which project such proceeding was commenced, and the status of the proceeding at the time of the submission of this bid. No__ Yes__
- D. During the five year period preceding the bidder's submission of this bid, has the bidder been the subject of proceedings involving allegations that it violated the Worker's Compensation Law including but not limited to the failure to provide proof of worker's compensation or disability coverage and/or any lapses thereof. If the answer to this question is yes, list such instance of violation and the status of the claimed violation at the time of disposition of this bid. No__ Yes__
- E. Has the bidder, its officers, directors, owner and/or managerial employees been convicted of a crime or been the subject of a criminal indictment during the five years preceding the submission of this bid? If the answer to this question is yes, list the name of the individual convicted or indicted the charge against the individual and the date of disposition of the charge. No__ Yes__
- F. During the five year period preceding the bidder's submission of this bid, has the bidder been charged with and/or found guilty of any violations of federal, state, or municipal environmental and/or health laws, codes, rules and/or regulations. If the answer to this question is yes, list the nature of the charge against the bidder, the date of the charge, and the status of the charge at the time of the submission of this bid. No__ Yes__
- G. Has the bidder ever defaulted or had its surety called upon to complete any contract awarded within the past five years. If the answer to this question is yes, list the projects, the dates and the nature of the termination (convenience, suspension, for cause). No__ Yes__
- H. Has any officer or partner of the bidder's organization ever defaulted or had its surety called upon to complete any contract awarded within the past five years or been an officer or partner of some other organization that has been terminated from a project by an owner? If yes, state: No__ Yes__
- I. Name of Individual(s) _____ Name of Organization(s) Reason(s)
-
-

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

1.6 LICENSING

- A. List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration of license numbers, if applicable. _____

- B. List jurisdictions in which your organization's partnership or trade name is filed: _____

- C. Has any director, officer, owner or managerial employee had any professional license suspended or revoked? If the answer is yes, list the name of the individual, the professional license he/she formally had, whether the license was revoked or suspended and the date of the revocation or suspension. No__ Yes__

1.7 EXPERIENCE

- A. List the categories of work that your organization will perform with its own forces: _____

- B. Claims and Suits. (If the answer of any of the questions below is yes, please attach details.)
1. Have you or has any director, officer, owner or managerial employee ever failed to complete any work awarded to them? If yes, list the project(s) the date(s) and the reason(s) for the failure to complete. No__ Yes__
 2. Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers? No__ Yes__
 3. Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years? No__ Yes__
 4. Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.) No__ Yes__
- C. On a separate sheet, list all similar construction projects your organization has in progress or completed, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.
- D. State total worth of work in progress and under contract: _____
- E. On a separate sheet, list all projects, not listed above, that your organization has completed or in progress in the past five years, giving the name of the project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.
- F. State average annual amount of construction work performed during the past five years: _____

- G. On a separate sheet, list the construction experience and present commitment of the key individuals of your organization.

1.8 APPRENTICE PROGRAM

- A. Has the Firm an in place apprenticeship agreements appropriate for the type and scope of work to be performed, that have been registered with, and approved by, the Commissioner of the New York State Department of Labor pursuant to the requirements found in Article 23 of the Labor Law. No__ Yes__

1.9 REFERENCES

- A. Trade reference: _____
- B. Bank references: _____
- C. Surety: _____
1. Name of present bonding company: _____
 2. Name and address of agent: _____
 3. Name or previous bonding company: _____

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
QUALIFICATIONS OF BIDDERS

1.10 CERTIFICATION

- A. The undersigned recognizes that this questionnaire is submitted for the purpose of including the Edgemont School District to award a contract or approve a subcontract; acknowledges that the Owner may in its discretion, by means which it may choose, determine the truth and accuracy of all statements made herein; acknowledge that intentional submission of false or misleading information may constitute a felony under Penal Law §210.40 or a misdemeanor under Penal Law §210.35 or §210.45, and may also be punishable by a fine of up to \$10,000 or imprisonment of up to five years under 18 U.S.C. §1001; and states that the information submitted in this questionnaire any attached pages is true, accurate and complete.

Dated at this day of _____

Name of Organization: _____

By: _____

Title: _____

being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this day of: _____

Notary Public: _____

My Commission Expire: _____

1.11 See Project Information Form attached.

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT

SECTION 00 4460
CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I, _____, being duly sworn, deposes and says that he/she is the _____ of the _____ Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

SIGNED

SWORN to before me this

_____ day of _____ 202__

Notary Public: _____

END OF SECTION

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE
IRAN DIVESTMENT ACT.

SECTION 00 4470
DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH
THE IRAN DIVESTMENT ACT.
WITH THE IRAN DIVESTMENT ACT

Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (e.g. banking, energy, real estate)

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

I, _____ being duly sworn, deposes and says that he/she is the
_____ of the _____ Corporation and the foregoing
is true and accurate.

SIGNED

SWORN to before me this

_____ day of _____

2029__

Notary Public: _____

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
INSURANCE CERTIFICATION

**SECTION 00 4476
INSURANCE CERTIFICATION**

BID OR PROJECT NO. # 23501

NAME OF PROJECT: Window Replacement, Tennis Court Renovation and Related Work

Insurance Representative's Acknowledgement:

We have reviewed the insurance requirements set forth in the bid and are capable of providing such insurance to our insured in accordance with such requirements in the event the contract is awarded to our insured and provided our insured pays the appropriate premium.

INSURANCE REPRESENTATIVE: _____ **Tele. #:** _____

ADDRESS: _____

Are you an agent for the companies providing the coverage?

Yes _____ No _____

DATE: _____

Signature Insurance Representative

Bidder's Acknowledgement:

I acknowledge that I have received the insurance requirements of this bid and have considered the costs, if any, of procuring the required insurance and will be able to supply the insurance required in accordance with the bid, if it is awarded. I understand that a certificate of insurance must be submitted with my contract and if it is not, the Edgemont School District will reject my bid and award to the next lowest qualified bidder.

FIRM NAME:

_____ **Tele.#** _____

ADDRESS: _____

DATE: _____

Bidder's Signature

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
FORM OF AGREEMENT

SECTION 00 5200
FORM OF AGREEMENT

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 FORM OF AGREEMENT

- A. The Agreement to be executed is attached following this page.
- B. AIA Document A101, Owner-Contractor Agreement Form - Stipulated Sum 2017 Edition, forms the basis of Contract between the Owner and Contractor A draft copy is attached.

1.3 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions.
- B. Section 01 4216 - Definitions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

DRAFT AIA® Document A101® - 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the « » day of « » in the year « »
BETWEEN the Owner:

Edgemont Union Free School District
300 White Oak Lane
Scarsdale, NY 10583

and the Contractor:

for the following Project:

Edgemont Union Free School District
Greenville Elementary School
Window Replacement, Tennis Court Renovation and Related Work

The Architect:

Fuller & D'Angelo, P.C.
Architects and Planners
45 Knollwood Road – Suite 401
Elmsford, NY 10523

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101®-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201®-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES

1	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	ENUMERATION OF CONTRACT DOCUMENTS
EXHIBIT A	LIST OF DRAWINGS
EXHIBIT B	LIST OF SPECIFICATIONS
EXHIBIT C	INSURANCE AND BONDS
EXHIBIT D	CONTRACTOR'S PROPOSAL

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

A date set forth in a Letter of Award issued by the Owner.

§ 3.2 The Contract Time shall be measured from the date of commencement of stated in the Letter of Award.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

[« »] As indicated in Section 01 1000-Summary of Contracts for various phases work and overall completion.

§ 3.3.2 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be « » (\$ « »), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum:

Item	Price

§ 4.4 Unit prices, if any:

Item	Units and Limitations	Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

« »

§ 4.6 Other:

« »

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments (Refer to Section 01 2000 Price and Payment Procedures for Additional Requirements)

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the « » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the « » day of the « » following month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than « » (« ») days after the Architect receives the Application for Payment.

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor and approved by the Architect in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™-2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed in accordance with Section 01 2000 Price and Payment Procedures.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner will withhold five percent (5%), as retainage, from the payment otherwise due:

§ 5.1.7.2 The Contractor agrees that maximum payment for each progress payment shall be 95% of the total Contract Sum. The balance of Contract, (Final Payment) shall not be made until all Punch List Items are completed and Close-Out Documents are submitted and approved by the Architect.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201-2017, , including all punch list items and all Close-Out requirements are submitted and all other requirements, if any, are satisfied, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued to the Owner by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment:

« »

§ 5.3 Interest

§ 5.3.1 Payments due and unpaid under the Contract shall not bear interest.

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201-2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201-2017, the method of binding dispute resolution shall be as follows:

[] Litigation in a court of competent jurisdiction in the County of ***** State of *****.

« »

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017 as revised for this project

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

Edgemont Union Free School District
300 White Oak Lane
Scarsdale, NY 10583

§ 8.3 The Contractor’s representative:

« »
« »
« »

§ 8.4 Neither the Owner’s nor the Contractor’s representative shall be changed without ten days’ prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Contractor shall purchase and maintain insurance as set forth in in Article 11 of AIA Document A201™–2017, General Conditions as revised for this project.

§ 8.5.1 The Contractor shall provide bonds as set forth in Section 00 6000.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

§ 8.7 Other provisions:

« »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .5 Drawings

Number	Title	Date
Refer to Exhibit A		

- .6 Specifications

Section	Title	Date	Pages
Refer to Exhibit B			

.7 Addenda, if any:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:
Exhibit C Insurance and Bonds

.9 Other documents, if any, listed below:

NAME	Date	Pages
Exhibit D Contractor's Proposal	*****	*****

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

« »« »

(Printed name and title)

CONTRACTOR (Signature)

« »« »

(Printed name and title)

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
BONDS AND CERTIFICATES

**SECTION 00 6000
BONDS AND CERTIFICATES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 BID BOND:

- A. A Bid Bond will be required for this project. Each individual bid shall be accompanied by a check upon a duly authorized State, National Bank or Trust Company, duly certified in the sum equal to TEN (10%) percent of the total amount of the bid, including alternates, or a Bid Bond in the amount of TEN (10%) of the bid, including alternates, payable to the Edgemont School District and shall be enclosed in an envelope containing the bid; as a guarantee that the Bidder will, after the award is made to him, enter into a bona fide contract with the Owner for the work, and furnish the bonds and liability policies as required under the specifications. The American Institute of Architects Document A310, February 2010 edition entitled "Bid Bond" shall be the contract bond form for this project. A draft copy is attached.
 - 1. Each bid bond must also be accompanied by the written consent of the Surety Company authorized to do business in the State of New York and be A.M Best "Secured" rated or better.
 - 2. Attorney-in-fact who execute said bonds on behalf of a surety must affix thereto a certified and effectively dated copy of their Power of Appointment and Certification of an officer of the surety that the Power of Attorney continues in effect.
- B. If, for any reason, whatsoever, the Bidder fails to enter into a proper contract and to execute the proper bonds, as required by these specifications, the amount of said guarantee retained by the Owner shall be larger amount of (a) the Bid Bond or (b) the difference between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the Work
- C. All certified checks, except the check of the Bidder to whom a contract is awarded, will be returned to the respective Bidders, as soon as the Letter of Award has been issued by the Owner.
 - 1. The check of the Bidder, to whom a contract has been awarded, shall be retained until the contract has been executed and all bonds together with an approved liability insurance policy are filed with the Owner.

1.3 PERFORMANCE AND PAYMENT BOND:

- A. A Performance and Payment Bond will be required for this project. The bond premiums will be paid for by the Contractor.
- B. The American Institute of Architects, AIA Document A312, 2010 edition, entitled "Performance Bond" and AIA Document A312, 2010 edition, entitled "Payment Bond" and shall be the contract bond form for this project. AIA Document A311 is not acceptable.
- C. Each bond shall be a sum equal to One Hundred (100%) of the Contract Sum and shall be in a form satisfactory to the Owner, and shall be underwritten by a surety company authorized to do business in the State of New York and be AM Best Secured Rating of "A" or better as to Policy Holder Ratings and "VII" or better as to Financial Size Category Rated or better.
 - 1. Paragraph 6 shall be deleted and substituted with the following:
 - a. When the Claimant has satisfied the conditions of Paragraph 4, and has submitted all supporting documentation and any proof of claim requested by the Surety, the Surety shall, with reasonable promptness, notify the Claimant of the amounts that are undisputed and the basis for challenging any amounts that are disputed, including, but not limited to, the lack of substantiating documentation to support the claim as to entitlement or amount, and the Surety shall, with reasonable promptness, pay or make arrangements for payment of any undisputed amount; provided, however, that the failure of the Surety to timely discharge its obligations under this paragraph or to dispute or identify any specific defense to all or any part of a claim shall not be deemed to be an admission of liability by the Surety as to such

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AND RELATED WORK
BONDS AND CERTIFICATES

claim or otherwise constitute a waiver of the Contractor's or Surety's defenses to, or right to dispute, such claim. Rather, the Claimant shall have the immediate right, without further notice, to bring suit against the Surety to enforce any remedy available to it under this Bond.”

- D. Every Bond under this paragraph must display the Surety's Bond Number.
- E. Each bond must be accompanied by an original Power of Attorney, giving the name of attorney's in fact and extent of bonding capacity.
- F. The Surety Company shall be obligated for the bonds for a two year period after substantial completion.
- G. A rider including the following provisions shall be attached to each Bond
 - 1. Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change or other modification of the Contract Documents. Such addition, alteration, change, extension of time, or other modification of the Contract Documents, or a forbearance on the part of either the Owner or the Contractor to the other, shall not release the Surety of its obligations hereunder and notice to the Surety of such matters is hereby waived.
 - 2. Surety further agrees that in event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.
 - 3. Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner.

END OF SECTION



AIA[®]

Document A310™ – 2010

Bid Bond

(Row deleted)

CONTRACTOR:

SURETY:

OWNER:

Edgemont School District
300 White Oak Lane
Scarsdale NY, 10583

BOND AMOUNT: \$

PROJECT:

Edgemont Union Free School District
Greenville Elementary School
Window Replacement, Tennis Court Renovation and Related Work

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



AIA® Document A312® – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

Name, legal status and principal place of business)

(Row deleted)

OWNER:

Edgemont Union Free School District
300 White Oak Lane
Scarsdale, New York 10583

CONSTRUCTION CONTRACT

Date:

Amount: \$ 0.00

(Row deleted)

Description:

Edgemont Union Free School District
Greenville Elementary School
Window Replacement, Tennis Court Renovation and Related Work

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____

Name and

Title:

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all documents..

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to allow Contractor access to site to complete project in accordance with the contract schedule.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

.1 Surety further agrees that in event of any default by the Owner in the performance of the Owner’s obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.

.2 Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner

.3 Each material or equipment supplier or subcontractor shall provide a partial release of liens every 60 days or as otherwise agreed upon between Owner and Contractor.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

Address: _____

Address: _____



AIA® Document A312® – 2010

Performance Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

OWNER:

CONSTRUCTION CONTRACT

Date:
Amount: \$ 0.00
(Row deleted)
Description:

Edgemont School District
300 White Oak Lane
Scarsdale NY, 10583

BOND

Date:
(Not earlier than Construction Contract Date)

Amount: \$
Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*

SURETY
Company: *(Corporate Seal)*

Signature: _____
Name and
Title:

Signature: _____
Name and
Title:

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 When the Claimant has satisfied the conditions of Paragraph 4, and has submitted all supporting documentation and any proof of claim requested by the Surety, the Surety shall, with reasonable promptness, notify the Claimant of the amounts that are undisputed and the basis for challenging any amounts that are disputed, including, but not limited to, the lack of substantiating documentation to support the claim as to entitlement or amount, and the Surety shall, with reasonable promptness, pay or make arrangements for payment of any undisputed amount; provided, however, that the failure of the Surety to timely discharge its obligations under this paragraph or to dispute or identify any specific defense to all or any part of a claim shall not be deemed to be an admission of liability by the Surety as to such claim or otherwise constitute a waiver of the Contractor's or Surety's defenses to, or right to dispute, such claim. Rather, the

Claimant shall have the immediate right, without further notice, to bring suit against the Surety to enforce any remedy available to it under this Bond.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

.1 Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change or other modification of the Contract Documents. Such addition, alteration, change, extension of time, or other modification of the Contract Documents, or a forbearance on the part of either the Owner or the Contractor to the other, shall not release the Surety of its obligations hereunder ad notice to the Surety of such matters is hereby waived.

.2 Surety further agrees that in event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or Surety shall cause written notice of such default (specifying said default in detail) to be given to the Owner and the Owner shall have thirty (30) days from the time after receipt of such notice within which to cure such default, or such additional reasonable period of time as may be required if the nature of such default is such that it cannot be cured within thirty (30) days. Such Notice of Default shall be sent by certified or registered U.S. Mail, return receipt requested, first-class postage prepaid to Owner.

.3 Surety agrees that it is obligated under the bonds to any successor, grantee or assignee of the Owner

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

Address: _____

Address: _____

EDGEMONT UNION FREE SCHOOL DISTRICT
GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
AND RELATED WORK
GENERAL CONDITIONS

**SECTION 00 7200
GENERAL CONDITIONS**

1.1 RELATED DOCUMENTS

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

1.2 FORM OF GENERAL CONDITIONS

- A. AIA Document A201, General Conditions of the Contract for Construction, 2017 Edition, attached, is the General Conditions between the Owner and Contractor and has been revised. All deletions and additions have been incorporated, and is hereby made a part of the specifications. All references to the General Conditions within these specifications shall mean "General Conditions of the Contract for Construction" the American Institute of Architects, A.I.A., Document A201, 2017 Edition, as revised.

1.3 RELATED REQUIREMENTS

- A. Section 00 5200 - Agreement Form
- B. Section 01 4216 - Definitions01 4216.

END OF DOCUMENT



AIA[®] Document A201[®] – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

Edgemont Union Free School District
Greenville Elementary School
Window Replacement, Tennis Court Renovation and Related Work

THE OWNER:

Edgemont School District
300 White Oak Lane
Scarsdale NY, 10583

THE ARCHITECT:

Fuller and D'Angelo, P.C.
Architects and Planners
45 Knollwood Road – Suite 401
Elmsford, NY 10523

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 OWNER
- 3 CONTRACTOR
- 4 ARCHITECT
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
- 8 TIME
- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503[™], Guide for Supplementary Conditions.

Init.

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User Notes:

(894135878)

14 TERMINATION OR SUSPENSION OF THE CONTRACT

15 CLAIMS AND DISPUTES

(Paragraphs deleted)

16 NO DAMAGES FOR DELAY

(Paragraphs deleted)

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties. Any discrepancy between these General Provisions and the various sections of the specifications the General Provisions shall prevail.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project. The Work includes all of the Contractor's responsibilities as to all labor, parts, supplies, equipment, skill, supervision, transportation services, storage requirements, and other facilities and things necessary, proper or incidental to the carrying out and completion of the terms of the Contract Documents and all other items of cost or value needed to produce, construct, and fully complete the Contractor's Work identified by the Contract Documents.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.1.9 Miscellaneous Definitions

§ 1.1.9.1 The terms "knowledge," "recognize" and "discover," their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows (or should know), recognizes (or should recognize) and discovers (or should discover) in exercising the care, skill, and diligence required by the Contract Documents. Analogously, the expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a contractor familiar with the Project and exercising care, skill, and diligence required of the Contractor by the Contract Documents.

§ 1.1.9.2 The term "any" in the Contract Documents shall be interpreted as "any and all" whenever one or more than one item would be applicable for completion of the Work.

§ 1.1.9.3 Except as otherwise explicitly provided, the words "approved" or "approval" shall mean the written approval of the Architect or Construction Manager.

§ 1.1.9.4 The term "as indicated" or "as shown" shall mean "as indicated in the Contract Documents."

§ 1.1.9.5 The term "include" in any form other than "inclusive" is non-limiting and not intended to mean "all inclusive."

§ 1.1.9.6 The terms "furnish" and "furnish all materials," unless specifically noted otherwise, mean "pay for, supply and deliver to the job site all materials, systems, equipment, product, and/or other items so specified."

§ 1.1.9.7 The terms "install" and "furnish all labor," unless specifically noted otherwise, mean "pay for, perform all operations connected with installation of Work including unloading product to be installed, supplying all necessary equipment and rigs to do the Work, test, place in operation and service, and remove all packing material."

§ 1.1.9.8 The term "product" includes materials, systems, equipment, and other items to be incorporated into the Work.

§ 1.1.9.9 The term "provide," unless specifically noted otherwise, means "furnish, install, connect up, complete, test and place in operation and service."

§ 1.1.9.10 The term "replace" or similar term shall mean remove designated, damaged, rejected, defective, unacceptable, or nonconforming Work from the Project and provide new work meeting the requirements of the Contract Documents in place thereof.

§ 1.1.9.11 The Contract Time is the period of time specified in Article 3 of the Agreement for completion of the Work.

§ 1.1.9.12 The terms "manufacturer" or "supplier" mean any person or entity which contracts to furnish materials to a Contractor, Subcontractor, or any Sub-subcontractor for use at the site of the Project.

§ 1.1.9.13 Terms not otherwise defined herein shall have the meanings set forth elsewhere in the Contract Documents.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. It is intended that all plumbing, mechanical, electrical, and other systems will be complete and in proper operation, and that all construction components, whether part of such systems or otherwise, will be complete and in compliance with accepted construction practice upon completion of the Work. Even if items are missing from the Drawings or

Specifications, but are normally required for proper operation of plumbing, mechanical, electrical, and other systems, or to complete otherwise incomplete construction, or to meet governing code requirements, they shall be included by the Contractor, unless he sought and received contradictory interpretation or clarification from the Architect.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.1.2 The Contractor and its Subcontractors shall evaluate and satisfy themselves as to the conditions and limitations under which the Work is to be performed, including without limitation (1) location, layout, and nature of the Project site and surrounding areas, (2) existing building and site conditions, (3) anticipated labor supply and costs, (4) availability and cost of materials, tools, equipment, (5) Owner occupancy requirements and constraints, (6) site safety logistics plan and any phased construction plan and (7) other similar issues. The Owner assumes no responsibility or liability for the physical condition or safety of the Project site or any improvements located on the Project site. The Contractor shall be solely responsible for providing a safe place for the performance of the Work. The Owner shall not be required to make any adjustment in either the Contract Sum or Contract Time in connection with any failure by the Contractor or any Subcontractor to comply with the requirements of this Section 1.2.1.2.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.2.1 The Work on the Project will be separated into individual and separate contracts. It is the intent of these requirements to include all items of Work for a complete Project in the separate contracts. The Contractor shall be responsible for understanding and knowing under which contract each item of Work is included.

§ 1.2.2.2 Each section or division of the Specifications has been assigned to one of the contract scopes. Where a section of the Specification is referenced in the contract scope, then any and all items necessary for the proper and normal installation of the item referenced in the Specification section shall be included whether specifically indicated in the Contract Documents or not.

§ 1.2.2.3 The reference of the "Specifications" regarding the division or separation of the work among types of trades or occupations is only for the suggested purpose of coordinating the work of the different trades, etc. but it shall be the Contractor's entire responsibility for the proper coordination and completion of all the Work described in the "Specifications" whether performed by the Contractor or its Subcontractors, if any. It shall be the Contractor's responsibility to settle definitely with each of its Subcontractors the portions of the Work, which each will be required to do and the Owner and Architect assume no responsibility whatever for any jurisdiction claimed by any of the trades involved in the Work. The Contractor shall provide each item listed, of quality noted and subject to the qualifications noted, and shall perform operations prescribed according to the conditions stated, including specified operations, processes or methods, furnishing all necessary labor, materials, equipment and incidentals required to complete the Work.

§ 1.2.2.4 The Contractor acknowledges that the coordination requirements and the construction schedule of this Project will require close cooperation and coordination between all Contractors on the Project site

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.2.4 In the event of conflict, ambiguity and/or unclear circumstances between any of the requirements of the Contract Documents, the requirement that is most inclusive of the highest quality and/or of the highest cost shall govern. The Contractor herewith agrees that no extra compensation shall be awarded to it, since it herewith received specific instructions to the procedure and values of the Work.

§ 1.2.5 In the event of inconsistencies or discrepancies within or between parts of the Contract Documents or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall (1) provide the better quality or greater quantity of work or (2) comply with the more stringent requirements; either or both in accordance with the Architect's interpretation. Where the Contractor perceives a conflict, it shall inform the Architect and Owner

thereof and request a decision from the Architect, which shall be promptly communicated by the Architect to the Contractor so as not to cause any delay in the performance of the Work. Any Work performed after perceiving the conflict and prior to resolution by the Architect shall be at the Contractor's risk. The terms and provisions of this Paragraph, however, shall not relieve the Contractor of any of the obligations set forth elsewhere herein.

- .1 The Contractor shall not scale Drawings. Dimensions on large scale drawings take precedence over dimensions on small scale drawings. The Contractor shall notify the Architect if additional dimensions are needed. The Contractor shall field verify all dimensions.
- .2 Before ordering any materials or doing any work, the Contractor and each Subcontractor shall verify measurements at the Project Site and shall be responsible for the correctness of such measurements. The Contractor shall confirm all dimensions by field measuring. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any difference that may be found shall be submitted to the Architect for resolution before proceeding with the Work.
- .3 If a minor change in the Work is found necessary due to actual field conditions, the Contractor shall submit detailed drawings of such departure for the approval by the Architect before making the change.
- .4 Certain portions of the Specifications are written in condensed outline form and omitted words are to be supplied by inference. Naming of an article or operations shall have the effect of stating "Contractor shall furnish, install and complete" said operation or article unless it is further qualified in the context in which it appears.
- .5 When reference is made to specifications of a manufacturer, trade association, governmental agency, reference standard or similar source (such as ASTM, ASA, AISC, ACI, etc.), such is made part of the Drawings and Specifications, having the force and effect as though reproduced therein, and upon entering into the Contract the Contractor acknowledges its familiarity with those pertaining to its Work. Furthermore, all Work mentioned or indicated in the Contract Documents shall be performed by the Contractor as part of the Contract unless it is specifically indicated in the Contract Documents that such work is to be done by others. All Work shall conform to the National Electric Code, New York State Uniform Fire Prevention and Building Code, and amendments thereto, New York State Energy Conservation Construction Code, State Education Department Manual of Planning Standards, New York State Department of Transportation, Office of Engineering, Standard Specification, Construction and Materials, latest edition, Life Safety Code – NFPA, and applicable City and State Building Codes and Authorities having jurisdiction. The date of the reference standard shall be the latest edition at the time of signing the Contract except as specifically indicated otherwise.
- .6 The Contract Drawings are intended to show the general arrangement, design, and extent of the Work and are partly diagrammatic. They are not intended to be scaled for any purpose, or to serve as shop drawings. The Contractor and its Subcontractors will cooperate with all other contractors and their respective subcontractors in determining the construction of systems, running of pipe, and locating equipment. The Contractor agrees that the failure to repeat typical details, figures, or notes on all Contract Drawings or other Contract Documents will not be a basis for claims for additional cost or time.
- .7 Any necessary variations in routing or installation shall be made to conform to the intent of the Contract Documents without additional costs. Where there are intersections or obstructions involving ducts, piping, or any other equipment requiring offset of materials, the Contractor acknowledges that it gave particular consideration to clearances in advance of submitting its bid, and that no additional costs for these issues will be considered by the Owner.
- .8 If conflicting conditions or interferences develop, the Contractor and its Subcontractors will confer with the other contractors and their respective subcontractors whose work is affected to determine a solution acceptable to all interested parties. The suggested solution shall be submitted to the Architect for comment and, if necessary, written approval.
- .9 The Contract Documents intend a first class finished product of such character and quality as described in and reasonably inferred from the Contract Documents. The Contractor will perform its Work to be complete and operable, fitting with the work of other contractors and the Owner, and in compliance with best construction practices and the ordinances, codes, and regulations of all bodies or persons having governmental or regulatory authority over the Contractor and its Work.

§ 1.2.6 Execution of the Contract by the Contractor is a representation that the Contractor has carefully examined the Contract Documents and the Project site, and represents that the Contractor is thoroughly familiar with the nature and location of the Work, the Project site, the specific conditions under which the Work is to be performed, the areas of the

Work which will cause a disruption to the necessary and proper operation of the facilities by the Owner, and all matters which may in any way affect the Work or its performance. The Contractor further represents that as a result of such examinations and investigations, the Contractor thoroughly understands the Contract Documents and their intent and purpose, and is familiar with all applicable codes, ordinances, laws, regulations, and rules as they apply to the Work, and that the Contractor will abide by same. Claims for additional time or additional compensation as a result of the Contractor's failure to follow the foregoing procedure and to familiarize itself with all conditions and the Contract Documents will not be permitted.

§ 1.2.7.1 The Contractor certifies that it is experienced and familiar with the requirements and conditions imposed during the construction of similar work in the area. This includes, but is not limited to, "out of sequence" or "come back" work for the removal of plant, equipment, temporary wiring or plumbing, etc. This "out of sequence" work may also include phasing of construction activities to accommodate the installation of the Work at various locations and orderly fashion and the completion of Work at various locations and/or levels at various times. This "phasing," "out of sequence," or "come back" work shall be done at no cost to other contractors, the Owner or Architect.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will establish the protocols for the development, use, transmission, and exchange of digital data. Neither the Owner, Architects or its agents are obligated to provide any available digital data or information to the contractor.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative. Refer to Section 01 4216 for additional definitions.

(Paragraphs deleted)

§ 2.2 Information and Services Required of the Owner

§ 2.2.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for **the building permit**, necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. All other permits required from local agencies required for construction shall be paid for by the Contractor.

(Paragraphs deleted)

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number. Refer to Section 01 4216 for additional definitions.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys, if available, describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall provide information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also provide any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services. The Contractor shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents as determined by the Construction Manager or Architect, or (3) fails or refuses to provide a sufficient amount of properly supervised and coordinated labor, materials, or equipment so as to be able to complete the Work within the Contract Time, or (4) fails to remove and discharge (within seven (7) days) any lien filed upon Owner's property by anyone claiming by, through, or under the Contractor, or (5) fails to perform the Work in a safe manner and in compliance with all applicable health and safety requirements and the Contractor's site specific health and safety plan, or (6) disregards the instructions of the Architect or Construction Manager, as determined by the Construction Manager or Architect, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3. Such order or stoppage by the Owner shall not constitute grounds for termination

by the Contractor under Article 14 and shall not be a basis for an extension of the Contract Time under Section 8.3 or Article 15.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects or fails to continuously and diligently to carry out the Work in accordance with the Contract Documents or in accordance with the Project schedule and fails within a five-day period after receipt of notice from the Owner to commence and continue correction of any such default, failure or neglect with diligence and promptness, the Owner may, after such three (3) work day period, without prejudice to other remedies the Owner may have, correct such deficiencies or defaults either with the Owner's own forces or by hiring another contractor to perform the Work that the Contractor is failing or neglecting to carry out. In such case an appropriate Change Order or Construction Change Directive shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, and defaults, including the Owner's expenses and compensation for the Architect's additional services and other expenses made necessary by such default, neglect, or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior consultation with the Architect, and shall be equally binding upon the Contractor's performance and payment bond surety. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

§ 2.5.1 Where the Contractor's default and/or neglect to carry out its Work in accordance with the Contract Documents threatens the health, safety and/or welfare of the occupants of the Owner's facilities and/or threatens the structural integrity and/or preservation of the Owner's facilities, the Owner may proceed to carry out the Contractor's Work upon twenty-four (24) hours' notice of its intention to do so to the Contractor. In such case an appropriate Change Order or Construction Change Directive shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies and defaults, including the Owner's expenses and compensation for the Architect's and its respective consultants' additional services and other expenses made necessary by such default, neglect or failure.

§ 2.6 Extent of Owner's Rights

§ 2.6.1 The rights stated in this Article 2 and elsewhere in the Contract Documents are cumulative and not in limitation of any rights of the Owner (1) granted in the Contract Documents, (2) at law or (3) in equity.

§ 2.6.2 In no event shall the Owner, Construction manager or Architect have any responsibility for the Contractor's construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work notwithstanding any of the rights and authority granted the Owner in the Contract Documents

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.1.1 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner pursuant to Section 2.3 and shall promptly report in writing to the Architect errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner or the Architect for damage resulting from errors, inconsistencies or omissions in the Contract Documents unless the Contractor knew or reasonably should have known of such error, inconsistency or omission and failed to report it as required by this Section to the Architect. If the Contractor performs any construction activity knowing it involves, or reasonably should have known it involves, a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect, the Contractor shall assume full responsibility for such performance and shall bear sole responsibility for the costs for correction.

§ 3.2.1.2 The obligations of the Contractor under Section 3.2.1.1 and this Section 3.2.1.2 are for the purpose of facilitating construction by the Contractor and are not for the purpose of imposing an affirmative obligation on the Contractor to discover errors, omissions, or inconsistencies in the design information in the Contract Documents. The Contractor's review of the Contract Documents is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically so provided in the Contract Documents.

§ 3.2.1.3 Failure by the Contractor to promptly report any errors, inconsistencies, or omissions in the Contract Documents discovered by the Contractor, or which the Contractor reasonably should have known or discovered, shall constitute a waiver by the Contractor of any claim that otherwise might result in a change in the Contract Sum or Contract Time.

§ 3.2.1.4 The representations of the Contractor as set forth in these General Conditions shall survive expiration and/or termination of the Agreement.

§ 3.2.2 The Contractor shall be presumed to have performed a detailed investigation of the Project site(s) to consider fully all conditions that may have a bearing on the Work and to have accounted for these conditions in its proposal. The Contractor is deemed to be a qualified expert in the systems and construction requirements of the Work of its Contract. The Contractor hereby specifically acknowledges and declares that the Contract Documents are full and complete, are sufficient to have enabled it to determine the cost of the Work, and that the Drawings, the Specifications, and all Addenda are sufficient to enable the Contractor to construct the Work outlined therein in accordance with applicable laws, statutes, building codes, and regulations, and otherwise to fulfill all of its obligations under the Contract Documents. The Contractor shall take field measurements, verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported in writing to the Architect at once. The exactness of grades, elevations, dimensions, or locations given on any Drawings issued by the Architect, or the work installed by other contractors, is not guaranteed by the Architect or the Owner. The Contractor shall, therefore, satisfy itself as to the accuracy of all grades, elevations, dimensions, and locations. In all cases of interconnection of its Work with existing or other work, it shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor's failure to so verify all such grades, elevations, dimensions, or locations shall be promptly rectified by the Contractor without any additional cost to the Owner. Except as to any reported errors, inconsistencies or omissions, and except as to concealed or unknown conditions, by executing the Agreement, the Contractor represents the following to the Owner and the Architect:

- .1 The Contract Documents are sufficiently complete and detailed for the Contractor to perform the Work required and to comply with all the requirements of the Contract Documents.
- .2 The Work required by the Contract Documents, including, without limitation, all construction details, construction means, methods, procedure and techniques necessary to perform the Work, use of materials, selection of equipment and requirements of product manufacturers are consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) the requirements of any warranties applicable to the Work; and (4) all laws, ordinances, regulations, rules and orders which bear upon the Contractor's performance of the Work.

§ 3.2.3 The Contractor shall perform the Work in accordance with the Contract Documents and submittals approved pursuant to Section 3.12.

§ 3.2.4 The Contractor may submit Requests for Information ("RFI") to the Architect to help facilitate the Contractor's performance of the Work. Prior to submitting each RFI, the Contractor shall first carefully study and compare the

Contract Documents, field conditions, other Owner-provided information, Contractor-prepared Coordination Drawings, and prior Project correspondence and documentation to determine that the information to be requested is not reasonably obtainable from such sources. The Contractor shall submit each RFI sufficiently in advance of the date by which such information is required in order to allow the Architect sufficient time to permit adequate review and response and to permit Contractor compliance with the latest construction schedule. The Contractor shall reimburse the Owner amounts charged by the Architect for RFI responses that in the opinion of the Architect were available from a careful review of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared Coordination Drawings, and prior Project correspondence and documentation.

§ 3.2.4.1 RFIs are for requests on clarifications or questions on contract drawings and specifications, not contract terms, scheduling items, or general correspondence, nor, as a means to describe or request approval of alternate construction means, methods or concepts or substitution of materials, systems means and methods. The Contractor shall fill all RFIs out in accordance with the provisions of the Project Manual. The Architect shall not fill said forms out on the Contractor's behalf.

§ 3.2.5 If the Contractor, during the progress of the Work, discovers any discrepancies between the Drawings and the Specifications, errors and/or omissions on the Drawings, or any discrepancies between physical condition of the Work and the Drawings, it shall immediately notify the Architect in writing who shall promptly adjust same. Whether or not an error is believed to exist, deviations from the Drawings and dimensions given thereon shall be made only after approval in writing is obtained from the Architect. Any work performed after such discovery without the approval of the Architect shall be at the Contractor's risk and expense

§ 3.2.6 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.7 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.1, 3.2.2, 3.2.4, 3.2.5 or 3.2.6, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.1, 3.2.2, 3.2.4, 3.2.5 or 3.2.6, the Contractor shall pay such costs and damages to the Owner, including architect's, engineer's and attorney's fees, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

§ 3.2.5 Except as to any reported errors, inconsistencies or omissions, and to concealed or unknown conditions defined in Paragraph 3.2.4, by executing the Agreement, the Contractor represents the following:

§ 3.2.5.1 The Contract Documents are sufficiently complete and detailed for the Contractor to (1) perform the work required to produce the results intended by the Contract Documents and (2) comply with all the requirements of the Contract Documents, within the time permitted for the completion of the work.

§ 3.2.5.2 The Work required by the Contract Documents, including, without limitation, all construction details, construction means, methods, procedures and techniques necessary to perform the work, use of materials, selection of equipment and requirements of product manufacturers will be consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) requirements of any warranties applicable to the work; and (4) all laws, ordinances, regulations, rules and orders which bear upon the Contractor's performance of the work.

§ 3.2.6 Building-In: Contractor(s) and sub-contractors shall note the parts and materials which must be built in as the work progresses, including but not limited to all templates, forms, sleeves, inserts, parts, blocks, anchors, etc. for all

work throughout and shall furnish to or set for the Contractor for General Construction in time to prevent delay in the work. Contractors shall also comply with Section 01 7310 or Section 01 7000 Cutting and Patching.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors including subcontractors of a subcontractor.

§ 3.3.3 The Contractor shall be responsible for coordinating the work of its own forces and the work of Subcontractors engaged by it to perform the Work of the Project on its behalf. The Contractor shall supply to its own work forces, and Subcontractors engaged by it to perform portions of its Work, copies of the Drawings and Project Manuals for the work to be performed by such individuals/entities on its behalf. The Contractor shall be responsible to the Owner for the acts and/or omissions of the Contractor's employees, the Contractor's Subcontractors, the Contractor's material suppliers, and/or their respective agents and employees, and any other persons performing portions of the Work on behalf of the Contractor.

§ 3.3.3.1 The Contractor's obligations under the Contract Documents shall include, without limitation, the following:

- .1 Review of all specified construction and installation procedures with its employees and/or Subcontractors, including, without limitation, those recommended by manufacturers, prior to the commencement of the relevant portion of the Work to be performed.
- .2 Advising the Architect:
 - .1 if a specified procedure deviates from best construction practice;
 - .2 if following a procedure will affect any warranties, including the Contractor's general warranty; or
 - .3 of any objections the Contractor may have to a procedure.
- .3 Proposing alternative procedures, as appropriate, which procedures shall be covered by the Contractor's warranty as described in Section 3.5 hereof.
- .4 The Contractor shall be responsible for organizing and conducting pre-installation conferences and must coordinate such conferences with the Architect.

§ 3.3.4 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.5 The Contractor shall inspect all materials as delivered to the Project site and shall reject any materials that will not conform with the requirements of the Contract Documents when properly installed.

§ 3.3.6 The Contractor shall be responsible for and coordinate any and all inspections required by any governmental body having jurisdiction over the Project. Failure to obtain any permits, licenses or other approvals because of the failure of the Contractor to conform to this requirement shall not extend the Contract time, and the Contractor shall not be entitled to any increase in the Contract Sum therefore. In addition, any additional costs and/or expenses of any nature incurred by the Owner as a result of the Contractor's failure to conform to this requirement shall constitute a charge against the Contractor's Contract.

§ 3.3.7 Shut Downs: Such work as connections to existing sewers, plumbing, heating, and electrical systems shall be coordinated at a time agreeable to the Owner and the Architect, and shall be determined and agreed to well in advance of the actual performance of such work so as to interfere as little as possible with the operation and use of the Owner's existing facilities. Shut downs must be coordinated through the Owner or Architect. The continued uninterrupted operation of all facilities of the Owner's buildings is essential. If any existing facilities must be interrupted, the Contractor for the Work shall provide all necessary temporary facilities and connections necessary for maintaining these existing facilities at no increase in the Contract Sum except as otherwise specified. No mechanical, heating, plumbing, sprinkler, or electric service shall be interrupted at any time except as approved in advance by the Owner or when the buildings are not occupied and shall be coordinated with the Owner, as well as the Architect. All communication systems must be maintained without interruption. As much related work as possible shall be performed prior to shut downs, so as to minimize the period of shut down. All material, equipment, and manpower necessary in the performance of a shut down shall be on site prior to interruption of service.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and timely pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Contractor is solely responsible for managing labor and labor relations, including labor disputes or concerted activity, direct or indirect, without any delays or interference with the work schedule and/or other contractors at the site. No delay in the performance of the Work shall be excused by reason of labor problems affecting the Contractor or any subcontractor. In the event of strikes or labor disputes by other separate prime contractors, or other contractors performing work for the Owner under other Contracts, each contractor shall continue with its work and provide all necessary manpower as required to maintain the schedule and completion dates of the project.

§ 3.4.1.1 A shortage of labor in the industry shall not be accepted as an excuse for not properly manning the Project at each site.

§ 3.4.1.2 The Contractor shall be responsible for the care and protection of all equipment and materials for its Work on the Project.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive. Any request by the Contractor to make modifications to the work or substitutions shall not in any way cause or result in the delay of the ordering of any materials or equipment or the scheduling of the Work. Any such request shall require a minimum of thirty days' notice to the Owner and Architect and shall include full documentation of all costs and the time necessary. The full cost of any request by the Contractor for a modification or substitution, including but not limited to the cost of fees for the review of such request by the Owner and Architect or legal counsel and any delay time, shall be borne by the Contractor. Refer to Section 01 2500 Substitution Procedures

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them. Should any disorderly, incompetent, or objectionable person be hired or employed by a Contractor, upon or about the premises of the Owner, for any purpose or in any capacity, he shall upon the request of the Architect, be discharged from the work, and not again be employed thereon without the written permission of the Architect.

§ 3.4.4 The Contractor warrants that it has good title to all materials used by it in, on or in connection with the Work. No materials or supplies shall be purchased by the Contractor or any of its Subcontractors that are subject to any chattel mortgage, conditional sale or other agreement by which an interest is retained by the seller.

§ 3.4.5 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.4.6 All mechanics employed on the Project shall be persons skilled in that work which they are to perform. Work will not be approved if it does not meet the quality of workmanship as called for in the Contract Documents. If this quality of workmanship is not exactly defined herein, it shall be assumed to be the best standards of workmanship for the trade.

§ 3.4.7 The Contractor shall only employ labor on the Project or in connection with its Work capable of working harmoniously with all trades, crafts and other individuals associated with the capital improvement work to be performed. The Contractor shall make every reasonable effort to avoid labor disputes and to insulate the Owner and Architect from the effects of labor disputes should any arise. There shall be no strikes, picketing, work stoppages, slowdowns or other disruptive activity at the Project for any reason by anyone employed or engaged by the Contractor to perform its portion of the Work. There shall be no lockout at the Project by the Contractor. The Contractor shall be responsible for providing the manpower required to proceed with the Work under any circumstance. For the purposes of this Section, every reasonable effort shall include, but not necessarily be limited to:

- .1 make all necessary arrangements to reconcile, without delay, damage or cost to the Owner and without recourse to the Architect or the Owner, any conflict between its Agreement with the Owner and any agreements or regulations of any kind at any time in force among members or councils which regulate or distinguish what activities shall not be included in the work of any particular trade;
- .2 requiring employees, Subcontractors, suppliers and others to use reserve gates which shall be established for the Project;
- .3 rearranging work schedules for the Contractor's Work or the work of its Subcontractors; and
- .4 including in Contractor's agreements with its Subcontractors the right to fully implement all provisions of this Section.

§ 3.4.7.1 In case the progress of the Work is effected by any undue delay in furnishing or installing any items or materials or equipment required pursuant to the Contract because of a conflict involving any such labor agreement or regulation, the Owner may require that other material or equipment of equal kind and quality be provided pursuant to a Change Order or Construction Change Directive but in no case shall the amount of such change be charged by the Contractor to the Owner as an additional cost to perform the Work.

§ 3.4.7.2 The Contractor shall ensure that its Work continues uninterrupted during the pendency of a labor dispute.

§ 3.4.7.3 The Contractor shall be liable to the Owner for all damages suffered by the Owner occurring as a result of work stoppages, slowdowns, disputes or strikes.

§ 3.4.8 The Contractor and its Subcontractors employed upon the Work will be required to conform with all labor laws and to all other laws, ordinances, and legal requirements now or hereafter applicable to the Work and/or the construction area.

§ 3.4.9 Employees of the Contractor or its Subcontractors whose work is unsatisfactory to the Owner or the Architect, or considered by them to be unskilled or otherwise objectionable, will be immediately dismissed from the Project upon notice from the Owner or the Architect. Those dismissed employees shall be immediately replaced by the Contractor so as not to delay progress of the Work and at no additional cost to the Owner.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may, in Architect's or Owner's sole discretion, be considered defective. This warranty shall include all parts and labor both on and off the Project site, together with all necessary transportation and shipping charges. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.). All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable manufacturer, except as otherwise provided in the Contract Documents. The Contractor shall perform the Work in strict accordance with the Contract Documents and best industry practices. The Contractor, at its expense, shall upon demand by the Owner or Architect remove and replace materials not meeting Specifications or materials failing to perform as represented or warranted by the manufacturer, regardless of whether incorporated into the Work. The Contractor shall

promptly replace or correct any Work or materials that the Owner or Architect rejects as failing to conform to the requirements of the Contract Documents. The foregoing warranty obligations are not limited by the provisions of Article 12, and are in addition to and not in limitation of any other warranty set forth in the Contract Documents or otherwise prescribed by law. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. In the event of a conflict between provisions of the contract documents, provisions providing for the longest warranty period shall apply.

§ 3.5.2 The warranties set forth herein shall survive termination of this Contract.

§3.5.2.1 The Contractor agrees to assign to the Owner at the time of final completion of the Work, any and all manufacturer's warranties relating to materials and labor used in the work and further agrees to perform the work in such a manner so as to preserve any and all such manufacturer's warranties.

§3.5.2.2 All new installations, assemblies, systems, equipment, and labor and materials installed by this Contractor shall be guaranteed against all defects and failures for a minimum period of 2 years from the date of final completion.

§3.5.2.3 For the above stated time periods from the date of final completion, the Contractor shall, at his own expense, promptly repair and put into first class condition any workmanship and materials in which defects may develop, and shall, at his own expense, promptly replace all defective equipment, apparatus, fixtures and materials, to the full satisfaction of the Owner.

§3.5.2.4 The date of final completion of all work shall be stated in writing by the Engineer/Architect, and as acknowledged in writing by the Contractor.

§3.5.2.5 During the guarantee period, the Contractor shall be responsible for all costs, incurred in making the defective work good, both for labor and materials, and for all resulting injuries and damages to the building and to equipment.

§3.5.2.6 The guarantee provided by the Contractor is in addition to any warranty provided by equipment and material manufacturer. The Contractor's guarantee period shall not negate the longer guarantee period provided by equipment and material manufacturers.

§3.5.2.7 The Contractor warrants good title to all materials, supplies and equipment installed or incorporated in the work.

§3.5.2.8 The Contractor for itself and its successors and assigns, warranties to the Owner and their successors and assigns:

- a. The Warranty shall remain in effect for a period of time specified by appropriate Divisions of Specifications.
- b. The Contractor will make good at its own cost and expense all defects and all damage caused to the Owner, in all Work and all trades required by the Contract Documents for Warranty Work. All corrections to defective Work shall be made at the convenience of the Owner.

§ 3.5.2.9 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with and issuance of the Certificate of Substantial Completion.

§ 3.5.2.10 Neither final payment nor provision in the Contract Documents nor partial or entire occupancy of premises by Owner shall constitute an acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibilities for faulty or defective materials or workmanship. **§ 3.5.3** Refer to Section 01 7800 Closeout Submittal for additional requirements.

§ 3.6 Taxes

§ 3.6.1 The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.6.2 Contractor shall pay all applicable local, state, federal and other taxes and licenses.

§ 3.6.3. The Owner is exempt from sales and use taxes for materials fully incorporated into the Work of the Contract as accepted and approved by the Architect. The Owner will take title to materials used in the Project in order to permit tax exemption. The Contractor shall pay all other sales, consumer, use and similar taxes incurred in connection with the Work provided by the Contractor. The Owner's exemption from sales and use tax does not apply to machinery, equipment, tools and other items purchased, leased, rented or acquired for the Contractor's use in part or entirely in connection with the Work. Upon request of the Owner or the Architect, the Contractor shall provide a bill of sale or other instrument indicating the quantities and types of materials purchased directly by the Contractor or Subcontractor for incorporation into the Work. Upon delivery of the materials to the Project sites, the Contractor shall mark or otherwise identify the materials to be incorporated into the Work. The Owner's tax exemption shall apply only to materials so identified and accepted.

§ 3.6.3.1 Owner shall provide required exempt documentation when requested

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided Paragraph 2.2.1 in the Contract Documents, the Contractor shall secure and pay for all other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. The Contractor shall pay any costs or fees incurred to comply with such requirements, any fines or penalties imposed for failing to comply and any costs or fees incurred by Owner due to any failure to comply. If the Contractor fails to give such notices, the Contractor shall be liable for and shall indemnify and hold harmless the Owner including its Board of Education, the Architect and their respective consultants, employees, officials, officers and agents against any resulting fines, penalties, judgments or damages, including reasonable attorney's fees imposed on or incurred by the parties indemnified hereunder.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. The Contractor shall procure and obtain all bonds required of the Owner or by the municipality in which the project is located or by any other public or private body with jurisdiction over the Project. In connection with such bonds, the Contractor shall prepare all applications, supply all necessary back-up material and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay all charges for all approvals for street closings, parking meter removal and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall

continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2

(Paragraphs deleted)

Refer to Section 01 2100 Allowances for payments.

(Paragraph deleted)

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. The superintendent shall be at the site at all times when work is being performed and fluent in English, and be provided at all time with direct communications (cell phone) .to all parties.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent including addresses and telephone numbers of the members of his organization who can be contacted in the event of an off-hours emergency at the building site. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed. The Superintendent shall be changed upon request of the Owner for reasonable cause.

§ 3.10 Contractor's Construction and Submittal Schedules Refer to Section 01 3216 or 01 3000 for additional

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. Revisions to schedule shall be approved by the Owner.

§ 3.10.1.1 All of the dates provided for in any of the schedules prepared by the Contractor and submitted to the Architect, including all milestone and submittal dates, shall be considered to be "time of the essence" and may not be changed or modified without the Owner and Architect's specific written approval.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.2.1 All of the dates provided for in any of the schedules prepared by the Contractor and submitted to the Construction Manager and Architect, including all milestone and submittal dates, shall be considered to be "time of

the essence" and may not be changed or modified without the Owner or Construction Manager's specific written approval.

§ 3.10.3 The Contractor shall perform the Work in accordance with the most recent approved schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work. All shop drawings are the product and property of the Contractor.

§ 3.12.1.2 Refer to Section 01 3000 for additional requirements.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting fully confirmed Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the

deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

(Paragraphs deleted)

§ 3.12.11 Comply with Submittal Procedures. Section 01 3000.

§ 3.13 Use of Site

§ 3.13.1 The Contractor(s) shall have limited access to the site on the inside and outside of the building. Comply with other sections regarding limited access. The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Construction Manager before using any portion of the site.

§ 3.13.3 The Contractor shall perform and shall ensure that all Subcontractors and suppliers perform all Work in a manner that permits reasonable access to the Project site and to all adjacent premises. The Contractor shall not, and shall not permit any Subcontractor or supplier to, conduct the Work in a manner that disturbs or that could be reasonably anticipated to disturb operations and persons located in or on portions of the site not affected by the Work. The occupied portion of any of the Owner's buildings shall always comply with the minimum requirements necessary to maintain a certificate of occupancy.

§ 3.13.4 Construction Rules and Regulations. The following rules and regulations shall be observed and enforced by all Contractors in connection with all phases of the Work:

- .1 In accordance with New York State law, smoking is prohibited anywhere on school property. Violators will be subject to arrest and/or fine of \$1,000 per occurrence. No alcoholic beverages or controlled substances are permitted on school property, and persons under the influence of alcoholic beverages or controlled substances may not enter in or remain on school property.

- .2 In accordance with the United States Gun-Free School Zones Act of 1994, no firearms are permitted within 1,000 feet of any school building, with certain limited exceptions as set forth therein. In addition to such limitations, no firearms shall be brought on school property without the Owner's express prior consent.
- .3 Appropriate protective gear (hard hats, safety shoes, goggles, etc.) are to be worn as required by OSHA standards, the New York State Department of Labor, and prudent practice. Shirts are to be worn at all times. No short pants are permitted.
- .4 Any person who uses inappropriate language, or who is disruptive to the school environment, will be banned from the site.
- .5 The Contractor's personnel shall not converse with school employees, students and or local residents.
- .6 All persons on the Project site will comply with all reasonable instructions regarding conduct and safety which are given by the Architect or the Owner's representative.
- .7 All construction materials shall be stored in a safe and secure manner. No deliveries will be allowed during school bus drop off or pick up hours as determined by the Owner. All deliveries shall be scheduled and coordinated with the Architect and the Owner's Security department. Unexpected or uncoordinated deliveries may be turned away by the Owner or Architect at the discretion or necessity of the Owner. The Owner's enforcement of this provision shall not be construed by the Contractor or Subcontractor as the basis for a claim of delay in time or monetary damages alleged to have been incurred as a result of refusal of delivery.
- .8 Use of the existing building facilities during construction is prohibited, specifically including toilet rooms, telephones and water fountains.
- .9 The Contractor's schedule shall allow for blackout dates during which no noisy Work will be allowed, as determined by the Architect and Owner. Contractors may consult the Owner's school calendar for all test and examination dates, but these dates are subject to change.
- .10 To gain access to the Work, entrances and parking areas will be designated by the Owner for the Contractor's use. Any vehicles or trucks in non-designated areas may be towed at the Contractor's expense. Gates shall always be locked unless a worker is in attendance to prevent unauthorized entry.
- .11 Should it become necessary to obtain access to the existing building during construction hours for measurements or other non-disruptive work, the Contractor shall be escorted by the Owner.
- .12 All persons must wear photo identification badges at all times while working at the site. Identification badges must be provided by each prime Contractor for their respective personnel, including subcontractors, consultants, visitors and others.
- .13 No asbestos containing products are to be used anywhere on this Project.
- .14 No lead containing products are to be used anywhere on this Project.
- .15 Asbestos manifests showing the locations of all known asbestos bearing materials are available in each building, and should be consulted prior to the commencement of any work, including but not limited to demolition.
- .16 Demolition is to occur only when the building is unoccupied. Dust partitions and negative air are to be installed prior to commencing demolition. The Contractor must obtain Owner or Architect approval on dust partitions and negative air prior to commencing demolition work. Debris shall be removed by using an enclosed chute or similar sealed system.
- .17 (a) Prior to the commencement of Work, the Contractor must submit construction plans, which show the location of dust particles, exhaust & fresh air fans and describe in detail the operation procedures during demolition and construction which may generate dust.
(b) All entrances to classrooms shall be sealed with at least 6 mil. polyethylene sheeting to prevent dust created by demolition and construction work from entering the classrooms. Entrances and egress to the work zone shall be covered with a triple flap 6 mil. polyethylene doorway to allow access to the area without the release of dust. Contractors are additionally responsible for all debris and dust infiltrating adjacent and undisturbed areas of the building.
(c) Shut down and lock out all electrical and HVAC in the work area. Cut, cap, and seal all duct work where it enters the work area from another space. All duct work and conduit within the space shall be removed during demolition work.
(d) The Contractor shall install dust protection barriers and poly sheeting. There shall be no or minimum damage to adjacent surfaces. The Contractor is responsible to repair any damage to existing surfaces.

- .18 Painting or other chemical applications shall be done in the Owner's existing building only when it is unoccupied. Storage of chemicals and painting shall be outside the Owner's existing or new structures, and shall follow manufacturer's storage guidelines.
- .19 Oxygen or other gas containers shall be properly stored and secured per OSHA requirements, to the satisfaction of the Architect and Owner. Failure to do so will result in a \$250 back-charge, per occurrence.
- .20 The Contractor is responsible for cleaning its own materials and debris. Failure to maintain a clean work site daily will result in others performing the work at the Owner's request, and the Contractor will be back-charged for the cleaning cost plus construction administration fees. This may be done without the typical 3-day notice to the Contractor.
- .21 The Contractor must send a qualified representative, knowledgeable in the Project and authorized to make decisions on behalf of the Contractor, to every Project meeting.
- .22 The Contractor shall cooperate with the Owner's school principal and custodial staff; however, if any additional work is requested the Contractor shall not proceed unless written approval is received from the Owner's representative. The Contractor will not be compensated for any additional work performed without the Owner's prior written approval.
- .23 Deliveries sent to the Project site will not be signed for or unloaded by the Owner. They will be directed to the construction site and if no employee is on site, the delivery will be rejected, at the Contractor's expense.
- .24 The General Construction Contractor shall be responsible for managing dust and dirt. On the exterior, site shall be watered down frequently to prevent dust clouds from rising. Streets shall be maintained clean per the Owner's or Architect's request.
- .25 All hot tar roofing shall be installed after school hours or on weekends/holidays only. Kettles shall not be lit until all students have left the Owner's building.
- .26 Each Contractor shall submit a weekly work schedule indicating work days, work hours and manpower allocation.
- .27 No storage of materials will be permitted within the Owner's buildings at any time during construction. Contractors must provide exterior storage containers when required. The Contractor shall be responsible for securing appropriate space for its material with the Owner prior to delivery. Final location of storage containers shall be determined by the Owner. If insufficient space is available on the site, the Contractor shall provide local off-site storage, storage containers, etc. at its own cost and expense. Should any of the material stored on-site obstruct the progress of any portion of the Work or the Project, this material shall be removed by the Contractor without reimbursement of cost, from place to place or from the premises, as the Owner may direct.
- .28 The General Construction Contractor shall be responsible for maintaining all appropriate site safety signage.
- .29 The Contractor shall be responsible for protecting the Owner's property. All existing shrubs, trees, lawn fixtures, sculptures and miscellaneous equipment shall be protected at all times. Any removals or relocation of said objects, if allowed shall be as directed by Owner in writing.
- .30 The General Construction Contractor shall provide and service portable lavatories for the duration of construction as provided in the Contract Documents. Lavatories shall be serviced by the General Construction Contractor on a regular basis to maintain sanitary conditions.
- .31 The General Construction Contractor shall protect all existing roofs during construction and shall be responsible for any damage to roofs during construction. The General Construction Contractor shall make all repairs to any damaged areas, as required by the manufacturer of the roof system.
- .32 The General Construction Contractor shall be responsible for providing weather-proof protection over all rough openings, including windows.
- .33 Five (5) days after receipt of the Notice to Proceed, the Contractor shall provide two (2) copies of a videotaped recording of all existing conditions to the Architect. This taping shall provide a record of all existing buildings, grounds, exterior conditions and interior conditions. The Contractor shall schedule a representative of both the Owner and the Architect to be present at this taping. In the absence of this record, the Contractor shall be responsible for paying the costs associated with any and all repairs in an area where the Contractor is working or has worked, as may be deemed necessary by the Owner or the Architect.
- .34 Manufacturers Material Safety Data Sheets (MSDS) shall be available at the site for all products used in the Project.
- .35 No weapons are permitted on the Owner's property by law.

- .36 No Contractor, Subcontractor, nor any person on its behalf shall, in any manner, engage in discrimination, intimidation or harassment of any person on the Project site.
- .37 Proper attire is required for personal safety and clothing must not sexually explicit or contain messages of a vulgar nature, disrespectful of ethnic or religious groups, or which promote the use of tobacco, alcohol or drugs.
- .38 Only materials and equipment that are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage, and all other adversity is solely the responsibility of the Contractor.
- .39 The Contractor will ensure that the Work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work will be performed in such a manner that public areas adjacent to the site of the Work will be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, the Contractor will use its best efforts to minimize any interference with the occupancy or beneficial use of (1) any areas and buildings adjacent to the site of the Work; or (2) the Owner's building in the event of partial occupancy, as more specifically described in Section 9.9.
- .40 The Contractor is required to protect its own Work and work areas, preconstruction, during construction and post construction.
- .41 During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.
- .42 The Contractor shall exert utmost care and diligence when working in or near any existing buildings or site work. The absence of protection around such items shall not excuse the Contractor from its liability to provide protection. Any damage to existing buildings, sitework or facilities shall be repaired and charged to the Contractor responsible for the damage.
- .43 The Contractor shall be responsible for the removal and replacement of existing ceiling tiles and grid in areas of the existing building where its Work is required and new ceilings are not scheduled for installation. In the event that the existing ceilings are damaged and cannot be replaced to the satisfaction of the Owner, the responsible contractor shall be liable for the costs of replacing in kind, the existing ceilings with new tile and grid.
- .44 The General Construction Contractor shall provide necessary and required security measures to adequately safeguard the construction site from vandalism and intrusion of unauthorized persons. The General Construction Contractor shall submit its means and methods of security to the Owner and Architect for review and comment. The Project site must be secured 24 hours a day, 7 days a week including holidays. The General Construction Contractor's failure to secure the site as required by this paragraph will result in the Owner engaging the services of such necessary personnel so as to provide such security. No notice will be given the General Construction Contractor of the Owner's intention to engage such security services and all costs and expenses associated with the Owner's security of the site in this regard will be back charged to the General Construction Contractor. While the Owner may have security guards patrolling the Project areas, the function of such security guards is not for the purpose of specifically guarding the Contractor's property or operations of work.
- .45 The Contractor and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the written consent of the Owner, which may be withheld in the sole discretion of the Owner.
- .46 Without limitation of any other provision of the Contract Documents, the Contractor will comply with all reasonable rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project site and the buildings, as amended from time to time by the Owner.

§ 3.13.5 Separation of Construction Areas from Occupied Spaces: Construction areas which are under the control the Contractor and therefore not occupied by the Owner's staff or students shall be separated from occupied areas. Provisions shall be made by the Contractor to prevent the passage of dust and contaminants into occupied parts of the Owner's building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or contaminants. Gypsum board must be used in exit ways or other areas that require fire rated separation. Heavy duty plastic sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas. Methods of dust and fume control shall include, but not be limited to:

- .1 Adequate ventilation;
- .2 Wetting down;
- .3 Keeping bags of insulating materials, cement, etc. closed;
- .4 Controlled mixing of materials under field conditions;
- .5 Special attention should be used in sawing insulation and certain acoustical materials and storage of materials;
- .6 Job housekeeping must be maintained; and
- .7 Advising all personnel of hazardous conditions, including supervisors and workers.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents. Refer to Section 01 01731 or Section 01 1700 for additional requirements.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.15.3 Prior to occupancy the Owner must perform custodial cleaning of the work area. If the Contractor has not removed construction debris, equipment, tool etc. which will prevent the Owner to perform custodial cleaning the Contractor will be back charged for additional cleaning costs incurred by the Owner.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located. Federal, state, and local agencies with jurisdiction over the Project shall at all times have access to the Work wherever it is in preparation or progress. The Contractor shall provide for such access so that such agencies may perform their functions. The Contractor shall allow access for all required tests and inspections.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

(Paragraph deleted)

§3.18.1 Indemnity Agreement - Compliance with the foregoing requirements as to insurance shall not relieve the contractor from liability under the indemnity agreement set forth in the general conditions as amended

§3.18.1.1 To the fullest extent permitted by law, and cause its Subcontractors to, defend, indemnify and hold harmless the Owner, Architect, and their consultants, officers, directors, board members, agents and employees of any of them (collectively, "Indemnitees," individually, "Indemnitee") from and against all losses, damages, liabilities, actions, causes of action, claims, demands, fines, penalties, judgments, costs and expenses (including, without limitation, reasonable attorneys' fees, court costs and disbursements) arising out of or resulting from (a) the breach of any terms, covenants, or conditions on Contractor's part to be performed under the Agreement or the Contract Documents, (b) performance of and/or failure to perform the Work, (c) any statutorily imposed liability for injury to employees or failure to comply with any laws or regulations affecting the Work, or (d) acts, omissions or misconduct of the Contractor, its Subcontractors and others for whom the Contractor is responsible, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or economic losses or damages, damage to or destruction of property, including without limitation damage related to water infiltration, and for environmental damage, or to injury to or destruction of tangible property and nuisance (including loss of use), but only to the extent caused by the acts, omissions, wrongful conduct or a breach of contract of the Contractor, a Subcontractor, and anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Nothing contained herein shall be construed to obligate the Contractor to indemnify, defend, and hold the Owner harmless for claims caused solely by the Owner's negligent acts or omissions.

The Contractor agrees to include the following indemnity provision in each and every contract it enters into with a Subcontractor, and to require that Subcontractor to include such provision in each contract it enters into with any lower tier Sub-subcontractor: "To the fullest extent permitted by law, Subcontractor shall defend, indemnify and hold harmless the Contractor, Owner, Owner's Consultants, and the Architect's consultants, and each of their respective representatives, board members, employees, directors, officers, and agents, from and against any and all claims, suits, actions, damages, losses, fines, penalties, costs, charges and expenses, including but not limited to attorneys' fees and the costs of any proceeding, arising out of or resulting from any performance of or failure to perform the Work, acts or omissions of the Subcontractor, its lower-tier Sub-subcontractors, and others for whom the Subcontractor is responsible, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or economic losses or damages, damage to or destruction of property, and for environmental damage, or to injury to or destruction of tangible property and nuisance, but only to the extent caused by the acts or omissions or a breach of contract of the Subcontractor, a Sub-Subcontractor to Subcontractor, and any person or entity directly or indirectly employed by them or any person or entity for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder."

§3.18.1.2 In the event that any party is requested but refuses to honor the indemnity obligations hereunder, then the party indemnifying shall in addition to other obligations, pay the cost to the party requesting indemnification or seeking enforcement and enforcing this indemnity requirement including, but not limited to attorney's fees.

§3.18.1.3 In addition, to the extent not covered above, the contractor or subcontractor shall defend, indemnify and hold harmless the Owner, Owner's Representative, Architect, Architect's Consultants, and agents and employees of any of them, from any and all claims, losses, damages, suits, obligations, fines, penalties, costs, charges and expenses, which may be imposed or incurred by or asserted against any of them by reason of any act or omission of such contractor, or any subcontractor, or any person or firm directly or indirectly employed by such contractor with respect to violations of OSHA requirements, rules and/or regulations

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

§ 3.18.2.2 The Contractor's defense and indemnity obligations under this Section 3.18 shall specifically include all claims and judgments that may be made against the Indemnitees under the Labor Law of the State of New York, and similar laws of other state or governmental bodies having jurisdiction; and further, against claims and judgments arising from violation of public ordinances and requirements of governing execution of the Work.

§ 3.18.3 Claims by Governmental Authorities. To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Indemnitees from and against claims, damages, losses, and expenses arising out of

any claims made against the Indemnitees under the laws of federal, state, or other governmental bodies having jurisdiction over the Work, including but not limited to claims arising from violation of public ordinances and other requirements of governing authorities, due to the Contractor's method of execution of the Work or implementation of any of the Contractor's other obligations under the Contract Documents.

§ 3.18.4 Liens and Security Interests. To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Indemnitees from and against any actions, lawsuits, or other proceedings brought against Indemnitees as a result of liens or security interests of any type arising from the Work and filed against the Work, the site of any of the Work, the Project site and any improvements thereon, payments due the Contractor, or any portion of the property of any of the Indemnitees.

§ 3.18.5 The Contractor shall further indemnify and hold harmless the Indemnitees from and against any costs and expenses (including reasonable attorneys' fees) incurred by any of the Indemnitees in enforcing any of the Contractor's defense, indemnity, and hold harmless obligations under this Section 3.18 or as may otherwise be provided elsewhere in the Contract.

§ 3.18.6 Subject to Section 3.18.7, all obligations of the Contractor under this Section 3.18 to defend the Indemnitees are obligations to provide full defenses at the sole cost and expense of the Contractor, regardless of any alleged culpability on the part of any Indemnitee or any ultimate determination of relative shares of liability of any Indemnitee or limitation of the Contractor's indemnity obligations in light of such determination.

§ 3.18.7 To the extent any defense, indemnity, or hold harmless obligations under this Section 3.18 are made void or otherwise impaired by any law controlling their construction (including but not limited to laws limiting such obligations to the extent of the portion of damages caused by an indemnitor), such obligations shall be deemed to conform to the greatest rights to defense and indemnity permitted by such law (including but not limited to New York State General Obligations Law Section 5-322.1).

§ 3.18.8 All provisions of this Section 3.18 shall survive termination of the Agreement or final completion. No obligations under this Section 3.18 shall be construed to negate, abridge, or reduce other rights or obligations to defense and indemnity, including but not limited to common law indemnity, which would otherwise exist as to a party or person described in this Section 3.18.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents and to perform such inspections and observations as are necessary to allow the Architect to review and approve change orders, claims of any kind and interim and general requisitions for payment, all in accordance with the applicable provisions of the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods,

techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Refer to Section 01 3000 for additional requirements.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.8.1 Neither the Owner, Owner's Representative nor Architect may issue instructions to the Contractor to change the amount of the contract, except by properly executed Change Order.

§4.2.8.2 Instructions are issued by the Owner through the Owner's Representative or Architect, to the Contractor. The instructions shall not be carried out by the Contractor prior to a written order in the form of a change order, signed by the Owner, Architect and Contractor, authorizing a change in the Contract amount or an adjustment to the Contract Sum.

§4.2.8.3 No amount shall be payable by the Owner to the Contractor for performance of work without an executed change order. Comply also Article 7.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith. Should the Architect's written interpretations, in the opinion of the Contractor, show additional work, or work of more expensive character than that shown or inferred by the Contract Drawings, it shall be the duty of the Contractor to so notify the Architect within five (5) days from receipt of same in order that proper adjustment may be made if found justifiable in the opinion of the Architect and the Owner. The Contractor shall assume full responsibility for all such work done without the approval of the Architect and the Owner

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor within 10 days after award of the Contract, shall notify the Owner and Architect in writing, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Copies of all subcontractor contracts are to be provided to the Owner's Representative.

§ 5.2.2 Each Contractor shall not award any work to any subcontractor or supplier without prior written approval of the Architect and Owner's Representative. Approval will not be given until Contractor submits to the Architect a written statement concerning the proposed award to the sub-contractor. The statement shall contain such information as the Architect or Owner's Representative will require..

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner and Architect have no reasonable objections. No increase in the Contract Price shall be allowed where a subcontractor is rejected by the Architect or Owner who is deemed unqualified to perform the particular work subcontracted by the Contractor or having too many current projects handled by insufficient personnel.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

(Paragraphs deleted)

§ 5.2.5 Notwithstanding any other provisions of the Contract Documents, Contractor shall perform at least Seventy-five (75) % of the field work by its own employees.

§ 5.2.5.2 For the purpose of the preceding paragraph, any part of the work performed by supervisory personnel (persons above level of foreman) or by the office personnel and such items as bonds, certificates, shop drawings and similar items shall not be considered part of the percentage of work required to be performed by the Contractor's employees.

§ 5.3 Sub-Contractual Relations

§ 5.3.1 By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors. The agreement between the Contractor and Subcontractor shall not provide, nor shall the Contract Documents be deemed to provide, any rights, remedies or redress by the Subcontractor(s) against the Owner.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation. Should any Contractor sustain any damage or delay through any act or omission of any other Contractor having a contract with the Owner for the delivery and/or the installation of materials, supplies, equipment, plant, or appliances, or should the Contractor sustain any damage or delay through any act or omission of a subcontractor, the Contractor shall have no claim against the Owner or their Architects for such damage or delay, but shall have a right to recover or to claim such damage only from the other Contractor or subcontractor.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any

revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.2.6 Claims and other disputes and matters in question between the Contractor and a separate contractor shall be subject to the provisions of Article 15

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Change Orders shall be submitted in total amounts for a particular change not in installments for each trade thereafter. All partial change order submissions will be rejected and returned to each Contractor for completion.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.2.1 Field orders are an interpretation of the Drawings and/or Specifications which order minor changes in the Contractor's work which will not result in an increase or decrease in the Contract Sum. From time to time, the Architect may issue field orders to the Contractor. The work included in such field order shall be performed by the Contractor at no additional cost to the Owner and shall not form the basis for a claim for an extension of the Contract

Time. Hence, the Contractor shall perform the work included in field orders so as to cause no delay to its Work and/or the work of other contractors engaged by the Owner in connection with the Project.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work. Additional work performed without authorization of a fully-executed Change Order will not entitle the Contractor to an increase in the Contract Sum or an extension of the Contract Time. No course of conduct or prior dealings between the parties, nor express or implied acceptance of alterations or additions to the Work, and no claim that the Owner has been unjustly enriched by any alteration or addition to the Work, whether or not there is, in fact, any unjust enrichment of the Owner, shall be the basis for any claim to an increase in any amounts due under the Contract Documents or a change in any time period provided for in the Contract Documents. No amount shall be payable by the Owner to the Contractor for performance of work without a written and fully executed Change Order.

§ 7.1.4 When the Owner or Architect requests that the Contractor perform work which is not included in the Contract Drawings or Specifications and which will result in additional cost to the Owner, the Architect shall request that the Contractor submit its proposal for performing such additional work. The Contractor shall submit its proposal to the Owner and Architect for review. The Contractor's proposal shall include a complete itemization of the costs associated with performing its work including labor and materials. All proposals for any work that a Contractor, its Subcontractor(s) or Sub-subcontractor(s) perform in connection with additional work shall be properly itemized and supported by sufficient substantiating data, including but not limited to material descriptions, material quantities, material unit prices, labor trade listings, labor hour quantities, labor trade rates, equipment descriptions and equipment rates with a percentage allowance for overhead and profit.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.
- .4 In cases where allowances are shown on the bid form and accepted by the Owner, they shall be used to determine the amount of addition to or deduction from the Contract Price. The unit prices or allowances when mutually agreed to be fair and equitable by Owner and Contractor will be made part of the Agreement.

§ 7.2.1.1 Changes in the Work involving additional Work or deletion of Work effecting an addition to or subtraction from the Contract Sum shall not be made until the Contractor submits to the Architect the cost of the added or deleted Work with a complete and detailed listing of all Subcontractors involved, all materials, labor, overhead and profit and an appropriate Change Order has been issued. If requested, the Contractor shall submit detailed quotations for Subcontractors and material suppliers. Changes in the Work when not involving additions or deletions from the Contract Sum shall not be made until the Architect has issued an appropriate Change Order. All Change Orders must have the approval of the Owner and Architect in writing.

§ 7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Section 7.3.3.

§ 7.2.3 Agreement on any Change Order shall constitute a final settlement of all Claims and other matters related to the change in Work that is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change (including, without limitation, all costs of associated delay, interference, acceleration, inefficiency, overhead, as well as costs of material, labor and supervision), and any and all adjustments to the Contract Sum and the Contract Time. Payment of a Change Order shall constitute accord and satisfaction of all Claims of the Contractor in connection with the change or changes to the Contract addressed by the Change Order and it is understood and agreed that a signed Change Order shall be the complete and fully integrated agreement for all related costs and there are no oral or written understandings, reservations, representations or agreements, directly or indirectly, connected with the Change Order and not affirmatively stated on the signed Change Order. In the event a Change Order increases the Contract Sum, the Contractor shall include the Work covered by such Change Orders in Applications for Payments as if such Work were originally part of the Contract Documents.

§ 7.2.4 Upon the Contractor's completion of the Change Order work, and prior to payment being made to the Contractor for such work, the Contractor shall provide the Owner with the following information:

- .1 Certified payrolls itemizing the labor actually utilized in connection with the Change Order work; and
- .2 Copies of invoices from its Subcontractors supplying work in connection with the Change Order work.

§ 7.2.5 Additional work performed without authorization of a Change Order will not entitle the Contractor to an increase in the Contract Sum or an extension of the Contract Time, except as provided in Section 7.3, and except in the case of an emergency as provided in Section 10.4

§ 7.2.6 Final determination of all claims shall be by the Owner

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.1.1 If the Construction Change Directive involves an adjustment to the contract price, the adjustment will be computed by the Architect in form conforming to 7.3.3.5.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. In the event the Contractor and the Owner cannot agree on the sum by which the Contract Sum or the amount of time by which the Contract Time is to be increased or reduced based upon changes to the scope of the Work as described in Article 7, the Architect shall issue a Construction Change Directive reflecting the increase and/or reduction of the scope or price of the Contractor's Contract.

§ 7.3.2.1 If the Owner and the Contractor cannot agree that the requested Work properly forms the basis for a Change Order or on the sum by which the Contract is to be increased or reduced based upon changes to the scope of Work, the Architect shall issue a Construction Change Directive signed by the Owner and Architect reflecting the addition to, or deduction of, the scope of Work and the Contractor shall (a) in the case of additional work to be performed by the Contractor, perform such additional work in an expeditious manner so as not to delay the Work of the Contractor or other Contractors working at the site and keep records of its performance of such additional work, and (b) in the case of work to be deducted from the scope of the Contractor's Work, refrain from taking any steps in connection with the work associated with the deduction of the Contractor's Work. The Construction Change Directive shall include: (a) a description of the work being added or deducted from the Contractor's scope of Work; (b) the amount the Owner has determined to be the cost associated with the additional work or deduction of the scope of the Contractor's Contract until the Owner and the Contractor agree upon the increase or decrease in the Contractor's Contract Sum, or until a claim filed by the Contractor has been determined; and (c) the extent to which the Contract Time will be adjusted as a result of the change in the scope of Work. Any claims must be filed in accordance with the requirements set forth in Article 15 of these General Conditions. Failure to timely file any claim in accordance with requirements set forth therein shall constitute a waiver of such claim.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents Section 01 2100 or subsequently agreed upon (unit prices shall be deemed to include all costs and expenses for the Contractor's changed Work, including costs of general conditions, insurance/bonds and overhead and profit attributable to the change);
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 All additions and deductions to the Contract Price not covered by unit prices resulting from changes in the Work shall be determined by the following outline:
- .5 CONTRACT WORK
 - a. Materials (Itemized Breakdown) _____
 - b. Rent of Equipment (Listed separately)

Sub-Total #1(items (a & b)	_____	_____
c. Sales Taxes (where applicable on Sub-Total #1)	_____	_____
d. Labor (Itemized Breakdown)	_____	
e. Insurance (Workmen's Compensation Social security or as otherwise required and/or specified)	_____	_____
Sub-Total #2 (items c, d & e)	_____	_____
f. Overhead & Profit (% x Sub-Total #2) As per Article 7.3.	_____	_____
g. Sub-contract Work (If applicable, in identical breakdown, as shown above Sub-Total #1 & 2)	_____	
h. Contractor's overhead & profit on sub-contract changes (5%)	_____	_____
Sub-Total #3 (items f, g & h)	_____	_____
i. TOTAL QUOTATION (Sub totals 1, 2, 3)	_____	_____

§ 7.3.3.1 Change Orders shall be submitted in total amounts for a particular change, not in installments for each trade thereafter. All partial change order submissions will be rejected and returned to the Contractor for completion.

.1 Overhead and profit combined, included in the total cost to the Owner, shall be based on the following schedule:

For the Contractor, for any Work performed by the Contractor's own forces, ten percent (10%) of the cost.

For the Contractor, for Work performed by Contractor's sub-contractor, five percent (5%) of the amount due the sub-contractor.

For each sub-contractor or sub-contractor involved, ten percent (10%) of the cost

.2 Cost to which overhead and profit is to be applied shall be limited to the following:

Labor.

Cost of Materials, including sales tax and cost of delivery.

Workers' or Workmen's Compensation Insurance.

Rental value of equipment and machinery.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

(Paragraphs deleted) § 7.3.4.1 In order to facilitate checking of quotations for extras or credits, all proposals, shall be accompanied by a complete itemization of costs including labor, materials and sub-contracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are sub-contracts, they shall be itemized also. All change orders without such itemization will be returned to the Contractor for resubmission

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15. Failure to timely file any claim in accordance with the requirements set forth therein shall constitute a waiver of such claim.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work, not in dispute and completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

§7.4.1 The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. The work included in such order shall be performed by the Contractor at no additional cost to the Owner and shall not form the basis for a claim for an extension of the Contractor's time to complete its Work. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time. The Contractor shall perform the work included in such orders so as to cause no delay to its Work and/or the work of other contractors engaged by the Owner in connection with the Project

§7.4.2 Minor Changes in the work are not to be construed as Change Orders. A signed minor change is not an approved change order.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work. The date shall not be postponed by the failure to act of the Contractor or of persons or entities for whom the Contractor is responsible.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement. The date shall not be postponed or extended by the failure to act of the Contractor or persons or entities for whom the Contractor is responsible to act.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8. The date of final completion is the date certified by the Architect and Owner in accordance with Section 9.10. Unless otherwise agreed in writing by the Owner, the Contractor agrees that final completion shall occur not more than thirty (30) calendar days after the date of Substantial Completion.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.1.5 Dates indicated in Section 01 1000 Summary of Work or Section 01 11010 Milestone Schedule are dates critical to the Owner's operations that establish when a part of the work is to commence or be complete. All Milestone Dates are of the essence and shall have the same meaning as Substantial Completion for the purpose of Liquidated Damages in this Article 8. Liquidated damages applied to Substantial Completion shall apply to Milestone Dates.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner and the Owner's approval of such insurance. The date of commencement of the Work shall not be changed by the effective date of such insurance. The Work can not start until the required insurance and bonds are provided and the Contract has been executed.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. The Contractor agrees that the Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified and, further, to provide such protections as may be necessary. It is expressly understood and agreed by the Contractor that the time for the completion of the Work is a reasonable time for its completion, taking into consideration the average climatic range and usual weather conditions prevailing in the Project's locality.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control or (3) by other causes that the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine. No extension of time will be granted for changes in the work or labor disputes, or work stoppage due to asbestos removal. This paragraph shall control where a conflict appears among the contract documents.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 Notwithstanding anything to the contrary in the Contract Documents, an extension in the Contract Time, to the extent permitted under Paragraph 8.3.1, shall be the sole remedy of the Contractor for any (1) delay in the commencement, prosecution or completion of the Work, (2) hindrance or obstruction in the performance of the work, (3) loss of productivity, or (4) other similar claims (collectively referred to in this Paragraph 8.3.3 as delays) whether or not such delays are foreseeable, unless a delay is caused by acts of the Owner constituting active interference with the Contractor's performance of the work, and only to the extent such acts continue after the Contractor furnishes the Owner with notice of such interference. In no event shall the Contractor be entitled to any compensation or recovery of any damages, in connection with any delay, including, without limitation, consequential damages, lost opportunity costs, impact damages or other similar remuneration. The Owner's exercise of any of its rights or remedies under the Contract Documents (including, without limitation, ordering changes in the work, or directing suspension, rescheduling or correction of the work), regardless of the extent or frequency of the Owner's exercise of such rights or remedies, shall not be construed as active interference with the Contractor's performance of the work.

§8.4 LIQUIDATED DAMAGES

8.4.1 Contractor realizes that time is of the essence on this Contract and the date of Substantial Completion shall be no later than the date set forth in Article 3.2 of the Contract. The Contractor understands that substantial disruption of the Owner's educational process will occur if the project is not completed by the date of substantial completion. In the event the Contractor fails to substantially complete the work under this contract by said scheduled date(s), the sum per calendar day, as follows:

Contractor

\$750.00

and will, at the sole discretion of the Owner, be subtracted from the payment due the Contractor (or, if the amount due

the Contractor as Payment is insufficient, any deficiency shall be paid by the Contractor to the Owner), except in cases where a delay is due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Government, in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, freight embargoes, or delays of Subcontractors or Suppliers due to such causes. Delay in acquisition of materials other than by reason of or freight embargoes will not constitute a delay excusable under this provision unless approved by the Owner in writing.

§8.4.2 Within five calendar days from the occurrence of any such delay, the Contractor shall notify the Owner, in writing, of the cause of delay. The Owner will ascertain the facts and extent of the delay, and extend the time for completing the Work when, in his judgment, the findings of fact justify such an extension. Owners findings of fact will be final.

§8.4.3 In addition to Liquidated Damages, the Contractor shall be liable for all additional costs incurred by the Owner due to the failure of the Contractor to complete each Phase as required. The additional costs shall include but not be limited to the following:

§8.4.3.1 Staff, as required, to make the facility accessible to the contractor; for the Architect and Consultants to perform inspections after the completion date of each phase. Expenses and costs incurred by the Owner for additional services of the Owner's Representative, in addition to additional inspections.

§8.4.3.2 The cost of additional inspections by the Architect and their consultants will be at the rate of \$300.00 per hour.

§8.4.4 The said sum per calendar day and additional costs set out above, shall constitute the Liquidated Damages incurred by the Owner for each day of delay beyond the agreed upon dates of substantial completion. Such Liquidated Damages shall be in addition to any other damages (other than reason of delay) Owner may incur as a result of Contractor's breach of Contract, to include those which may be incurred pursuant to of the General Conditions.

§8.4.5 In addition to the liquidated damages described above, in the event the Contractor fails to complete all work under this Contract by said Scheduled Dates, the Contractor will, at the sole discretion of the Owner, not be permitted to perform any work during normal hours. Such work shall only be performed after hours, Saturdays, Sundays, holidays or periods when the facility is unoccupied, at no additional cost to the Owner. This paragraph in no way limits any other rights, or remedies of the Owner under this Contract.

§8.4.6 All costs will be subtracted from payment due the Contractor (or, if the amount due the Contractor for payment is insufficient, any deficiency shall be paid by the Contractor to the Owner.

§8.4.7 This section shall in no way prevent the Owner from enforcing any other remedies it may be entitled to pursuant to the Contract, including the right of termination, and in the cases of termination, any damages suffered by the Owner shall not be considered damages by reason of delay, regardless of the reason for termination.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum (Refer to Section 01 2000 Price and Payment Procedures for additional requirements)

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If Unit Cost Allowances prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted. Refer to Section 01 2100.

§ 9.1.3 Notwithstanding anything to the contrary contained in the Contract Documents, the Owner may withhold any payments to the Contractor if and for so long as the Contractor fails to perform any of its obligations or otherwise is in default under any of the Contract Documents; provided, however, that any such hold back shall be limited to an amount sufficient in the reasonable opinion of the Owner to cure any such default or failure of performance by the Contractor.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and installed. If approved in advance by the Owner, payment maybe made for materials and equipment suitably stored on the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such material and equipment or otherwise protect the Owner's interest, and shall include applicable insurance and storage Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.2.1 All materials and equipment, including materials and equipment stored on-site but not installed, or stored in secured warehouse) will require a bill of lading showing the exact value. upon which partial payments have been made shall become the property of the Owner, but the care and protection of such materials and equipment shall remain the responsibility of the Contractor until incorporation and approved into the Work, including maintaining insurance coverage on a replacement cost basis without voluntary deductible.

Notwithstanding payment by the Owner, all warranties and/or guarantees required by the Contract Documents shall not begin to run until the Contractor has completed its Work.

§ 9.3.2.2 In no case will more than 90% be approved if the item is not installed. Insurance certificates will be provided specific to materials stored (for on-site or offsite items).

§ 9.3.2.3 When Fuller and D'Angelo, P.C. or Owner's Representative requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.3.4 Application for all Payments must be accompanied by certified payroll records and all releases of liens for previous applications **from Contractor and their subcontractors** and a sworn and notarized statement that all subcontractors have been paid to at least 95% of previously requisitioned sums. In the event a lien is filed on the Owner's property, by any entity, due to the actions of the Contractor, regardless of the relationship between the lien and the work performed on this project all payments will be held in abeyance until such lien is bonded or removed.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within ten business days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) , notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1;

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents
- .8 failure to comply with scheduled milestone or submittal dates.
- .9 damages resulting from the Contractor's failure to notify the Architect of errors or inconsistencies between and among the Contract Documents;
- .10 failure of the Contractor and/or its Subcontractors to comply with the requirements for maintaining record drawings.
- .11 the Architect's discovery or observation of work which has been previously paid for by the Owner which is defective and/or incomplete.
- .12 such other acts and/or omissions by the Contractor in connection with the performance of its Work that do not comply with the Contract Documents; or
- .13 the amount requested exceeds the percent completion of work on the Project site(s).
- .14 receipt by the Owner of a notice of withholding from the New York State Department of Labor or other administrative agencies having jurisdiction over the Project;
- .15 failure to comply with applicable federal, state or local statutes, regulations, and/or laws, including, without limitation, laws applicable to the provision of certified payrolls;
- .16 failure of the Contractor to provide executed performance and payment bonds and a current certificate of insurance;

- .17 damages caused to the Owner, the Construction Manager, the Architect, Separate Contractor or other Contractor as a result the Contractor's performance of its Work;
- .18 the Architect's discovery or observation of work which has been previously paid for by the Owner which is defective or incomplete;
- .19 the amount requested exceeds the percent completion of Work on the site; or
- .20 breach of this Agreement.

Notwithstanding the extent to which the Architect certifies an Application for Payment, the Owner shall have the right to withhold payment, in whole or in part, should the Owner determine that any of the grounds set forth in this Section 9.5.1 do in fact exist. If the Owner withholds payment, in whole or in part, the Owner shall promptly provide to the Contractor and Architect a written explanation of the reason(s) for which payment is withheld and shall promptly pay, in accordance with the Contract Documents, all amounts which are not in dispute.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 Refer to Section 01 2000 Price and Payment Procedures for additional requirements.

§ 9.6.1.1 Payment Period: Submit at intervals stipulated in the Agreement but not more than one per month.

§ 9.6.1.2 Form to be used: AIA G702 and AIA G703.

§ 9.6.1.3 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any

tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

(Paragraph deleted)

§ 9.7 Failure of Payment

§ 9.7.1 If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within ten business days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within thirty business days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon ten additional business days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.1.1 Contractor shall advise the Construction Manager and Architect of pending insurance changeover requirements.

§ 9.8.1.2 Contractor shall obtain and submit releases permitting Owner's Representative and Architect unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner's Representative and Architect a comprehensive list of items to be completed, or corrected, the value of items on the list, and reasons why the Work is not complete prior to final payment. The Contractor shall proceed promptly to complete and correct the items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's Representative and Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Owner's Representative and Architect to determine Substantial Completion. **If the Architect is required to inspect the Contractor's work more than twice, the Contractor shall be back charged for the cost of the Architect's services for the additional inspections.**

§ 9.8.3.1 Certificate of Substantial Completion will be issued only after completion of all punch list items or Owner's Representative and Architect will notify Contractor of items, either punch list or additional items identified by Architect, that must be completed or corrected before a certificate will be issued. After completion of all punch list items submit the following:

- .1 Application for Payment showing 100 percent completion for portion of the Work claimed as substantially completed.
- .2 Manufacturer's Warranties/guarantees.
- .3 Contractor's Warrantee **Two (2)** years minimum and extended warrantees.
- .4 Maintenance agreements, if any.
- .5 Manifest for disposal of Hazardous Material.
- .6 Manifest for disposal of material.
- .7 Test/adjust/balance reports and records.
- .8 Maintenance Manuals and Instructions Manuals
- .9 Signed Receipt by Owner's Representative of spare parts and attic stock.
- .10 Meter readings
- .11 Start-up performance reports.

Init.

- .12 Changeover information related to Owner's occupancy, use, operation, and maintenance.
- .13 Advice on shifting insurance coverage.
- .14 Final progress photographs.
- .15 List of incomplete Work, recognized as exceptions to Architect's "punch list".
- .16 Removal of temporary facilities and services.
- .17 Removal of surplus materials, rubbish and similar elements.
- .18 As Built Drawings.
- .19 Project Record Documents.
- .20 DOL Final Completion Form. (PW 200).
- .21 This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. The Contractor understands that no retainage will be paid until all work, including punch lists items are complete and submission of all closeout documents as listed in Section 01 7800 Closeout Submittals are approved.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner's Representative, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner's Representative and Architect will promptly make such inspection. When the Owner's Representative and Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Owner's Representative and Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.1.1 If the Contractor's Work is not accepted by the Architect after final inspection and additional time is required to complete items identified during the final inspection, the date starting the warranty periods described in the Contract Documents shall be set by the Architect at his discretion, but no later than the date of the Final Certificate for Payment.

§ 9.10.1.2 If the Architect is required to perform more than one final inspection because the Contractor's Work fails to comply with the requirements of the Contract Documents, the amount of compensation paid to the Architect by the Owner for additional services shall be deducted from the final payment to the Contractor.

§ 9.10.2 Neither final payment nor any retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) completion of all "punch list" items, (6) submission of all closeout documents as listed in Section 01 7800 Closeout Submittals (7) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, (8) Architect's punch list certifying all punch list items have been completed with each item signed off by the Owner's Representative and Contractor. and (9) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.2.1 It is understood by the Contractor that the maximum payment due the contractor prior to final payment shall be Ninety (95%) of the Contract amount and the final Five (5%) will be due only after the above is satisfied.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment may be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.
- .5 defective work or concealed conditions.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

§ 9.11 APPLICATIONS FOR PAYMENT WHEN BEHIND SCHEDULE

§ 9.11.1 When the project falls behind schedule the contractor shall demonstrate the actions to be taken to put the project back on schedule.

§ 9.11.1.1 Payments will not be approved until satisfactory evidence is presented to put the project on schedule

§ 9.12 APPLICATION FOR PAYMENT AFTER SCHEDULED COMPLETION DATE

§ 9.12.1 In the event the work is not completed by the schedule date, listed in Section 01 1000 - Summary, and in addition to the other remedies described, the Architect will not review progress payment requisitions submitted after the construction completion date, and the Owner will not issue any progress payments after that date, until all work is completed.

§ 9.12.2 Only one requisition for work performed, after the construction completion date, may be submitted, and it may be submitted only when all work is complete and a Punch List inspection is conducted; said requisition may be submitted when the work at 100% complete, less 5% retainage.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. Prior to beginning any work, the Contractor shall submit a copy of its safety plan to the Architect. The Contractor shall make the participation of its Subcontractors in its safety plan and program mandatory. The Contractor and its Subcontractors shall conduct their operations in accordance with the Safety Guides for Construction issued by New York State Education Department ("SED") and the Contractor's Safety Plan and Program.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction: and
- .4 The work on the project of any other contractors or any property of any other contractors work on the project

§ 10.2.1.1 The Contractor shall maintain at the project site MSDS documentation for all material brought on site.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss including:

- .1 The work on the project of any other contractors or any property of any other contractors work on the project;
- .2 shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during construction.

§ 10.2.2.1 Any and all fines or citations levied against the Owner, Architect, or Owner's Representative due to the failure of the Contractor to comply with statutes, ordinances, codes, rules, regulations, or lawful orders of any governing authority, shall be paid for by the Contractor. This shall include any interest or late charges which accrue due to the Contractor's failure to remit payment upon receipt of such levies.

§ 10.2.2.2 Any reference made to rules and regulations promulgated by various governmental agencies with the Specifications or Construction Drawings are for the Contractor's benefit. The issuance of compliance to said regulations by workers employed by the Contractor or by sub-contractors is the sole responsibility of the Contractor; and that, notwithstanding any reference to any rule or regulation, that the Architect, the Architect's construction observer (Clerk-of-the-Works) or any representative of the Owner is not assuming any duty to provide supervision of construction methods in processes.

- .1. Each Contractor shall assign one person from his staff to be on-site safety coordinator.
- .2 Each Contractor is solely responsible for overall job site safety, the safety of his employees and the conduct of his work and that of his sub-contractors.
- .3 Each Contractor affirms he is fully versed in all State, Federal and local regulations pertaining to safety including OSHA regulations, and pertaining to any and all construction operations

,4 All site personnel have appropriate Department of Labor certification.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.3.1 The Contractor shall be responsible for all costs incurred by the Owner caused by false security alarms and false fire alarms set off by the Contractor, its Subcontractors, employees, suppliers, officers, directors or servants.

§ 10.2.3.2 All safety equipment including but not limited to hard hats and other personal protective materials and equipment (masks, face shields, gloves, etc.) required for the Contractor to perform its work are to be supplied by the Contractor and/or its Subcontractors.

§ 10.2.3.4 The Contractor acknowledges that the Labor Law of the **State of New York**, and regulations adopted thereunder, place upon both the Owner and Contractor certain duties and that liability for failure to comply therewith is imposed on both the Owner and Contractor regardless of their respective fault. The Contractor hereby agrees that, as between the Owner and the Contractor, and to the extent permitted by law, the Contractor is solely responsible for compliance with all such laws and regulations imposed for the protection of persons performing the Contract. For additional indemnity obligations see Section 3.18 of these General Conditions.

§ 10.2.3.5 When all or a portion of the Work is suspended for any reason, the Contractor shall securely fasten down all coverings and protect the Work, as necessary, from injury by any cause.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.4.1 When use or storage of hazardous materials or equipment or unusual construction methods are necessary to promulgate the Work, the Contractor shall give the Owner's Representative reasonable advance notice, and shall maintain on the site, a full set of safety instructions relating to all such materials.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, employees, agents, or representatives of any of the above or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents and for on-site safety. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not

addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Owner shall only be responsible to pay for the services of the laboratory if the material or substance reported by the Contractor is found to be hazardous. When the material or substance has been identified the Contractor shall submit a proposal to abate the material. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs..

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself),), but only to the extent caused in whole or in part by negligent acts or omissions of the Owner, anyone directly or indirectly employed by the Owner or anyone for whose acts the Owner may be liable. .

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

(Paragraph deleted)

§ 10.4 Emergencies

In an emergency "immediately" affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7. The word "immediately", for the purposes of this paragraph shall mean a time period which is less than the time it would take to notify the Owner's Representative of the emergency.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§11.1.1 All insurance purchased by Contractor shall constitute primary insurance and primary coverage for all risks insured and that any other liability insurance that the Owner or Fuller and D'Angelo, P.C. may procure or maintain is secondary and that there shall be no contribution by such insurance until insurance provided by the Contractor is exhausted. All policies shall be provided by insures licensed to conduct business in New York State.

§11.1.1.1 The following insurance coverages and requirements must be provided by the contractor and evidence of same must be certified to the Owner, Owner's Representative and Fuller & D'Angelo, P.C. prior to commencing any work under this contract, and original certificates of insurance, shall be furnished prior to the contract signing.

§ 11.1.1.2 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to conduct business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed.
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees.
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees.
- .4 Claims for damages insured by usual personal injury liability coverage.
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom.
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle: and
- .7 Claims for bodily injury or property damage arising out of completed operations: and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

(Paragraph deleted)

§11.1.2 Certificates of Insurance:

- .1 Each certificate shall include the following clause: It is agreed that prior to any cancellation of, or material change in the policies certified to on this Certificate, 30 days written notice, by certified mail, return receipt requested, shall be sent to the Owner, Owner's Representative and Architect prior to the effective date of such change or cancellation.
- .2 Shall specifically describe the work to be performed and the job site location.
- .3 Shall include to the fullest extent permitted by law, the Contractor shall, defend, indemnify and hold harmless the Owner, Architect, Owner's Representative, their respective Consultants and their respective members, directors, officers, agents, employees, successors, and assigns (collectively "Indemnitees") from and against any and all losses, claims, costs, damages, expenses, and attorneys' fees, arising out of or resulting from the performance of the Work, or by Contractor's breach of this Agreement, except to the extent caused by the sole negligence or willful misconduct of any Indemnitee hereunder.
- .4 The Contractor and each of its Subcontractors and to all Shared Services Contracts (Purchase Order Agreements) shall include the Owner, Architect, and their Consultants as Additional Insureds on their casualty and commercial liability insurance policies on a primary and non-contributory basis, including a waiver of subrogation, acceptable to Owner, and shall not include any exclusions that limit the scope of coverage beyond that provided to the named insured and the endorsement shall not require a written agreement with the Additional Insureds.
- .5 Additional Insured status shall be provided by ISO endorsement CG 20 38 04 13, CG 220 38 and CG 20 37. A completed copy of the endorsements must be attached to the Certificate of Insurance.
- .6 A copy of the endorsement(s) providing additional insured sections must be attached to the Certificates.
- .7 A fully completed New York Construction Certificate of Liability Insurance Addendum (ACORD 855 2014/15) must be included with the certificates of insurance. For any "Yes" answers on Items G through L on this Form— additional details must be provided in writing.
- .8 Shall use the forms adopted and/or required by the New York State Workers' Compensation Board for proof of Workers' Compensation and NYS Disability Insurance, an ACORD certificate is not acceptable proof.
- .9 Renewal Certificates of Insurance: Renewal Certificates of Insurance must be filed with the Owner, Owner's Representative, Architect at least five (5) days prior to the expiration of any policy

§11.1.3 The Contractor acknowledges that failure to obtain such insurance on behalf of the Owner constitutes a material breach of contract and subjects it to liability for damages, indemnification and all other legal remedies available to the Owner. The Contractor is to provide the Owner with a Certificate of Insurance, evidencing the

requirements have been met, prior to the commencement of the work or use of the facilities. Failure to provide said insurance shall cause the immediate suspension of all work and possible cancellation of this contract.

(Paragraph deleted)

§11.1.4 The Contractor agrees to carry as a minimum the following insurance in such form and with such insurers as are satisfactory to the Owner covering the work hereof:

- .1 Workmen's Compensation Insurance: Statutory Workmen's Compensation Insurance (C-105.2 or U-26.3) and NYS Disability Insurance (DB-120.1)** for all employees coverage as required by the State Law in which the project site is located, and in the state in which the Contractor is domicile, and licensed to do business, and for all of his employees to be engaged in work on the project under this contract, and in case such work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the employees to be engaged in such work. Provide Statuary Limits and Coverages. Proof of coverage must be on the approved specific form, as required by the **New York State Workers' Compensation Board**. ACORD certificates are not acceptable.
- .2 Employers Liability Insurance:** Not less than \$1,000,000 for all employees to be engaged in work on the Project.
- .3 Commercial General Liability Insurance** Including Premise/Operations, Independent Contractors, Products and Completed Operations, Broad Form Contractual, Broad Form Property Damage, Broad Form General Liability Endorsement and blanket coverage for underground hazards; X (explosion) C (collapse) U (underground).

Minimum Limits:

Each Occurrence:	\$1,000,000.00
General & Product Liability Aggregate:	\$2,000,000.00.
Products and Completed Operations	\$2,000,000
Personal Injury:	\$1,000,000.00.
Fire Damage Legal:	\$50,000.00.
Medical Payment:	\$10,000.00
(General Aggregate to apply on a per project basis).	
Other Requirements: No Explosion, Underground, Collapse (XCU) exclusions.	

- .4 Bodily injury** including death arising from any occurrence for the period and time for this specific work contract, including any contractual agreement assuming liability of Owner by terms of contract agreement in an amount of not less than the amount as stated above.
 - a. Coverage and limits required in no way restrict or relieve the Contractor from the full and complete responsibility for all injuries and/or damages and it is suggested that the Contractor consult their agent or broker to be certain their coverage, in form and limits, is sufficient for their needs.
- .5 Automobile Insurance.** Business Automobile liability insurance coverage format shall be as required by the state law in which any and all vehicles are registered, and must include all owned, hired or non-owned vehicle es in the following amounts:

Minimum limits:

- | | |
|-------------------------------|------------------------------|
| Bodily Injury - | \$1,000,000.00 each accident |
| Property Damage - | \$1,000,000.00 each accident |
| or a combined single limit of | \$1,000,000.00 |
- .6 Conditions of Coverage** Bodily Injury and Property Damage coverage under both General and Automobile Insurance shall include the "occurrence" basis wording. In the event of cancellation of insurance, the Owner shall be given advance notice of 30 days by the insured carrier and such to stipulated in the insurance contract.
 - .7 Umbrella/Excess Liability Insurance.** Limit: \$5,000,000.00 per occurrence and aggregate excess over Underlying Comprehensive General Liability, Automobile Liability, Employers Liability Policies.
 - .8 Self-Insured Retention** \$10,000.00 per occurrence.
 - .9 Owner Contractor Protective Liability Insurance (OCP):** The Contractor shall purchase and maintain an Owner's Protective Liability policy naming the Owner, Owner's Representative, and Fuller & D'Angelo, P.C. as named insured.

The original and duplicate policy shall be filed with Owner and the policy shall remain in effect until the job is formally accepted by the Owner.

Limits of Liability for project up to 1,000,000.: \$1,000,000.00 each occurrence.
\$2,000,000.00 aggregate

Limits of Liability for project over 1,000,001: \$2,000,000.00 each occurrence
\$4,000,000.00 aggregate

- .10 Equipment, Tools and Supplies:** By signing this contract, the Contractor agrees and understands that he is solely responsible for all loss to any tools, equipment, or supplies, owned, rented, or leased, stored at or off the site. Further, the Contractor certifies that he has provided or will provide notice to this effect to all subcontractors and suppliers.

(Paragraph deleted)

§11.1.5 Subcontractors Insurance: The Contractor agrees to provide all subcontractors with a copy of these insurance requirements and further, agrees to require all subcontractors, manufacturers and suppliers to provide evidence of insurance of the same coverage and limits as are required from the Contractor pursuant to Section 11.1.4.

§11.1.6 The Contractor shall maintain a separate record of each subcontractors' insurance certificates and said records shall be available for inspection by the Owner, Owner's Representative and Architect for a period of 2 years from the date of final acceptance.

(Paragraph deleted)

§11.1.7 The Contractor shall not permit any subcontractors on the site until acceptable certificates of insurance have been filed and approved.

§11.1.8 Waiver of Subrogation: All property insurance policies carried by the Contractor and his subcontractors shall contain a "Waiver of Subrogation" clause (including equipment floaters) to the effect that the Contractor agrees to waive all rights of subrogation against the Owner, Owner's Representative and Architect.

§11.1.9 The signing of this contract acknowledges that the Contractors have notified their insurance carriers accordingly.

§11.1.10 Renewal Certificates of Insurance: Renewal Certificates of Insurance must be filed with the Owner, Owner's Representative and Architect at least 30 days prior to the expiration of any policy

§11.1.11 Job Safety: The Contractor shall assign one person from his staff to be on the job site safety coordinator. The Contractor is solely responsible for overall job site safety, the safety of his employees and the conduct of his work and that of his subcontractors.

§11.1.11.1 The Contractor agrees to cooperate and comply in full with the insurance representatives of the Owner, Owner's Representative and Architect. with respect to any safety recommendations or requirements.

§11.1.11.2 The Contractor affirms he is fully versed in all State, Federal and local regulations pertaining to safety including OSHA and Department of Labor regulations, pertaining to his trade and construction operations.

§11.1.12 Products, Completed Operations: The Contractor is required to, and agrees to carry Products and Completed Operations coverage.

§11.1.13 Certificates of Insurance shall be filed to this effect, annually with the Owner, Owner's Representative, Architect and the Contractor shall obtain and record like certificates from his subcontractors

§11.1.14 Insurance Carriers: All insurance carriers providing coverage on the project must be **licensed** to conduct business and issue the type of insurer the carrier is providing to the Contractor in the State in which the project is located, and in the State in which the Contractor is domicile. The companies must be **A. M. Best "Secured"** rated or better. This requirement applies to all subcontractors as well.

11.1.15 If at any time, any policy required herein shall be or become unsatisfactory to the Owner, as to form or substance, or if the issuing company shall be or become unsatisfactory, the Contractor, upon written notice from the Owner, shall promptly replace said unsatisfactory insurance.

§11.1.16 Failure to provide, maintain or deliver satisfactory insurance during this project, at the election of the Owner, the contract may be declared suspended, discontinued, or terminated.

§11.1.17 Failure to provide and maintain proper insurance under this contract shall not relieve, nor be construed to conflict with or otherwise limit the contractual obligations of the Contractor

§11.1.18 In the event that any claims, or claims aggregate be in excess of the insured amounts, filed by reasons of any operations under this contract, the Owner, at its sole opinion, may withhold from payments due or to become due the Contractor amounts equal to the excess of such claims, until the Contractor has provided evidence of additional financial security covering such claims, in a form satisfactory to the Owner.

§11.1.19 All the policies of insurance referred to in this Article 11 shall be issued in the names of the Owners, the Architect, the General Contractor, and his subcontractors. Said policy shall be endorsed to indicate that the term "Insured" shall include the Owner, Construction Manager, Architect and be deemed to include their authorities, boards, bureaus, departments and officers thereof in their official capacities. In all cases regarding insurance referred to in these specifications, certificates shall be provided to the Owners, Owner's Representative and Architect.

§11.1.19.1 In the event that any of the insurance coverage to be provided by the Contractor to the Owner and Architect contains a deductible, or the insurance provided by the Owner and Architect contains a deductible, the Contractor shall indemnify and hold the Owner and the Architect harmless from the payment of such deductible, for all claims arising from any acts or omissions of Contractor or Contractor's officers, directors, employees, Subcontractors, suppliers or any others engaged by Contractor directly or indirectly to perform Contractor's Work on the Project, which deductible shall in all circumstances remain the sole obligation and expense of the Contractor

§ 11.1.20 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located. Refer to Section 00 6000 Bonds and Certificates.

11.1.21 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.22 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide written notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner or Owner's Representative shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

(Paragraphs deleted)

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification,

contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect and Owner's Representative for loss of use of the Owner's property, due to fire or other hazards however caused.

§11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Owner's Representative, Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Owner's Representative and Architect's services and expenses made necessary thereby, shall be at the Contractor's expense. If prior to the date of Substantial Completion, the Contractor, a subcontractor or anyone for whom either is responsible uses or damages any portion of the Work, including, without

limitation, mechanical, electrical, plumbing and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within two years after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The two-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The two-year period for correction of Work shall be extended by corrective Work performed by the Contractor pursuant to this Section 12.2 except as to the corrective work performed and subject to the continued existence of any manufacturer's warranty, if applicable.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

§ 12.3.1 If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be affected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

§ 13.1.1 This Contract shall be governed by and interpreted in accordance with the substantive laws of the State where the Project is located without recourse to principles of choice of law. The venue of any dispute resolution proceedings or actions shall be in the county in which the Project is located.

§ 13.1.1.2 The Contractor shall at all times observe and comply with all Federal, State and Local Laws, rules and regulations and all policies, rules, regulations and protocols of the Owner, in any manner affecting the Work and all such orders as exist at present and those which may be enacted in the future, by bodies or tribunals having jurisdiction or authority over the Work and the Contractor shall indemnify and save harmless the Owner and its Board of Education, Owner's Representative, Architect employees, officers, agents, or servants against any claim or liability arising from, or based on, a violation of any such law, ordinances, regulation, order or decree by the Contractor or the Contractor's officers, directors, employees, Subcontractors and suppliers.

§ 13.1.1.3. Historical lack of enforcement of any law, local or otherwise, shall not constitute a waiver of Contractor's responsibility for compliance with such law in a manner consistent with the Contract Documents unless and until the Contractor has received written consent for the waiver of such compliance from the Owner.

§ 13.1.2 The Contractor specifically agrees, as required by New York Labor Law, Sections 220, and 220-d, as amended, that:

- .1 No laborer, workman or mechanic in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or any part of the Work contemplated by the Contract, shall be permitted or required to work more than eight hours in any one calendar day or more than five days in any one week, except in the emergencies set forth in the Labor Law.
- .2 The wages paid for a legal day's work shall not be less than the prevailing rate of wages as defined by law.
- .3 The minimum hourly rate of wages to be paid shall not be less than that stated in the Specifications, and any redetermination of the prevailing rate of wages after the Contract is approved shall be deemed to be incorporated therein by reference as of the effective date of redetermination and shall form a part of this Contract. The Labor Law provides that the Contract may be forfeited, and no sum paid for any work done thereunder on a second conviction for willfully paying less than:
 - (a) The stipulated wage scale as provided in Labor Law, Section 220, Subdivision 3, as amended; or
 - (b) The stipulated minimum hourly wage scale as provided in Labor Law, Section 220-d, as amended

§ 13.1.3 The Contractor specifically agrees, as required by the provisions of New York Labor Law Section 220-e, as amended, with respect to operations performed within the territorial limits of New York State, that:

- .1 In hiring of employees for the performance of work under this Contract or any subcontract hereunder, or for the manufacture, sale or distribution of materials, equipment or supplies hereunder, no Contractor, Subcontractor nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates.
- .2 No Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, disability, sex or national origin.
- .3 There may be deducted from the amount payable to the Contractor by the Owner under this Contract a penalty of fifty (\$50.00) dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of this Section 13.1.3.
- .4 The Contract may be cancelled or terminated and all monies due under the Contract forfeited for a second or any subsequent violation of the terms and conditions set forth in this Section 13.1.3.

§ 13.1.4 The Contractor shall comply with all the provisions of the Immigration Reform and Control Act of 1986 and regulations promulgated pursuant thereto and shall require its Subcontractors to comply with same. The Contractor shall and does hereby agree to fully indemnify, protect, defend, and hold harmless the Owner, Owner's Board of Education, Owner's Representative,, Architect, agents and employees from and against any penalties, fees, costs, liabilities, suits, claims, or expenses of any kind or nature, including reasonable attorney's fees, arising out of or resulting from any violation or alleged violation of the provisions of said laws by Contractor or its Subcontractor(s) in connection with the Work of the Contract Documents.

§ 13.1.5 The Contractor shall maintain policies of employment as follows:

- .1 The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of age, creed, race, religion, color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their age, race, creed, religion color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of

compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

- .2 The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to age, creed, race, religion, color, sex, national origin, sexual orientation, gender identify or expression, military status, disability, predisposing genetic characteristics, familial status, marital status or status as a victim of domestic violence.

§ 13.1.6 Dust Hazards - The Contract shall be void if the Contractor fails to install, maintain, and effectively operate appliances and methods for the elimination of harmful dust when a harmful dust shall have been identified in accordance with Section 222-a of the Labor Law of the State of New York.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.3.3 Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures.. Refer to Section 01 4000 Quality Requirements for additional requirements.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor, and promptly delivered to the Architect.

§ 13.4.5 If the Owner's Representative or the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest Payments due and unpaid under the Contract Documents shall not bear interest.

§ 13.6 TIME LIMITS ON CLAIMS

§ 13.6.1 The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law,

§ 13.7 LIENS

§ 13.7.1 If the Contractor or any of its subcontractors or suppliers should cause a Mechanic's Lien to be placed upon the property, then the Contractor shall be liable for any and all legal or bonding or insurance fees related to the removal of the Mechanic's Lien or the defense of any Mechanic's Lien enforcement or foreclosure proceeding. Such legal or bonding or insurance fees shall also be a deduction by the Owner from any moneys due or to become due to the Contractor.

§ 13.8 SEXUAL HARASSMENT PROHIBITED

§ 13.8.1 Federal and state laws and the policies of the Owner prohibit sexual harassment of employees. Sexual harassment includes any unwelcome sexual advances, requests for sexual favors or other verbal or physical conduct of a sexual nature that create a hostile or offensive working environment for students, employees and volunteers of the Owner and employees, agents, consultants, suppliers, subcontractors and others engaged directly or indirectly by Contractor to perform work on the Projects. The Contractor shall exercise control over its employees, agents, consultants, subcontractors, and suppliers so as to prohibit acts of sexual harassment of students, employees and volunteers of the Owner. In the event the Owner, in its reasonable judgment, determines that the Contractor or its employees, agents, consultants, subcontractors and/or suppliers have committed an act of sexual harassment, upon notice from the Owner, the Contractor shall cause such person to be removed and shall take such other action as may be reasonably necessary to cause such sexual harassment to cease. In the event the Contractor or its employees, agents, Subcontractors or suppliers believes it has been the subject of sexual harassment by the Owner, its elected and appointed officials, students, volunteers, vendors, employees or agents, it shall give notice to the Owner; so, the Owner can take such action as may be reasonably necessary to cause any sexual harassment to cease.

§ 13.9 GENERAL PROVISIONS

§ 13.9.1 Contractor hereto agrees to do all acts and things and to make, execute and deliver such written instruments, as shall from time be reasonably required to carry out the terms and provisions of the Contract Documents.

§ 13.9.2 Contractor is obligated, by virtue of entering into a contract with the Owner, to ensure that absolutely no asbestos containing material is used in conjunction with the Work. It is the Contractor's sole responsibility to provide assurance that no asbestos containing material is built into the construction, nor does any equipment used in the construction contain any asbestos containing material. If asbestos containing material is found, at any time during or after the construction is completed, it shall be the responsibility of the Contractor who installed said material to remove it and replace it with new non-asbestos containing material, as per federal, state and local mandates, and to indemnify all their employees, agents, or servants or any third parties including but not limited to the Owner and the Architect, and their respective servants or employees for any costs or damages incurred on account of personal injury or death or property damage caused by, arising out of, or in any way incidental to, or in connection with the performance of the Work hereunder. This provision will be limited only to the extent required by law and shall survive the termination or expiration of the Contract. Refer to Section 01 7800 Closeout Submittals for additional requirements.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

(Paragraph deleted)

§ 14.1.2 If one of the reasons described in Section 14.1.1 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

(Paragraphs deleted)

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.
- .5 If the Contractor fails to satisfy or bond any filed liens against the Owner in the Performance of his contract.
- .6 disregards the instructions of the Architect or the Owner (when such instructions are based on the requirements of the Contract Documents);
- .7 breaches any warranty made by the Contractor under or pursuant to the Contract Documents.
- .8 fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with all the requirements of the Contract Documents.
- .9 fails after commencement of the Work to proceed continuously with the construction and completion of the Work for more than ten (10) days, except as permitted under the Contract Documents.
- .10 fails or neglects to prosecute the Work in such a manner to reasonably assure completion within the contract time;
- .11 fails to keep the Project free from strikes, work stoppages, slowdowns, lockouts or other disruptive activity;

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, three days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished and the Contractor will be back charged for all costs incurred by the Owner.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.2.5 The Owner may take over the work for one of the reasons stated in sub-paragraph 14.2.1 after giving the Contractor and the Contractor's Surety, if any, three days' written notice. The Contractor will be back charged for costs incurred by the Owner.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract

Termination by the Owner for Convenience

(Paragraph deleted)

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- .4 proceed to complete the performance of the remaining Work on the Contract which has not been so terminated

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, and any deposits or down payments which the Contractor has made pursuant to the Agreement which cannot, in the exercise of good faith and due diligence by the Contractor, be refunded or applied as a credit in the Contractor's favor to other charges, provided, however, that if such deposits or down payments are not refundable, Contractor shall assign the applicable contract, agreement, purchase order, etc. to the Owner who, at its election, may require performance of same. The Contractor hereby waives and forfeits all other Claims for payment and damages, including, without limitation, overhead and profit related to Work terminated by the Owner pursuant to this Section 14.4.

§ 14.4.4 In case of a termination pursuant to this Section 14.4, the Owner will issue a Construction Change Directive or authorize a Change Order, making any required adjustment to the Date of Substantial Completion and/or the sum of Contract monies remaining to be paid to the Contractor. The Owner shall be credited for (1) payments previously made to the Contractor for the terminated portion of the Work, (2) Claims which the Owner has against the Contractor under the Contract, and (3) the value of the materials, supplies, equipment or other items that are to be disposed of by the Contractor that are part of the Contract Sum; multiplied by 15% representing the Contractor's overhead and profit.

§ 14.4.5 For the remaining portions of the Contractor's Work which have not been terminated pursuant to this Section 14.4, the terms and conditions of the Contract with the Owner shall remain in full force and effect. The Contractor shall continue to prosecute that portion of its Work that was not terminated pursuant to this Section 14.4.

§ 14.5 Limitation of Owner's Liability

§ 14.5.1 The Owner shall not be responsible for damages or for loss of anticipated profits on Work not performed on

account of any termination of the Contractor by it.

§ 14.5.2 The Owner shall not be liable to the Contractor for punitive damages on account of any termination of the Contractor and the Contractor hereby expressly waives its right to claim such damages against the Owner.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 **Definition** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents. As is set forth in other provisions of this Contract, delay in the Contractor's ability to complete the work may, in appropriate circumstances, give rise to a claim for additional time, but will under no circumstances be the basis of a claim for damages.

(Paragraphs deleted)

§ 15.1.2 **Time Limits on Claims.** The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within ten days after occurrence of the event giving rise to such Claim or within 10 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

(Paragraphs deleted)

§ 15.1.5 **Claims for Additional Cost.** If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

(Paragraphs deleted)

§ 15.1.7 **Waiver of Claims for Consequential Damages.** The timelines provided herein for the making of claims shall be a condition precedent to any payment for such claims or the granting of any extension of time. Failure of the Contractor to comply with the time and notice provisions of this Article shall be an absolute bar to making any payment to or extending the time of the Contractor for such claim. All claims of any type seeking any monies, or an extension of time shall be accompanied by full documentation. A claim submittal without full documentation shall be rejected by the Architect and, if not timely resubmitted within the original claim period, as set forth above, shall be waived. The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. A decision by the Architect shall be required as a condition precedent to **the Owner making any payment or granting any extension of time on any claims between the Contractor and Owner arising prior to the date final payment is due**. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render a decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties..

§ 15.2.6 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

(Paragraph deleted)

§ 15.2.7 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

(Paragraph deleted)

§ 15.3 Mediation

(Paragraph deleted)

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract shall be subject to non-binding one day mediation, unless both parties agree to an extension.

§ 15.3.2 The parties agree that claims, disputes or other matters in question between the parties to this Agreement, arising out of or relating to this Agreement or the breach thereof shall, before the commencement of litigation or a party availing itself of self-help remedies, be submitted to a third party neutral Mediator agreed to by both parties or, if the parties cannot agree, appointed by the American Arbitration Association, at a non-binding Mediation that shall not exceed one calendar day. The parties may be represented by counsel at the Mediation, but no party may engage the Mediator as its representative after the Mediation. Statements made and documents provided or exchanged as part of the Mediation shall be for settlement purposes only and subject the applicable rules or regulations that govern such matters. All mediation shall take place within 30 days of any demand for same of and cost shall be shared by both parties.

(Paragraphs deleted)

§ 15.4 Arbitration

§ 15.4.1 The Contractor and the Owner shall not be obligated to resolve any claim or dispute related to the contract by arbitration; any reference arbitration in the Contract Documents is deemed void. If a discrepancy is found in the Contract Documents, this paragraph shall be considered the final say.

(Paragraphs deleted)

ARTICLE 16 - NO DAMAGES FOR DELAY

§16.1 Notwithstanding any other terms or conditions set forth in the contract documents, general or supplementary conditions, the Contractor agrees to make no claim for damages for delay in the performance of the work occasioned by any act or omission of the owner or any of its representatives, and agrees that any such claim shall be fully compensated for by an extension of time to complete the work, unless a delay is caused by acts of the Owner constituting active interference with the Contractor's performance of the work, and only to the extent such acts continue after the Contractor furnishes the Owner with notice of such interference. The Contractor hereby expressly assumes the risk of all such delays to the Work, unless the Contract Schedule is extended for excusable delays.

§16.2 Contractor agrees and acknowledges that payment for the work may have been obtained through obligations or bonds which have been sold after public referendum. In the event the work is suspended or canceled as a result of the order of any court, agency, department entity or individual having jurisdiction, or in the event the work is suspended or canceled due to the fact that a court, agency, department, entity or individual having jurisdiction has issued an order, the result of which is that the afore said obligations or bonds are no longer available for payment for the work, contractor expressly agrees that it shall be solely entitled to payment for work accomplished until a notice of suspension or cancellation is served upon the Contractor. Contractor expressly waives any and all rights to institute an action, claim, cause of action or similar for any damages it may suffer as a result of the suspension or cancellation of the work and/or its contract pursuant to this section.

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**SECTION 01 1000
SUMMARY OF CONTRACT**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to all Sections of the specifications.

1.2 PROJECT

- A. Project Name: Window Replacement, Tennis Court Renovation and Related Work
Seely Place Elementary School
- B. Owner's Name: Edgemont School District
- C. Architect's Name: Fuller and D'Angelo, P.C.
- D. The Project consists of the Window Replacement, Tennis Court Renovation and Related Work, Greenville Elementary School, 100 Glendale Road Scarsdale NY, 10583.

1.3 DEFINITIONS

- A. Refer to General Conditions and Section 01 4216 for Definitions.

1.4 CONTRACT DESCRIPTION

- A. This project is exempt from the New York State Wick's Law separate bid requirements. All work shall be performed as a single prime contract based on a Stipulated Price as described in Section 00 5200 - Agreement Form
- B. Contract Type: Multiple contracts are separate contracts, representing significant construction activities, between Owner and separate contractors. Each contract is performed concurrently and coordinated closely with construction activities performed on Project under other contracts. Contracts for this Project include the following
 - 1. Contract #1 General Construction Window Replacement
 - 2. Contract #2 Site Work
- C. The work of the Contractor is identified in this Project Manual and on the Drawings.
- D. Local custom and trade-union jurisdictional settlements do not control the scope of Work included in each prime contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, the affected contractor(s) shall promptly negotiate a reasonable settlement to avoid or minimize the pending interruption and delays.
- E. If it becomes necessary to refer to the contract documents to determine which prime Contract includes a specific element of required work, begin by referring to the prime Contracts, themselves; then, if a determination cannot be made from the prime Contracts, refer, in the following order, to the Supplementary Conditions, if any, this section of the Specifications, followed by the other Division-1 sections and finally with the Drawings and other Sections of the Specifications.
- F. If, after referring to the contract documents, it cannot be clearly determined which prime Contractor will perform a specific item of required work, then, that item of work will be brought to the Owner's Representative, Architect's, or Construction Manager's attention in writing for determination.
- G. Summary by References: Work of the contract can be summarized by reference to the Prime Contract(s), Contract, General Conditions, Instructions to Bidders, Specification Sections, Drawings, or Addenda to Contract Documents issued subsequent to the initial printing of this Project Manual, and including but not necessarily limited to printed material referenced by any of these. It is recognized that the work of the Contract is unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions, and other forces outside the contract documents.

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1.5 RELATED REQUIREMENTS

- A. Section 00 5200 - Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Section 00 7200 - General Conditions : Additional requirements for progress payments, final payment, and Changes in the Work.
- C. Section 01 1000 - Summary of Contract for Sequence of Work.
- D. Section 01 2000 - Price and Payment Procedures.
- E. Section 01 3553 - Site Safety and Security Procedures.
- F. Section 01 5010 - Temporary Facilities and Controls.
- G. Section 01 7000 - Execution.

1.6 JURISDICTIONAL DISPUTES

- A. Each Contractor shall only employ labor on the project or in connection with its work capable of working harmoniously with all trades, crafts and any other individuals associated with the capital improvement work to be performed. There shall be no strikes, picketing, work stoppages, slowdowns or other disruptive activity at the project for any reason by anyone employed or engaged by the Contractor to perform its portion of the work. There shall be no lockout at the project by the Contractor. The Contractor shall be responsible for providing the manpower required to proceed with the work under any circumstance. Should it become necessary to create a separate entrance for a contractor involved in a labor dispute, all costs associated with creating that entrance shall be borne by the contractor involved in the dispute. Such costs shall include, but not be limited to, signage, fencing, temporary roads and security personnel as deemed necessary by the Owner for the safety of the occupants of the site.
- B. If the Contractor has engaged the services of workers and/or subcontractor who are members of trade unions, the Contractor shall make all necessary arrangements to reconcile, without delay, damage or cost to the Owner and without recourse to the Owner, Owner's Representative, and Architect, any conflict between its agreement with the Owner and any agreements or regulations of any kind at any time in force among members or councils which regulate or distinguish what activities shall not be included in the work of any particular trade.
- C. The Contractor shall ensure that its work continues uninterrupted during the labor dispute and will be liable to the Owner for all damages suffered by the Owner occurring as a result of work stoppages, slowdowns, disputes or strikes

1.7 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of removal work is shown on drawings.
- B. Scope of alterations work is indicated on drawings.

1.8 Edgemont School District will remove the following items before start of work:

- A. Loose furniture, computers, loose books etc. at window walls.

1.9 OWNER OCCUPANCY

- A. Edgemont School District intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Edgemont School District intends to occupy the Project upon Substantial Completion.
- C. Edgemont School District intends to occupy a certain portion of the Project prior to the completion date for the conduct of normal operations.
- D. Cooperate with Owner's representative and Architect to minimize conflict and to facilitate Edgemont School District's operations.
- E. Schedule the Work to accommodate Owner's occupancy.

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1.10 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Arrange use of site and premises to allow:
 - 1. Edgemont School District occupancy.
 - 2. Work by Others.
 - 3. Work by Edgemont School District.
 - 4. Use of site and premises by the public.
- C. Provide access to and from site as required by law and by Edgemont School District:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Existing building spaces may not be used for storage unless approved by the Owner's Representative.
- E. Time Restrictions:
- F. Contractors shall comply with Local Noise Ordinance. Work disrupting the community must be performed with the following hours:
 - 1. Monday thru Friday: 8 AM to 8 PM.
 - 2. Weekends/ Holidays: 9 AM to 6 PM.
- G. Construction deliveries during days the school is open, shall not occur during the hours of 7:30 AM and 9:00 AM and 2:00 PM and 3:00 PM, when school buses are arriving or leaving the school grounds.
- H. During the entire construction period the Contractor shall have limited use of the premises for construction operations, including use of the site as indicated in phasing, schedule of work, and milestone schedule and work time included in this section.
 - 1. General: Limitations on site usage as well as specific requirements that impact utilization are indicated on the drawings and/or by other contract documents. In addition to these limitations and requirements, the Contractor shall administer allocation of available space equitably among the separate sub and other entities needing access and space, so as to produce the best overall efficiency in performance of the total work of the project. The Contractor shall schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.
 - 2. The Contractor shall limit their use of the premises to the work indicated, so as to allow for Owner occupancy and use by the public during the period when the Owner occupies the building.
 - 3. Contractor shall to maintain clear and unobstructed paths of exit discharge from all existing exits.
 - 4. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, Owner's Representative, Owner's employees, emergency vehicles, and public at all time. Do not use these areas for parking or storage of materials.
 - 5. Lock automotive type vehicles such as passenger cars and trucks and other types of mechanized and motorized construction equipment, when parked and unattended, to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place.
- I. Only materials and equipment, which are to be used directly in the work, shall be brought to and stored on the project site by the Contractor. After equipment is no longer required for the work, it shall be promptly removed from the project site. Protection of construction materials and equipment stored at the project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractors.
- J. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas designated by Owner's Representative. If additional storage is necessary obtain and pay for such storage off-site.

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- K. The Contractor(s) and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner's Representative which may be withheld in the sole discretion of the Owner.
- L. Contractor shall ensure that the work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the work and all adjacent areas. The work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, each contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of:
 - 1. Any areas and buildings adjacent to the site of the work or;
 - 2. The Building in the event of partial occupancy as more..
- M. Without prior approval of the Owner's Representative, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitations, lavatories, toilets, entrances and parking areas other than those designated by the Owner's Representative. Without limitation of any other provision of the Contract Documents, the Contractor shall use its best efforts to comply with the rules and regulations promulgated by the Owner. and Owner's Representative in connection with the use and occupancy of the Project Site, and the Building, as amended from time to time. The Contractor shall immediately notify the Owner's Representative in writing if during the performance of the Work, the Contractor finds compliance with any portion of such rules and regulations to be impracticable, setting forth the problems of such compliance and suggesting alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner's Representative may, in the Owner's Representative's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements, applicable to use, and occupancy of the Project Site and the Building.
- N. Maintain the existing building in a safe and weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. When work is scheduled after hours clean and remove all temporary barriers and protection so that the building can be occupied the following day when normal building occupancy will occur.
- O. Keep public areas such as hallways, stairs, elevator lobbies, and toilet rooms free from accumulation of waste material, rubbish or construction debris.
- P. Smoking, drinking of alcoholic beverages or open fires will not be permitted on the project site.
- Q. Utility Outages and Shutdown:
 - 1. Do not disrupt or shut down life safety systems, including but not limited to fire alarm system, electrical, data, and heating system, without 7 days notice to Owner's Representative and Construction Manager and authorities having jurisdiction.
 - 2. Prevent accidental disruption of utility services to other facilities.

1.11 AVAILABILITY OF EXISTING BUILDING

- A. The existing building work areas will be available to the Contractor(s) as follows:
 - 1. Award of Contract thru June 27, 2025:
 - a. 3:30 PM thru 10:30 PM Monday thru Friday if access into the facility is required.
 - 2. June 30, 2025 thru August 31, 2025:
 - a. 7:00 AM thru 4:00 PM Monday thru Friday if access into the facility is required.
 - 3. September 1, 2025 thru November 1, 2025
 - a. 3:30 PM thru 10:30 PM
 - 4. Construction operations which create dust, noise or fumes, particularly welding operations shall be schedule after school hours, when approved by the Owner's Representative.

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- B. Upon request by the Contractor, the building may be made available, at the discretion of the Owner's Representative and at the Cost to the Contractor, during such times as are allowed by local noise ordinance, in addition to the above listed hours. A request for use during these off-regular hours must be made at least two (2) days before the use. Such off-hours may include Saturdays, and Holidays.
 - 1. If the Contractor requests the use of the facility for off-hours to maintain the scheduled completion date, the Contractor shall pay all additional costs in connection with opening, providing security and project management expenses incurred with no costs to the Owner and Owner's Representative. All expenses shall be deducted from the Contractors contract price. Comply with other portions of this Section.
 - 2. Weekend, Holiday and Night Work:
 - a. The contractor shall make no claim for delay for the inability of the Owner to make the site available for off-hours work. Should the Owner make the site available during these hours at the contractor's request, the cost will be borne by the Contractor.
- C. ALL CONTRACTORS SHALL BE REQUIRED TO PERFORM SCHEDULED WORK WITHIN THE EXISTING BUILDING ONLY DURING THE TIME PERIODS INDICATED AND SHALL INCLUDE IN THE BID ALL COSTS FOR LABOR, MATERIAL, ETC. INCLUDING PREMIUM TIME TO PERFORM THE WORK, PER PHASE PER TIME PERIOD.

1.12 COMPLETION OF WORK AFTER SCHEDULED COMPLETION DATE

- A. Contractor(s) shall perform work only within these limitations and all manpower, equipment, etc., shall be provided as required to complete the work as per schedule. In the event the contractor does not complete the work as scheduled all work to be performed shall be performed after 3:30 PM when the building is unoccupied and approved by the Owner's Representative. All costs shall be borne by the Contractor.
- B. Each Contractor shall prepare a progress schedule in detail listing items of work, sections of building and the time required for each.
- C. Each Contractors shall provide necessary manpower, equipment, etc., as required to maintain schedule developed within the time limitations as described above.

1.13 WORK SEQUENCE

- A. Start Date: Letter of Award of Contract:
- B. Construct Work in phases during the construction period:
 - 1. Phase 1: Pre-Construction.
 - a. Start Date: Contract Award
 - b. Tasks: Schedule of Values, Progress Schedule, Contracts, Bonds and Insurance, Field verification of existing conditions, and Submittals
 - c. Completion Date: 30 Days after Contract Award
 - 2. Phase 2: Shop Drawings.
 - a. Tasks: Preparation and submittal of Shop Drawings
 - b. Completion Phase 2: 45 Days after Contract Award
 - 3. Phase 2: Construction.
 - a. Start Date: June 30, 2024
 - b. Tasks: All construction operations
 - c. Completion Phase2: November 1, 2024

1.14 SPECIFICATION SECTIONS APPLICABLE TO THE CONTRACT

- A. Unless otherwise noted, **ALL Provisions of Division 00 and 01 listed below apply to all contracts.** Specific items of work listed under individual contract descriptions constitute exceptions.
- B. **DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS**
 - 1. 00 0115 LIST OF DRAWING SHEETS
 - 2. 00 2113 BIDDING REQUIREMENTS

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3. 00 2115 RFI FORM
4. 00 4100 BID FORM - CONTRACT #1 - GENERAL CONSTRUCTION
5. 00 4110 BID FORM - CONTRACT #2 - PLUMBING
6. 00 4401 QUALIFICATIONS OF BIDDERS
7. 00 4460 CERTIFICATION OF COMPLIANCE WITH THE IRAN DISINVESTMENT ACT
8. 00 4470 DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT.
9. 00 4476 INSURANCE CERTIFICATION
10. 00 5200 FORM OF AGREEMENT
11. 00 6000 BONDS AND CERTIFICATES
12. 00 7200 GENERAL CONDITIONS

C. DIVISION 01 - GENERAL REQUIREMENTS

1. 01 1000 SUMMARY OF CONTRACTS
2. 01 2000 PRICE AND PAYMENT PROCEDURES
3. 01 2005 PARTIAL RELEASE OF LIEN
4. 01 2100 ALLOWANCES
5. 01 2300 ALTERNATES
6. 01 2500 SUBSTITUTION PROCEDURES
7. 01 3000 ADMINISTRATIVE REQUIREMENTS
8. 01 3553 SITE SAFETY AND SECURITY PROCEDURES
9. 01 3554 PREVAILING WAGE RATES
10. 01 4000 QUALITY REQUIREMENTS
11. 01 4100 REGULATORY REQUIREMENTS
12. 01 4216 DEFINITIONS
13. 01 4219 REFERENCE STANDARDS
14. 01 5010 TEMPORARY FACILITIES AND CONTROLS
15. 01 6000 PRODUCT REQUIREMENTS
16. 01 6116 VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS
17. 01 7000 EXECUTION
18. 01 7330 SELECTIVE REMOVALS
19. 01 7800 CLOSEOUT SUBMITTALS

1.15 Contract #1 - GENERAL CONSTRUCTION

- A. The work of the General Construction Contract includes but not limited to the following:
1. DIVISION 04 - MASONRY
 - a. 04 2000 UNIT MASONRY
 2. DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
 - a. 06 1000 ROUGH CARPENTRY
 3. DIVISION 07 - THERMAL AND MOISTURE PROTECTION
 - a. 07 2119 FOAMED IN PLACE INSULATION
 - b. 07 4213.13 METAL COMPOSITE MATERIAL WALL PANELS
 - c. 07 5010 MODIFICATIONS TO EXISTING ROOFING
 - d. 07 6200 SHEET METAL FLASHINGS & TRIM
 - e. 07 9200 JOINT SEALANTS
 4. DIVISION 08 - OPENINGS
 - a. 08 1116 ALUMINUM DOORS AND ALUMINUM FRAMES
 - b. 08 4313 ALUMINUM-FRAMED STOREFRONTS
 - c. 08 5113 ALUMINUM WINDOWS

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- d. 08 7100 FINISH HARDWARE
- e. 08 8000 GLAZING
- 5. DIVISION 09 - FINISHES
 - a. 09 9000 PAINTING AND COATING
- 6. DIVISION 12 - FURNISHINGS
 - a. 12 2940 ROLLER SHADES
 - b. 12 4000 WINDOW SHADES
 - c. 12 3600 SOLID SURFACING WINDOW SILLS AND COUNTERTOPS

B. Contract #2 - SITE

- 1. **Work in the Site Contractor Contract #2 includes, but is not limited to, the following:**

- 1. DIVISION 32 - EXTERIOR IMPROVEMENTS
 - a. 32 1216 ASPHALT PAVING
 - b. 32 1623 SIDEWALKS
 - c. 32 1823 ASPHALT TENNIS COURT SURFACE COLOR COATING SYSTEM
 - d. 32 3113 CHAIN LINK FENCING AND GATES

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 2000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Change procedures.
- C. Procedures for preparation and submittal of application for final payment.

1.3 RELATED REQUIREMENTS

- A. Section 00 5200 - Form of Agreement: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Section 00 7200 - General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 01 2100 - Allowances: Payment procedures relating to allowances.
- D. Section 01 2300 - Alternates: Payment procedures relating to alternates.
- E. Section 01 7800 - Closeout Submittals: Project record documents.

1.4 SCHEDULE OF VALUES

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Forms filled out by hand will not be accepted.
- C. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify sub-contractors.
- D. Revise schedule to list approved Change Orders, with each Application For Payment.
- E. Provide a separate line item for the following: (where applicable)
 - 1. Bonds. (Bond premium may be paid when invoice of premium is provided).
 - 2. OCP. (Policy premium may be paid when invoice of premium is provided).
 - 3. Labor and materials, when payment is anticipated for material not installed
 - 4. Submittals. (0.5% Minimum of contract amount)
 - 5. Each allowance.
 - 6. Meeting attendance. (0.5% Minimum of contract amount)
 - 7. As-built Drawings. (0.5% Minimum of contract amount)
 - 8. Punch List (1% Minimum of contract amount).
 - 9. Final Cleaning.
 - 10. Closeout Documents (1.5% Minimum of contract amount)
 - 11. Identify line items being performed by subcontractors.
 - 12. Authorized change orders.

1.5 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Use Form AIA G732 and Form AIA G703, edition stipulated in the Agreement.
- C. Forms filled out by hand will not be accepted.
- D. Execute certification by signature of authorized officer.

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- E. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- F. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- G. Submit one (1) electronic "pencil copy", in PDF format, of each Application for Payment to Owner's Representative and Architect for approval.
- H. After Architect's approval of the "pencil copy" submit three hard copies to the Architect
- I. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 3000.
 - 2. Construction progress schedule, revised and current as specified in Section 01 3000.
 - 3. Partial Waivers of Mechanic's Lien: With each Application for Payment, submit partial waivers of mechanic's liens from contractor, subcontractors, and suppliers for construction period covered by the previous application.
 - a. Waiver Forms: Submit release of lien on forms, provided by the Architect 01 2005.
 - 4. When an application shows completion of an item, submit final or full waivers.
 - 5. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 6. Submit Final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - 7. Certified Payrolls; All Applications for Payment must be accompanied with certified payrolls for all Contract Work performed. **In addition each contractor and sub-contractor shall submit to the Owner within thirty days after issuance of its first payroll, and every thirty days thereafter**, a transcript of the original payroll record subscribed and affirmed as true under penalties of perjury. The Owners shall be required to receive and maintain such payroll records. The original payrolls or transcripts shall be preserved for three years from the completion of the work on the awarded project.
 - a. Submit certification that all personnel listed on certified payrolls have successfully completed an OSHA construction safety and health course of at least 10 hours prior to performing any work on the project.
- J. Liens: No Payment will be made when a lien is filed against Owner by contractor or any subcontractor, or supplier or other entities until such lien is removed, bonded or similar action acceptable to the Owner
- K. Project record documents as specified in Section 01 7800 - Closeout Submittals, shall be available for review by Edgemont School District as a prerequisite for approval of payment.
- L. Payments for stored materials (whether on-site but not installed, or stored in secured warehouse) will require a Bill of Lading showing the exact value. In no case will more than 90% be approved if the item is not installed. Insurance certificates will be provided specific to materials stored (for on or off site items)
- M. When Owner's Representative requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- N. The Owner and Architect shall retain Five (5) percent of the amount of each payment.

1.6 INITIAL APPLICATION FOR PAYMENT:

- A. Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. Executed contract.
 - 2. Approved bonds.
 - 3. Approved insurance certificates.
 - 4. Names of full time project manager, on site superintendent, and foreman.

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5. List of suppliers and fabricators: .
6. List of subcontractors: .
7. Approved Schedule of Values.
8. Contractor's Submittal Schedule.
9. Products list.

1.7 APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

- A. Comply with Requirements of Section 01 7800 - Closeout Submittals.

1.8 MODIFICATION PROCEDURES

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in To Be Determined's employ or subcontractors of changes to Contract Documents.
- B. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Owner's Representative and Architect will issue instructions directly to the Contractor.
- C. The Contractor shall be responsible for informing other in it's employ, subcontractor's whose work is affected by any modifications.
- D. For other required changes, Architect will issue a document signed by Edgemont School District instructing To Be Determined to proceed with the change, for subsequent inclusion in a Change Order.
 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 2. Promptly execute the change.
 3. Refer to the General Provisions for additional information.
- E. Contractor may propose a change by submitting a request for change to , Owner's Representative and Architect describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation . Document any requested substitutions in accordance with Section 01 2500
- F. Computation of Change in Contract Amount: As specified in the Agreement and Provisions of the Contract.
 1. Refer to AIA 201 Article 7.
- G. Substantiation of Costs: Provide full information required for evaluation.
 1. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
 - a. For Time and Material work Owner's representative shall verify time and material provided.
- H. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- I. Promptly enter changes in Project Record Documents.

1.9 APPLICATIONS FOR PAYMENT WHEN BEHIND SCHEDULE

- A. When the project falls behind schedule the contractor shall demonstrate the actions to be taken to put the project back on schedule.
 1. Payments will not approved until satisfactory evidence is presented to put the project on schedule.

1.10 APPLICATION FOR PAYMENT AFTER SCHEDULED COMPLETION DATE

- A. In the event the work is not completed by the schedule date, listed in Section 01 1000 - Summary of Contract, and in addition to the other remedies described, the Architect will not review progress payment requisitions submitted after the construction completion date, and the District will not issue any progress payments after that date, until all work is completed.
 1. Only one requisition for work performed, after the construction completion date, may be submitted, and it may be submitted only when all work is complete and a Punch List inspection is conducted; said requisition may be submitted when the work at 100% complete, less 5% retainage.

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1.11 APPLICATION FOR FINAL PAYMENT

- A. Comply with Section 01 7800 - Closeout Submittals.
- B. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- C. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Section 01 7800 - Closeout Submittals are submitted and approved.
 - 2. All "punch list" items have been completed.
- D. It is understood by the Contractor that the maximum payment due the contractor prior to final payment shall be Ninety (95%) of the Contract amount and the final Five (5%) will be due only after the completion and submittal of all requirements of Section 01 7800 - Closeout Submittals are met.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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PARTIAL RELEASE OF LIEN

**SECTION 01 2005
PARTIAL RELEASE OF LIEN**

CONTRACTOR/SUBCONTRACTOR/VENDOR'S LETTERHEAD

Name of Facility: Window Replacement, Tennis Court Renovation and Related Work

Name of Owner: Edgemont School District

Address: 100 Glendale Road

Name of the Contractor/Subcontractor/Vendor: _____

Address: _____

Trade/Vendor: _____

Application # _____ Dated _____.

We certify that we have completed _____ % of our Contract.

Prior to this requisition we have received payment equal to _____ % of of our contract amount.

The undersigned, upon receipt of the above requisition payment hereby releases and discharges the Owner of and from any liability or obligation in any way related to or arising out of this project up to and including the date of this document.

The undersigned further covenants and agrees that it shall not in any way claim or file a mechanic's or other lien against the premises of the above designated project, or any part thereof, or against any fund applicable thereto for any of the work, labor, materials heretofore furnished by it in connection with the improvement of said premises.

The undersigned further warrants that, in order to induce the Owner to release this partial payment, they have paid all claims for labor, material, insurance, taxes, equipment, etc., employed in the prosecution of the work above, to date of this requisition.

The undersigned hereby releases and agrees to hold the Owner harmless from any and all claims in connection with the furnishing of such labor and materials, etc., for the construction of the aforementioned project.

The undersigned further guarantees that all portions of the work furnished and/or provided by them are in accordance with the contract and that the terms of the contract with respect to these guarantees will hold for the period specified in said contract.

IN WITNESS WHEREOF, we have executed under seal this release on the above date and to be legally bound hereby:

WITNESS: _____ FIRM: _____

BY: _____

State of New York, County of _____ subscribed and sworn to before me this ____ day of
____ 20____

Notary public

My commission expires _____

END OF SECTION

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ALLOWANCES

**SECTION 01 2100
ALLOWANCES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements governing allowances.
- B. Selected materials and equipment are specified in the Contract Documents by allowances. The allowances may include removals and/or installation.
- C. Total allowances shall be included in the base bid proposal. The final contract sum will be adjusted by Change Order. The following allowances include:
 - 1. Cash allowances.
 - 2. Payment and modification procedures relating to allowances.

1.3 RELATED REQUIREMENTS

- A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

1.4 PAYMENTS FOR ALLOWANCES

- A. Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts.
 - 1. **Bond, Overhead and Profit will be included in Base Bid for all Allowances.**
- B. Cash Allowance: Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, equipment rental, will be included in Change Orders authorizing expenditure of funds from the Cash Allowance and **shall be determined in accordance with Article 7 of the General Conditions.**
- C. Inspection, Testing, Environmental Monitoring and Commissioning Allowances: Contractor's costs for their work described in Section 01 9113 General Commissioning Requirements.
- D. The Contract Sum for all allowances shall be adjusted accordingly by Change Order.
- E. Payment will not be made for any of the following: (If applicable)
 - 1. Work performed prior to measurement and establishing quantities.
 - 2. Products waste not used or disposed of off site.
 - 3. Products determined as unacceptable before or after placement.
 - 4. Products not completely unloaded from the transporting vehicle.
 - 5. Products performed or placed beyond the lines and levels of the required Work.
 - 6. Products remaining on hand after completion of the Work.
 - 7. Loading, hauling, and disposing of rejected Products.
- F. At closeout of Contract, funds remaining in Cash Allowance will be credited to Owner by Change Order.

1.5 ALLOWANCE RESPONSIBILITY

- A. Cash Allowances:
 - 1. Owner's Representative and Architect Responsibilities:
 - a. Consult with Contractor, for consideration and selection of products, suppliers, and installers.
 - b. Select products in consultation with Edgemont School District and transmit decision to Contractor.
 - c. Prepare Change Order.
 - 2. Contractor Responsibilities: (To be included in the Contract Sum but not in the allowances.)

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- a. Assist Owner's Representative and Architect in selection of products, suppliers, and installers.
 - b. Obtain proposals from suppliers and installers and offer recommendations.
 - c. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
 - d. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
 - e. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
3. Differences in costs will be adjusted by Change Order.

1.6 ALLOWANCES SCHEDULE

A. CONTRACT #1 - General Construction **CONTRACTOR**

1. ALLOWANCES

- a. Cash Allowance: Include a Cash Allowance for use according to the Owner's instructions.
Twenty Thousand _____ (\$20,000.00) DOLLARS

B. CONTRACT #2 - Site Contractor

1. ALLOWANCES

- a. Cash Allowance: Include a Cash Allowance for use according to the Owner's instructions
(Twenty Thousand) _____ (\$20,000.00) DOLLARS

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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ALTERNATES

**SECTION 01 2300
ALTERNATES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Description of alternates for selection by the Owner, not included in the Base Bid.
- B. Documentation of changes to Contract Sum and Contract Time.

1.3 RELATED REQUIREMENTS

- A. Section 00 2113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.
- B. Section 00 4100 - Bid Form for listing amount of each alternate.
- C. Section 00 5200 - Form of Agreement: Incorporating monetary value of accepted Alternates.
- D. Section 01 2300 - Alternates: Listing of alternates.

1.4 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Edgemont School District's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.5 SCHEDULE OF ALTERNATES - GC

- A. Alternate No. GC-1:
 - 1. The Contractor for Contract #1 General Construction shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system in Classrooms B11, B12 and Gymnasium Office in accordance with the specifications and as shown on the contract drawings.
- B. Alternate No. GC-2 :
 - 1. The Contractor for Contract #1 General Construction shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and aluminum doors in Corridor C11 and Corridor A16 in accordance with the specifications and as shown on the contract drawings.
- C. Alternate No. GC-3
 - 1. The Contractor for Contract #1 General Construction shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and aluminum doors in Classroom B9 and Classroom B10 in accordance with the specifications and as shown on the contract drawings.
- D. Alternate No. GC-4:
 - 1. The Contractor for Contract #1 General Construction work shall state the amount to be ADDED TO the Base Bid to provide, furnish and install all labor, equipment and material required to remove existing and install new aluminum storefront system and insulated metal panels at the Multi-Purpose Room C9 clerestory window in accordance with the specifications and as shown on the contract drawings.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 2500
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.3 RELATED REQUIREMENTS

- A. Section 00 2113 - Instructions to Bidders: Restrictions on timing of substitution requests.
- B. Section 01 2100 - Allowances, for cash and quantity allowances affecting this section.
- C. Section 01 3000 - Administrative Requirements: Submittal procedures, coordination.
- D. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling and restrictions on timing of substitution requests.
- E. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Restrictions on emissions of indoor substitute products.
- F. Section 11 6813 - Playground Equipment.
- G. Section 32 1816 - Playground Protective Surfacing.

1.4 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by To Be Determined to materials, products, assemblies, and equipment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
 - 4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Edgemont School District.
 - 5. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 6. Agrees to reimburse Owner's Representative and Architect for review or redesign services associated with re-approval by authorities.
 - 7. Statement indicating why specified material or product cannot be provided.
 - 8. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 9. Samples, where applicable or requested.
 - 10. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - 11. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

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12. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 13. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 14. Cost information, including a proposal of change, if any, in the Contract Sum.
 15. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 16. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
1. Note explicitly any non-compliant characteristics.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
1. To Be Determined's Substitution Request documentation must include the following:
 - a. Project Information:
 - a) Official project name and number, and any additional required identifiers established in Contract Documents.
 - b. Substitution Request Information:
 - a) Discrete and consecutive Substitution Request number, and descriptive subject/title.
 - b) Indication of whether the substitution is for cause or convenience.
 - c) Issue date.
 - d) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
 - e) Description of Substitution.
 - f) Reason why the specified item cannot be provided.
 - g) Differences between proposed substitution and specified item.
 - h) Description of how proposed substitution affects other parts of work.
 - c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
 - a) Physical characteristics.
 - b) In-service performance.
 - c) Expected durability.
 - d) Visual effect.
 - e) Sustainable design features.
 - f) Warranties.
 - g) Other salient features and requirements.
 - h) Include, as appropriate or requested, the following types of documentation:
 - (a) Product Data:
 - (b) Samples: Provide full size actual sample of item proposed for substitution. Sample shall be provided, without exception, even if the originally specified item did not require a sample.
 - (c) Certificates, test, reports or similar qualification data.
 - (d) Drawings, when required to show impact on adjacent construction elements.
 - d. Impact of Substitution:
 - a) Savings to Edgemont School District for accepting substitution.

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- b) Change to Contract Time due to accepting substitution.
- D. Limit each request to a single proposed substitution item.
 - 1. Submit an electronic document, combining the request form with supporting data into single document.
 - 2. Deliver sample to Architect.

3.2 SUBSTITUTION PROCEDURES AFTER AWARD OF CONTRACT

- A. Submittal Form:
 - 1. Submit substitution requests by completing the form attached to this section. See this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- B. Architect will consider requests for substitutions only within 15 days after date established in Notice to Proceed.
- C. Substitutions will not be considered under one or more of the following circumstances:
 - 1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
 - 2. Without a separate written request.
 - 3. When acceptance will require revisions to Contract Documents.

3.3 RESOLUTION

- A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
- B. Architect will notify To Be Determined in writing of decision to accept or reject request.

3.4 ACCEPTANCE

- A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.5 ATTACHMENTS

- A. A facsimile of the Substitution Request Form (During Construction) required to be used on the Project is included after this section.

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SUBSTITUTION PROCEDURES

SUBSTITUTION REQUEST FORM

SUBSTITUTION REQUEST No. _____

(After the Bidding Phase)

Project: Window Replacement, Tennis Court Renovation and Related Work

Substitution Request Number: _____

From: _____

Date: _____

A/E Project Number: 23501

Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution:

Manufacturer: _____ Address: _____ Phone: _____

_____ model no.: _____

Installer: _____ Address: _____ Phone: _____

History: _____ New product _____ 2-5 years old _____ 5-10 yrs old _____ More than 10 years old

Differences between proposed substitution and specified product:

Point-by-point comparative data attached - REQUIRED

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: No Yes Add _____ Deduct _____ days.

Supporting Data Attached: Drawings Product Data Samples Tests Reports

The Undersigned certifies:

Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.

Same warranty will be furnished for proposed substitution as for specified product.

Same maintenance service and source of replacement parts, as applicable, is available.

Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.

Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.

Proposed substitution does not affect dimensions and functional clearances.

Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

FULLER AND D'ANGELO, P.C.
ARCHITECTS AND PLANNERS

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GREENVILLE ELEMENTARY SCHOOL
WINDOW REPLACEMENT, TENNIS COURT RENOVATION
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SUBSTITUTION PROCEDURES

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments:

A/E's REVIEW AND ACTION

___ Substitution approved - Make submittals in accordance with Specification Section 01330

___ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.

___ Substitution rejected - Use specified materials.

___ Substitution Request received too late - Use specified materials.

: _____ Date: _____

Additional Comments: ___ Contractor ___ Subcontractor ___ Supplier ___ Manufacturer ___ A/E

END OF SECTION

**SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review and information.
- F. Requests for Interpretation (RFI) procedures.
- G. Submittal procedures.

1.3 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary of Contract: Sequence of Work, Work covered by each contract .
- B. Section 01 5010 - Temporary Facilities and Controls.
- C. Section 01 7000 - Execution: Additional coordination requirements.
- D. Section 01 7800 - Closeout Submittals.

1.4 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 01 7000 - Execution for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to Architect:
 - 1. Requests for Interpretation (RFI).
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Manufacturer's instructions and field reports.
 - 5. Applications for payment and change order requests.
 - 6. Correction Punch List and Final Correction Punch List for Substantial Completion.

1.5 PROJECT COORDINATION

- A. Owner's Representative: Ray Renda, Director of Facilities.
- B. Contractor shall:
 - 1. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - a. Preparation of schedules.
 - b. Installation and removal of temporary facilities.
 - c. Processing of submittals and photocopying/delivery to affected contractors.
 - d. Progress meetings.
 - e. Project closeout activities.
 - 2. During construction, coordinate use of site and facilities through the Owner's Representative.
 - 3. Comply with Owner's Representative and Architect procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.

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4. Coordinate field engineering and layout work under instructions of the Owner's Representative.
- C. Make the following types of submittals to Architect
 1. Requests for Interpretation.
 2. Requests for substitution.
 3. Shop drawings, product data, and samples.
 4. Test and inspection reports.
 5. Manufacturer's instructions and field reports.
 6. Applications for payment and change order requests.
 7. Progress schedules.
 8. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. Owner's Representative and Architect will schedule a meeting after Notice of Award.
- B. Attendance Required:
 1. Edgemont School District.
 2. Fuller and D'Angelo, P.C.
 3. Contractor.
 4. Contractor's Field Superintendent.
- C. Agenda:
 1. Execution of Edgemont School District-To Be Determined Agreement.
 2. Submission of executed Bonds and Insurance certificates..
 3. Distribution of Contract Documents.
 4. Submission of schedule of values, progress schedule, list of products,, and list of subcontractors,
 5. Designation of personnel representing the parties to Contract.
 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 7. Review construction scheduling.
 8. Construction facilities and controls provided by Edgemont School District.
 9. Temporary utilities provided by Edgemont School District.
 10. Security and housekeeping procedures.
 11. Procedures for testing.
 12. Procedures for maintaining record documents.
- D. Architect will record minutes and distribute copies within five days after meeting to all participants. Contactor shall distribute to all entities of the Contractor affected by decisions made.

3.2 PROGRESS MEETINGS

- A. Meetings will be scheduled throughout progress of the Work at minimum of two week intervals.
- B. Attendance Required:
 1. Edgemont School District.
 2. Fuller and D'Angelo, P.C.
 3. To Be Determined's superintendent.
 4. Major Subcontractors.
 5. Suppliers as appropriate to agenda topics for each meeting.
- C. Agenda:
 1. Review minutes of previous meetings.

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2. Review of work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede, or will impede, planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of RFIs log and status of responses.
 7. Review construction safety programs.
 8. Review exiting and separation of construction
 9. Maintenance of progress schedule.
 10. Corrective measures to regain projected schedules.
 11. Planned progress during succeeding work period.
 12. Coordination of projected progress.
 13. Maintenance of quality and work standards.
 14. Effect of proposed changes on progress schedule and coordination.
 15. Other business relating to work.
- D. Architect will record minutes and distribute copies within five days after meeting to all participants. Contactor shall distribute to all entities of the Contractor affected by decisions made.

3.3 WEEKLY COORDINATION MEETINGS

- A. The Contractor shall schedule and hold weekly general project coordination meetings with the Owner's Representative, to review the work schedule for the week in order to insure the planned work does not conflict with facility operations.

3.4 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 10 days after date of the Letter of Award, submit preliminary schedule.
- B. Responsibility:
1. Each Contractor shall be responsible for preparing and updating the contract progress schedule.
 2. The Contractor shall be responsible for preparing and updating the contract progress schedule.
- C. Within 5 days after joint review submit final schedule.
- D. Submit updated schedule with each Application for Payment.
- E. General Content
1. Milestones: Include milestones in schedule, including, but not limited to, Notice of Award, Submittals, Verification of existing conditions, Asbestos/Lead Abatement, Removals, Installation, Substantial Completion, Completion of Punch List, Final Completion, and Closeout .
 2. Show complete sequence of construction by activity, by room with dates for beginning and completion of each element of construction.
 3. Identify each item by specification section number.
 4. Provide sub-schedules for each stage of Work identified in Section 01 1000.
 5. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
 6. Provide legend for symbols and abbreviations used.
- F. Bar Chart Schedule
1. Include a separate bar for each major portion of Work or operation.
 2. Identify the first work day of each week.

3.5 DAILY CONSTRUCTION REPORTS

- A. Include only factual information. Do not include personal remarks or opinions regarding operations and/or personnel.
- B. Transmit reports electronically Owner's Representative at weekly intervals.

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- C. The Contractor shall prepare a daily construction report recording the following information concerning events at Project site and project progress:
1. Date.
 2. High and low temperatures, and general weather conditions.
 3. List of subcontractors at Project site.
 4. Major equipment at Project site.
 5. Material deliveries.
 6. Safety, environmental, or industrial relations incidents.
 7. Meetings and significant decisions.
 8. Stoppages, delays, shortages, and losses. Include comparison between scheduled work activities (in To Be Determined's most recently updated and published schedule) and actual activities. Explain differences, if any. Note days or periods when no work was in progress and explain the reasons why.
 9. Testing and/or inspections performed.
 10. Signature of To Be Determined's authorized representative.

3.6 REQUESTS FOR INTERPRETATION (RFI)

- A. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
1. Prepare a separate RFI for each specific item.
 2. Use Section 00 4200 - Proposal Form.
- B. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Approval of substitutions (see Section - 01 2500 - Substitution Procedures)
 - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
 - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
 2. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
 - a. The Edgemont School District reserves the right to assess the To Be Determined for the costs (on time-and-materials basis) incurred by the Fuller and D'Angelo, P.C. , and any of its consultants, due to processing of such RFIs.
- C. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- D. Review Time: Fuller and D'Angelo, P.C. will respond and return RFIs to To Be Determined within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
- E. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in To Be Determined's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Edgemont School District.

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1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.

3.7 SUBMITTALS FOR REVIEW

- A. All submittals are the product and the property of the Contractor. The Owner, Owner's Representative, or Architect shall not be responsible for the contractor's construction means, methods or techniques: safety precautions or programs; Acts or admissions; or failure to carry out the work in accordance to the contract documents
- B. Coordinate transmittal of related items so processing will not be delayed due to requirement of coordination.
 1. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 2. Unauthorized submittals will be considered non-responsive and returned or discarded by the Architect without action.
- C. Submittal Cover Sheet and Stamp Sheet, attached to this section, shall be used for **each** submittal.
- D. All critical and long lead shop drawing submittals shall be submitted no later than twenty (20) days after Letter of Award of Contract. No further payments will be made to the contractor after twenty (20) days until all critical and long lead are submitted.
 1. If the submittal is rejected for being incomplete, the time period does not start until the complete submittal is turned in to the Owner's Representative or Architect.
- E. All critical and long lead shop drawing submittals shall be submitted no later than twenty (20) days after Letter of Award of Contract. No further payments will be made to the contractor after twenty (20) days until all critical and long lead are submitted.
 1. If the submittal is rejected for being incomplete, the time period does not start until the complete submittal is turned in to the Owner's Representative or Architect.
- F. When the following are specified in individual sections, including but not limited to the following, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Templates.
 5. Design mix formulas.
- G. Samples will be reviewed only for aesthetic, color, or finish selection and for record documents purposes described in Section 01 7800 - Closeout Submittals.
- H. The Architect shall review and approve or take other appropriate action on the Contractor submittals, such as shop drawings, product data, samples and other data, which the Contractor is required to submit, but only for the limited purpose of checking for conformance with the design concept and the information shown in the Construction Documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. The Architect's review shall be conducted with reasonable promptness while allowing sufficient time in the Architect's judgment to permit adequate review. Review of a specific item shall not indicate that the Architect has reviewed the entire assembly of which the item is a component. **The Architect shall not be responsible for any deviations from the Construction Documents not brought to the attention of the Architect, in writing, by the Contractor.** The Architect shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

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- I. Marking or comments on shop drawings shall not be construed as relieving the Contractor from compliance with the contract project plans and specifications, nor departure therefrom. The contractor remains responsible for details and accuracy for conforming and correlating all quantities, verifying all dimensions, for selecting fabrication processes, for techniques of assembly and for performing their work satisfactorily and in a safe manner.
- J. **Architect will review the original submittal and one (1) re submittal. Additional reviews will be additional services provided to the Owner and charged accordingly. The Owner will back charge the contractor accordingly.**
- K. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

3.8 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Certificates.
 - 2. Inspection reports.
 - 3. Manufacturer's instructions.
 - 4. Manufacturer's field reports.
 - 5. Other types indicated.

3.9 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Refer to Section 01 7800 - Closeout Submittals..

3.10 NUMBER OF COPIES OF SUBMITTALS

- A. Documents: Submit one electronic copy **in PDF format**; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected. All submittals shall be in electronic format and conforming to the following:
 - 1. Each item shall be in a separate file.
 - 2. Each file name shall start with the specification section number and contain an abbreviated explanation of what it contains; for example:
 - a. 08 5113 Aluminum Windows; 08 1613 Fiberglass Doors and Aluminum Frames; 08 8000 Glazing.
 - 3. Add Revision number (Rev2 Rev3, etc) to the file name when resubmitting items, for example:
 - a. 07 5323 EPDM Rev1.pdf 07 5323 Bond AdhRev1.pdf
 - 4. Provide a Cover Sheet with each item - in the same file as the technical submittal.
 - 5. Do not zip the files, and do not put the files in Folders.
 - 6. Make all technical submittals at one time per trade- refer to the specification for additional submittal requirements for example:
 - a. Concrete; Masonry; Miscellaneous Fabrications; Roofing; etc.
 - 7. Do not send MSDS with the technical submittals; collate all of the MSDS needed for the entire project in three ring binders, organized by specification section, and submit the binders to the Owner's Representative, with copy of Transmittal to the Architect, and maintain one copy at the project site.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Owner's Representative.
 - 1. Approved sample will be retained at the project site.

3.11 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.

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3. Transmit using approved form attached to this section.
 4. Identify: Project; To Be Determined; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
 5. Apply To Be Determined's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the To Be Determined, or without To Be Determined's stamp will not be acknowledged, reviewed, or returned.
 6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Send submittals in electronic format via email to Architect and Construction Manager.
 7. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 10 working days excluding delivery time to and from the To Be Determined.
 - b. For sequential reviews involving Architect and Construction Manager or another affected party, allow an additional 7 days.
 8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 9. Provide space for To Be Determined and Architect and Construction Manager review stamps.
 10. When revised for resubmission, identify all changes made since previous submission.
 11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
 12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
 13. Submittals not requested will be recognized, and will be returned "Not Reviewed",
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
 2. Collect required information into a single submittal.
 3. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 2. Do not reproduce Contract Documents to create shop drawings.
 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
1. Transmit related items together as single package.
 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.12 SUBMITTAL REVIEW

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt, but will take no other action.
- C. Contractor's Delegated Design:
 1. Architect's review and approval of delegated design submittals is limited to performance and design criteria and review of general design concepts in accordance with the General Conditions and Specifications.

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- D. Substitution:
1. The Contractor shall carry out the Work in accordance with the Contract Plans and Specifications without change in Contract Sum or Contract Time.
 - a. Proceeding with the Work, the Contractor acknowledges that they are responsible for:
 - a) coordinating this substitution with subcontractor(s) or other Prime Contractor(s)
 - b) and any additional costs from subcontractor(s) or other Prime Contractor(s) resulting from this substitution.
- E. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
1. Architect's actions on items submitted for review:
 - a. **Authorizing purchasing, fabrication, delivery, and installation:**
 - a) "No Exceptions Taken", or language with same legal meaning.
 - b) "Approved as Noted, Resubmission not required", or language with same legal meaning.
 - c) "Make Corrections Noted", or language with same legal meaning.
 - (a) Resubmit corrected item, with review notations acknowledged and incorporated. Resubmit separately, or as part of project record documents.
 - b. **Sample:**
 - a) Samples will be reviewed only for aesthetic, color, or finish.
 - c. **Not Authorizing fabrication, delivery, and installation:**, or language with same legal meaning.
 - a) "Revise and Resubmit".
 - (a) Resubmit revised item, with review notations acknowledged and incorporated.
 - b) "Rejected".
 - (a) Submit item complying with requirements of Contract Documents.
 - d. **Architect's and his consultants' actions on items submitted for information:**

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SUBMITTAL COVERSHEET

Edgemont School District

Window Replacement, Tennis Court Renovation and Related Work

Greenville Elementary School

ARCHITECT:

Fuller and D'Angelo, P.C.

45 Knollwood Rd.

Elmsford, NY10523

OWNER:

Edgemont School District

300 White Oak Lane, Scarsdale, NY 10583

Scarsdale NY, 10583

CONTRACTOR: _____ **CONTRACT:** _____

ADDRESS: _____

TELEPHONE: _____ **FAX:** _____ **EMAIL:** _____

Facility Name: Greenville Elementary School

Type of Submittal: Re-submittal: No Yes

Shop Drawings Product Data Schedule Sample

Test Report Certificate Color Sample Warranty

SUBMITTAL DESCRIPTION: _____

PRODUCT NAME: _____

MANUFACTURER: _____

SUBCONTRACTOR/ _____

SUPPLIER: _____

SPEC.# _____ **DWG. #s** _____ **PAR.#:** _____ **RM. OR DETAIL #s:** _____

Contractor Remarks And Stamp:

We the undersigned certify that we have reviewed and coordinated this shop drawings with job conditions and Contract requirements and they are in conformance to the plans, specifications and other provisions of the Contract Documents.

NAME: _____ **DATE:** _____

**SECTION 01 3307
SED SPECIAL REQUIEMENTS**

PART 1 - GENERAL

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.

1.2 SUMMARY

- A. This Section specifies special requirements of State Education Department, including Commissioner's Regulation Part 155.5, 155.7
 - 1. Copies of Commissioner's Regulation Part 155.5, 155.7 are available on the State Education Department's web site. www.p12nysed.gov.

1.3 CERTIFICATE OF OCCUPANCY

- A. The occupied portion of any school building shall always comply with the minimum requirements necessary to maintain a Certificate of Occupancy.

1.4 GENERAL SAFETY AND SECURITY DURING CONSTRUCTION

- A. All construction materials shall be stored in a safe and secure manner.
 - 1. Fences around construction supplies or debris shall be maintained.
 - 2. Gates shall always be locked unless a worker is in attendance, to prevent unauthorized entry.
 - 3. During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.
 - 4. Workers shall be required to wear photo-identification badges at all times for identification and security purposes while working at occupied sites.

1.5 SEPARATION OF CONSTRUCTION

- A. Separation of construction areas from occupied spaces. Construction areas that are under the control of a contractor and therefore not occupied by district staff or students shall be separated from occupied areas. Provisions shall be made to prevent the passage of dust and contaminants into occupied parts of the building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or contaminants. Metal stud and gypsum board (Type X) must be used in exit ways or other areas that require fire rated separation. Heavy duty plastic sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.
 - 1. A specific stairwell and/or elevator may be assigned for construction worker use during work hours, when approved by the Owner. Workers may not use corridors, stairs or elevators designated for students or school staff.
 - a. Large amounts of debris must be removed by using enclosed chutes or a similar sealed system. There shall be no movement of debris through halls of occupied spaces of the building. No material shall be dropped or thrown outside the walls of the building.
 - b. All occupied parts of the building affected by renovation activity shall be cleaned at the close of each work day. School buildings occupied during a construction project shall maintain required health, safety and educational capabilities at all times that classes are in session.

1.6 FIRE PREVENTION

- A. There is no smoking on school property for fire prevention and New York State Law.
- B. Any holes in floors or walls shall be sealed with a fire resistant material.
- C. General Contractor shall maintain existing fire extinguishers.
- D. Fire alarm and smoke detection systems shall remain in operation at all times.

1.7 CONSTRUCTION DIRECTIVES

- A. Construction Noise. Construction and maintenance operations shall not produce noise in excess of 60 dba in occupied spaces or shall be scheduled for times when the building or affected building spaces are not occupied or acoustical abatement measures shall be taken.
 - 1. Construction Fume Control: Each Contractor shall be responsible for the control of chemical fumes, gases, and other contaminants produced by welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.
 - 2. Off-Gassing Control. Each Contractor shall be responsible to ensure that activities and materials which result in "off-gassing" of volatile organic compounds such as glues, paints, furniture, carpeting, wall covering, drapery, etc., are scheduled, cured or ventilated in accordance with manufacturer's recommendations before a space can be occupied.

1.8 ASBESTOS

- A. Asbestos/Lead Test Asbestos Letter. Indication that all school areas to be disturbed during renovation or demolition have been or will be tested for lead and asbestos.
- B. Asbestos Code Rule 56. Large and small asbestos abatement projects as defined by 8 NYCRR 155.5(k) shall not be performed while the building is occupied. Note: It is SED's interpretation that the term "building" as referenced in this section, means a wing or major section of a building that can be completely isolated from the rest of the building with sealed non combustible construction. The isolated portions (the occupied portion and the portion under construction) of the building must contain separate code compliant exits. The ventilation systems must be physically separated and sealed at the isolation barrier(s).
 - 1. Asbestos TEM. The asbestos abatement area shall be completely sealed off from the rest of the building and completely cleaned and tested by TEM prior to re-entry by the public.
 - 2. Lead Abatement Projects. A project that contains materials identified to be disturbed which tests positive for lead shall include that information in the Construction Documents. The Construction Documents must address the availability of lead testing data for the building and include a statement that the OSHA regulations be followed and that cleanup and testing be done by HUD protocol.

1.9 VENTILATION

- A. The work, as scheduled in the existing building, is to be performed when the facility is unoccupied. In the event that work is required to be performed during times when the building is occupied, all existing ventilation system between areas of work and areas of occupancy shall be disconnected, separated and code complying ventilation requirements be provided the occupied area. Prior to such work commencing the contractor shall submit a plan, for review indicating procedure to be taken. Also see paragraph 1.5 above for additional requirements.”

1.10 ELECTRICAL CERTIFICATION:

- A. The Electrical Contractor shall obtain UL Certification or Inspection from a Certified Electrical Organization for electrical installation.

1.11 EXITING

- A. Exiting: Work will be performed when school is not in session or after school hours. All exiting will be clear and usable at all times.
- B. All exits shall be clear and usable at all times.
- C. All modifications or changes to the exiting plan shall be approved by the Architect.

1.12 CONSTRUCTION WORKERS IN OCCUPIED AREAS

- A. No worker shall be permitted in areas occupied by students. If access is required by the contractor's personnel they will be supervised by District personnel. Contractor shall provided 24 hour notice to the Owner when such access will be required.

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PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SITE SAFETY AND SECURITY PROCEDURES

**SECTION 01 3553
SITE SAFETY AND SECURITY PROCEDURES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. The safety requirements, which must be followed by each Contractor during the execution of this contract.
- B. Each Contractor agrees that the work will be completed with the greatest degree of safety and:
 - 1. To conform to the requirements of the Occupational Safety and Health Act (OSHA) and the Construction Safety Act including all standards and regulations that have been or shall be promulgated by the governmental authorities which administer such acts, and shall hold the Owner, Owner's Representative, and Architect, and all their employees, consultants and representatives harmless from and against and shall indemnify each and everyone of them for any and all claims, actions, liabilities, costs and expenses, including attorneys fees, which any of them may incur as a result of non-compliance.
- C. Security measures including entry control, personnel identification, and miscellaneous restrictions.

1.3 REFERENCES:

- A. Code of Federal Regulations OSHA Safety and Health.
- B. Education Department Regulations of the Commissioner Section 155.5 Uniform Safety Standards for School Construction and Maintenance Projects. (See Appendix).

1.4 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary of Contract: Use of premises and occupancy .
- B. Section 01 5010 - Temporary Facilities and Controls: Temporary lighting, site fence and barriers and enclosures.

1.5 DEFINITIONS

- A. Public shall mean anyone not involved with or employed by the contractor to perform the duties of this contract.
- B. Site shall mean the limits of the work area.
- C. Contractor shall mean the contractor, his/her subcontractors and any other person related to the contract execution.

1.6 SECURITY PROGRAM

- A. Security and Protection Facilities and Services shall be the responsibility of the the Contractor and all costs shall be included in their bid.
- B. Protect Work including existing premises and Edgemont School District's operations from theft, vandalism, and unauthorized entry.
- C. Coordinate with Edgemont School District's security program.
- D. Initiate program in coordination with Edgemont School District's existing security system at project mobilization.
- E. Maintain program throughout construction period until directed by Fuller and D'Angelo, P.C. .

1.7 ENTRY CONTROL

- A. The existing building contains a security alarm system maintained and operated by the Owner. Access into the existing building shall not be permitted unless the Owner's Represetative or Construction Manager is notified and arrangements made to deactivate the system

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- B. The Contractor shall restrict entrance of persons and vehicles into Project site and existing facilities.
- C. Allow entrance only to authorized persons with proper identification.
- D. Edgemont School District will control entrance of persons and vehicles related to Edgemont School District's operations.
- E. Coordinate access of Edgemont School District's personnel to site in coordination with Owner's Representative and Edgemont School District and security forces.
- F. Traffic Control
 - 1. The Contractor shall maintain access for emergency vehicles, fireman and pedestrians and protect from damage all persons and property within the limits of and for the duration of the contract; all in accordance with the plans and specifications.
 - 2. Conduct construction operations so that the traveling public and pedestrian safety is subjected to a minimum of hazard and delay.
 - 3. The Contractor shall perform the following minimum requirements as directed by Owner's Representative or Owner.
 - a. Keep the surface of the traveled way free from mounds, depressions, and obstructions of any type which could present hazards or annoyance to traffic.
 - b. Keep the surface of all pavements used by the public free and clean of all dirt and debris or other obstructions to provide safe traveled ways.
 - c. Control dust and keep the traveled way free from materials spilled from hauling and construction equipment.
 - d. Provide all cones, barricades, signs and warning devices as may be required and/or as ordered by Owner's Representative to safely carry out the foregoing. All such signs and devices shall be fabricated and placed in accordance with the latest "Federal Manual on Uniform Control Devices". Use of Open Flares Is Prohibited.
 - e. **Contractor shall cover with steel plates all open trenches at the close of each work day. Such plates to abut each other and be wedged at each end of trench to prevent plates from sliding open.**
 - 4. Ingress and Egress
 - a. Contractor shall provide and maintain at all times safe and adequate ingress and egress to and from site at existing or at new access points consistent with work, unless otherwise authorized by the Owner's Representative or Construction Manager
 - 5. If, upon notification by Owner's Representative or Architect, and the contractor fails to correct any unsatisfactory condition within 24 hours of being so directed, Owner's Representative and Architect will immediately proceed with adequate forces to properly maintain the project and the entire cost of such maintenance shall be deducted (back charged) from any moneys due the contractor
 - 6. All traffic control costs shall include the base bid of furnishing all labor, material and equipment including the cost of any and all incidental required by job conditions as ordered by Owner's Representative

1.8 FIRE PREVENTION AND CONTROL

- A. Each Contractor shall provide Fire Extinguishers as follows: Provide type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical fires or grease-oil-flammable liquid fires. In other locations provide either type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.
 - 1. All required exits, fire alarm, security, automatic temperature control, PA, sprinkler and similar systems shall be maintained and operable throughout the entire construction contract.
 - a. Contractor(s) will be back-charged for all fines imposed for false alarms or service calls.

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- B. Free access to fire hydrants and standpipe connections shall be maintained at all times during construction operations. Portable fire extinguishers shall be provided by the Construction Contractor and made conveniently available throughout the construction site. Contractor(s) shall notify their employees of the location of the nearest fire alarm box at all locations where work is in progress.
- C. Each Contractor shall take all possible precautions for the prevention of fires. Where flame cutting torches, blow torches, or welding tools are required to be used within the building, their use shall be as approved by the Construction Manager at the site. When welding tools or torches of any type are in use, have available in the immediate vicinity of the work a fire extinguisher of the dry chemical 20 lbs. Type. The fire extinguisher(s) shall be provided and maintained by the Contractor doing such work.
- D. Fuel for cutting and heating torches shall be gas only and shall be contained in Underwriters laboratory approved containers.
- E. Storage of gas shall be in locations as approved by the Owner and subject to Fire Department regulations and requirements.
- F. No volatile liquids shall be used for cleaning agents or as fuels for motorized equipment or tools within a building except with the express approval of the Owner and/or Architect and in accordance with local codes. On-site bulk storage of volatile liquids shall be outside the buildings at locations directed by the Owner, who shall determine the extent of volatile liquid allowed within the building at any given time.

1.9 PERSONNEL IDENTIFICATION

- A. Provide identification badge or other approved identification to each contractor, their subcontractor's project superintendent, employees, directly or indirectly employed by the contractor or persons authorized to enter premises.
- B. Maintain a list of accredited persons, submit copy to Owner's Representative or Construction Manager Edgemont School District on request.
- C. Fingerprinting: The Contractor acknowledges and agrees that he/she or its employees may be subject to fingerprinting and a criminal history record check as may be required by the Educational Law of the State of State of New York. In such an event, Contractor agrees to cooperate with Owner, Owner's Representative, or Construction Manager and to complete any and all forms or procedures, all at no cost or expense to the Edgemont School District.

1.10 RESTRICTIONS

- A. Do not allow cameras on site or photographs taken except by written approval of Owner, Owner's Representative, or Construction Manager.

PART 2 PRODUCTS -

2.1 MATERIALS

- A. Refer to Section 01 5000 - Temporary Facilities and Controls for additional barrier requirements.
- B. Signs shall be made of sturdy plywood of 1/2" minimum thickness and shall be made to legible at a distance of 50 feet.

PART 3 EXECUTION

3.1 GENERAL

- A. In the performance of its contract, each Contractor shall exercise every precaution to prevent injury to workers and the public or damage to property.
 - 1. Each Contractor shall, at their own expense, provide temporary structures, place watchmen, design and erect barricades, fences and railings, give warnings, display such lights, signals and signs, exercise such precautions against fire, adopt and enforce such rules and regulations, and take such other precautions as may be necessary, desirable or proper or as may be directed.
 - 2. Each Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work to be done under this contract. Each

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Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss including but not limited to:

- a. All employees working in connection with this contract, and other persons who may be affected thereby.
 - b. All the work materials and equipment to be incorporated therein whether in storage on or off site; and including trees, shrubs, lawns, walks, pavements, facilities not designated for removal, relocation or replacement in the course of construction.
- B. Each Contractor's duties and responsibilities for the safety and protection of the work: shall continue until such time as all the work is completed and contractor has removed all workers, material and equipment from the site, or the issuance of the certificate of final completion, whichever shall occur last.
- C. Each Contractor shall use only machinery and equipment adapted to operate with the least possible noise, and shall so conduct his operations that annoyance to occupants of the site and nearby homes and facilities shall be reduced to a minimum
- D. It shall be the responsibility of each Contractor to insure that all employees of the contractor and all subcontractors, and any other persons associated with the performance of their contract shall comply with the provisions of this specification.
- E. Each Contractor shall clean up the site daily and keep the site free of debris, refuse, rubbish, and scrap materials. The site shall be kept in a neat and orderly fashion. Before the termination of the contract. Each Contractor shall remove all surplus materials, falsework, temporary fences, temporary structures, including foundations thereof.
- F. Each Contractor shall follow all rules and regulations put forth in the Code of Federal Regulations (OSHA Safety and Health Standards).

END OF SECTION

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PREVAILING WAGE RATES

**SECTION 01 3554
PREVAILING WAGE RATES**

1.1 RELATED DOCUMENTS

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

1.2 PROVISIONS OF LAW DEEMED INSERTED

- A. Each and every provision of law and clauses required by law to be inserted in the Contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion.
- B. The Contractor and subcontractors shall comply with applicable provisions of the Labor Law and all other state laws and Federal and Local statues ordinances, codes, rules and regulations and orders which are applicable to the performance of this contract. The Contractor shall likewise require all sub-contractors to comply therewith. The attention of the Contractor is particularly, but not exclusively, directed to Sections 220 through 223 of the New York State Labor Law and Sections 109 of the New York State Municipal Corporations Law and the following:
1. The Contractor shall post the prevailing wages in a conspicuous place on the job site.
 2. Posters shall list the Department of Labor's Public work field offices with telephone numbers.
- C. All contractors and subcontractors shall furnish each of its workers with written notification of the applicable prevailing wage rates and supplements at the commencement of and at periodic intervals during the performance of the Work as required by the New York Labor Law
- D. The Contractor shall provide and keep certified payroll records at the job site.
- E. Prevailing Wages Schedule for this project can be obtained by the bidders on the DOL web site as follows:
1. <http://www.labor.ny.gov/workerprotection/publicwork/PWContents.shtm>.
 2. Click on: "Request for Wage and Supplement Information" (PW39).
 3. View "Previously Requested Prevailing Wage Schedule" using PRC# 2023011316
- F. NOTE THESE WAGE RATES ARE EFFECTIVE UNTIL JUNE 30, of each year. Updated schedules will be available on the Department of Labor web site: www.labor.state.ny.us

END OF SECTION

**SECTION 01 4000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Submittals.
- B. Testing and inspection agencies and services.
- C. To Be Determined's design-related professional design services.
- D. Control of installation.
- E. Mock-ups.
- F. Tolerances.
- G. Manufacturers' field services.
- H. Defect Assessment.

1.3 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions.
- B. Section 01 3000 - Administrative Requirements: Submittal procedures.
- C. Section 01 4216 - Definitions.

1.4 CONTRACTOR'S DESIGN-RELATED PROFESSIONAL DESIGN SERVICES

- A. Coordination: To Be Determined's professional design services are subject to requirements of project's Conditions for Construction Contract.
- B. Base design on performance and/or design criteria indicated in individual specification sections.
- C. Scope of To Be Determined's Professional Design Services: Provide for the following items of work:
 - 1. Structural Design of Metal Fabrications: As described in Section 05 5000 - Metal Fabrications.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Certificates: When specified in individual specification sections, submit certification by the manufacturer and To Be Determined or installation/application subcontractor to Owner's Representative, in quantities specified for Product Data.
 - 1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Owner's Representative.
- C. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, for the Owner's Representative and Architect's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- D. Manufacturer's Field Reports: Submit reports for Owner's Representative and Architect's benefit as contract administrator.
 - 1. Submit report in PDF format within 30 days of observation to Owner's Representative, Architect, and Contractor for information.
 - 2. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.

1.6 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Fuller and D'Angelo, P.C. before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Fuller and D'Angelo, P.C. shall be altered from Contract Documents by mention or inference otherwise in any reference document.
- G. Abbreviations and acronyms are frequently used in the Specifications and other Contract Documents to represent the name of a trade association, standards-developing organization, authorities having jurisdiction, or other entity in the context of referencing a standard or publication. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of these entities. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade & Professional Associations of the U.S.," which are available in most libraries or the internet.
- H.

1.7 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Edgemont School District will employ and pay for services of an independent testing agency to perform specified testing which is the responsibility of the Owner.
- B. As indicated in individual specification sections, Contractor shall employ and pay for services of an independent testing agency to perform specified testing which is the responsibility of the Contractor.
- C. Employment of agency in no way relieves To Be Determined of obligation to perform Work in accordance with requirements of Contract Documents.
- D. To Be Determined Employed Agency:
 - 1. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
 - 2. Laboratory: Authorized to operate in New York.
 - 3. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
 - 4. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Owner's Representative and Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

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- E. Have work performed by persons qualified to produce required and specified quality.

3.2 MOCK-UPS

- A. Before installing portions of the Work where mock-ups are required, for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.
- B. Room Mock-ups: Construct room mock-ups as indicated on drawings or required by individual section. Coordinate installation of materials, products, and assemblies as required in specification sections; finish according to requirements. Provide required lighting and any supplemental lighting where required to enable Owner's Representative and Architect to evaluate quality of the mock-up.
- C. Notify Owner's Representative and Architect seven (7) working days in advance of dates and times when mock-ups will be constructed.
- D. Provide supervisory personnel who will oversee mock-up construction. Provide workers that will be employed during the construction at Project.
- E. Obtain Owner's Representative and Architect's approval of mock-ups before starting work, fabrication, or construction.
 - 1. Owner's Representative will issue written comments within seven (7) working days of initial review and each subsequent follow up review of each mock-up.
 - 2. Make corrections as necessary until Architect's approval is issued.

3.3 TOLERANCES

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

3.4 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required.
- B. Testing Agency Duties:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Construction Manager and To Be Determined in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect, Construction Manager, and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests and inspections required by Architect and Construction Manager.
 - 7. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of the Contractor.
 - 4. Agency has no authority to stop the Work.
- D. To Be Determined Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.

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2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 4. Notify Architect and Construction Manager and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by To Be Determined beyond specified requirements.
 6. Arrange with Edgemont School District's agency and pay for additional samples, tests, and inspections required by To Be Determined beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Owner's Representative, Architect, and Construction Manager.
- F. Re-testing required because of non-conformance to specified requirements shall be shall be performed by the same agency on instructions by Construction Manager paid for by To Be Determined.

3.5 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, adjusting as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions in writing to Owner's Representative and Architect.

3.6 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.
- B. If, in the opinion of Owner's Representative, it is not practical to remove and replace the Work, Owner's Representative will direct an appropriate remedy or adjust payment.

END OF SECTION

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REGULATORY REQUIREMENTS

**SECTION 01 4100
REGULATORY REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 GENERAL

- A. Electrical Certification: The Plumbing Contractor or Electrical Contractor shall obtain UL Certification or Inspection from a Certified Electrical Organization for certification of electrical installations.
- B. The Owner shall file and obtain the Building Permit.
- C. The Contractor shall furnish and pay for all other permits, fees and other installation costs required for the various installations by governing authorities and utility companies; prepare and file drawings and diagrams required; arrange for inspections of any and all parts of the work required by the authorities and furnish all certificates necessary to the Architect and Construction Manager as evidence that the work installed under this Section of the Specifications conforms with all applicable requirements of the State Codes, National Board of Fire Underwriters, and National Electric Code.
- D. Any items of work specified herein and shown on the drawings which conflict with aforementioned rules, regulations and requirements, shall be referred to the Architect and Construction Manager for decision, which decision shall be final and binding.
- E. The work shall not be deemed to have reached a Substantial Completion until the certificates have been delivered.

1.3 SUMMARY OF REFERENCE STANDARDS

- A. Regulatory requirements applicable to this project are the following:
 - 1. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.
 - 2. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
 - 3. 29 CFR 1910 - Occupational Safety and Health Standards; current edition.
 - 4. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
 - 5. NFPA 1 - Fire Code; 2018.
 - 6. NFPA 101 - Life Safety Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
 - 7. NFPA 72 - National Fire Alarm Code
 - 8. New York State Uniform Fire and Building Codes known as the "Building Codes of the State of New York" and consist of the following:
 - a. State Education Department Planning Standards, including Commissioner's Regulation Part 155.5, 155.7
 - b. Energy Conservation Construction Code of New York State
 - c. Fire Code of New York State
 - d. Fuel Gas Code of New York State
 - e. Mechanical Code of New York State
 - f. Plumbing Code of New York State
 - g. Utility Company Regulations and Requirements.
 - h. Classification of Construction: Type IIB.
 - i. Occupancy Classification: Education E
 - j. State Education Department: Planning Standards is applicable to the work. Any conflicts between the Building Codes of New York and the State Education Department Planning

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Standards, the most restrictive shall apply. Copies of the Planning standards are available at the SED web site. <http://www.p12.nysed.gov/facplan/>

9. EPA - Environmental Protection Agency
10. IEEE - Institute of Electrical And Electronic Engineers
11. NEMA - National Electrical Manufacturers Association
12. UL - Underwriters Laboratories
13. OSHA Part 1926 Safety and Health Regulations for Construction.
14. Federal Regulation for Asbestos Abatement
 - a. Title 30 CFR Part 61, Subpart G; The Transport and Disposal of Asbestos Waste
 - b. The Transport and Disposal of Asbestos Waste]
 - c. Title 40 CFR, Part 763 Asbestos Containing Materials in Schools; Final Rule and Notice
 - d. Title 49 CFR Parts 106, 107, and 171-179. The Transportation Safety Act of 1974 and the Hazardous Material Transportation Act..
 - e. Public Law 101-637 ASHARA
15. New York State Official Compilation of Codes, Rules and Regulations
 - a. Title 12 Part 56
 - b. Title 10 Part 73
 - c. Title 6 Parts 360-364
 - d. Labor Law - Article 30 and Sections 900-912
 - e. All applicable Additions, Addenda, Variances and Regulatory Interpretation Memoranda

1.4 MANDATORY OSHA CONSTRUCTION SAFETY AND HEALTH TRAINING

- A. All contractors and their subcontractor's project superintendent, employees, directly or indirectly employed by the contractor to work on the project must at all times, whenever on the school property, wear an ID badge, safety vest, hard hat, etc. and all other required personal protective equipment as required by OSHA

1.5 RELATED REQUIREMENTS

- A. Section 01 4000 - Quality Requirements.
- B. Section 01 4219 - Reference Standards
- C. Section 02 2080 - Asbestos Abatement.
- D. Division 31 - Earthwork.
- E. Division 32 - Exterior Improvements
- F. Division 23 - Heating, Ventilation and Air Conditioning.
- G. Division 26 - Electrical.

1.6 QUALITY ASSURANCE

- A. Regulations: The contractor shall comply with industry standards and with 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. Police, fire department and rescue squad rules.
 4. Environmental protection regulations
- B. Standards: The contractor shall comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
- C. Designer Qualifications: Where delegated engineering design is to be performed under the construction contract provide the direct supervision of a Professional Engineer experienced in design of this type of work and licensed in NY .

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PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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DEFINITIONS

**SECTION 01 4216
DEFINITIONS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This section supplements the definitions contained in the General Conditions.
- B. Other definitions are included in individual specification sections.

1.3 DEFINITIONS

- A. Owner: The term "Owner shall mean Edgemont School District and their duly authorized representative.
 - 1. The word "Owner" and the words "School Board", "City School District", "Board of Education", "Union Free School District", "Central School District", etc., shall have the same meaning.
- B. Architect: The term "Architect" or "Engineer" or the words "Architect/Engineer" shall mean the Professional Architect responsible for the contract documents Fuller and D'Angelo, P.C. 45 Knollwood Road, Elmsford, New York 10523.
- C. Owner's Representative: The term Owner's Representative shall mean Ray Renda, Director of Facilities
- D. MEP Consultant shall mean Landmark Facilities Group, Inc., 252 East Avenue, Norwalk, CT 06855
- E. Environmental Consultant shall mean Eisenbach & Ruhnke Engineering, P.C., 291 Genesee Street, Utica, NY 13501
- F. Contractor for Construction: The term "Contractor for Construction", "General Contractor" "Contractor for General Work" "Construction Contractor" shall have the same meaning.
- G. Contractor for Plumbing: The term "Plumbing Contract", "Plumbing Contractor" "Contractor for Plumbing" shall have the same meaning.
- H. Contractor for HVAC: The term "HVAC Contract", "HVAC Contractor" "Contractor for HVAC", "Mechanical Contractor" "Ventilation Contractor" shall have the same meaning.
- I. Contractor for Electrical: The term "Electrical Contract", Electrical Contractor" "Contractor for Electric" shall have the same meaning.
- J. Contractor(s): Shall include all separate contractor(s) having contracts with the Owner for the same project and may include but not limited to: General Construction, Plumbing, HV, HVAC, Electrical, Site and others
- K. "Approved": The term "approved," when used in conjunction with Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract and Section 01 3000 - Administrative Requirements.
- L. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Owner's Representative and Architect, requested by Owner's Representative and Architect, and similar phrases.
- M. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on Drawings; or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.
- N. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

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- O. "Installer": An installer is Contractor or another entity engaged by Contractor, as an employee, subcontractor, or contractor of lower tier, to perform a particular construction operation, including installation, erection, application, and similar operations.
- P. The term "experienced," when used with the term "installer," means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- Q. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades people of the corresponding generic name.
- R. "Project site" is the space available for performing construction activities, either exclusively or in conjunction with others performing other work as part of Project. The extent of Project site is shown on the Drawings and may or may not be identical with the description of the land on which Project is to be built.
- S. The term "Building Code" shall mean the Building Code of the State of New York including all amendments and reference standards to date.
- T. "Work" - Labor, materials, equipment, apparatus, controls, accessories, and all other items customarily furnished and/or required for proper and complete disconnection and reconnection, installation of new work.
- U. "Wiring" - Conduit, fittings, wire, junction and outlet boxes, switches, cutouts, and receptacles and all items necessary or required in connection with or relating to such wiring.
- V. "Concealed" - Embedded in masonry or other construction, installed behind wall furring, within double partitions, or hung ceilings, in trenches, or in crawl spaces.
- W. "Exposed" - Not installed underground or "Concealed" as defined above.
- X. Furnish: The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations..
- Y. Install: The term "install" describes operations at Project site including unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- Z. 'Noted' - as indicated on the drawings and/or specifications.
- AA. Product: Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or re-used materials or equipment.
- AB. Provide: To furnish and install complete and ready for the intended use.
- AC. Supply: Same as Furnish.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 5010
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Temporary electric power and light.
- B. Temporary telephone service.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Dust control.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project signage.
- I. Field offices.
- J. Construction aids and miscellaneous services and facilities.

1.3 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements for submittals.
- B. Section 01 7000 - Execution; progress cleaning.

1.4 PROJECT CONDITIONS

- A. General: The Contractor shall provide each temporary service and facility ready for use at each location, when first needed to avoid delays in performance of work. Maintain, expand as required, and modify as needed throughout the progress of the work. Do not remove until services or facilities are no longer needed, or are replaced by the authorized use of completed permanent facilities.
- B. Temporary Use of Permanent Facilities: The Contractor shall assume responsibility for its operation, maintenance and protection during use as a construction service or facility prior to the Owner's acceptance and operation of the facility.
- C. Conditions of Use: Operate temporary services and facilities in a safe and efficient manner. Do not overload, and do not permit temporary services and facilities to interfere with the progress of work, or occupancy of existing facility by Owner's Representative. Do not allow unsanitary conditions, public nuisances or hazardous conditions to develop or persist on the site.
- D. Temporary Construction and Support Facilities: Maintain temporary facilities in a manner to prevent discomfort to users. Take necessary fire prevention measures. Maintain temporary facilities in a sanitary manner so as to avoid health problems.
- E. Security and Protection: Maintain site security and protection facilities in a safe, lawful, publicly acceptable manner. Take measures necessary to prevent site erosion.

1.5 TEMPORARY UTILITIES

- A. Edgemont School District will provide the following:
 - 1. Electrical power consisting of Contractor connections to existing facilities.
 - 2. Water supply, consisting of Contractor connections to existing facilities.
 - a. Use trigger-operated nozzles, with back flow devices, for water hoses, to avoid waste of water.

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1.6 CONTRACTOR RESPONSIBILITIES

- A. The Contractor is responsible for all temporary facilities including but not limited to the following:
1. Installation, operation, maintenance, and removal of each temporary facility
 2. Plug-in electric power cords and extension cords.
 3. Water hoses or piping extensions from building hose bibs to work locations.
 4. Supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.
 5. Special power requirements for installation of its own work.
 6. Its own field office, if required, complete with necessary furniture, utilities, and telephone service.
 7. Its own storage and fabrication sheds.
 8. Temporary telephone service.
 9. All hoisting and scaffolding for its own work.
 10. Collection and disposal, off site, of its own waste material.
 11. Collection of general waste and debris and disposing into containers.
 12. Containers for waste and debris.
 13. Secure lockup of its own tools, materials and equipment.
 14. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
 15. Temporary toilets, including, wash facilities, drinking water and disposable supplies.
 16. First Aid Station and Supplies.
 17. Disposal off site of wastes containers.
 18. Barricades, warning signs, and lights.
 19. Security enclosure and lockup.
 20. Temporary Protection for existing flooring, to and from altered areas to exits.
 21. Construction aids and miscellaneous services and facilities.

1.7 TELECOMMUNICATIONS SERVICES

- A. Contractor shall provide and pay for its own telephone service. Provide mobile phone service for all field superintendents and foreman.
- B. Post a list of important telephone numbers, including the following:
1. Local police and fire department.
 2. Ambulance service.
 3. Contractor's temporary and home office.
 4. Owner's Representative
 5. Architect'.
 6. Principal subcontractors.

1.8 TEMPORARY SANITARY FACILITIES

- A. Responsibilities: Each Contractor is responsible for temporary sanitary facilities and their maintenance, including supplies for use of thier employees and sub-contractors.
- B. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- C. Use of existing facilities is not permitted.
- D. Maintain daily in clean and sanitary condition.

1.9 BARRIERS

- A. Barricades, Warning Signs and Lights: Comply with recognized standards and code requirements for erection of substantial, structurally adequate barricades where needed to prevent accidents and losses. Paint with appropriate colors, graphics and warning signs to inform personnel at the site and the public, of

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the hazard being protected against. Provide lighting where appropriate and needed for recognition of the facility, including flashing red lights where appropriate

1. Sign Materials: For signs and directory boards, provide exterior type, Grade B-B High Density Concrete Form Overlay Plywood conforming to PS-1, of sizes and thickness indicated. Provide exterior grade acrylic-latex-base enamel for painting sign panels and applying graphics.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.10 WASTE REMOVAL

- A. Each Contractor shall broom clean the work area at the end of each work day.
1. If the contractor fails to clean areas at the end of each work day the Owner's Representative shall perform the cleaning and back charge the contractor accordingly.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site periodically.
- D. Burying or burning of waste materials on the site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- E. Concealed Spaces: The contractor shall remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Work Areas: The Contractor shall clean areas daily where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- H. Provide dust protection for their construction-related activities

1.11 FIELD OFFICES

- A. Offices, storage and fabrication sheds and other similar facilities shall be Contractor's option.
- B. Offices, storage and fabrication sheds and other facilities constructed of combustible material shall not be located closer than a minimum distance of 15 feet from existing structures.
- C. Locate field offices, storage and fabrication sheds and other facilities for easy access to the work and as approved by the Owner's Representative. Position offices so that window gives the best possible view of construction activities.
- D. Maintain field offices, storage and fabrication sheds, temporary sanitary facilities, waste collection and disposal system, and project identification and temporary signs until near substantial completion. Immediately prior to substantial completion remove these facilities.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION -

3.1 FIRE PREVENTION AND CONTROL

- A. The Contractors shall comply with the safety provisions of the National Fire Protection Association's "National Fire Codes" pertaining to the work and, particularly, in connection with any cutting or welding performed as part of the work

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3.2 DISCONTINUE, CHANGES AND REMOVAL

- A. The Contractors shall:
 - 1. Discontinue all temporary services required by the Contract when so directed by the Owner's Representative.

3.3 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition

END OF SECTION

**SECTION 01 6000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Re-use of existing products.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Procedures for Edgemont School District-supplied products.
- F. Maintenance materials, extra materials.

1.3 RELATED REQUIREMENTS

- A. Section 00 4401 - Qualification of Bidders.
- B. Section 01 1000 - Summary of Contract.
- C. Section 01 2500 - Substitution Procedures: Substitutions made after the Bidding/Negotiation Phase.
- D. Section 01 4000 - Quality Requirements: Product quality monitoring.
- E. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.
- F. Section 01 7419 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

1.4 REFERENCE STANDARDS

- A. ISO 21930 - Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services; 2017.
- B. NEMA MG 1 - Motors and Generators; 2017.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.5 DEFINITIONS

- A. Refer to General Conditions and Section 01 4216 - Definitions for additional definitions.
- B. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- C. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
- D. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
- E. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

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- F. Substitutions: Changes in products, materials, equipment, and methods of construction from those required or specified by the Contract Documents and proposed by Contractor.
- G. Basis-of-Design Or Equal Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," or "or equal", including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers **shall be submitted as substitutions**.
 - 1. Refer to Section 01 2500 - Substitution Procedures.
- H. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

1.6 SUBMITTALS

- A. Refer to Section 01 3000 - Administrative Requirements for additional requirements
- B. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 10 days after date of Notice of Award.
 - 2. For products specified only by reference standards, list applicable reference standards.
- C. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

1.7 ASBESTOS

- A. Asbestos: All products, materials, etc., used in conjunction with this Project shall be Asbestos-Free.
 - 1. Contractor shall provide a certified letter to the Owner's Representative or Construction Manager stating that no asbestos containing material has been used in this project. Refer to Section 01 7800 - Closeout Submittals.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Edgemont School District, or otherwise indicated as to remain the property of the Edgemont School District, become the property of the Contractor(s); remove from site.

2.2 NEW PRODUCTS

- A. Provide new products for all unless otherwise specifically required or permitted by the Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
 - 1. Made outside the United States, its territories, Canada, or Mexico.
 - 2. Made using or containing CFC's or HCFC's.
 - 3. Made of wood from newly cut old growth timber.
 - 4. Containing lead, cadmium, or asbestos.

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- C. Where other criteria are met, To Be Determined shall give preference to products that:
 - 1. If used on interior, have lower emissions, as defined in Section 01 6116.
 - 2. If wet-applied, have lower VOC content, as defined in Section 01 6116.
 - 3. Are extracted, harvested, and/or manufactured closer to the location of the project.
 - 4. Have longer documented life span under normal use.
 - 5. Result in less construction waste. See Section 01 7419
 - 6. Are Cradle-to-Cradle Certified.
 - 7. Have a published Environmental Product Declaration (EPD).
 - 8. Have a published Health Product Declaration (HPD).

2.3 PRODUCT OPTIONS

- A. Refer to Section 00 2113 - Instructions to Bidders for Product/Assembly/System Substitutions.
- B. Refer to Section 01 2500 - Substitution Procedures.

2.4 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
 - 1. Deliver to Owner's Representative and Construction Manager; obtain receipt prior to final payment.

PART 3 EXECUTION

3.1 SUBSTITUTION LIMITATIONS

- A. See Section 01 2500 - Substitution Procedures.
- B. Substitutions will not be considered during the bidding phase.

3.2 SUBSTITUTION SUBMITTAL PROCEDURE AFTER BIDDING PHASE

- A. Refer to Section 01 2500 - Substitution Procedures.

3.3 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.4 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.

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- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide off-site storage and protection when site does not permit on-site storage or protection.
 - 1. Execute a formal supplemental agreement between Edgemont School District and To Be Determined allowing off-site storage, for each occurrence.
- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Do not store products directly on the ground.
- J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- K. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- L. Prevent contact with material that may cause corrosion, discoloration, or staining.
- M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- N. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

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VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

SECTION 01 6116
VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Requirements for Indoor-Emissions-Restricted products.
- B. Requirements for VOC-Content-Restricted products.
- C. VOC restrictions for product categories listed below under "DEFINITIONS."
- D. All products of each category that are installed in the project must comply; Edgemont School District's project goals do not allow for partial compliance.

1.3 RESPONSIBILITY

- A. The Construction Manager shall be responsible for the requirements of this section.

1.4 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittal procedures.
- B. Section 01 4000 - Quality Requirements: Procedures for testing and certifications.
- C. Section 01 5719 - Temporary Environmental Controls: Procedures and testing.
- D. Section 01 6000 - Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.
- E. Section 07 9200 - Joint Sealants: Emissions-compliant sealants.

1.5 DEFINITIONS

- A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings applied on site.
 - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
 - 3. Flooring.
 - 4. Products making up wall and ceiling assemblies.
 - 5. Thermal and acoustical insulation.
- B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Exterior and interior paints and coatings applied on site.
 - 2. Exterior and interior adhesives and sealants applied on site, including flooring adhesives.
 - 3. Wet-applied roofing and waterproofing.
- C. VOC-Restricted Products: All products of each of the following categories when installed or applied on-site in the building interior:
 - 1. Interior of Building: Anywhere inside the exterior weather barrier.
 - 2. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
 - 3. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.
- D. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
 - 1. Concrete.

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2. Clay brick.
3. Metals that are plated, anodized, or powder-coated.
4. Glass.
5. Ceramics.
6. Solid wood flooring that is unfinished and untreated.

1.6 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2005 (Reapproved 2013).
- C. BIFMA e3 - Furniture Sustainability Standard; Business and Institutional Furniture Manufacturers Association; 2014.
- D. BIFMA M7.1 - Standard Test Method for Determining VOC Emissions from Office Furniture Systems, Components, and Seating; 2011 (Reapproved 2016).
- E. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers; 2017, v1.2.
- F. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2007.
- G. CHPS (HPPD) - High Performance Products Database; Current Edition at www.chps.net/.
- H. CRI (GLP) - Green Label Plus Testing Program - Certified Products; Current Edition.
- I. GreenSeal GS-36 - Adhesives for Commercial Use; 2013.
- J. SCAQMD 1113 - Architectural Coatings; 1977 (Amended 2016).
- K. SCAQMD 1168 - Adhesive and Sealant Applications; 1989 (Amended 2017).
- L. SCS (CPD) - SCS Certified Products; Current Edition.
- M. UL (GGG) - GREENGUARD Gold Certified Products; Current Edition.

1.7 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Evidence of Compliance: Submit for each different product in each applicable category.
- C. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

1.8 QUALITY ASSURANCE

- A. Indoor Emissions Standard and Test Method: CAL (CDPH SM), using Standard Private Office exposure scenario and the allowable concentrations specified in the method, and range of total VOC's after 14 days.
 1. Wet-Applied Products: State amount applied in mass per surface area.
 2. Paints and Coatings: Test tinted products, not just tinting bases.
 3. Evidence of Compliance: Acceptable types of evidence are the following;
 - a. Current UL (GGG) certification.
 - b. Current SCS (CPD) Floorscore certification.
 - c. Current SCS (CPD) Indoor Advantage Gold certification.
 - d. Current listing in CHPS (HPPD) as a low-emitting product.
 - e. Current CRI (GLP) certification.
 - f. Test report showing compliance and stating exposure scenario used.
 4. Product data submittal showing VOC content is NOT acceptable evidence.
 5. Manufacturer's certification without test report by independent agency is NOT acceptable evidence.

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- B. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
- C. Furnishings Emissions Standard and Test Method: BIFMA e3 Sections 7.6.1 and 7.6.2, tested in accordance with BIFMA M7.1.
 - 1. Evidence of Compliance:
 - a. Test report showing compliance and stating exposure scenario used.
- D. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART 2 PRODUCTS

2.1 MATERIALS

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. VOC-Content-Restricted Products: VOC content not greater than required by the following:
 - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
 - 2. Aerosol Adhesives: GreenSeal GS-36.
 - 3. Joint Sealants: SCAQMD 1168 Rule.
 - 4. Paints and Coatings: Each color; most stringent of the following:
 - a. 40 CFR 59, Subpart D.
 - b. SCAQMD 1113 Rule.
 - c. CARB (SCM).
 - 5. Wet-Applied Roofing and Waterproofing: Comply with requirements for paints and coatings.
- C. All VOC-Restricted Products: Provide products having VOC content of types and volume not greater than those specified in State of California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current GREENGUARD Children & Schools certification; www.greenguard.org.
 - b. Current SCS Indoor Advantage Gold certification; www.scs-certified.com.
 - c. Product listing in the CHPS Low-Emitting Materials Product List at www.chps.net/manual/lem_table.htm.
 - d. Current certification by any other agencies acceptable to CHPS.
 - e. Report of laboratory testing performed in accordance with CHPS requirements for getting a product listed in the Low-Emitting Materials Product List; report must include laboratory's statement that the product meets the specified criteria.
 - 2. Product data submittals showing VOC content are NOT acceptable forms of evidence.
- D. Adhesives and Joint Sealants: Provide only products having volatile organic compound (VOC) content not greater than required by South Coast Air Quality Management District Rule No.1168.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
- E. Aerosol Adhesives: Provide only products having volatile organic compound (VOC) content not greater than required by GreenSeal GS-36.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current GreenSeal Certification.

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- F. Paints and Coatings: Provide products having VOC content as specified in Section 09 9113 - Exterior Painting 09 9123 - Interior Painting.
- G. Carpet and Adhesive: Provide products having VOC content not greater than that required for CRI Green Label Plus certification.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current Green Label Plus Certification.
 - b. Report of laboratory testing performed in accordance with requirements.
- H. Carpet Tile and Adhesive: Provide products having VOC content as specified in Section 09 6813.

PART 3 EXECUTION

3.1 FIELD QUALITY CONTROL

- A. Project Manager reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Construction Manager.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Construction Manager.

END OF SECTION

**SECTION 01 7000
EXECUTION**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Inspections prior to start of work.
- B. Examination, preparation, and general installation procedures.
- C. General installation of products.
- D. Progress cleaning.
- E. Protection of installed construction.
- F. Correction of the Work.
- G. Pre-installation meetings.
- H. Removals and dust control.
- I. Cleaning and protection.
- J. Inspections.
- K. Closeout procedures, including To Be Determined's Correction Punch List, except payment procedures.

1.3 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittals procedures.
- B. Section 01 5010 - Temporary Facilities and Controls.
- C. Section 01 5060 - Sidewalk Bridges.
- D. Section 01 3553 - Site Safety and Security Procedures.
- E. Section 01 7419 - Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
- F. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties.
- G. Section 04 0100 - Maintenance of Masonry.
- H. Individual Product Specification Sections.

1.4 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.6 QUALIFICATIONS

- A. Refer to Section 00 4401 - Qualifications of Bidders

1.7 PROJECT CONDITIONS

- A. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

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- B. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

1.8 CODES, PERMITS, FEES, ETC. Refer to Section 01 4100 Regulatory Requirements

1.9 MANDATORY OSHA CONSTRUCTION SAFETY AND HEALTH TRAINING

- A. Effective July 18, 2008 - Pursuant to NYS Labor Law §220-h - On all public work projects of at least \$250,000 all laborers, workers and mechanics working on the site are required to be certified as having successfully completed an OSHA construction safety and health course of at least 10 hours prior to performing any work on the project.

PART 2 PRODUCTS

2.1 MATERIALS

- A. New Materials: As specified in product sections.
- B. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 2500 - Substitution Procedures.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to start of construction take photographs, video's or similar documentation as evidence of existing project conditions as follows:
 - 1. Interior views: Each room and areas of outside work area which could be construed as caused by the contractor.
 - 2. Exterior views: Each area of work and areas of outside work area which could be construed as caused by the contractor.
- B. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- C. Examine and verify specific conditions described in individual specification sections.

3.2 PREPARATION

- A. Clean and remove existing sealer substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.3 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Owner's Representative and Architect five working days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with one copies to Owner's Representative and Architect, participants and those affected by decisions made.

3.4 REMOVAL AND DUST CONTROL

- A. The following procedures shall be followed when removals will create dust:
 - 1. Exterior
 - a. Work must be in compliance with OSHA Construction Standard (29 CFR 1926.62).
 - b. Windows directly below, above and adjacent to the work area shall be closed.

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- c. Provide tarps on the outside of the building to catch all dust, debris and paint chips when items are being removed and installed.
2. Contractor shall provide labor for daily cleanup on the interior and/or the exterior of the building as required or directed by the Owner's Representative. Any visible debris shall be removed prior to occupancy the following day.
3. All debris shall be disposed of properly in accordance with Federal, State and Local Regulations. Refer to Section 01 5000 - Temporary Facilities and Controls and asbestos and lead abatement sections for containers required.

3.5 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

3.6 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 1. Verify that construction and utility arrangements are as indicated.
 2. Report discrepancies to Owner's Representative before disturbing existing installation.
 3. Beginning of alterations and or removal work constitutes acceptance of existing conditions.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- C. Remove existing work as indicated and as required to accomplish new work.
 1. Where new surface finishes are to be applied to existing masonry, perform removals, repointing, and prepare existing surfaces as required to receive new sealer.
- D. Protect existing work to remain, including existing pre-cast stone.
 1. Repair adjacent construction and finishes damaged during removal work.
 2. Patch as specified for patching new work.
- E. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- F. Comply with all other applicable requirements of this section.

3.7 SPECIAL REQUIREMENTS

- A. Notwithstanding anything contained in the Contract Documents to the contrary, the Contractor(s) shall not be permitted to disrupt operation of any building system or any of the services without Owner's Representative's prior written consent, which shall not be unreasonably withheld. Any request to perform such work shall be in writing, received by Owner's Representative no less than 5 working days prior to the commencement of the request for disruption, and shall detail:

3.8 FIRE PREVENTION AND CONTROL Refer to Section 01 3553

3.9 SECURITY SYSTEM Refer to 01 3553 - Security Procedures

- A. The existing building contains a security alarm system maintained and operated by the Owner. Access into the existing building shall not be permitted unless the owner is notified and arrangements made to deactivate the system.

3.10 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

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3.11 PROTECTION OF INSTALLED WORK

- A. The Contractor is responsible to provide protection for their work.
- B. Provide special protection where specified in individual specification sections.
- C. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.
 - 1. 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.
- D. Prohibit traffic from landscaped areas.
- E. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.12 FINAL INSPECTION AND CLEANING

- A. Final inspection shall be performed on a mechanical lift, provided by the Contractor, on each section, (to be determined). When completed each section shall be inspected, approved by Owner's Representative and Architect and recorded by Owner's Representative and Architect
- B. Contractor shall not proceed to the next next until prior section is approved and recorded..
- C. Recorded approvals shall be submitted with final closeout documents
- D. Use cleaning materials that are nonhazardous.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- G. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- H. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
- I. Remove tools, construction equipment, machinery, and surplus material from Project site.
- J. Leave Project clean and ready for occupancy.

3.13 CLOSEOUT PROCEDURES Refer to Section 01 7800

END OF SECTION

**SECTION 01 7132
SELECTIVE REMOVALS SINGLE PRIME**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DESCRIPTION OF WORK:

- A. Location of selective removal work is indicated on drawings only in a general manner and it is not all inclusive in the overall scope of removal work. The Contractor shall provide all inclusive removals required for new and renovated work.

1.3 SUMMARY

- A. This Section includes but is not limited to the following:
 - 1. Repair procedures for selective removals operations.
- B. Contract removals include but not limited to:
 - 1. Removal of existing window systems and components
 - 2. Removals of window shades.
 - 3. Removal of existing windows.
 - 4. Patching of all areas disturbed by removal operations.

1.4 RELATED SECTIONS:

- A. Section 01 1000 - Summary of Contract for use of the premises requirements.
- B. Section 01 5010 - Temporary Facilities and Controls: Temporary interior partitions.
- C. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.
 - 2. Limitations on cutting structural members.

1.5 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- D. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

1.6 SUBMITTALS

- A. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- B. Schedule of selective removals Activities: Indicate the following:
 - 1. Detailed sequence of selective removals and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Locations of temporary partitions and means of egress.

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5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective removals. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.

1.8 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective removals area. Conduct selective removals so Owner's operations will not be disrupted. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities by placing steel plates during school hours.
 2. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from authorities having jurisdiction.
- B. Owner assumes no responsibility for condition of areas to be selectively removed.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

PART 2 - PRODUCTS

2.1 REPAIR MATERIALS

- A. Use repair and/or replacement materials as specified.
 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 2. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective removals required.
- B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Owner's Representative.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective removals and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner's Representative and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- C. Erect temporary protection where required by authorities having jurisdiction.
- D. Protect existing site improvements, appurtenances, and landscaping to remain.
- E. Provide protection to ensure safe passage of people around selective removals area and to and from occupied portions of building.
- F. Provide temporary weather protection, during interval between selective removals of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
- G. Protect walls and other existing finish work that are to remain or that are exposed during selective removals operations.

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- H. Cover and protect furniture, furnishings, and equipment that have not been removed.
- I. Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
- J. Temporary Partitions: Erect and maintain temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
- K. The following procedures shall be followed when windows are removed.
 - 1. Work must be in compliance with OSHA Construction Standard (29 CFR 1926.62)..
 - 2. Windows directly adjacent to the work area shall be closed.
 - 3. Provide tarps on the floor of the space to catch all dust, debris etc are being removed
 - 4. All existing casework, furniture, books, computers and similar shall be provided one layer of six mil plastic.
 - 5. All air vents in the room shall be closed and/or shut off and sealed.
 - 6. Access to all rooms undergoing removals shall be restricted to prevent unauthorized entry.
 - 7. All moveable objects will be moved away from the vicinity of the windows by the Owner.
 - 8. Contractor shall provide labor for daily cleanup on the interior of the building as required or directed by the Owner's Representative. Any visible debris shall be removed on a daily basis. Only damp cleaning methods and/or HEPA vacuuming shall be used to clean.
 - 9. All debris disposed of properly in accordance with Federal, State and Local Regulations. Refer to Section 01500 "Temporary Facilities" for containers required.
 - 10. At completion of the work in each area the area shall be HEPA vacuumed and wet wiped.
 - 11. All corridors used by Contractors shall be protected and mopped and left clean daily

3.3 POLLUTION CONTROLS

- A. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
- B. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- C. Wet mop floors to eliminate track able dirt and wipe down walls and doors.
- D. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- E. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective removals operations. Return adjacent areas to condition existing before selective removals operations began.

3.4 SELECTIVE REMOVALS

- A. General: Remove existing construction only to the extent required by new work as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Maintain adequate ventilation during removal operations.
 - 3. Locate selective removals equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 4. Dispose of demolished items and materials promptly.

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5. Existing Facilities: Comply with Owner's Representative's requirements for using and protecting elevators, stairs, walkways, building entries, and other building facilities during selective removals operations.
6. Detached/Removed and Reinstalled Items: Comply with the following:
 - a. Clean and repair items to functional condition adequate for intended reuse. Reinstall to original location, and connect controls and other related items to functional condition.
 - a) Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
7. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective removals. When permitted by Owner's Representative items may be removed to a suitable, protected storage location during selective removals, cleaned, and reinstalled in their original locations after selective removals operations are complete.

3.5 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective removals operations.
 1. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
 2. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.
 3. Where patching occurs in a painted surface, apply primer and intermediate paint coats over patch and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

3.6 DISPOSAL OF MATERIALS

- A. General: Promptly dispose of removed materials. Do not allow materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Sweep the building broom clean on completion of selective removals operation.
 1. Change filters on air-handling equipment on completion of selective removals operations.

END OF SECTION

**SECTION 01 7800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Substantial Completion.
- B. Final Completion.
- C. Project record documents.
- D. Warranties

1.3 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution: Progress Cleaning.
- D. Individual Product Sections: Warranties required for specific products or Work.

1.4 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion:
 - 1. Prepare a list of items to be completed and corrected, the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner's Representative of pending insurance changeover requirements.
 - 3. Obtain and submit releases permitting Owner's Representative and Architect unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
- B. Prior to issuance of the Certificate of Substantial Completion, submit, in writing, a request to the Owner's Representative a request to perform site inspection for the purpose of preparing a "punch list".
- C. On receipt of request the Owner's Representative and Architect will prepare a punch list.
- D. Certificate of Substantial Completion will be issued **after completion of all punch list items** or Owner's Representative and Architect will notify Contractor of items, either punch list or additional items identified by Architect, **that must be completed or corrected before a certificate will be issued**. After completion of "punch list" items submit the following:
 - 1. Application for Payment showing 100 percent completion for portion of the Work claimed as substantially completed the following:
 - 2. Manufacturer's Warranties (guarantees).
 - 3. Contractor's Warranty Five (5) and all extended warranties
 - 4. Maintenance agreements, if any.
 - 5. Manifest for disposal of material.
 - 6. Final cleaning.
 - 7. Advice on shifting insurance coverage.
 - 8. Removal of temporary facilities and services.
 - 9. Removal of surplus materials, rubbish and similar elements.
 - 10. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

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11. As Built Drawings.
 12. Project Record Documents.
- E. Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
1. If necessary re-inspection will be repeated and the contractor shall pay for all additional inspections.
 2. Results of completed inspection will form the basis of requirements for Final Completion

1.5 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Owner's Representative and Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Owner's Representative and Architect will not process a final Certificate for Payment until after the inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - a. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
- B. Following Final Inspection acceptance of work submit the following:
1. Submit a final Application for Payment according to Division 1 01 2000 - Price and Payment Procedures.
 2. Architect's punch list certifying all punch list items have been completed with each item signed off by the Owner's Representative and Contractor.
 3. Update final statement, accounting for final changes to the Contract Sum.
 4. Release of liens from contractor and all entitles of the contractor.
 5. Consent of Surety to Final Payment, AIA Document G707
 6. Final Liquidated Damages settlement statement.
 7. Contractor's Affidavit of Release of Liens (AIA G706A).
 8. Contractors Affidavit of Payment of Debts and Claims (AIA G706)
 9. Contractor's Certification of Payment of Prevailing Wage Rates.
 10. Contractor's Certification of Compliance that products comply with VOC requirements stated in Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
 11. Contractor's Certified Statement that no asbestos containing material was incorporated into the project.

1.6 SUBMITTALS

- A. Contractor shall submit all documentation identified in this section within thirty (30) working days from the time the Contractor submits the list of items to be corrected, in addition to other rights of the Owner set forth elsewhere in the Contract Documents, to include but not limited to withholding of final payment. If the documentation has not been submitted within Thirty (30) day period, the Owner will obtain such through whatever means necessary. The Contractor shall solely be responsible for all expenses incurred by the Owner, provided the Owner has advised the Contractor of this action seven 7 days prior to the culmination date by written notice.
- B. Project Record Documents: Submit documents to Owner's Representative and Architect with claim for final Application for Payment.
- C. Operation and Maintenance Data:
1. Refer to individual sections for other requirements.
 2. Submit two sets of revised final documents in final form within 10 days after final inspection.
- D. Warranties:

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1. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Edgemont School District.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 1. Field changes of dimension and detail.
 2. Details not on original Contract drawings.
- G. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and approved Shop Drawings at the project site.
- H. The Contractor is responsible for marking up Sections that contain its own Work and for submitting the complete set of record Specifications as specified.
- I. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 1. Accurately record information in an understandable drawing technique.
- J. Content: Types of items requiring marking include, but are not limited to, the following:
 1. Revisions to details shown on Drawings.
 2. Changes made by Change Order or Construction Change Directive.
 3. Changes made following Architect's written orders.
 4. Details not on the original Contract Drawings.
- K. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
- L. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
- M. Mark important additional information that was either shown schematically or omitted from original Drawings.
- N. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- O. **Provide ALL final record documents on flash drive in PDF-A Format.**

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3.2 FORMAT

- A. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Contractor shall certify and sign.
- B. Identify Record Drawing as follows:
 - 1. Project name.
 - a. Date.
 - b. Designation "PROJECT RECORD DRAWINGS."
 - c. Name of Owner, Owner's Representative, and Architect.
 - d. Name of Contractor.
 - e. Contractor shall certify and sign each drawing

3.3 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Provide control diagrams by controls manufacturer as installed.
- J. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- K. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- L. Include test and balancing reports.
- M. Additional Requirements: As specified in individual product specification sections.

3.4 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Edgemont School District's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Arrangement of Contents: Organize each volume in parts as follows:
 - 1. Project Directory.
 - 2. Table of Contents, of all volumes, and of this volume.
- C. In addition to binders all documents shall be provide in PDF format on CD or USB.

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3.5 WARRANTIES

- A. Obtain warranties 10 days after completion of the applicable item of work. Except for items put into use with Edgemont School District's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Retain warranties and bonds until time specified for submittal.

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CHECKLIST FOR PROJECT CLOSEOUT AND PROCESSING OF FINAL PAYMENT

Project: Window Replacement, Tennis Court Renovation and Related Work

Owner: Edgemont School District

Architect Project #: 23501

CLOSE-OUT SUBMITTALS: (As Applicable. Include this checklist with submittal)

Substantial Completion

- UL Certification or equivalent.
- Three (3) Ring Binder Brochures Of Operation And Maintenance Manuals For All Equipment Installed On The Project Including The Following:
 - Typed Or Printed Instructions Covering The Care And Operations Of Equipment And Systems Furnished And Installed.
 - Start-up Performance Reports
 - Test/Balancing Reports.
 - Final Survey
 - Manufacturers Instruction Books, Diagrams, Spare Parts Lists Covering All Equipment.
 - Instruction Of Owner's Representative In Care And Maintenance Of New Equipment.
 - All Approved Shop Drawings and submittals.
 - Certificates Of Compliance And Inspection. (Where Applicable Electric, Elevator, Etc.)
- Spare Parts And Maintenance Materials. (Receipt Signed By Field Superintendent)
- Evidence Of Compliance With Requirements Of Governing Authorities (Certificates Of Inspection Electrical).
- Certificates Of Insurance For Products And Completed Operations .
- Fully Executed Certificate Of Substantial Completion: AIA G704.
- Contractor's Written Two-Year Warranty And Extended Warranties (If Any Required).
- Manufacturer's Warranty/Guaranties
- Manifest for Disposal of Hazardous Material.
- Manifest for Disposal of Material.
- DOL PW 200 Form.
- Project Record Documents.
- As-Built Drawings.
- All files listed above shall be submitted on USB flash drive**

EVIDENCE OF PAYMENT AND RELEASE OF LIEN (Include this checklist with submittal)

Final Completion

- Contractor's Affidavit Of Payment Of Debts And Claims: AIA G706.
- Contractor's Affidavit Of Release Of Liens - AIA G706a With:
- Separate Written Release Of Waivers And Liens For Sub- Contractors, Suppliers And Others With Lien Right Against The Owner's Property, Together With List Of Those Parties.
- Notarized Statement That Only Non-Asbestos Materials Were Installed On This Project.
- Consent Of Surety To Final Payment AIA G707.
- Contractor's Certification of Payment of Prevailing Wage Rates.
- Contractor's Certification of Compliance that products comply with VOC requirements stated in Section 01 6116.

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- [] Architect's Punch List Items Certifying all Punch List have been completed with sign-off by
Owner's Representative or Construction Manager

**Final payment will not be processed until all items indicated are received in accordance with
Section 01 7800 - closeout submittals.**

END OF SECTION

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GENERAL COMMISSIONING REQUIREMENTS

**SECTION 01 9113
GENERAL COMMISSIONING REQUIREMENTS**

PART 1 GENERAL

1.1 SUMMARY

- A. Commissioning is intended to achieve the following specific objectives; this section specifies the To Be Determined's responsibilities for commissioning:
 - 1. Verify that the work is installed in accordance with Contract Documents and the manufacturer's recommendations and instructions, and that it receives adequate operational checkout prior to startup: Startup reports and Prefunctional Checklists executed by To Be Determined are utilized to achieve this.
 - 2. Verify and document that functional performance is in accordance with Contract Documents: Functional Tests executed by To Be Determined and witnessed by the Commissioning Authority are utilized to achieve this.
 - 3. Verify that operation and maintenance manuals submitted to Edgemont School District are complete: Detailed operation and maintenance (O&M) data submittals by To Be Determined are utilized to achieve this.
 - 4. Verify that the Edgemont School District's operating personnel are adequately trained: Formal training conducted by To Be Determined is utilized to achieve this.
- B. The Commissioning Authority directs and coordinates all commissioning activities; this section describes some but not all of the Commissioning Authority's responsibilities.

1.2 RELATED REQUIREMENTS

- A. Section 01 7800 - Closeout Submittals: Scope and procedures for operation and maintenance manuals and project record documents.

PART 2 PRODUCTS

2.1 TEST EQUIPMENT

- A. Provide all standard testing equipment required to perform startup and initial checkout and required Functional Testing; unless otherwise noted such testing equipment will NOT become the property of Edgemont School District.
- B. Calibration Tolerances: Provide testing equipment of sufficient quality and accuracy to test and/or measure system performance with the tolerances specified. If not otherwise noted, the following minimum requirements apply:
 - 1. Temperature Sensors and Digital Thermometers: Certified calibration within past year to accuracy of 0.5 degree F and resolution of plus/minus 0.1 degree F.
 - 2. Pressure Sensors: Accuracy of plus/minus 2.0 percent of the value range being measured (not full range of meter), calibrated within the last year.
 - 3. Calibration: According to the manufacturer's recommended intervals and when dropped or damaged; affix calibration tags or keep certificates readily available for inspection.
- C. Equipment-Specific Tools: Where special testing equipment, tools and instruments are specific to a piece of equipment, are only available from the vendor, and are required in order to accomplish startup or Functional Testing, provide such equipment, tools, and instruments as part of the work at no extra cost to Edgemont School District; such equipment, tools, and instruments are to become the property of Edgemont School District.
- D. Dataloggers: Independent equipment and software for monitoring flows, currents, status, pressures, etc. of equipment.
 - 1. Dataloggers required to for Functional Tests will be provided by the Commissioning Authority and will not become the property of Edgemont School District.

PART 3 EXECUTION

3.1 COMMISSIONING PLAN

- A. Commissioning Authority has prepared the Commissioning Plan.
 - 1. Attend meetings called by the Commissioning Authority for purposes of completing the commissioning plan.
 - 2. Require attendance and participation of relevant subcontractors, installers, suppliers, and manufacturer representatives.
- B. To Be Determined is responsible for compliance with the Commissioning Plan.
- C. Commissioning Plan: The commissioning schedule, procedures, and coordination requirements for all parties in the commissioning process.
- D. Commissioning Schedule:
 - 1. Submit anticipated dates of startup of each item of equipment and system to Commissioning Authority within 60 days after award of Contract.
 - 2. Re-submit anticipated startup dates monthly, but not less than 4 weeks prior to startup.
 - 3. Prefunctional Checklists and Functional Tests are to be performed in sequence from components, to subsystems, to systems.
 - 4. Provide sufficient notice to Commissioning Authority for delivery of relevant Checklists and Functional Test procedures, to avoid delay.

3.2 STARTUP PLANS AND REPORTS

- A. Startup Plans: For each item of equipment and system for which the manufacturer provides a startup plan, submit the plan not less than 8 weeks prior to startup.
- B. Startup Reports: For each item of equipment and system for which the manufacturer provides a startup checklist (or startup plan or field checkout sheet), document compliance by submitting the completed startup checklist prior to startup, signed and dated by responsible entity.
- C. Submit directly to the Commissioning Authority.

3.3 PREFUNCTIONAL CHECKLISTS

- A. A Prefunctional Checklist is required to be filled out for each item of equipment or other assembly specified to be commissioned.
 - 1. No sampling of identical or near-identical items is allowed.
 - 2. These checklists do not replace manufacturers' recommended startup checklists, regardless of apparent redundancy.
 - 3. Prefunctional Checklist forms will not be complete until after award of the contract; the following types of information will be gathered via the completed Checklist forms:
 - a. Certification by installing contractor that the unit is properly installed, started up, and operating and ready for Functional Testing.
 - b. Confirmation of receipt of each shop drawing and commissioning submittal specified, itemized by unit.
 - c. Manufacturer, model number, and relevant capacity information; list information "as specified," "as submitted," and "as installed."
 - d. Serial number of installed unit.
 - e. List of inspections to be conducted to document proper installation prior to startup and Functional Testing; these will be primarily static inspections and procedures; for equipment and systems may include normal manufacturer's start-up checklist items and minor testing.
 - f. Sensor and actuator calibration information.
- B. To Be Determined is responsible for filling out Prefunctional Checklists, after completion of installation and before startup; witnessing by the Commissioning Authority is not required unless otherwise specified.

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1. Each line item without deficiency is to be witnessed, initialed, and dated by the actual witness; checklists are not complete until all line items are initialed and dated complete without deficiencies.
 2. Checklists with incomplete items may be submitted for approval provided the To Be Determined attests that incomplete items do not preclude the performance of safe and reliable Functional Testing; re-submission of the Checklist is required upon completion of remaining items.
 3. Individual Checklists may contain line items that are the responsibility of more than one installer; To Be Determined shall assign responsibility to appropriate installers or subcontractors, with identification recorded on the form.
 4. If any Checklist line item is not relevant, record reasons on the form.
 5. To Be Determined may independently perform startup inspections and/or tests, at To Be Determined's option.
 6. Regardless of these reporting requirements, To Be Determined is responsible for correct startup and operation.
 7. Submit completed Checklists to Commissioning Authority within two days of completion.
- C. Commissioning Authority is responsible for furnishing the Prefunctional Checklists to To Be Determined.
1. Initial Drafts: To Be Determined is responsible for initial draft of Prefunctional Checklist where so indicated in Contract Documents.
 2. Provide all additional information requested by Commissioning Authority to aid in preparation of checklists, such as shop drawing submittals, manufacturers' startup checklists, and O&M data.
 3. Commissioning Authority may add any relevant items deemed necessary regardless of whether they are explicitly mentioned in Contract Documents or not.
 4. When asked to review the proposed Checklists, do so in a timely manner.
- D. Commissioning Authority Witnessing: Required for:
1. Each piece of primary equipment, unless sampling of multiple similar units is allowed by the commissioning plan.
 2. A sampling of non-primary equipment, as allowed by the commissioning plan.
- E. Deficiencies: Correct deficiencies and re-inspect or re-test, as applicable, at no extra cost to Edgemont School District.
1. If difficulty in correction would delay progress, report deficiency to the Commissioning Authority immediately.

3.4 FUNCTIONAL TESTS

- A. A Functional Test is required for each item of equipment, system, or other assembly specified to be commissioned, unless sampling of multiple identical or near-identical units is allowed by the final test procedures.
- B. To Be Determined is responsible for execution of required Functional Tests, after completion of Prefunctional Checklist and before closeout.
- C. Commissioning Authority is responsible for witnessing and reporting results of Functional Tests, including preparation and completion of forms for that purpose.
- D. To Be Determined is responsible for correction of deficiencies and re-testing at no extra cost to Edgemont School District; if a deficiency is not corrected and re-tested immediately, the Commissioning Authority will document the deficiency and the To Be Determined's stated intentions regarding correction.
 1. Deficiencies are any condition in the installation or function of a component, piece of equipment or system that is not in compliance with Contract Documents or does not perform properly.
 2. When the deficiency has been corrected, the To Be Determined completes the form certifying that the item is ready to be re-tested and returns the form to the Commissioning Authority; the Commissioning Authority will reschedule the test and the To Be Determined shall re-test.

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3. Identical or Near-Identical Items: If 10 percent, or three, whichever is greater, of identical or near-identical items fail to perform due to material or manufacturing defect, all items will be considered defective; provide a proposal for correction within 2 weeks after notification of defect, including provision for testing sample installations prior to replacement of all items.
 4. To Be Determined shall bear the cost of Edgemont School District and Commissioning Authority personnel time witnessing re-testing.
 5. To Be Determined shall bear the cost of Edgemont School District and Commissioning Authority personnel time witnessing re-testing if the test failed due to failure to execute the relevant Prefunctional Checklist correctly; if the test failed for reasons that would not have been identified in the Prefunctional Checklist process, To Be Determined shall bear the cost of the second and subsequent re-tests.
- E. Functional Test Procedures:
1. Some test procedures are included in Contract Documents; where Functional Test procedures are not included in Contract Documents, test procedures will be determined by the Commissioning Authority with input by and coordination with To Be Determined.
 2. Examples of Functional Testing:
 - a. Test the dynamic function and operation of equipment and systems (rather than just components) using manual (direct observation) or monitoring methods under full operation (e.g., the chiller pump is tested interactively with the chiller functions to see if the pump ramps up and down to maintain the differential pressure setpoint).
 - b. Systems are tested under various modes, such as during low cooling or heating loads, high loads, component failures, unoccupied, varying outside air temperatures, fire alarm, power failure, etc.
 - c. Systems are run through all the HVAC control system's sequences of operation and components are verified to be responding as the sequence's state.
 - d. Traditional air or water test and balancing (TAB) is not Functional Testing; spot checking of TAB by demonstration to the Commissioning Authority is Functional Testing.
- F. Deferred Functional Tests: Some tests may need to be performed later, after substantial completion, due to partial occupancy, equipment, seasonal requirements, design or other site conditions; performance of these tests remains the To Be Determined's responsibility regardless of timing.

3.5 SENSOR AND ACTUATOR CALIBRATION

- A. Calibrate all field-installed temperature, relative humidity, carbon monoxide, carbon dioxide, and pressure sensors and gauges, and all actuators (dampers and valves) on this piece of equipment shall be calibrated. Sensors installed in the unit at the factory with calibration certification provided need not be field calibrated.
- B. Calibrate using the methods described below; alternate methods may be used, if approved by Commissioning Authority and Owner beforehand. See PART 2 for test instrument requirements. Record methods used on the relevant Prefunctional Checklist or other suitable forms, documenting initial, intermediate and final results.
- C. All Sensors:
 1. Verify that sensor location is appropriate and away from potential causes of erratic operation.
 2. Verify that sensors with shielded cable are grounded only at one end.
 3. For sensor pairs that are used to determine a temperature or pressure difference, for temperature make sure they are reading within 0.2 degree F of each other, and for pressure, within tolerance equal to 2 percent of the reading, of each other.
 4. Tolerances for critical applications may be tighter.
- D. Sensors Without Transmitters - Standard Application:
 1. Make a reading with a calibrated test instrument within 6 inches of the site sensor.

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2. Verify that the sensor reading, via the permanent thermostat, gauge or building automation system, is within the tolerances in the table below of the instrument-measured value.
 3. If not, install offset, calibrate or replace sensor.
- E. Sensors With Transmitters - Standard Application.
1. Disconnect sensor.
 2. Connect a signal generator in place of sensor.
 3. Connect ammeter in series between transmitter and building automation system control panel.
 4. Using manufacturer's resistance-temperature data, simulate minimum desired temperature.
 5. Adjust transmitter potentiometer zero until 4 mA is read by the ammeter.
 6. Repeat for the maximum temperature matching 20 mA to the potentiometer span or maximum and verify at the building automation system.
 7. Record all values and recalibrate controller as necessary to comply with specified control ramps, reset schedules, proportional relationship, reset relationship and P/I reaction.
 8. Reconnect sensor.
 9. Make a reading with a calibrated test instrument within 6 inches of the site sensor.
 10. Verify that the sensor reading, via the permanent thermostat, gauge or building automation system, is within the tolerances in the table below of the instrument-measured value.
 11. If not, replace sensor and repeat.
 12. For pressure sensors, perform a similar process with a suitable signal generator.
- F. Sensor Tolerances for Standard Applications: Plus/minus the following maximums:
1. Watthour, Voltage, Amperage: 1 percent of design.
 2. Pressure, Air, Water, Gas: 3 percent of design.
 3. Air Temperatures (Outside Air, Space Air, Duct Air): 0.4 degrees F.
 4. Relative Humidity: 4 percent of design.
 5. Barometric Pressure: 0.1 inch of Hg.
 6. Flow Rate, Air: 10 percent of design.
 7. Flow Rate, Water: 4 percent of design.
 8. AHU Wet Bulb and Dew Point: 2.0 degrees F.
- G. Critical Applications: For some applications more rigorous calibration techniques may be required for selected sensors. Describe any such methods used on an attached sheet.
- H. Valve/Damper Stroke Setup and Check:
1. For all valve/damper actuator positions checked, verify the actual position against the control system readout.
 2. Set pump/fan to normal operating mode.
 3. Command valve/damper closed; visually verify that valve/damper is closed and adjust output zero signal as required.
 4. Command valve/damper to open; verify position is full open and adjust output signal as required.
 5. Command valve/damper to a few intermediate positions.
 6. If actual valve/damper position does not reasonably correspond, replace actuator or add pilot positioner (for pneumatics).
- I. Isolation Valve or System Valve Leak Check: For valves not associated with coils.
1. With full pressure in the system, command valve closed.
 2. Use an ultra-sonic flow meter to detect flow or leakage.

3.6 TEST PROCEDURES - GENERAL

- A. Provide skilled technicians to execute starting of equipment and to execute the Functional Tests. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, adjustments and problem-solving.

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- B. Provide all necessary materials and system modifications required to produce the flows, pressures, temperatures, and conditions necessary to execute the test according to the specified conditions. At completion of the test, return all affected equipment and systems to their pre-test condition.
- C. Sampling: Where Functional Testing of fewer than the total number of multiple identical or near-identical items is explicitly permitted, perform sampling as follows:
 - 1. Identical Units: Defined as units with same application and sequence of operation; only minor size or capacity difference.
 - 2. Sampling is not allowed for:
 - a. Major equipment.
 - b. Life-safety-critical equipment.
 - c. Prefunctional Checklist execution.
 - 3. XX = the percent of the group of identical equipment to be included in each sample; defined for specific type of equipment.
 - 4. YY = the percent of the sample that if failed will require another sample to be tested; defined for specific type of equipment.
 - 5. Randomly test at least XX percent of each group of identical equipment, but not less than three units. This constitutes the "first sample."
 - 6. If YY percent of the units in the first sample fail, test another XX percent of the remaining identical units.
 - 7. If YY percent of the units in the second sample fail, test all remaining identical units.
 - 8. If frequent failures occur, resulting in more troubleshooting than testing, the Commissioning Authority may stop the testing and require To Be Determined to perform and document a checkout of the remaining units prior to continuing testing.
- D. Manual Testing: Use hand-held instruments, immediate control system readouts, or direct observation to verify performance (contrasted to analyzing monitored data taken over time to make the "observation").
- E. Simulating Conditions: Artificially create the necessary condition for the purpose of testing the response of a system; for example apply hot air to a space sensor using a hair dryer to see the response in a VAV box.
- F. Simulating Signals: Disconnect the sensor and use a signal generator to send an amperage, resistance or pressure to the transducer and control system to simulate the sensor value.
- G. Over-Writing Values: Change the sensor value known to the control system in the control system to see the response of the system; for example, change the outside air temperature value from 50 degrees F to 75 degrees F to verify economizer operation.
- H. Indirect Indicators: Remote indicators of a response or condition, such as a reading from a control system screen reporting a damper to be 100 percent closed, are considered indirect indicators.
- I. Monitoring: Record parameters (flow, current, status, pressure, etc.) of equipment operation using dataloggers or the trending capabilities of the relevant control systems; where monitoring of specific points is called for in Functional Test Procedures:
 - 1. All points that are monitored by the relevant control system shall be trended by To Be Determined; at the Commissioning Authority's request, To Be Determined shall trend up to 20 percent more points than specified at no extra charge.
 - 2. Other points will be monitored by the Commissioning Authority using dataloggers.
 - 3. At the option of the Commissioning Authority, some control system monitoring may be replaced with datalogger monitoring.
 - 4. Provide hard copies of monitored data in columnar format with time down left column and at least 5 columns of point values on same page.
 - 5. Graphical output is desirable and is required for all output if the system can produce it.
 - 6. Monitoring may be used to augment manual testing.

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3.7 OPERATION AND MAINTENANCE MANUALS

- A. See Section 01 7800 - Closeout Submittals for additional requirements.
- B. Add design intent documentation furnished by Fuller and D'Angelo, P.C. to manuals prior to submission to Edgemont School District.
- C. Submit manuals related to items that were commissioned to Commissioning Authority for review; make changes recommended by Commissioning Authority.
- D. Commissioning Authority will add commissioning records to manuals after submission to Edgemont School District.

END OF SECTION

**SECTION 04 2000
UNIT MASONRY**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Concrete Masonry Units (CMU).
- B. Clay facing brick.
- C. Reinforcement and anchorage.
- D. Cavity-wall insulation
- E. Flashings.

1.3 RELATED REQUIREMENTS

1.4 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- B. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2018, with Editorial Revision (2018).
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2018.
- D. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2016.
- E. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- F. ASTM C62 - Standard Specification for Building Brick (Solid Masonry Units Made From Clay or Shale); 2017.
- G. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2016a.
- H. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units; 2017.
- I. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.
- J. ASTM C150/C150M - Standard Specification for Portland Cement; 2018.
- K. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2018.
- L. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2014a.
- M. ASTM C404 - Standard Specification for Aggregates for Masonry Grout; 2018.
- N. ASTM C1714/C1714M - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry; 2016.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting two (2) weeks before starting work of this section; require attendance by all relevant installers.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, all masonry accessories, and anchors.
 - 1. Material Data: Submit to Architect certificates for the following signed by manufacturer and Contractor certifying each material complies with requirements.
 - a. Masonry Units.

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- b. Each different cement product required for mortar and grout, including name of manufacturer, brand, and type.
 - c. Each type and size of joint reinforcement.
 - d. Each type and size of anchors, ties, and metal accessories.
- C. Samples: Submit four samples of facing brick units to illustrate color, texture, and extremes of color range.
- D. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

1.7 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
- B. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section with minimum five years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- D. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, through one source from a single manufacturer for each product required

1.8 MOCK-UPS

- A. Construct a masonry wall as a mock-up panel sized 4 feet long by 1.5 feet high; include mortar, accessories, structural backup, and flashings (with lap joint, corner, and end dam) in mock-up.
- B. Locate where directed.
- C. Mock-up may remain as part of work.
- D. Build mockup of typical wall area as directed by Architect.
- E. Clean exposed faces of mockups with masonry cleaner as indicated.
- F. Where masonry is to match existing, erect mockups adjacent and parallel to existing surface.
- G. Notify Owner's representative seven days in advance of dates and times when mockups will be constructed.
- H. Protect accepted mockups from the elements with weather-resistant membrane.
- I. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- J. Approval of mockups is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; and aesthetic qualities of workmanship.
 - 1. Approval of mockups is also for other material and construction qualities specifically approved by Owner's representative and Architect in writing.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups, unless such deviations are specifically approved by Owner's representative and Architect in writing.
 - 3. **No brick work shall commence until mock-up is completely approved.**
- K. Demolish and remove mockups when directed Construction Manager.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
- B. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

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1. Protect concrete masonry units from moisture absorption so that, at the time of installation, the moisture content is not more than the maximum allowed at the time of delivery.
- C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- D. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- E. Deliver pre blended, dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo. Store pre blended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover.
- F. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil
- G. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
 1. Protect base of walls from rain-splashed mud and from mortar splatter by coverings spread on ground and over wall surface.
 2. Protect sills, ledges, and projections from mortar droppings.
 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

1.10 WORKMANSHIP

- A. Contractor shall be responsible for correction of work not conforming to specified requirements. Correct deficient work as directed by Architect.
- B. Remove work found to be defective. Replace with new acceptable work

PART 2 PRODUCTS

2.1 CONCRETE MASONRY UNITS

- A. Masonry General
 1. Unit Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6 "Specifications for Masonry Structures" except where exceeded by the requirements of the contract documents.
 2. Fire Performance Characteristics: Where indicated, provide materials and construction identical to those of assemblies whose fire resistance has been determined in accordance with ASTM E 119 by a testing and inspecting organization, by equivalent concrete masonry thickness, or by another means as acceptable to authorities having jurisdiction.
 3. Single-Source Responsibility for Masonry Units: Obtain exposed masonry units of uniform texture and color or uniform blend within ranges accepted for these characteristics from one manufacturer for each different product required for each continuous surface or visually related surfaces.
 4. Single-Source Responsibility for Mortar Materials: Obtain mortar ingredients of uniform quality, including color for exposed masonry, from one manufacturer for each cementitious component and from one source and producer for each aggregate.
- B. Concrete Block: Comply with referenced standards and as follows:
 1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on drawings for specific locations.
 - a. Manufactured to specified dimensions of 3/8 inch less than nominal widths by nominal heights by nominal lengths indicated in drawings. If not shown in drawings, use length to produce coursing with little or no cutting.
 - b.
 2. Special Shapes: Provide non-standard blocks configured for corners and control joint edges.
 3. Load-Bearing Units: ASTM C90, normal weight.

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- a. Hollow block, as indicated.
 - b. Exposed Faces: Manufacturer's standard color and texture.
 - c. Strength: Minimum 2,500 @ 28 days.
 - d. Substitutions: 01 2500 - Substitution Procedures.
4. Nonloadbearing Units: ASTM C129.
- a. Hollow block.
 - b. Normal weight.
 - c. Strength: Minimum 2,500 @ 28 days.

2.2 BRICK UNITS

- A. Face Brick: ASTM C216, Type FBS, Grade SW.
1. Color and texture: Match existing adjacent brick.
 2. Nominal size: As indicated on drawings.
 3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn to produce equivalent effect.
 4. Compressive strength: 12,309 psi, average, measured in accordance with ASTM C67.
 5. Initial Rate of Absorption: Less than 15.33% when tested per ASTM C 67.
 6. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresce."
 7. Surface Coloring: Brick with surface coloring, other than flashed or sand-finished brick, shall withstand 50 cycles of freezing and thawing per ASTM C 67 with no observable difference in the applied finish when viewed from 10 feet

2.3 REINFORCEMENT AND ANCHORAGE

- A. Manufacturers:
1. Hohmann & Barnard, Inc: www.h-b.com/sle.
 2. Substitutions: See Section 01 2500 - Substitution Procedures.
- B. Recycled Content: Provide minimum 90 percent postconsumer recycled content. For stainless steel products, provide minimum 60 percent postconsumer recycled content.
- C. All reinforcement and anchors for masonry, located in exterior walls, shall be hot dipped galvanized steel and stainless steel.
- D. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi), deformed billet bars; hot dipped galvanized steel and galvanized steel.
- E. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.
- F. Multiple Wythe Joint Reinforcement: ASTM A951/A951M.
1. Type: Truss.
 2. Material: ASTM A1064/A1064M steel wire, hot dip galvanized after fabrication to ASTM A153/A153M, Class B.
 3. Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure. Flush weld all keys.
 4. Hohmann & Barnard - #130.
- G. Strap Anchors: Bent steel shapes, 1-1/2 inch width, 0.105 inch thick, 24 inch length, with 1-1/2 inch long, 90 degree bend at each end to form a U or Z shape or with cross pins, hot dip galvanized to ASTM A153/A153M, Class B.
1. Use Notched Column # 354 Hohmann & Barnard where indicated

2.4 EMBEDDED FLASHING MATERIALS

- A. Membrane Non-Asphaltic Flashing Materials:

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1. Use only where flashing is fully concealed in masonry.
2. Composite Polymer Flashings - Self-Adhering: Composite polyethylene; 40 mil thick with reinforced membrane Elvaloy KEE, solid-phase plasticizer and flexibilizer added to membrane flashing. Provide pressure-sensitive adhesive and release paper, preformed shapes for outside, inside and end dams. as recommended by the manufacturer.
3. Verify sealants specified in Section 07 9200 - Joint Sealants are compatible with flashing.
4. Termination Bars: 1/8" x 1", stainless steel with foam seal. Use at top of all flashing.

2.5 ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene.
 1. #NS Hohmann & Barnard, Inc or equal for use between bottom of lintel and top of masonry wall under steel.
 2. #BS Hohmann & Barnard, Inc or equal under bearing plates.
- B. Weeps:
 1. Type: Molded PVC grilles, insect resistant.
- C. Cavity Wall Insulation
 1. Extruded-Polystyrene Board Insulation: Rigid, cellular, polystyrene thermal insulation with closed cells and integral high-density skin; formed by the expansion of polystyrene base resin with a carbon-black filler in an extrusion process to comply with the following characteristics:
 - a. Aged thermal resistance (R-value) for 1-inch thickness of 5.0, deg F x h x sq. ft./Btu at 75 deg F at 5 years.
 - b. Compressive strength: 25 as per ASTM D-1621
 - c. Flexural Strength: 75 as per ASTM C-203
 - d. Water Absorption: 0.10 as per ASTM C-272.
 - e. Water Vapor Permeance: 0.6 as per ASTM E-96.
 - f. Water affinity: Hydrophobic.
 - g. Water Capillarity: None. Prism-Test Method: For each type of wall construction indicated, masonry prisms will be tested per ASTM C 1314, and as follows:
 - a) Prepare 1 set of prisms for testing at 7 days and 1 set for testing at 28 days.
 - h. Dimensional Stability: 2.0 as per ASTM D-2126.
 - i. Linear Coefficient of thermal expansion: 2.7 x 10⁵
 - j. Flame Spread: 5 as per ASTM E-84.
 - k. Smoke Developed: 45-175 as per ASTM E-84.
 - l. Oxygen Index: 24 Min. as per ASTM D-2863
 2. Products: Owens Corning "High Performance Foamular 250": 2" x 48" x 96", T&G, R-10 for metal stud backup application. and 2" x 16" x 96" R-10 for masonry backup application.
 3. Substitutions: See Section 01 2500 - Substitution Procedures.
 - a.

2.6 MASONRY CLEANERS

- A. Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.
 1. Products: :
 - a. Cleaners for Red and light-colored Brick Not Subject to Metallic Staining with Mortar Not Subject to Bleaching:
 - a) Diedrich Technologies, Inc. 202 New Masonry Detergent
 - b) ProSoCo, Inc. Sure Klean No. 600 Detergent

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- b. Cleaners for Red and Dark-Colored Brick Not Subject to Metallic Staining:
 - a) Diedrich Technologies, Inc 200 Lime Solvent.
 - b) ProSoCo., Inc Sure Klean No. 101 Lime Solvent.
- c. Substitutions: See Section 01 2500 - Substitution Procedures

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Notify Owner's representative if construction is not acceptable.
- D. Do not proceed with construction until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.3 COLD AND HOT WEATHER REQUIREMENTS

- A. Maintain materials and surrounding air temperature to minimum 40 degrees F prior to, during, and 48 hours after completion of masonry work or as required by TMS 402/602.
- B. Maintain materials and surrounding air temperature to maximum 90 degrees F prior to, during, and 48 hours after completion of masonry work or as required by TMS 402/602.
 - 1. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602 IMIAC and the following:
 - a. When the ambient temperature is within the limits indicated, use the following procedures:
 - a) 40 to 32 deg F (4 to 0 deg C): Heat mixing water or sand to produce mortar temperatures between 40 and 120 deg F (4 and 49 deg C).
 - b) 32 to 25 deg F (0 to -4 deg C): Heat mixing water and sand to produce mortar temperatures between 40 and 120 deg F (4 and 49 deg C). Heat grout materials to produce grout temperatures between 40 and 120 deg F (4 and 49 deg C). Maintain mortar and grout above freezing until used in masonry.
 - c) 25 to 20 deg F (-4 to -7 deg C): Heat mixing water and sand to produce mortar temperatures between 40 and 120 deg F (4 and 49 deg C). Heat grout materials to produce grout temperatures between 40 and 120 deg F (4 and 49 deg C). Maintain mortar and grout above freezing until used in masonry. Heat masonry units to 40 deg F (4 deg C) if grouting. Use heat on both sides of walls under construction.
 - d) 20 deg F (-7 deg C) and Below: Heat mixing water and sand to produce mortar temperatures between 40 and 120 deg F (4 and 49 deg C). Heat grout materials to produce grout temperatures between 40 and 120 deg F (4 and 49 deg C). Maintain mortar and grout above freezing until used in masonry. Heat masonry units to 40 deg F (4 deg C). Provide enclosures and use heat on both sides of walls under construction to maintain temperatures above 32 deg F (0 deg C) within the enclosures.
 - e) Cold-Weather Protection: When the mean daily temperature is within the limits indicated, provide the following protection:
 - (a) 40 to 25 deg F (4 to -4 deg C): Cover masonry with a weather-resistant membrane for 48 hours after construction.

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- (b) 25 to 20 deg F (-4 to -7 deg C): Cover masonry with insulating blankets or provide enclosure and heat for 48 hours after construction to prevent freezing. Install wind breaks when wind velocity exceeds 15 mi./h (25 km/h).
 - (c) 20 deg F (-7 deg C) and Below: Provide enclosure and heat to maintain temperatures above 32 deg F (0 deg C) within the enclosure for 48 hours after construction.
 - f) Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and above and will remain so until masonry has dried, but not less than 7 days after completing cleaning.
2. Hot-Weather Requirements: Protect unit masonry work when temperature and humidity conditions produce excessive evaporation of water from mortar and grout. Provide artificial shade and wind breaks and use cooled materials as required.
- a. When ambient temperature exceeds 100 deg F, or 90 deg F with a wind velocity greater than 8 mph, do not spread mortar beds more than 48 inches ahead of masonry. Set masonry units within one minute of spreading mortar.
 - b. Verify moisture content in brick. If dry wet bricks prior to installation.
 - a) Comply with the requirements of IMIAC.

3.4 PROJECT CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
- 1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.
 - 2. Where one wythe of multi wythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.
 - 3. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least 3 days after building masonry walls or columns.
 - 4. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
 - a. Protect base of walls from rain-splashed mud and from mortar splatter by coverings spread on ground and over wall surface.
 - b. Protect sills, ledges, and projections from mortar droppings.
 - c. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 - d. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
 - 5. **Under no circumstances shall masonry installation cease or be delayed due to the weather conditions. Installation shall continue using procedures listed above.**

3.5 COURSING

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Concrete Masonry Units:
- 1. Bond: Running match existing.
 - 2. Coursing: One unit and one mortar joint to equal 8 inches.
 - 3. Mortar Joints: Concave.
- D. Brick Units:
- 1. Bond: As indicated for different locations.

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2. Coursing: Three units and three mortar joints to equal 8 inches.
3. Mortar Joints: Concave.

3.6 PLACING AND BONDING

- A. General: Comply with referenced unit masonry standard and other requirements indicated applicable to each type of installation included in project.
 1. Masonry units shall be laid true, level, plumb and in uniform coursing in accordance with drawings. Corners and angles shall be square unless otherwise indicated in drawings.
 2. Lay only dry concrete masonry units. Do not wet concrete masonry units unless approved.
 3. Adjust masonry units into final position while mortar is soft and plastic. If units are displaced after mortar has stiffened, remove mortar, clean joints and units, and relay units with fresh mortar.
 4. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual thickness of masonry units using units of nominal thickness indicated.
 5. Use full-sized units without cutting where possible. Cut masonry units with motor-driven saws to provide clean, sharp, unchipped edges. Cut units as required to provide continuous pattern and to fit adjoining construction.
 6. Use concrete brick as miscellaneous infill at pockets and elsewhere as needed.
- B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.
- C. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested according to ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.
- D. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint widths and for accurate locating of openings, movement-type joints, returns, and offsets.
- E. Layup walls to comply with specified construction tolerances, with courses accurately spaced and coordinated with other construction.
- F. Bond Pattern for Exposed Masonry: Lay exposed masonry as follows unless indicated otherwise in drawings:
 1. Running Bond.
 2. Do not use units with less than nominal 4-inch horizontal face dimensions.
 3. Avoid use of less-than-half-sized units at corners, jambs, and where possible at other locations.
 4. Where indicated in drawings, match coursing, bonding, color, and texture of new masonry with existing masonry if not Running bond.
- G. Lay concealed masonry with units in wythe in running bond or bonded by lapping not less than 4 inches.
 1. Bond and interlock each course of each wythe at corners. Do not use units with less than nominal 4-inch- horizontal face dimensions at corners or jambs.
- H. At exterior frames, insert extruded polystyrene board insulation around perimeter of frame in thickness indicated but not less than 3/4 inch to act as thermal break between frame and masonry.
- I. Build chases and recesses as shown or required to accommodate items specified in this and other sections of specifications. Provide not less than 8 inches of masonry between chase or recess and jamb of openings and between adjacent chases and recesses.
- J. Leave openings for equipment to be installed before completion of masonry. After installation of equipment, complete masonry to match construction immediately adjacent to opening.
- K. Nonbearing Interior Partitions: Build full height of story to underside of solid floor or roof structure above and as follows.
 1. Install compressible filler in joint between top of partition and underside of structure above. Brace top of wall as shown in drawings.

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- L. Temporary Formwork and Shores: Construct formwork and shores to support reinforced masonry elements during construction.
 - 1. Construct formwork to conform to shape, line, and dimensions shown. Make sufficiently tight to prevent mortar and grout leakage. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
 - 2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other temporary loads that may be placed on them during construction.
- M. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- N. Lay hollow masonry units with face shell bedding on head and bed joints.
- O. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- P. Remove excess mortar and mortar smears as work progresses.
- Q. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- R. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- S. Cut mortar joints flush where wall tile is scheduled, resilient base is scheduled, cavity insulation vapor barrier adhesive is applied, or bitumen dampproofing is applied.
- T. Isolate masonry partitions from vertical structural framing members with a control joint as indicated.
- U. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with compressible joint filler.
- V. Stopping and Resuming Work: In each course, rack back one-half unit length for one-half running bond or one-third unit length for one-third running bond. Do not tooth. Clean exposed surfaces of set masonry. Wet clay masonry units lightly if required. Remove loose masonry units and mortar prior to laying fresh masonry.

3.7 WEEPS/CAVITY VENTS

- A. Install weeps in veneer and cavity walls at 24 inches on center horizontally directly at bottom of walls.

3.8 INSTALLATION OF REINFORCING STEEL

- A. Place reinforcement as detailed in drawings. Secure against displacement prior to grouting. Horizontal bars may rest on cross web of hollow units.
- B. Clearance between reinforcing steel and surface of masonry shall not be less than $\frac{1}{4}$ inch for fine grout and $\frac{1}{2}$ inch for coarse grout.
- C. Lap reinforcing bars as shown in drawings.
- D. Positioners: Provide positioners to maintain position of vertical reinforcing bars at each lap splice or at maximum spacing of 10 feet, whichever is less. Where these positioners are within $\frac{1}{2}$ inch of surface of masonry, galvanize according to ASTM Standard A 153.
- E. Provide continuous bond beams reinforced with two No. 5 bars at floors, roof, and tops of parapets unless otherwise noted. Provide corner bars same size as continuous reinforcing in wall corners and intersections, lapped 2 feet with continuous reinforcing.
- F. Provide minimum vertical reinforcing of one No. 5 bar in window, door jambs, at ends of walls, corners, and each side of vertical control joints. Locate bar maximum 16 inches from end of CMU.

3.9 HORIZONTAL JOINT REINFORCEMENT

- A. General:
 - 1. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.
 - 2. Place continuous joint reinforcement in first and second joint below top of walls.

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3. Lap joint reinforcement ends minimum 6 inches.
4. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 16 inches horizontally and 16 inches vertically.
5. Masonry Veneer:
 - a. Masonry Back-Up: Embed anchors to bond veneer at maximum 16 inches on center vertically and 36 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.
 - b. Stud Back-Up: Secure veneer anchors to stud framed back-up and embed into masonry veneer at maximum 16 inches on center vertically and 24 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center and 36" o.c. vertically..
6. Cavity Wall Masonry:
 - a. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Space anchors at maximum of 24 inches horizontally and 16 inches vertically.
7. Multiple Wythe Masonry:
 - a. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
 - b. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Space anchors at maximum of 24 inches horizontally and 16 inches vertically.

3.10 BONDING CAVITY WALLS/MULTI WYTHE MASONRY

- A. Bond wythes together using one of the following methods:
 1. Individual Two-Piece Wire Ties: Use continuous horizontal joint reinforcing with individual ties installed in horizontal joints spaced not to exceed 16 inches on-center horizontally and 16 inches on-center vertically. Stagger ties in alternate courses. Provide additional ties within 12 inches of openings and space not more than 8 inches on-center around perimeter of openings. Provide two-piece adjustable ties where wythes do not align.
 2. Masonry-Joint Reinforcement: Installed in horizontal mortar joints.
 - a. Where bed joints of both wythes align, use ladder-type reinforcement extending across both wythes.
 - b. Where bed joints do not align, use tab-type horizontal joint reinforcing with adjustable one-piece double-pintle wire ties.
 - a) Where one wythe is of clay masonry and the other of concrete-masonry, use adjustable-type (two- piece-type) ties.

3.11 MASONRY FLASHINGS

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
 1. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up flashing ends at least 1 inch, minimum, to form watertight pan at nonmasonry construction.
 2. Remove or cover protrusions or sharp edges that could puncture flashings.
 3. Seal lapped ends and penetrations of flashing before covering with mortar.
- B. Extend plastic, laminated, and EPDM flashings to within 1/4 inch of exterior face of masonry.
- C. Lap end joints of flashings at least 4 inches and seal watertight with mastic or elastic sealant.
- D. Install flashing a minimum of 6" above cavity mortar drainage system.

3.12 TOLERANCES

- A. Maximum Variation from Alignment of Columns: 1/4 inch.

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- B. Maximum Variation From Unit to Adjacent Unit: as per ASTM.
- C. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
- D. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
- E. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.
- F. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
- G. Maximum Variation of Mortar Joint Thickness: Head joint, minus 1/4 inch, plus 3/8 inch.
- H. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.13 CUTTING AND FITTING

- A. Cut and fit for chases. Coordinate with other sections of work to provide correct size, shape, and location.
- B. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.14 FIELD QUALITY CONTROL

- A. An independent testing agency, retained by the Owner, may perform field quality control tests, as specified in Section 01 4000 - Quality Requirements. Cooperate with testing agency for access to the work site.
- B. Inspecting installation of anchors, joint reinforcing, cavity insulation, cavity mortar net, weep holes etc.
 - 1. Weep holes shall be tested by placing water (by bucket or hose) into cavity.

3.15 CLEANING

- A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel un cleaned for comparison purposes. Obtain Owner's representative's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Protect adjacent stone and non masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.
 - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing the surfaces thoroughly with clear water.
 - 5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

3.16 PROTECTION

- A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

3.17 MASONRY WASTE DISPOSAL

- A. Excess Masonry Waste: Remove excess, clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property

END OF SECTION

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**SECTION 06 1000
ROUGH CARPENTRY**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Concealed wood blocking, nailers, plywood, shims and supports for windows and as shown on drawings.

1.3 RELATED REQUIREMENTS

- A. Section 07 4213.13 - Metal Composite Material Wall Panels
- B. Section 08 5113 - Aluminum Windows.
- C. Section 12 2940 - Roller Shades.

1.4 REFERENCE STANDARDS

- A. AWPA U1 - Use Category System: User Specification for Treated Wood; 2017.
- B. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- C. PS 2 - Performance Standard for Wood-Based Structural-Use Panels; 2010.
- D. PS 20 - American Softwood Lumber Standard; 2015.
- E. WWPA G-5 - Western Lumber Grading Rules; 2017.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide technical data on lumber, plywood, and fasteners .
- C. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.
- D. Material Safety Data Sheets.

1.6 QUALITY ASSURANCE

- A. A firm (Installer) with not less than five (5) continuous years experience performing carpentry work comparable to that required for this project, employing personnel skilled in the work specified.
- B. The Installer shall directly employ the personnel performing the work of this section.
- C. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Deliver and store materials dry at all times.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. Species: Douglas Fir, unless otherwise indicated, construction grade solid lumber free of splits, large knots and other imperfections.
 - 2. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.

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3. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.2 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Western Wood Products Association; WWPA G-5.
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: Kiln-dry or MC15.
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 1. Lumber: S4S, No. 2 or Standard Grade.

2.3 ACCESSORIES

- A. Fasteners and Anchors:
 1. General: Provide fasteners of size and type that comply with requirements specified in this article by the authority having jurisdiction, International Building Code, International Residential Code, Wood Frame Construction manual, and National Design Specification
 2. Metal and Finish: Hot-dipped galvanized steel as per ASTM A153/A153M for exterior, wet areas, wood preservative, and high humidity areas and unfinished steel for other wood locations.
 3. Use screws wherever possible, minimum size diameter #12. If nails are used they shall be annular ring shank type. Do not use dry wall screws to secure wood blocking assemblies.
 4. Anchors: Toggle bolt type for anchorage to hollow masonry.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate installation of rough carpentry members specified in other sections.

3.2 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

3.3 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- C. Provide the following specific nonstructural framing and blocking:
 1. Window and Door Framing.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.

3.5 CLEANING AND PROTECTION

- A. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- B. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION

**SECTION 07 2119
FOAMED-IN-PLACE INSULATION**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Foamed-in-place insulation.
 - 1. In exterior structural steel assemblies.

1.2 RELATED REQUIREMENTS

- A. Section 07 4213.13, Metal composite material wall panels.

1.3 REFERENCE STANDARDS

- A. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus; 2017.
- B. ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics; 2012.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- D. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- E. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials; 2013.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week prior to commencing work of this section.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide product description, insulation properties, overcoat properties, and preparation requirements.
- C. Certificates: Certify that products of this section meet or exceed specified requirements.
- D. Manufacturer's Installation Instructions: Indicate special procedures, and perimeter conditions requiring special attention.
- E. Installer Qualification: Submit documentation of current contractor accreditation and current installer certification. Keep copies of all contractor accreditation and installer certification on site during and after installation. Present on-site documentation upon request.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified, with minimum three years documented experience, and approved by manufacturer.

1.7 MOCK-UPS

- A. Provide installed mock-up, 4 feet long by 1 foot wide; include insulation and metal panel accessories in mock-up.
- B. Locate where directed.
- C. Mock-up may remain as part of work.

1.8 FIELD CONDITIONS

- A. Do not apply foam when temperature is below that specified by the manufacturer for ambient air and substrate.
- B. Do not apply foam when temperature is within 5 degrees F of dew point.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Foamed-In-Place Insulation:
 - 1. BASF Corporation; WALLTITE US Series Closed Cell: www.spf.basf.com/#sle.
 - 2. Johns Manville; JM Corbond III Closed Cell Spray Polyurethane Foam: www.jm.com/#sle.
 - 3. _____.

2.2 MATERIALS

- A. Foamed-In-Place Insulation: Medium-density, rigid or semi-rigid, closed cell polyurethane foam; foamed on-site, using blowing agent of water or non-ozone-depleting gas.
 - 1. Regulatory Requirements: Comply with applicable code for flame and smoke, concealment, and fire protection requirements.
 - 2. Thermal Resistance: R-value of 5.0, minimum, per 1 inch thickness at 75 degrees F mean temperature when tested in accordance with ASTM C518.
 - 3. Water Vapor Permeance: Vapor retarder; 2 perms, maximum, when tested at intended thickness in accordance with ASTM E96/E96M, desiccant method.
 - 4. Water Absorption: Less than 2 percent by volume, maximum, when tested in accordance with ASTM D2842.
 - 5. Air Permeance: 0.04 cfm per square foot, maximum, when tested at intended thickness in accordance with ASTM E2178 at 1.57 psf.
 - 6. Closed Cell Content: At least 90 percent.
 - 7. Surface Burning Characteristics: Flame spread/smoke developed index of 25/450, maximum, when tested in accordance with ASTM E84.

2.3 ACCESSORIES

- A. Primer: As required by insulation manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify work within construction spaces or crevices is complete prior to insulation application.
- B. Verify that surfaces are clean, dry, and free of matter that may inhibit insulation or overcoat adhesion.

3.2 PREPARATION

- A. Mask and protect adjacent surfaces from over spray or dusting.
- B. Apply primer in accordance with manufacturer's instructions.

3.3 APPLICATION

- A. Apply insulation in accordance with manufacturer's instructions.
- B. Apply insulation by spray method, to a uniform monolithic density without voids.
- C. Apply to a minimum cured thickness of 3 inches or as specified in projects details.
- D. Patch damaged areas.
- E. Coordinate installation with encapsulating panel installation. Ensure mounting clips and accessories are complete.
- F. Where applied to voids and gaps assure space for expansion to avoid pressure on adjacent materials that may bind operable parts.
- G. Trim excess away for applied trim or remove as required for continuous sealant bead.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.

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3.5 PROTECTION

- A. Do not permit subsequent construction work to disturb applied insulation.

END OF SECTION

SECTION 07 4213.23
METAL COMPOSITE MATERIAL WALL PANELS

PART 1 GENERAL

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.

1.2 SECTION INCLUDES

- A. Exterior cladding consisting of formed metal composite material (MCM) sheet, secondary supports, and anchors to structure.
- B. Matching flashing and trim.

1.3 RELATED REQUIREMENTS

- A. Section 07 2119 - Foamed-In-Place Insulation: Insulation behind cladding panels.
- B. Section 07 6200 - Sheet Metal Flashing and Trim: Metal flashing components integrated with this wall system.
- C. Section 07 9200 - Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.

1.4 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- B. ASTM A276/A276M - Standard Specification for Stainless Steel Bars and Shapes; 2017.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2018.
- D. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.
- E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- F. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- G. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Meeting: Convene one week before starting work of this section to verify project requirements, coordinate with installers of other work, establish condition and completeness of building substrate, and review manufacturers' installation instructions and warranty requirements.
 - 1. Require attendance by the installer and relevant sub-contractors.
 - 2. Review in detail schedule, personnel, installation of adjacent materials and substrate.
 - 3. Review procedures for protection of work and other construction.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data - Wall System: Manufacturer's data sheets on each product to be used, including:
 - 1. Physical characteristics of components shown on shop drawings.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation instructions and recommendations.
 - 4. Specimen warranty for wall system, as specified herein.
- C. Shop Drawings: Show layout and elevations, dimensions and thickness of panels, connections, details and location of joints, sealants and gaskets, method of anchorage, support clips, exposed fasteners, number of anchors, supports, reinforcement, trim, flashings, and accessories.

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1. Indicate panel numbering system.
 2. Differentiate between shop and field fabrication.
 3. Indicate substrates and adjacent work with which the wall system must be coordinated.
 4. Include large-scale details of anchorages and connecting elements.
 5. Include large-scale details or schematic, exploded or isometric diagrams to fully explain flashing at a scale of not less than 1-1/2 inches per 12 inches.
- D. Selection Samples: For each finish product specified, submit at least three sample color chips representing manufacturer's standard range of available colors and patterns.
1. Sealant Color: Color to match wall panels.
- E. Test Report: Submit report of full-size mock-up tests for air infiltration, water penetration, and wind performance.
- F. Manufacturer's Field Reports: Provide within 48 hours of field review. State what was observed and what changes, if any, were requested or required.
- G. Manufacturer's qualification statement.
- H. Installer's qualification statement.
- I. Testing agency's qualification statement.
- J. Maintenance Data: Care of finishes and warranty requirements.

1.7 QUALITY ASSURANCE

- A. Field Measurements: Verify actual dimensions by field measurement before fabrication; show recorded measurements on shop drawings.
- B. Manufacturer Qualifications: Company specializing in manufacturing wall panel systems specified in this section.
1. With not less than three years of documented experience.
 2. Approved by MCM sheet manufacturer.
- C. Installer Qualifications: Company specializing in performing work of type specified in this section.
1. With minimum three years of documented experience.
 2. Approved by wall panel system manufacturer.
- D. Testing Agency Qualifications: Independent agency experienced in testing assemblies of the type required for this project and having the necessary facilities for full-size mock-up testing of the type specified.

1.8 MOCK-UPS

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Provide a mock-up for evaluation of fabrication workmanship.
- C. Locate where directed.
- D. Provide specified finish on panels.
- E. Mock-up may remain as part of work.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
1. Protect finishes by applying heavy-duty removable plastic film during production.
 2. Package for protection against transportation damage.
 3. Provide markings to identify components consistently with drawings.
 4. Exercise care in unloading, storing, and installing panels to prevent bending, warping, twisting, and surface damage.

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- B. Store products protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
 - 1. Store in well-ventilated space out of direct sunlight.
 - 2. Protect from moisture and condensation with tarpaulins or other suitable weathertight covering installed to provide ventilation.
 - 3. Store at a slope to ensure positive drainage of accumulated water.
 - 4. Do not store in enclosed space where ambient temperature can exceed 120 degrees F.
 - 5. Avoid contact with other materials that might cause staining, denting, or other surface damage.

1.10 FIELD CONDITIONS

- A. Do not install panels when air temperature or relative humidity are outside manufacturer's limits.

1.11 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Special Warranty: Provide 2-year warranty covering water tightness and integrity of seals of wall panels. Complete forms in Edgemont School District's name and register with warrantor.
- C. Finish Warranty: Provide 10-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking. Complete forms in Edgemont School District's name and register with warrantor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Metal Composite Material (MCM) Sheet Manufacturers:
 - 1. Laminators, Inc.; Omega-Lite; Hatfield, PA..
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.2 WALL PANEL SYSTEM

- A. Wall Panel System: Metal panels, fasteners, and anchors designed to be supported by framing or other substrate provided by others; provide installed panel system capable of maintaining specified performance without defects, damage, or failure.
 - 1. Provide panel jointing and weatherseal using a "wet", sealant-sealed system.
 - 2. Anchor panels to supporting framing without exposed fasteners.
- B. PERFORMANCE REQUIREMENTS
 - 1. Thermal Movement: Provide for free and noiseless vertical and horizontal thermal movement due to expansion and contraction under material temperature range of minus 20 degrees F to 180 degrees F without buckling, opening of joints, undue stress on fasteners, or other detrimental effects; allow for ambient temperature at time of fabrication, assembly, and erection procedures.
 - 2. Wind Performance: Provide system tested in accordance with ASTM E330/E330M without permanent deformation or failures of structural members under the following conditions:
 - a. Inward Design Wind Pressure: 40 psf.
 - b. Outward Design Wind Pressure: 40 psf.
 - c. Maximum deflection of perimeter framing member of L/175 normal to plane of the wall; maximum deflection of individual panels of L/60.
 - d. Maximum anchor deflection in any direction of 1/16 inch at connection points of framing members to anchors.
- C. PANELS
 - 1. Panels: 1 inch deep min., or as required by details, pans formed of metal composite material sheet by routing back edges of sheet, removing corners, and folding edges.
 - a. Reinforce corners with riveted aluminum angles.

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- b. Provide concealed attachment to supporting structure by adhering attachment members to back of panel; attachment members may also function as stiffeners.
- c. Maintain maximum panel bow of 0.8 percent of panel dimension in width and length; provide stiffeners of sufficient size and strength to maintain panel flatness without showing local stresses or read-through on panel face.
- d. Secure members to back face of panels using structural silicone sealant approved by MCM sheet manufacturer.
- e. Fabricate panels under controlled shop conditions.
- f. Where final dimensions cannot be established by field measurement before commencement of manufacturing, make allowance for field adjustments without requiring field fabrication of panels.
- g. Fabricate as indicated on drawings and as recommended by MCM sheet manufacturer.
 - a) Make panel lines, breaks, curves, and angles sharp and true.
 - b) Keep plane surfaces free from warp or buckle.
 - c) Keep panel surfaces free of scratches or marks caused during fabrication.
- h. Provide joint details providing a watertight and structurally sound wall panel system that allows no uncontrolled water penetration on inside face of panel system.

2.3 MATERIALS

- A. Metal Composite Material (MCM) Sheet: Two sheets of aluminum sandwiching a core of extruded thermoplastic material; no foamed insulation material content.
 - 1. Overall Sheet Thickness: 0.236 inch, minimum.
 - 2. Face Sheet Thickness: 0.032 inch, minimum.
 - 3. Alloy: Manufacturer's standard, selected for best appearance and finish durability.
 - 4. Bond and Peel Strength: No adhesive failure of the bond between the core and the skin nor cohesive failure of the core itself below 22.4 inch-pound/inch with no degradation in bond performance, when tested in accordance with ASTM D1781, simulating resistance to panel delamination, after 8 hours of submersion in boiling water and after 21 days of immersion in water at 70 degrees F.
 - 5. Surface Burning Characteristics: Flame spread index of 0, maximum; smoke developed index of 20, maximum; when tested in accordance with ASTM E84.
 - 6. Flammability: Self-ignition temperature of 650 degrees F or greater when tested in accordance with ASTM D1929.
- B. Metal Framing Members: Include sub-girts, zee-clips, base and sill angles and channels, hat-shaped and rigid channels, and furring channels required for complete installation.
 - 1. Provide material strength, dimensions, configuration as required to meet applied loads and in compliance with applicable building code.

2.4 FINISHES

- A. Fluoropolymer Coil Coating System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, with at least 80 percent of coil coated metal surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss as selected by Architect from manufacturer's standard line.
- B. Color/Texture: As selected by Fuller and D'Angelo, P.C. from manufacturer's full range.

2.5 ACCESSORIES

- A. Flashing: Sheet aluminum; 0.040 inch thick, minimum; finish and color to match MCM sheet; see Section 07 6200 for additional requirements.
- B. Cladding Support Clips: galvanized steel clips for support of cladding z-girts, angles, channels and other framing.
 - 1. Galvanized Steel Sheet: ASTM A653/A653M, with G90/Z275 galvanized coating.

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- C. Fasteners:
 - 1. Screws: Self-drilling or self-tapping Type 410 stainless steel or zinc-alloy steel hex washer head, with EPDM or PVC washer under heads of fasteners bearing on weather side of metal wall panels.
 - 2. Fasteners for Flashing and Trim: Blind fasteners of high-strength aluminum or stainless steel.
- D. Joint Sealer: As specified in Section 07 9005, subject to MCM sheet manufacturer's approval.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine dimensions, tolerances, and interfaces with other work.
 - 1. Verify that insulation systems are fully installed; see section 07 2119 for additional requirements.
- B. Examine substrate on-site to determine that conditions are acceptable for product installation in accordance with manufacturer's written instructions.
- C. Notify Fuller and D'Angelo, P.C. in writing of conditions detrimental to proper and timely completion of work, and do not proceed with erection until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect adjacent work areas and finish surfaces from damage during installation.

3.3 INSTALLATION

- A. Do not install products that are defective, including warped, bowed, dented, and broken members, and members with damaged finishes.
- B. Comply with instructions and recommendations of MCM sheet manufacturer, as well as with approved shop drawings.
- C. Install system securely allowing for necessary thermal and structural movement; comply with system manufacturer's instructions for installation of concealed fasteners.
- D. Do not handle or tool products during erection in manner that damages finish, decreases strength, or results in visual imperfection or failure in performance. Return component parts that require alteration to shop for refabrication, if possible, or for replacement with new parts.
- E. Do not form panels in field unless required by wall system manufacturer and approved by the Fuller and D'Angelo, P.C. ; comply with MCM sheet manufacturer's instructions and recommendations for field forming.
- F. Separate dissimilar metals; use gasket fasteners, isolation shims, or isolation tape where needed to eliminate possibility of electrolytic action between metals.
- G. Where joints are designed for field-applied sealant, seal joints completely with specified sealant.
- H. Install flashings as indicated on shop drawings. At flashing butt joints, provide a lap strap under flashing and seal lapped surfaces with a full bed of non-hardening sealant.
- I. Install square, plumb, straight, and true, accurately fitted, with tight joints and intersections maintaining the following installation tolerances:
 - 1. Variation From Plane or Location: 1/2 inch in 30 feet of length and up to 3/4 inch in 300 feet, maximum.
 - 2. Deviation of Vertical Member From True Line: 0.1 inch in 25 feet run, maximum.
 - 3. Deviation of Horizontal Member From True Line: 0.1 inch in 25 feet run, maximum.
 - 4. Offset From True Alignment Between Two Adjacent Members Abutting End To End, In Line: 0.03 inch, maximum.
- J. Replace damaged products.
 - 1. Exception: Field repairs of minor damage to finishes are permitted only when approved in writing by Fuller and D'Angelo, P.C. , panel manufacturer, and fabricator.

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2. Field Repairs to Finishes: Using materials and methods sufficient that repairs are not discernible when viewed at distance of 10 feet under all typical light conditions experienced at the project.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Wall System Manufacturer's Field Services: Provide field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with instructions.

3.5 CLEANING

- A. See Section 01 7000 - Execution for additional requirements.
- B. Ensure weep holes and drainage channels are unobstructed and free of dirt and sealants.
- C. Remove protective film after installation of joint sealers, after cleaning of adjacent materials, and immediately prior to completion of work.
- D. Remove temporary coverings and protection of adjacent work areas.
- E. Clean installed products in accordance with manufacturer's instructions.

3.6 PROTECTION

- A. Protect installed panel system from damage until Date of Substantial Completion.

END OF SECTION

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MODIFICATIONS TO EXISTING ROOFING

**SECTION 07 5010
MODIFICATIONS TO EXISTING ROOFING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Modification to existing EPDM membrane roofing system.

1.3 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry:
- B. Section 07 6200 - Sheet Metal Flashing and Trim: Formed metal flashing and trim items associated with roofing.

1.4 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D1079 for definition of terms related to roofing work not otherwise defined in the section.

1.5 REFERENCE STANDARDS

- A. ANSI/SPRI/FM 4435/ES-1 - Test Standard for Edge Systems Used with Low Slope Roofing Systems; 2017.
- B. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2018a.
- C. ASTM D1079 - Standard Terminology Relating to Roofing and Waterproofing; 2016.
- D. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015.
- E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- F. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; Factory Mutual System; 2016.

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Conference: Before start of roofing work, General Construction Contractor, Prime Contractors, Installer, and Manufacturer's Representative shall hold a meeting to discuss the proper installation of materials, status of the existing warranty and requirements to maintain the existing warranty.
 - 1. Notify YPS Office of Facilities Management well in advance of meeting.
 - 2. Review all locations required for modifications to existing roofing.

1.7 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data:
 - 1. Provide manufacturer's printed data sufficient to show that all components of roofing systems, including insulation and fasteners, comply with the specified requirements and with the roofing manufacturer's requirements and recommendations for the system type specified; include at least the following:
 - a. Technical data sheet for roof membrane.
 - b. Technical data sheets for splice tape and adhesives.
 - c. Technical data sheet for each insulation type.
 - d. Technical data sheet for each cover board type.

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2. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how all components will be installed; where instructions allow installation options, clearly indicate which option will be used.
 3. Pre-Work Site and Building Inspection Report with photos to documents conditions before commencing work.
 4. Written certification from the manufacturer which states that the installer is acceptable or licensed to install the specified roofing; if not previously provided.
- C. Installer Qualifications: Letter from manufacturer attesting that the roofing installer meets the specified qualifications for all systems under warranty.
- D. Pre-Installation Notice: Copy to show that manufacturer's required Pre Installation Notice has been accepted and approved by the manufacturer.
- E. Executed Warranty.

1.8 CODE APPROVAL REQUIREMENTS

- A. Install roofing and insulation system components to meet the following minimum requirements:
1. New York State Uniform Fire Prevention and Building Code, which includes by reference the New York State Energy Conservation Code.
 2. Underwriters Laboratories Inc. Class A External Fire Rating for roof assemblies tested in accordance with ASTM E 108 or UL 790.
 3. Minimum wind uplift pressure calculated using ASCE 7 and a safety factor of 2:
 - a. Field Zone - 90 psf
 - b. Perimeter Zones - 135 psf
 - c. Corner Zone - 180 psf
- B. Provide written certification from the roof material Manufacturer, before beginning work, to confirm the roofing system meets these requirements.

1.9 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum twenty (20) years of documented experience.
- B. Installer Qualifications: Roofing installer shall have the following:
1. A firm (Installer) with not less than five (5) continuous years experience performing EPDM roofing work similar to that required for this project, employing personnel skilled in the specified work.
 2. The Installer shall directly employ the personnel performing the work of this section.
 3. The Installer shall have a full time supervisor/foreman on the roof when roofing work is in progress. The Supervisor shall have a minimum of five (5) years experience in roofing work similar in nature and scope to this project, and speak fluent English.
 4. The Installer shall provide a reference list of at least three projects of comparable size and similar design, within a fifty mile radius of this project, which may be observed by representatives of the Owner's Representative.
 5. The Installer shall be acceptable to or licensed by the Manufacturer of the primary roofing materials, and provide written certification from the Manufacturer to confirm this prior to award if requested.
- C. Material Quality: Obtain each product, including the insulation, cover board, EPDM roofing and flashing, and cements, primers and adhesives produced by a single Manufacturer, which has manufactured the same products in the United States of America for not less than five (5) continuous years.
- D. Pre-Work Conference: Meet at the project site approximately one week prior to starting roof work, with the Owner's Representative and other representatives concerned about the work, to discuss the following:
1. How the building will be kept watertight as existing roofing is removed and the work progresses.

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1.10 JOB CONDITIONS (CAUTIONS & WARNINGS)

- A. Do not use oil base or plastic roof cement with EPDM roofing. Do not allow waste products, (petroleum grease or oil, solvents, vegetable or mineral oil, animal fat) or direct steam venting to come in contact with any roofing, insulation or flashing product. Do not expose EPDM roofing and accessories to a temperature in excess of 175 degrees Fahrenheit.
- B. Splice cleaner, primer, cements and bonding adhesives are flammable. Do not breathe vapors or use near fire or flame or in a confined or unventilated area. Dispense only from a UL listed or approved safety can.
- C. Remove empty adhesive and solvent containers and contaminated rags from the roof and legally dispose of them daily.
- D. Do not apply adhesives adjacent to open ventilation system louvers, or windows. Temporarily cover the louvers and windows with 6 mil fire retardant polyethylene and prevent adhesive odors from entering the building. Remove temporary covers at the end of each days work.

1.11 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver material to the site in the Manufacturer's original and unopened packaging, bearing labels which identify the type and names of the products and Manufacturers, with the labels intact and legible.
- B. Store all materials in accordance to manufacturer's instructions.
- C. Cover all stored materials, except rolls of EPDM and sealed cans of adhesives, with watertight tarpaulins installed immediately upon delivery.
- D. Immediately remove any insulation which gets wet from the job site.
- E. Do not overload the structure when storing materials on the roof.
- F. Store and install all material within the Manufacturer's recommended temperature range.

1.12 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Existing Roofing System Not Under Warranty
 - 1. Provide a Contractor's written Guarantee which warrants that all work performed under this contract will remain free of material and workmanship defects and in a watertight condition for a five year period beginning upon Final Completion:
 - a. Defective work includes but is not limited to the following types of failure: leakage, delamination, lifting, loosening, splitting, cracking, and undue expansion.
 - b. The Contractor's Guarantee shall provide that the Contractor will make the repairs needed to enable the work to perform as warranted at his own expense:
 - c. The Guarantee shall include the removal and replacement of items or materials installed as part of the original work, if removal is needed to affect guaranteed repairs.

PART 2 PRODUCTS

2.1 GENERAL

- A. Acceptable Manufacturer - Roofing System: Match existing manufacturers roofing system.
 - 1. Roofing systems manufactured by others are acceptable provided the roofing system is completely equivalent in materials and warranty conditions and the manufacturer meets the following qualifications:
 - a. Specializing in manufacturing the roofing system to be provided.
 - b. Minimum ten years of experience manufacturing the roofing system to be provided.
 - c. Able to provide isocyanurate insulation that is produced in own facilities.
- B. Substitutions: See Section 01 2500 - Substitution Procedures

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2.2 EPDM ROOFING

A. Unreinforced 60 mils thick, fire retardant, EPDM (Ethylene Propylene Diene Monomer) sheet membrane conforming to the following minimum physical properties.

1.	PROPERTY	TEST METHOD	SPECIFICATION
2.	Color- Gray/Black		
3.	Elongation	ASTM D-412	300% min
4.	Tear Strength	ASTM D-624	150 lb/in min
5.	Ozone Resistance	ASTM D-1149	No cracks, 7 days/100 pphm/100°F/50% strain
6.	Heat Aging	ASTM D-573	1200 psi min@ 200% elongation/4 wks/240°F
7.	Brittleness Temperature	ASTM D-746	-49°F
8.	Water Vapor Permanence	ASTM E-96	2.0 perm max
9.	Thickness	ASTM D-412	60 mils plus/minus 6 mils
10.	Fire Retardant		UL Class A

B. Related Materials:

1. Cleaners, adhesives, sealants, caulking and fasteners furnished by the EPDM system Manufacturer. Use low VOC adhesives and cleaners to comply with regulations in effect at the time of application.
 - a. Stripping: 90 mil thick 5 inch and 9 inch wide self adhering flashing, consisting of 45 mils of semi-cured EPDM factory laminated to 45 mils of cured seaming tape.
 - b. Bonding Adhesive: High strength contact adhesive.
 - c. Splice Adhesive: High strength synthetic polymer based contact cement formulated specifically to splice EPDM sheets.
 - d. Lap Sealant: EPDM rubber based gun grade sealant.
 - e. Water Block Seal: One component low viscosity butyl rubber sealant.
 - f. Reinforced Perimeter Fastening Strips: .030 inch thick reinforced cured EPDM.
 - g. Seam Tape Primer: Synthetic rubber polymer based primer designed to clean and prime seam tape splice areas prior to installing the tape.
 - h. Seam Splice Tape: Nominal 30 mil thick cured polymer self adhesive tape with release paper carrier, 6 inches wide.
 - i. Plates and Bars: Galvanized and corrosion resistant specialty products.
 - j. Fasteners: #14 Fluorocarbon polymer coated heavy duty screws.

C. Gypsum Cover Board: 1/4 inch thick fire resistant gypsum board decking with inorganic glass mat facers and a water resistant core, formulated in 48 x 48 inch square edge boards, UL Class A, meeting ASTM C-1177, manufactured under the trade name Dens-Deck Prime

2.3 INSULATION:

- A. Isocyanurate – Tapered rigid cellular polyisocyanurate boards with fibrous felt/fiberglass mat facers, sloping 1/8 inch per foot, (match existing) minimum starting thickness 1-1/2 inches, minimum compressive strength 20 psi, meeting ASTM C1289-01, Type II, Class1, Grade 2.
1. Tapered insulation sloping 1/4 inch per foot, minimum starting thickness as shown on the roof plan.
 2. Crickets sloping 1/4 inch per foot.
 3. At repairs to existing building match thickness of existing insulation.
 4. Product: Firestone “ISO 95+ Isocyanurate Insulation” or approved equal.

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2.4 ACCESSORY MATERIALS

- A. Cant Strips and Tapered Edge Strips: sloped and minimum 5 inch face dimension; provide at all angle changes between vertical and horizontal planes that exceed 45 degrees.

PART 3 INSTALLATION

3.1 GENERAL

- A. Modify existing roofing system in a watertight, workmanlike manner, meeting the guarantee requirements specified herein; in strict accordance with the drawings and in conformance with the Manufacturer's requirements, except as enhanced in this specification.
- B. Clean the surface on which roofing system components will be applied, of all laitance, dirt, oil, grease or other foreign matter which would in any way affect the quality of the installation.
- C. Install roof system components on dry surfaces only. Do not install any items when weather conditions and outside temperatures are not suitable in accordance with the Manufacturer's recommendations.
- D. Complete all work in sequence as quickly as possible so that as small an area as practicable is in the process of construction at any one time. Complete the entire area of work begun each day, the same day, and make all exposed edges watertight at the end of each day's work.

3.2 SUBSTRATE INSPECTION

- A. Remove portions of existing roofing, insulation, and flashings, and carefully check the existing deck and new roof substrate. To be an acceptable surface for the new roofing system, the deck and substrate shall be well secured to the underlying structure, dry and not otherwise deteriorated.
- B. Immediately notify the Owner's Representative in writing if defects in the substrate are discovered.
- C. Maintain the building watertight in the interim, but do not install new insulation or roofing until substrate defects have been corrected.

3.3 NEW TO EXISTING INTERFACE

- A. Remove and replace portions of existing roofing at the construction interface between new construction and existing roof areas.
 - 1. Install new isocyanurate insulation, mechanically fastened, to match existing insulation thickness and to maintain the slope of the existing insulation.
 - 2. Install 60 mil. fully adhered EPDM membrane to lap a minimum of 12 inches onto existing EPDM membrane.

3.4 PREPARATION

- A. Remove all of the existing roof system required to install new components, including all existing flashings. Dispose of all materials properly. ,
- B. Take appropriate measures to ensure that fumes from adhesive solvents are not drawn into the building through air intakes.
- C. Prior to proceeding, prepare roof surface so that it is clean, dry, and smooth, and free of sharp edges, fins, roughened surfaces, loose or foreign materials, oil, grease and other materials that may damage the membrane.
- D. Fill all surface voids in the immediate substrate that are greater than 1/4 inch wide with fill material acceptable insulation to membrane manufacturer.
- E. Wood Nailers: Provide wood nailers at all perimeters and other locations where indicated on the drawings, of total height matching the total thickness of insulation being used.
 - 1. Install with 1/8 inch gap between each length and at each change of direction.
 - 2. Mechanically fasten to deck to resist force of 200 lbf per linear foot.
 - 3. See specification section 06 1000 - Rough Carpentry for additional information,

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3.5 INSULATION AND COVER BOARD INSTALLATION

- A. Install insulation in configuration and with attachment method(s) specified in PART 2, under Roofing System.
- B. Neatly and tightly fit insulation to all penetrations, projections, and nailers, with gaps not greater than 1/4 inch. Fill gaps greater than 1/4 inch with acceptable insulation. Do not leave the roofing membrane unsupported over a space greater than 1/4 inch.
- C. Mechanical Fastening: Using specified fasteners and insulation plates engage fasteners through insulation into deck to depth and in pattern required by membrane manufacturer.

3.6 SINGLE-PLY MEMBRANE INSTALLATION

- A. Place membrane without stretching over substrate and allow to relax at least 30 minutes before attachment or splicing; in colder weather allow for longer relax time.
- B. Lay out the membrane pieces so that field and flashing splices are installed to shed water.
- C. Install membrane without wrinkles and without gaps or fishmouths in seams; bond and test seams and laps in accordance with membrane manufacturer's instructions and details.
- D. Install membrane adhered to the substrate, with edge securement as specified.
- E. Fully adhere EPDM to the substrate with bonding adhesive, .
 - 1. Allow contact bonding adhesive to dry to the touch EPDM before joining the EPDM to the substrate. Roll the EPDM onto the bonding adhesive and immediately rub it vigorously with a soft bristle broom to ensure complete adhesion.
 - 2. Replace used roller covers each day; discard covers after each days use.
 - 3. Allow bonding adhesive to dry to the touch before joining the EPDM to the substrate.
- F. Roofing installed over improperly applied adhesive or with adhesive that wasn't stirred, and roofing installed with blisters, ridges, mole runs and similar deficiencies shall be removed and replaced at the Contractor's expense
- G. Adhered Membrane: Bond membrane sheet to substrate using membrane manufacturer's recommended bonding material, application rate, and procedures.
- H. Edge Securement: Secure membrane at all locations where membrane terminates or goes through an angle change greater than 2 in 12 inches using mechanically fastened reinforced perimeter fastening strips, plates, or metal edging as indicated or as recommended by roofing manufacturer.

3.7 FLASHING AND ACCESSORIES INSTALLATION

- A. Install flashings, including laps, splices, joints, bonding, adhesion, and attachment, as required by membrane manufacturer's recommendations and details.

3.8 CLEANING

- A. Clean all contaminants generated by roofing work from building and surrounding areas, including bitumen, adhesives, sealants, and coatings.
- B. Repair or replace building components and finished surfaces damaged or defaced due to the work of this section; comply with recommendations of manufacturers of components and surfaces.
- C. Remove leftover materials, trash, debris, equipment from project site and surrounding areas.

END OF SECTION

SECTION 07 6200
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Sealants for joints within sheet metal fabrications.
- B. Cap flashings.
- C. Drip edges.
- D. Hook strips.
- E. Fascia.

1.3 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Field fabricated roof curbs.
- B. Section 07 5010 - Modifications to Existing Roofing.
- C. Section 07 4213.23 - Metal Composite Material Wall Panels.
- D. Section 07 7123 - Manufactured Gutters and Downspouts.
- E. Section 07 9200 - Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

1.4 REFERENCE STANDARDS

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- B. ASTM B32 - Standard Specification for Solder Metal; 2008 (Reapproved 2014).
- C. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- E. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.
- B. Review methods and procedures related to sheet metal work, including but not limited to the following:
 - 1. How the application of sheet metal items will be coordinated with the installation of wood blocking, roofing & flashing materials, ice and water shield, underlayment, and other similar items to provide a watertight installation.
 - 2. The schedule for mock-up construction and approval.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Technical literature for each type of sheet metal, sealant and fastener.
- C. Manufacturer's technical literature and shop drawings for preformed sheet metal items, which show how to install the items, form and seal joints
- D. Material Safety Data Sheets

1.7 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with five (5) years of documented experience.
 - 1. The Installer shall directly employ the personnel performing the work of this section.
 - 2. Installer's Field Supervision: Maintain a full time supervisor-foreman on the roof, who has a minimum of five (5) years experience in roof related sheet metal work, and who speaks fluent English, when sheet metal work is in progress.

1.8 JOB MOCK UPS

- A. After the submittals are approved, prepare in actual job locations, mock-ups of cap flashings, hook strips, drip edges, fascia, copings, and all other items of sheet metal and related work, for the inspection and approval of the Architect.
- B. Construct each mock-up of two full lengths of metal, fastened, connected and stripped-in to the related roofing system, to show the following:
 - 1. Type, gauge, color, cross-sectional dimensions and shape, and joint and mitering techniques.
 - 2. Related masonry work, wood blocking, and the attachment techniques and fasteners for all wood and metal components.
 - 3. Other sheet metal related materials and their installation techniques to fully define the detailing of each mock-up
- C. Approved mock-ups may be left in place and incorporated into the permanent installation. Rejected mock-ups shall be removed and replaced until approved.
- D. Do not purchase or fabricate sheet metal items until mock-up erection, inspection and approval is completed and approval is documented in writing

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

1.10 GUARANTEE

- A. Provide a Contractor's written Guarantee which warrants that all work will remain free of material and workmanship defects and in a watertight condition for a five year period beginning upon Final Completion.
 - 1. Defective work includes but is not limited to the following types of failure: leakage, delamination, lifting, loosening, splitting, cracking, and undue expansion.
- B. The Guarantee shall include the removal and replacement of items or materials installed with sheet metal flashings and accessories as part of the original work, if removal is needed to effect guaranteed repairs

PART 2 PRODUCTS

2.1 SHEET MATERIALS

- A. Zinc-Tin coated copper: copper sheet, coated on both sides, with a smooth uniform coating of zinc and tin, nominal weight 16 ounces per square foot, cold rolled temper, available as FreedomGray Copper by Revere.
- B. Pre-Finished Aluminum: ASTM B209/B209M; 18 gauge, 0.040 inch thick minimum, unless noted otherwise; plain finish shop pre-coated with fluoropolymer coating.
 - 1. Fluoropolymer Coating: High performance organic powder coating, AAMA 2604; multiple coat, thermally cured fluoropolymer finish system.

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- C. Pre-Finished Aluminum: ASTM B 209 (ASTM B 209M), #3105 alloy, H14 temper; minimum 0.05 inch thick; plain finish shop pre coated with fluoropolymer, Kynar 500, coating of color as selected from the manufacturers full range of custom and standard colors.
 - 1. Use .050 inch thick aluminum for the aluminum fascias, hook strips, drip edges, and miscellaneous trim.

2.2 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
 - 1. Accurately reproduce the details and design shown, and form the profiles, bends and intersections, sharp, true and even. Fabricate sheet metal in the shop whenever possible, and form joints, laps, splices and connections to shed water and condensation in the direction of flow.
 - 2. Provide any miscellaneous flashing and sheet metal work not shown on the drawings but otherwise needed to leave the project complete and entirely watertight, neatly and carefully executed in a thorough and workmanlike manner
- B. Fabricate and install copper work in accordance with the current edition of "Copper and Common Sense" published by the Revere Copper and Brass Company, unless otherwise indicated
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- E. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- F. Fabricate corners from one piece with minimum 18-inch long legs; seam for rigidity, seal with sealant.
- G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- H. Drip Edges: Fabricate drip edges to extend 1-1/2 inches past the roof edge, and turn down to ensure water can not track back to the fascia. Secure the drip edge with fasteners spaced 4 inches apart along the raw metal edge. Form joints in the drip edge with concealed under plates which duplicate the profile of the drip edge.
- I. Hook Strips: Form continuous hook strips with locks that engage the superimposed trim piece a minimum of 3/4 inch, and to cover the entire underside edge of the wood blocking and neatly extend to the building wall.
 - 1. Fasten hook strips along their bottom edge, just above the 45 degree bend, with nails spaced 4 inches on center into underlying wood blocking; Zamac type nail-in type fasteners spaced 8 inches on center into masonry surfaces, or screws spaced 8 inches on-center into sheet metal surfaces.
- J. Fabricated Roof Edge Systems: Extruded aluminum anchor bars secured with #9 stainless steel screws spaced 12 inches on center and .050 inch thick Kynar 500 prefinished aluminum trim covers, independantly tested to comply with the ANSI/SPRI ES-1 Wind Design Guide.

2.3 ACCESSORIES

- A. Fasteners: Stainless steel.
- B. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- C. Solder:
 - 1. Lead free / or pure tin solder for zinc-tin coated copper, Number 497 by Johnson Manufacturing.
- D. Flux:
 - 1. Tin-bearing flux such as "Flux-N-Solder E127 with pure tin" by Johnson Manufacturing

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive work of this section and report to the Owner's Representative any defects affecting installation. Commencement of work will be construed as complete acceptance of surfaces.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.

3.3 INSTALLATION

- A. Secure flashings in place using concealed fasteners.
- B. Form all joints, except loose locked sealant filled expansion joints, 3/4 inch wide flat locked and soldered, or, overlapped 2 inches riveted 1 inch on-center and soldered. Use solder only to fill and seal the joint, not for mechanical strength. Form soldered joints continuous, strong and free from defects, with well heated soldering irons. Do not use open flame torches for soldering.
 - 1. Clean soldered joints daily, immediately upon the completion of soldering, by washing with soap and water applied with a soft bristle brush, then rinsing with clear water.
- C. Form all seams double locked, to finish 1 inch high. Install cleats in all seams 12 inches on center.
- D. Securely fasten and anchor all work, and make provisions for thermal expansion. Submit details of expansion joints for approval. Install fasteners through one edge of metal only.
- E. Use stainless steel pin Zamac type nail-in fasteners where fasteners will be exposed
- F. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- G. Seal metal joints watertight.
- H. Solder sheet copper joints for full metal surface contact, and after soldering wash metal clean with neutralizing solution and rinse with water.

3.4 FASCIA / GRAVEL STOP

- A. Fabricate new fascia trim covers from .040 inch thick aluminum. Secure the fascia cant dam with screws spaced 8 inches apart, positioned to be covered by the gravel stop or drip edge. Form joints in the fascia with 6 inch wide concealed under plates. Set the under plates in a full bed of sealant.
- B. Furnish factory fabricated and welded inside and outside corners with a Kynar finish.

3.5 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.6 CLEANING

- A. Clean all metal of any stains or blemishes; touch up and clean prefinished material after roofing is complete. Leave all surfaces clean and satisfactory to the Owner.

3.7 PROTECTION AND WATERTIGHTNESS

- A. Provide the equipment, materials and labor necessary to adequately protect the contract area, the building and its contents and occupants, and surrounding landscaped and paved areas from damage due to the construction work or from inclement weather during construction.
- B. Do not perform work during inclement weather. Provide temporary covers, and make work areas and the building watertight at the end of each day's work.

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- C. Clean up frequently all refuse, rubbish, scrap materials and debris so that at all times the work site shall present a neat, orderly and workmanlike appearance

END OF SECTION

**SECTION 07 9200
JOINT SEALANTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

1.3 RELATED REQUIREMENTS

- A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.
- B. Section 08 8000 - Glazing: Sealants and accessories.

1.4 REFERENCE STANDARDS

- A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- B. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.
- C. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants; 2018.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
 - 5. Substrates for which use of primer is required.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- E. Executed warranty.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

1.7 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide 2-year manufacturer warranty for installed sealants and accessories that fail to achieve a watertight seal, exhibit loss of adhesion or cohesion, or do not cure. Complete forms in Edgemont School District's name and register with manufacturer.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Nonsag Sealants:
 - 1. Bostik Inc: www.bostik-us.com.
 - 2. Dow Corning Corporation: www.dowcorning.com/construction.
 - 3. Pecora Corporation: www.pecora.com.
 - 4. Sika Corporation: www.usa-sika.com.

2.2 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Exterior Joints:
 - a. Seal the following joints:
 - a) Joints between doors, windows, and other frames or adjacent construction.
 - 2. Interior Joints:
 - a. Seal the following joints:
 - a) Joints between door frames and window frames and adjacent construction.
 - 3. Do Not Seal:
 - a. Joints where sealant installation is specified in other sections.

2.3 JOINT SEALANTS - GENERAL

- A. Sealants and Primers: Provide products with acceptable levels of volatile organic compound (VOC) content; see Section 01 6116.

2.4 NONSAG JOINT SEALANTS

- A. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single component; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 25 percent, minimum.
 - 2. Color: To be selected by Fuller and D'Angelo, P.C. from manufacturer's full range.
 - 3. Service Temperature Range: Minus 40 to 180 degrees F.
 - 4. Products:
 - a. Pecora Corporation; Dynatrol II;: www.pecora.com.
 - b. Sika Corporation; Sikaflex-1a: www.usa-sika.com.
 - c. Tremco Commercial Sealants & Waterproofing; Dymonic 100: www.tremcosealants.com.
 - 5. Applications: Use for:
 - a. Joints between metal frames and other materials.
 - b. All exterior and interior vertical / horizontal joints and window / door perimeters.
 - 6. Substitutions: 01 2500 - Substitution Procedures.

2.5 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
 - 1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
 - 2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type C - Closed Cell Polyethylene.
 - 3. Open Cell: 40 to 50 percent larger in diameter than joint width. (Not to be used in flat or horizontal joints)
 - 4. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width. (Use for flat and horizontal joints)

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- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D. Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.
- D. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
 - 1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
 - 2. Notify Fuller and D'Angelo, P.C. of date and time that tests will be performed, at least seven days in advance.
 - 3. Record each test on Preinstallation Adhesion Test Log as indicated.
 - 4. If any sample fails, review products and installation procedures, consult manufacturer, or take other measures that are necessary to ensure adhesion; retest in a different location; if unable to obtain satisfactory adhesion, report to Fuller and D'Angelo, P.C. .
 - 5. After completion of tests, remove remaining sample material and prepare joints for new sealant installation.

3.2 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.3 INSTALLATION

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Provide joint sealant installations complying with ASTM C1193.
- C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- D. Install bond breaker backing tape where backer rod cannot be used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- F. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- G. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.

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- C. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

END OF SECTION

SECTION 08 1116
ALUMINUM DOORS AND ALUMINUM FRAMES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Aluminum Frames for Aluminum doors.
- B. Monumental Aluminum Stile and Rail Doors.
- C. Factory installed Finish Hardware

1.3 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants.
- B. Section 07 4313 - Aluminum Framed Storefronts: Aluminum framing for door openings.
- C. Section 08 7100 - DOOR HARDWARE.

1.4 REFERENCE STANDARDS

- A. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- B. ASTM B 209 - Aluminum and Aluminum-Alloy Sheet and Plate.
- C. ASTM B 221 - Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- D. ASTM D2583 - Standard Test Method for Indentation Hardness of Rigid Plastics by Means of Barcol Impressor; 2013a.
- E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- F. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2004 (Reapproved 2012).
- G. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014.
- H. ASTM E2112 - Standard Practice for Installation of Exterior Windows, Doors and Skylights; 2007 (Reapproved 2016).
- I. ASTM F 476 - Security of Swinging Door Assemblies.

1.5 PERFORMANCE

- A. Door and Thermally Broken Aluminum Frame Assembly.
 - 1. Thermal Transmittance, NFRC 100.
 - a. Commercially Glazed Swinging Entrance Door (> than 50% glass)
 - a) U-Factor = 0.32 Btu/hr ft² °F.
 - 2. Air Leakage, NFRC 400, ASTM-E283.
 - a. Commercially Glazed Swinging Entrance Door (> than 50% glass)
 - a) 0.04 cfm/sqft @ 1.57 psf.
 - b) 0.13 cfm/sqft @ 6.24 psf.
 - 3. Sound Transmission, ASTM-E90: STC = 28, OITC = 27.
- B. Foam Plastic Insulation Compliance Requirements.
 - 1. Doors not required to have a fire protection rating, and where pivoted or side-hinged doors are permitted without a fire protection rating, foam plastic insulation, having a flame spread index of 75 or less and a smoke-developed index of not more than 450, shall be permitted as a core material

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where the door facing is of metal having a minimum thickness of 0.032-inch (0.8 mm) aluminum or steel having a base metal thickness of not less than 0.016 inch (0.4 mm) at any point as per Section 2603.4.1.7 of the International Building Code.

2. Thermal barrier. Except as provided for in Sections 2603.4.1 and 2603.9 foam plastic shall be separated from the interior of a building by an approved thermal barrier of 0.5-inch (12.7 mm) gypsum wallboard or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.
3. **Submit evaluation and testing report indicating compliance with NFPA 275 and that the doors do not require thermal barrier.**

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Obtain hardware templates from hardware manufacturer prior to starting fabrication.

1.7 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard details, installation instructions, hardware and anchor recommendations.
- C. Shop Drawings: Indicate layout and profiles; include assembly methods.
 1. Indicate product components, including hardware reinforcement locations and preparations, accessories, finish colors, patterns, and textures.
 2. Indicate wall conditions, door and frame elevations, at 1/2" scale, half-sized detail sections, materials, gages, finishes, location of door hardware by dimension, and details of openings; use same reference numbers indicated on Drawings to identify details and openings. expansion provisions, and other components not included in the manufacturer's standard data. Include glazing details
- D. Selection Samples: Submit two complete sets of color chips, illustrating manufacturer's available finishes, colors, and textures.
 1. Where normal color and texture variations are expected, include two or more units in each sample to show the range of such variations.
- E. Architect reserves the right to require samples of typical fabricated section, showing joints, exposed fastenings (if any), quality of workmanship, hardware and accessory items, before fabrication of the work proceeds.
- F. Test Reports: Submit certified test reports from qualified independent testing agency indicating doors comply with specified performance requirements.
- G. Manufacturer's Qualification Statement.
- H. Maintenance Data: Include instructions for repair of minor scratches and damage.
- I. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Edgemont School District's name and registered with manufacturer; include detailed terms of warranty.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with not less than twenty (20) years of documented experience.
 1. Door and frame components from same manufacturer.
 2. Evidence of a compliant documented quality management system.
- B. Standards: Comply with the requirements and recommendations in applicable specifications and standards by NAAMM, AAMA, and AA, including the terminology definitions, and specifically including the "Entrance Manual" by NAAMM, except to the extent more stringent requirements are indicated.
- C. All materials, equipment and operation supplied shall conform to all Code requirements including Accessibility for the Handicapped.

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- D. Installer Qualifications: Company specializing in installing products of the type specified in this section with not less than five (5) years of documented experience, **and approved by the manufacturer.**
- E. The manufacturer shall provide a factory trained technician to visit this project and instruct the installers in the proper installation of the door and frame assemblies and submit written report.

1.9 FIELD MEASUREMENT:

- A. Verify field measurements prior to fabrication of doors and frames to insure proper fitting of assemblies. Successful bidders are expected to field verify all dimensions, sizes, quantities and the material required to complete this project. Failure to do so will not relieve the successful contractor from the necessity of furnishing any and all materials that may be required, without any additional costs to the Owner.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Materials shall be inspected for damage, and the manufacturer shall be advised immediately of any discrepancies. Unsatisfactory materials are not to be used
- B. Store materials in original corrugated packaging, under cover, protected from exposure to harmful weather conditions and from direct contact with water.
 - 1. Store in position recommended by manufacturer, elevated minimum 4 inch above grade, with minimum 1/4 inch space between doors.

1.11 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide a written warranty signed by Manufacturer, Installer and Contractor, agreeing to replace, at no cost to the Owner, any doors or frames that fail in materials or workmanship, within the time period of acceptance, as indicated below. Failure of materials or workmanship includes excessive deflection, faulty operation of entrances, deterioration of finish, or construction, in excess of normal weathering, and defects in hardware, weather stripping, and other components of the work. In addition the manufacturer further certifies that they have factory installed all hardware and such hardware is also guaranteed not to come loose during the guarantee period.
- C. Warranty Time Period: Ten Years from substantial completion.
- D. Finish:
 - 1. Kynar painted aluminum: 10 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products of one of the following:
 - 1. Aluminum monumental Framed door and frames
 - a. Special-Lite, Inc. PO Box 6, Decatur, Michigan 49045.
 - a) Toll Free (800) 821-6531, Phone (269) 423-7068, Fax (800) 423-7610.

2.2 DESCRIPTION

- A. Model.
 - 1. SL-15 Wide Stile Monumental Door
- B. Door Opening Size:
 - 1. Refer to Door Schedule:
- C. Construction.
 - 1. Door Thickness:
 - a. 1-3/4".
 - 2. Stiles:
 - a. 4-3/4" wide with integral glass stop on exterior side, no snap or applied stops allowed.

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- b. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
 - c. Screw or snap in place applied caps are not acceptable.
 - d. Meeting stiles to include integral pocket to accept pile brush weather seal.
3. Rails.
- a. Top Rail Height: 6-1/2"
 - b. Bottom Rail Height: 10-1/2"
 - c. Integral panel stops on exterior side, no snap or applied stops allowed.
 - d. Aluminum Extrusions: 6063 aluminum alloys, temper of T5.
 - e. Screw or snap in place applied caps are not acceptable.
4. Corners:
- a. Mitered
 - b. Secured with 3/8" diameter full-width steel tie rod.
 - c. Weld, glue, or other methods of corner joinery are not acceptable.
5. Mid Panel.
- a. Model SL-484.
 - b. 12" high.
 - c. Core.
 - a) Poured-in-place polyurethane foam.
 - b) Laid in foam cores are not acceptable.
 - c) Foam Plastic Insulated Doors: IBC 2603.4.
 - (a) Foam plastic shall be separated from the interior of a building by an approved thermal barrier.
 - (b) Approved thermal barrier must meet the acceptance criteria of the Temperature Transmission Fire Test and Integrity Fire Test as stated in NFPA 275.
 - (c) IBC 2603.4.1.7 foam plastic insulation, having a flame spread index less than 75 and a smoke developed index of not more than 450 shall be permitted as a door core when the face is metal minimum 0.032" aluminum or 0.016" steel.
 - (d) Standard door assembly can be tested to show it meets these requirements without the use of thermal barrier. If no independent testing conducted all doors with foam plastic core must have a thermal barrier.
6. Face Sheet:
- a. Interior and Exterior.
 - a) Aluminum
 - (a) 0.125" thick smooth aluminum sheet.
7. Hardware.
- a. Refer to Section 08 7100 - DOOR HARDWARE.
 - b. Pre-machine doors in accordance with templates from specified hardware manufacturers.
 - c. Surface mounted closures will be reinforced for but not prepped or installed at factory.
 - d. Factory install door hardware.
 - e. Refer to Section 08 7100 - DOOR HARDWARE.
8. Reinforcements.
- a. Aluminum extrusions made from 6061 or 6063 aluminum alloys.
 - b. Sheet and plate to conform to ASTM-B209.
 - c. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
 - d. Bars and tubes to meet ASTM-B221.

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2.3 MATERIALS

- A. Aluminum Members.
 - 1. Aluminum extrusions made 6061 or 6063 aluminum alloys.
 - 2. Sheet and plate to conform to ASTM-B209.
 - 3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
- B. Fasteners.
 - 1. 410 stainless steel or other non-corrosive metal.

2.4 INSULATED INFILL PANELS

- A. Infill Panels: Insulated, aluminum sheet face and back, with edges formed to fit glazing channel and sealed.
 - 1. Thickness: 1", per drawings
 - 2. Exterior Skin: Aluminum 0.040 inch thick.
 - 3. Insulation Core: Isocyanurate insulation core, 1.7 lb. density with R value of 3.61/inch.
 - 4. Exterior Substrate: 3/16" inch thick, high density tempered hard board.
 - 5. Interior Substrate: 1/2" thick fire code gypsum board.
 - 6. Interior Skin: Aluminum 0.040 inch thick
 - 7. Exterior Finish: High performance organic coating.
 - 8. Interior skin: Aluminum Factory enamelled, Bright Silver Kynar 500 color.
 - 9. Warranty: 25 years.
 - 10. Product: "Mapestop" as manufactured by Mapes Architectural Panels; sales@mapes.com / www.mapespanels.com

2.5 FINISH HARDWARE:

- A. Provide and factory install finish hardware for each door leaf as specified in Section 08 8711 - Finish Hardware.
 - 1. Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule.
- B. Pull
 - 1. Special-Lite SL-84, 8-11/16" high, 6" wide, 1-3/8" recess and 1-1/2" bottom opening for FRP doors
- C. Special-Lite SL-301 Concealed adjustable brush. Install door manufacturer's multi-directional adjustable bottom with double nylon brush weatherstripping. Door bottom must be concealed and adjust to accommodate irregular tapered floor conditions.
- D. Concealed Adjustable Meeting Stile Astragal at Pairs of Doors. Install door manufacturer's adjustable astragal with double pile weather seal weatherstripping.
- E. Receive Hardware supplied in accordance with this Section, and coordinate with the Hardware requirements of this section. Report discrepancies (in writing) to the Architect immediately.
- F. Reinforce, cut, drill and tap doors and frames as required to receive Hardware, except do not drill and tap for surface mounted closers and holders, which will be applied at the jobsite. Comply with Hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.
- G. Install all Hardware, except surface mounted closers, holders, gaskets and seals at the fabrication plant. Remove only Hardware as required for final finishing or delivery to jobsite. Package and identify such Hardware and ship with doors and frames for installation at the project site.
- H. Painting: All existing surfaces to remain exposed, and all disturbed areas shall be painted to match existing surfaces.

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2.6 FABRICATION:

- A. Sizes and Profiles: The required sizes for door and frame units, and profiles requirements are shown on the drawings.
- B. The details shown are based upon standard details by one or more manufacturers. It is intended that similar details by other manufacturers will be accepted, provided they comply with size requirements, and with minimum/maximum profile requirements as shown.
- C. Co-ordination of Fabrication: Check the actual frame or door openings in the construction work by accurate field measurements before fabrication, and show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress, as directed by Contractor, and avoid delays of the work.
- D. Assembly
 - 1. Complete the cutting, fitting, forming, drilling and grinding of all metal work prior to the cleaning, finishing, treatment and application for coatings.
 - 2. Remove burrs from cut edges, and ease edges and corners to a radius of approximately 1/64"
- E. No Welding of joints will be accepted.
- F. Conceal fasteners, wherever possible, except as otherwise noted.
- G. Maintain continuity of line and accurate relation of planes and angles. Provide secure attachments and support at mechanical joints, with hairline fit at contacting members.
- H. Reinforce the work as necessary for performance requirements, and for support to the structure. Separate dissimilar metals with bituminous paint or preformed separators which will prevent corrosion. Separate metal surfaces at moving joints with non-metallic separators to prevent "freeze-up" of joints.

2.7 ACCESSORIES

- A. Foam window and door seal.
 - 1. Fill all exterior joint between windows and doors solid in accordance with manufacture's instructions.
 - 2. Cut back to permit application of joint sealant.
 - 3. Insulating-Foam Sealant: Dow Great Stuff Window & Door.
- B. Hardware: As specified in Section 08 7100.
- C. Lite Kits:
 - 1. Non Rate Doors: Provide and factory install a Special-Lite FL-Series 2 piece extruded aluminum Lite Kit. Lite as per the drawings.
 - 2. Glazing see Section 08 8000 - Glazing

2.8 FINISHES

- A. Superior Performance Organic Coating System: AAMA 2605 multiple coat, thermally cured polyvinylidene fluoride system; color as selected from manufacturer's standard colors.
- B. Frames and Door Trim:
 - 1. High-Performance Organic Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions
 - a. Fluoropolymer Two-Coat System: Manufacturer's standard two-coat thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 50% polyvinylchloride resin by weight; complying with AAMA 2604.
 - b. Color: As selected by Architect from manufacturer's full range of colors.
 - c. Provide for Frames and Door Trim.

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PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify actual dimensions of openings by field measurements before door fabrication; show recorded measurements on shop drawings.
- B. Do not begin installation until substrates have been properly prepared.

3.2 PREPARATION

- A. Remove existing doors and frames, and dispose of all removed materials in accordance with local authorities having jurisdiction.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Ensure openings to receive frames are plumb, level, square, and in tolerance.
- D. Clean and prepare substrate in accordance with manufacturer's directions.
- E. Protect adjacent work and finish surfaces from damage during installation.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions; do not penetrate frames with anchors.
- B. Install exterior doors in accordance with ASTM E2112.
- C. Install door hardware as specified in Section 08 7100.
- D. Install gaskets and seals to doors in accordance with manufacturer's instructions.
- E. Set units plumb, level, and true-to-line, without warping or racking doors, and with specified clearances; anchor in place.
- F. Set thresholds in continuous bed of sealant. Provide 4 rows minimum.
- G. Set units plumb, level and true to line, without warp or rack of doors or frames. Anchor securely in place. Separate Aluminum, and other corrodible metal surfaces, from sources of corrosion or electrolytic action at points of contact with other materials, with bituminous coatings, or other means as approved by Architect.
- H. Separate aluminum and other metal surfaces from sources of corrosion of electrolytic action at points of contact with other materials.
- I. Install perimeter foam seal in accordance with requirements specified in Section 07 9005.
 - 1. Fill all exterior spaces and joint between windows and doors solid with foam in accordance with manufacture's instructions.
 - 2. Cut back to permit application of joint sealant.
- J. Repair or replace damaged installed products.
- K. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

3.4 ADJUSTING

- A. Lubricate, test, and adjust doors to operate easily, free from warp, twist or distortion, and to fit watertight for entire perimeter.
- B. Adjust hardware for smooth and quiet operation.
- C. Adjust doors to fit snugly and close without sticking or binding.

3.5 CLEANING

- A. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance.
- B. Do not use harsh cleaning materials or methods that would damage finish.

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3.6 PROTECTION

- A. Protect installed products from damage until Date of Substantial Completion.
- B. Protect installed doors to ensure that, except for normal weathering, doors will be without damage or deterioration at time of substantial completion.
- C. Provide protective treatment and other precautions required through the remainder of the construction period, to ensure that the doors and frames will be without damage or deterioration (other than normal weathering) at the time of acceptance.

END OF SECTION

**SECTION 08 4313
ALUMINUM-FRAMED STOREFRONTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Aluminum-framed storefront, with vision glass.
- B. Internal metal reinforcement, if required.
- C. Thermal Break Units.
- D. Infill panels of metal.
- E. Perimeter sealant.
- F. Connections to building structure, including anchors, shims, fasteners, inserts, accessories and support brackets.

1.3 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 08 1116 - Aluminum Doors: Doors within aluminum storefront system.
- C. Section 08 5113 - Aluminum Windows: Operable sash within glazing system.
- D. Section 08 8000 - Glazing: Glass and glazing accessories.
- E. Section 12 4940 - Roller Shades: Attachments to framing members .

1.4 REFERENCE STANDARDS

- A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.
- B. AAMA 503 - Voluntary Specification for Field Testing of Newly Installed Storefronts, Curtain Walls and Sloped Glazing Systems; 2014.
- C. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.
- D. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- E. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- F. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- G. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- H. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.
- I. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- J. ASTM C 864 Specification for Dense Elastomeric Compression Seal Gasket and Material
- K. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014.
- L. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2016).

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- M. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015.
- N. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes; 2017.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of other components that comprise the exterior enclosure.
- B. Preinstallation Meeting: Conduct a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

1.6 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, and internal drainage details.
- C. Shop Drawings: Shop drawings shall be prepared by the manufacture Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
 - 1. Include design engineer's stamp or seal on shop drawings for attachments and anchors.
- D. Samples: Submit two samples 6 x 6 inches in size illustrating finished aluminum surface, glass, infill panels, glazing materials.
 - 1. Fabrication Sample: Of each vertical-to-horizontal intersection of aluminum-framed systems, made from 12" (304.8 mm) lengths of full-size components and showing details of the following:
 - a. Joinery.
 - b. Anchorage.
 - c. Expansion provisions.
 - d. Glazing.
 - e. Flashing and drainage
- E. Manufacturer's Certificate: Certify that the products supplied meet or exceed the specified requirements.
- F. Design Data: Provide framing member structural and physical characteristics, engineering calculations, and dimensional limitations.
- G. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.
- H. Engineering Calculations: Submit calculations prepared and certified by a professional Engineer, registered and licensed for practice in the State of New York showing compliance with specifications, including type and location of all fasteners.
 - 1. Calculations shall include, but not necessarily be limited to, the engineering analysis of a particular manufacturer of all individual and aggregate components, fastening devices, connections, and embeds of work of this section.
 - 2. Calculations shall be strictly coordinated with referenced to and submitted concurrently with shop drawings

1.7 QUALITY ASSURANCE

- A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State of New York.
- B. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least ten (10) years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience and approved by manufacturer.

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- D. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockup for type(s) of swing entrance door(s) indicated, in location(s) shown on Drawings

1.8 PRE-INSTALLATION MEETING

- A. Conduct pre installation meeting one week prior to installation.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.10 FIELD CONDITIONS

- A. Field Measurements: Verify actual dimensions of aluminum-framed storefront openings by field measurements before fabrication and indicate field measurements on Shop Drawings
- B. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.11 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a two (2) year period after Date of Substantial Completion.
- C. Provide ten (10) year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide fifteen (15) year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.
- E.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Architectural Window, Inc. Rutherford, NJ; Series 1700.

2.2 BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING

- A. Center-Set Style, Thermally-Broken:
- B. Substitutions: See Section 01 6000 - Product Requirements.
 - 1. For any product not identified as "Basis of Design", submit information as specified for substitutions.

2.3 ALUMINUM-FRAMED STOREFRONT

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
 - 1. Glazing Rabbet: For 1 inch insulating glazing.
 - 2. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 - 3. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
 - 4. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.

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5. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
6. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
7. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.

B. Performance Requirements

1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
 - a. Positive Design Wind Load: 40 lbf/sq ft. min
 - b. Negative Design Wind Load: 40 lbf/sq ft. min
 - c. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
2. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 10 psf.
3. Air Leakage: Air Leakage: The test specimen shall be tested in accordance with ASTM E 283. Air Leakage rate shall not exceed 1.6 psf (75 Pa at a static air pressure differential of 6.2 psf (300 Pa) with interior seal, or, rate shall not exceed 0.06 cfm/ft² (0.3 l/s · m²) at a static air pressure differential of 1.6 psf (75 Pa without interior seal. CSA A440 Fixed Rating.
4. Uniform Load: A static air design load of 30 psf (1436 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
5. Seismic: When tested to AAMA 501.4, system must meet design displacement of 0.010 x the story height and ultimate displacement of 1.5 x the design displacement.
6. Thermal Movements: Allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures:
 - a. Temperature Change (Range): 0 deg F (-18 deg C); 180 deg F (82 deg C).
 - b. Test Interior Ambient-Air Temperature: [75 deg F (24 deg C)] .
7. Test Performance: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5 for a minimum 3 cycles
8. Water Resistance: The test specimen shall be tested in accordance with ASTM E 331. There shall be no leakage at a minimum static air pressure differential of 10 psf (479 Pa) as defined in AAMA 501.
9. Condensation Resistance Factor of Framing: 68 frame and 68 glass (low-e), minimum, measured in accordance with AAMA 1503.
10. Condensation Resistance (I): When tested to CSA A-440, the condensation index shall not be less than:
 - a. 60frame and 62glass (low-e).
11. Environmental Product Declaration (EPD): Shall have a Type III Product-Specific EPD created from a Product Category Rule.

2.4 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
 1. Glazing Stops: Flush.

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2. Cross-Section: 2 by 4 1/2 inch nominal dimension.
- B. Glazing: See Section 08 8000.
- C. Infill Panels: Type IP-1 Insulated, aluminum sheet face and back, with edges formed to fit glazing channel and sealed.
 1. Total Nominal Thickness: 1 inch.
 2. Exterior Face Sheet: Aluminum 0.040 inch thick.
 3. Exterior substrate: 1/8" Hardboard
 4. Core: Isocyanurate insulation core with R-value of 5.
 5. Interior Substrate: Fire code gypsum
 6. Interior Skin: Aluminum 0.040 inch thick
 7. Finish: Same as storefront.
 8. Product: "Mapes-R" as manufactured by Mapes Architectural Panels; sales@mapes.com / www.mapespanels.com
- D. Operable Sash: See Section 08 5113.

2.5 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sheet Aluminum: ASTM B209/B209M.
- C. Structural Steel Sections: ASTM A36/A36M; shop primed.
- D. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated
- E. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated
- F. Exposed Flashings: Aluminum sheet, 20 gauge, 0.032 inch minimum thickness; finish to match framing members.
- G. Concealed Flashings: Stainless steel, 26 gauge, 0.0187 inch minimum thickness.
- H. Sill Flashing Sealant: Elastomeric, silicone or polyurethane, compatible with flashing material.
- I. Perimeter Sealant: Type specified in Section 07 9200 - Joint Sealants
- J. Glazing Accessories: See Section 08 8000.

2.6 FINISHES

- A. Superior Performing Organic Coatings System: Manufacturer's standard multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of aluminum extrusion and panels surfaces having minimum total dry film thickness (DFT) of 1.2 mils, 0.0012 inch.
- B. Color: As selected by Fuller and D'Angelo, P.C. from manufacturer's full range including metallics.

2.7 FABRICATION

- A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 1. Profiles that are sharp, straight, and free of defects or deformations.
 2. Accurately fit joints; make joints flush, hairline and weatherproof.
 3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
 4. Physical and thermal isolation of glazing from framing members.

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5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 6. Provisions for field replacement of glazing.
 7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- B. Storefront Framing: Fabricate components for assembly using manufacturer's standard installation instructions.
- C. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that storefront wall openings and adjoining water-resistive and/or air barrier seal materials are ready to receive work of this section.
- C. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight framed aluminum storefront system installation.
 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 2. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
 3. Proceed with installation only after unsatisfactory conditions have been corrected

3.2 INSTALLATION

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- G. Install operating sash.
- H. Install infill panels in accordance with Section 08 8000, using glazing method required to achieve performance criteria.
- I. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.3 TOLERANCES

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.
- C. Offset from Alignment: The maximum offset from true alignment between two identical members abutting end to end in line shall not exceed 1/16 inch.
- D. Diagonal Measurements: The maximum difference in diagonal measurements shall not exceed 1/8 inch.

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- E. Offset at Corners: The maximum out-of-plane offset of framing at corners shall not exceed 1/32 inch

3.4 FIELD QUALITY CONTROL

- A. Provide services of storefront manufacturer's field representative to observe for proper installation of system and submit report.
- B. See Section 01 4000 - Quality Requirements for general testing and inspection requirements.
- C. Water-Spray Test: Provide water spray quality test of installed storefront components in accordance with AAMA 501.2 during construction process and before installation of interior finishes.
 - 1. Perform a minimum of two tests in each designated area as indicated on drawings.
 - 2. Conduct tests in each area prior to 10 percent and 50 percent completion of this work.
- D. Provide field testing of installed storefront system by independent laboratory in accordance with AAMA 503 during construction process and before installation of interior finishes.
 - 1. Perform a minimum of two tests in each designated area as directed by Architect.
 - 2. Conduct tests in each area prior to 10 percent and 50 percent completion of this work.
 - 3. Field test for water penetration in accordance with ASTM E1105 with uniform static air pressure difference (Procedure A) not less than 4.18 psf.
 - a. Maximum allowable rate of water penetration in 15-minute test is 0.5 ounce that is not contained in an area with provisions to drain to exterior, or collected on surface of interior horizontal framing member.
- E. Repair or replace storefront components that have failed designated field testing, and retest to verify performance complies with specified requirements.

3.5 ADJUSTING

- A. Adjust operating hardware and sash for smooth operation.

3.6 CLEANING

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths, and take care to remove dirt from corners and to wipe surfaces clean.
- C. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.

3.7 PROTECTION

- A. Protect installed products from damage until Date of Substantial Completion.

END OF SECTION

**SECTION 08 5113
ALUMINUM WINDOWS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Exterior extruded aluminum windows with operating sash.
- B. Factory glazing.
- C. Operating hardware.
- D. Insect screens.

1.3 RELATED REQUIREMENTS

- A. Section 01 7000 - Execution
- B. Section 06 1000 - Rough Carpentry: Wood perimeter shims and blocking.
- C. Section 07 9200 - Joint Sealants: Sealing joints between window frames and adjacent construction.
- D. Section 08 4313 - Aluminum Framed Storefronts
- E. Section 08 8000 - Glazing.
- F. Section 12 2940 - Roller Shades.

1.4 DEFINITIONS

- A. Performance class designations according to AAMA/WDMA/CSA 101/I.S.2/A440-08:
 - 1. AW: Architectural.
- B. Performance grade number according to AAMA/WDMA/CSA 101/I.S.2/A440-08:
 - 1. Design pressure number in pounds force per square foot (pascals) used to determine the structural test pressure and water test pressure.
- C. Structural Test Pressure: For uniform load structural test, is equivalent to 150 percent of the design pressure.
- D. Minimum Test Size: Smallest size permitted for performance class (gateway test size) or as specified elsewhere in this section, whichever is more stringent. Products must be tested at minimum test size or at a size larger than minimum test size to comply with requirements for performance class. Downsized test reports will not be considered acceptable.

1.5 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for windows, doors, and skylights; 2017.
- B. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.
- C. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.
- D. AAMA 701/702 Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals.
- E. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- F. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.

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- G. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- H. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- I. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- J. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- K. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2013.
- L. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2002 (Reapproved 2010).
- M. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2016).
- N. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015.
- O. ASTM F588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact; 2017.

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.7 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Include component dimensions, information on glass and glazing, internal drainage details, and descriptions of hardware and accessories.
- C. Performance Validation: Provide specified performance validation before submitting shop drawings or starting fabrication.
- D. Shop Drawings: Indicate opening dimensions, elevations of different types, framed opening tolerances, method for achieving air and vapor barrier seal to adjacent construction, anchorage locations and installation requirements.
- E. Product Details: Provide full size product details showing all frame and sash details, dimensions, thermal break construction, wall thicknesses, weather-stripping details and joinery. Details must accurately reflect all glazing and hardware options specified herein
- F. Engineering Calculations: Submit calculations prepared and certified by a professional Engineer, registered and licensed for practice in the State of New York showing compliance with specifications, including type and location of all fasteners.
 - 1. Calculations shall include, but not limited to, the engineering analysis of a particular manufacturer of all individual and aggregate components, fastening devices, including fasteners for blocking, connections, and embeds of work of this section.
 - 2. Calculations shall be strictly coordinated with and referenced to details, and submitted concurrently with shop drawings
- G. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
 - 1. Evidence of AAMA Certification.
 - 2. Evidence of WDMA Certification.

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- 3. Test report(s) by independent testing agency itemizing compliance.
- H. Certificates: Certify that windows meet or exceed specified requirements.
- I. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.
- J. Maintenance Data: For operable window sash, operating hardware and finishes to include in maintenance manuals.
- K. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.
- L. Warranty: Submit manufacturer warranty and special warranty and ensure that forms have been completed in Edgemont School District's name and registered with manufacturer.
- M. Manufacturer's Certification: Provide certification stating the manufacturer and series (model) number of the product conforms to the specifications.
- N. Product Test Reports: Provide comprehensive test reports not more than four years old prepared by a qualified testing agency for each window type being used on the project. Test reports based on the use of downsized test units will not be accepted.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum ten(10) years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least five (5) years of documented experience and approved by manufacturer for installation of units required for this Project.
- C. Source Limitations: Obtain aluminum windows through one source from a single manufacturer.
- D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum windows and are based on the specific system indicated. Do not modify size and dimensional requirements.
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's written approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- E. Glazing Publications: Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.

1.9 PRE-INSTALLATION MEETING

- A. Convene one (1) week before starting work of this section at project site to review methods and procedures related to aluminum windows including, but not limited to, the following:
- B. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- C. Review, discuss, and coordinate the interrelationship of aluminum windows with other exterior wall components.
- D. Review and discuss the sequence of work required to construct a watertight and weathertight exterior building envelope.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of AAMA CW-10.
- B. Protect finished surfaces with wrapping paper or strippable coating during installation. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

1.11 FIELD CONDITIONS

- A. Field Measurements: For retrofit installations, verify aluminum window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

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1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating aluminum windows without field measurements. Coordinate wall construction to ensure that actual opening dimensions correspond to established dimensions.
- B. Do not install sealants when ambient temperature is less than 40 degrees F.
- C. Maintain this minimum temperature during and 24 hours after installation of sealants.

1.12 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Failure to meet performance requirements.
 - b. Structural failures including excessive deflection, water leakage, or air infiltration.
 - c. Faulty operation of movable sash and hardware, including balances.
 - d. Deterioration of metals or other materials beyond that which is normal.
 - e. Failure of insulating glass.
- C. Correct defective Work within a ten (10) year period after Date of Substantial Completion.
- D. Manufacturer Warranty: Provide 5-year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units. Complete forms in Edgemont School District's name and register with manufacturer.
- E. Manufacturer Warranty: Provide 20-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking. Complete forms in Edgemont School District's name and register with manufacturer.
- F. Painted Metal Finishes:
 1. Provide manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.
 2. Twenty (20) years from date of Substantial Completion for AAMA 2605 Superior Performance Finishes.

PART 2 PRODUCTS

2.1 BASIS OF DESIGN - AW PERFORMANCE CLASS WINDOWS

- A. Grade: AAMA/WDMA/CSA 101/I.S.2/A440 having Performance Class of AW, and Performance Grade at least as high as specified design pressure.
- B. Basis of Design: Architectural Window Manufacturing Corp, 359 Veterans Blvd. Rutherford, New Jersey 07070.
 1. Series 2750 Concealed Frame, and related aluminum windows to meet the AAMA performance criteria for:
 - a. AW-PG90 (casement and project-out)
- C. Other Manufacturers: Provide either the product identified as "Basis of Design" or an equivalent product of one of the manufacturers listed below: (Section 01 2500 to be submitted)
 1. Kawneer Company, Inc. 555 Guthridge Court Norcross, GA 30092, 770.449.5555.
 2. Substitutions: See Section 01 2500 Substitution Procedures

2.2 ALUMINUM WINDOWS

- A. Aluminum Windows: Extruded aluminum frame and sash, factory fabricated, factory finished, with operating hardware, related flashings, and anchorage and attachment devices.
 1. Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi (150-MPa) ultimate

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tensile strength, not less than 16,000-psi (110-MPa) minimum yield strength, and not less than 0.125-inch thickness at any location for the main frame and sash members.

2. Frame Depth: As follows:
 - a. Projected Out: 2 3/4"
 3. Provide factory-glazed units.
 4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for operating hardware and imposed loads.
 5. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
 6. Movement: Accommodate movement between window and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.
 7. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
 8. Air Infiltration: Limit air infiltration through assembly to 0.03 cu ft/min/sq ft of sash perimeter at a static air pressure differential of 6.24 psf., measured at a specified differential pressure across assembly in accordance with NFRC 400.
 9. Water Resistance: No water leakage as defined in AAMA/WDMA referenced test methods at a water test pressure equaling that indicated, when tested according to AAMA/WDMA 101/I.S.2/NAFS, Water Resistance Test.
 10. Thermal Movement: Design to accommodate thermal movement caused by 180 degrees F surface temperature without buckling stress on glass, joint seal failure, damaging loads on structural elements, damaging loads on fasteners, reduction in performance or other detrimental effects.
 11. Condensation Resistance Factor: 63 minimum for casement and 60 for casement.
 12. Thermal Transmittance Overall U-value, Including Glazing:
 - a. Project Windows: When tested to AAMA Specification 1503, the conductive thermal transmittance (U-factor) shall not be more than 0.410 BTU/hr/ft²/°F.
 - b. Outswing Casement Windows: When tested to AAMA Specification 1503, the conductive thermal transmittance (U-factor) shall not be more than 0.410 BTU/hr/ft²/°F
 13. Life Cycle Requirements: No damage to fasteners, hardware parts or other components that would render operable windows in operable and not reduction in air and water infiltration resistance when tested according to AAMA 910.
- B. In/Out Swinging and CasementType:
1. Construction: Thermally broken.
 2. Provide screens. (None at egress). insect
 3. Glazing: Insulated; Refer to Section 08 8000 - Glazing.
 4. Exterior Finish: Superior performance organic coating.
 5. Interior Finish: Superior performance organic coating or Baked enamel at contractor's option.

2.3 PERFORMANCE REQUIREMENTS

- A. Grade: AAMA/WDMA/CSA 101/I.S.2/A440 requirements for specific window type:
 1. Performance Class (PC): AW.
- B. Design Pressure (DP):
 1. Positive Design Wind Load: 40 psf.
 2. Negative Design Wind Load: 40 psf.
 3. Design and size windows to withstand the following load requirements, when tested in accordance with ASTM E330 using test loads equal to 1.5 times the design wind loads with 10 second duration of maximum load:

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4. Project Out Windows: When closed and locked, a minimum static air pressure difference of 135 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. (1.5 x Design Load).
 5. Out swinging Casement Windows: When closed and locked, a minimum static air pressure difference of 135 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. (1.5 x Design Load).
 6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, or migrating moisture occurring within system.
- C. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
- D. Water Resistance: No leakage on interior face when tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-08 or ASTM E331 at differential pressure of 20 psf of casement and projected 15 psf for double hung of static air.

2.4 COMPONENTS

- A. Frames shall be: thermally broken with interior portion of frame insulated from exterior portion; flush glass stops of snap-on type.
1. Frame/Sash Depth: 2-3/4" minimum frame depth 2-3/4" minimum sash depth.
- B. Glazing: See Section 08 8000.
- C. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated
- D. Sills: Extruded aluminum; sloped for positive wash; fit under sash leg to 1/2 inch beyond wall face; one piece full width of opening. Jamb angles to terminate sill end.
- E. Insect Screens: Extruded aluminum frame with mitered and reinforced corners; screen mesh taut and secure to frame; secured to window with adjustable hardware allowing screen removal without use of tools.
1. Extruded-Aluminum Tubular Framing Sections and Cross Braces: Not less than 0.050-inch (1.3-mm) wall thickness
 2. Hardware: Spring loaded steel pins; four per screen unit.
 3. Screen Mesh: Vinyl-coated fiberglass, window manufacturer's high-transparency mesh.
 4. Frame Finish: Same as window frame and sash.
 5. Provide wicket screen for access to operating handle on project out windows.
 - a. Use for all windows.
- F. Operable Sash Weatherstripping: Wool pile; permanently resilient, profiled to achieve effective weather seal.
- G. Compression-Type Weather Stripping: Provide compressible weather stripping designed for permanently resilient sealing under bumper or wiper action and for complete concealment when aluminum window is closed.
1. Weather-Stripping Material: Manufacturer's standard system and materials complying with AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA/WDMA/CSA 101/I.S.2/A440-17
- H. Replaceable Weather Seals: Comply with AAMA 701/702.
- I. Fasteners: Non magnetic stainless steel or other materials warranted by manufacturer to be noncorrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.
1. All fasteners must be concealed except where unavoidable for application of hardware.
 2. For application of hardware, where required, use non-magnetic stainless steel phillip flat head machine screws

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- J. Glazing Materials: As specified in Section 08 8000 - Glazing.
- K. Sealant and Backing Materials: As specified in Section 07 9200 - Joint Sealants.
- L. Structural Sealant: The structural seal and weather seal shall be a two-part structural silicone applied and cured as per the sealant manufacturer's instructions.

2.5 ACCESSORIES

- A. Rescue Labels: Windows designated on drawings as "EER" emergency escape and rescue windows shall meet all applicable codes and shall include two (2) conforming label as follows:
 - "RESCUE WINDOW
FOR EMERGENCY USE ONLY"
 - 1. Signs shall be 3" x 5" with bright yellow background with black letter.
Text shall be read from both sides
 - 2. One label shall be placed on the window by this contractor and one place on the window treatment (roller shade, horizontal blinds, etc) by the window treatment contractor and visible when the blind are closed. Coordinate with window treatment installer.
- B. Weather Stripping: Sliding-Type Weather Stripping: Provide woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric. Comply with AAMA 701/702.
 - 1. Double Hung: Sliding-Type Weather Stripping: Provide woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric. Comply with AAMA 701/702.
 - 2. Polypropylene sheet or polypropylene-coated material.
 - 3. Weather Seals: Provide weather stripping with integral barrier fin or fins of semirigid, polypropylene sheet or polypropylene-coated material.
- C. Window and Door Joint Seal: Polyurethane-based joint filler:
 - 1. UL Classified.
 - 2. Product: "Great Stuff" as manufactured by Dow Chemical.
 - a. "Gaps and Cracks: for joints less than 1".
 - b. "Big Gap Filler" for joint over 1".
 - 3. Use for all filling all spaces and joints around windows and doors located on exterior walls.
- D. Flashing: Self adhering, rubberized asphalt and high density polythene film.
 - 1. Thickness: 0.06 inch.
 - 2. Locations: Use under windows sills.
 - a. Product: Bituthene 3000 as manufactured by Owens Corning

2.6 MATERIALS

- A. Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi ultimate tensile strength, not less than 16,000-psi minimum yield strength, and not less than 0.080-inch thickness at any location for the main frame and sash members, except the frame sill which shall be a minimum of 0.125-inch
 - 1. Extruded Aluminum: ASTM B 221 (ASTM B 221M) 6063-T5 and temper (ASTM B221 G.S. 10A-T5).
- B. Concealed Steel Items: Profiled to suit mullion sections; galvanized in accordance with ASTM A123/A123M.

2.7 HARDWARE

- A. General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely lock aluminum windows and sized to

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accommodate sash or ventilator weight and dimensions. Do not use aluminum in frictional contact with other metals

- B. Locks and Latches: Designed to allow unobstructed movement of the sash across adjacent sash in direction indicated and operated from the inside only.
- C. Projected Windows:
 - 1. Hinge: Concealed four-bar friction hinge complying with AAMA 904 with adjustable-slide friction shoe; two per ventilator, stainless steel.
 - a. 4-bar hinges.
 - b. Lock: Cam-action, white bronze locking handle and keeper (2 if over 42" wide).
 - c. Limit Device: Integral adjustable stainless steel, stop (two per ventilator). Set the limit to 8".
- D. Casement Windows Provide the following operating hardware:
 - 1. Lock: Two (2) point, white bronze locking handle with strike, plus one (1) white bronze pull handle.
 - 2. Hinge: Three (3) aluminum butt hinges. (Same finish as exterior of window).
 - 3. Stay Arm: Friction adjustable 90 degree stainless steel stay arm. Two per sash, top and bottom.
 - 4. Pull Handle: 2 per sash, on interior bottom sash frame, hinge side and interior center, latch side.

2.8 FABRICATION

- A. General: Fabricate aluminum window in sizes indicated, that comply with requirements and that meet or exceed AAMA/WDMA/CSA 101/I.S.2/A440-08 performance requirements for the following window type and performance class. Include a complete system for assembling components and anchoring windows.
 - 1. All Windows: Grade AW.
 - 2. Performance Class. 100
- B. Fabricate components with smallest possible clearances and shim spacing around perimeter of assembly that will enable window installation and dynamic movement of perimeter seal.
- C. Thermally Improved Construction: Fabricate aluminum windows with an integral, concealed (products with exposed thermal barriers will not be acceptable), conductance thermal barrier; located between exterior materials and window members exposed on interior side; in a manner that eliminates direct metal-to-metal contact.
 - 1. All exterior aluminum shall be separated from interior aluminum by a rigid, structural thermal barrier. For purposes of this specification, a structural thermal barrier is defined as a system that shall transfer shear during bending and, therefore, promote composite action between the exterior and interior extrusions.
 - 2. No thermal short circuits shall occur between the exterior and interior.
 - 3. The thermal barrier shall be Engineer's INSULBAR® or equal, and consist of two glass reinforced polyamide nylon 6/6 struts mechanically crimped in raceways extruded in the exterior and interior extrusions. Poured and debridged urethane thermal barriers shall not be permitted.
 - 4. Poured and debridged urethane thermal barriers shall not be permitted.
- D. Accurately fit and secure joints and corners. Make joints flush, hairline, and weatherproof.
- E. Prepare components to receive anchor devices.
- F. Arrange fasteners and attachments to ensure concealment from view.
- G. Prepare components with internal reinforcement for operating hardware.
- H. Provide steel internal reinforcement in mullions as required to meet loading requirements.
- I. Provide internal drainage of glazing spaces to exterior through weep holes.
- J. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for

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movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.

- K. Subframes: Provide subframes with anchors for window units as shown, of profile and dimensions indicated but not less than 0.093-inch- thick extruded aluminum. Finish to match window units. Provide subframes capable of withstanding design loads of window units
- L. Glazing Stops: Provide snap-on glazing stops coordinated with Division 08 Section "Glazing" and glazing system indicated. Provide glazing stops to match sash and ventilator frames
- M. Weather Stripping: Provide full-perimeter weather stripping (2 vinyl bulb type and 1 vinyl fin type) for each operable sash and ventilator.
- N. Factory-Glazed Fabrication: Glaze aluminum windows in the factory where practical and possible for applications indicated. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA/CSA 101/I.S.2/A440-08.

2.9 FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- C. Superior Performing Organic Coatings System: Polyvinylidene fluoride (PVDF) multi-coat superior performing organic coatings system complying with AAMA 2605, including at least 70 percent PVDF resin, and at least 80 percent of aluminum extrusion and panels surfaces having minimum total dry film thickness (DFT) of 1.2 mils, 0.0012 inch.
 - 1. Color: As selected by Architect from manufacturer's standard non-mica, non-exotic, non-metallic colors. (Note: Exterior color may be different from interior color.)
 - 2. Interior of Window: In lieu of the exterior finish the following finish may be substituted for interior finish.
 - a. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Apply baked enamel complying with paint manufacturer's written instructions for cleaning, conversion coating, and painting.
 - a) Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603 Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603.
 - b) Colors: As selected by Architect from manufacturer's full line including metallics. (Note: Exterior selected color may be different from interior selected color.)
- D. Apply one coat of bituminous coating to concealed aluminum and steel surfaces in contact with dissimilar materials.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that wall openings and adjoining water-resistive barrier materials are ready to receive aluminum windows; see Section 07 2500.
- B. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate, and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weathertight window installation.
 - 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 - 2. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.

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

3.2 WINDOW INSTALLATION

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install windows in accordance with manufacturer's instructions.
- C. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- D. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
- E. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior
- F. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- G. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- H. Coordinate attachment and seal of perimeter air barrier and vapor retarder materials.
- I. Install operating hardware not pre-installed by manufacturer.
- J. Install glass in accordance with requirements specified in Section 08 8000 - Glazing .
- K. Fill all exterior spaces and joint between windows and doors solid with foam in accordance with manufacturer's instructions.
 1. Cut back to permit application of joint sealant.
- L. Install perimeter sealant in accordance with requirements specified in Section 07 9200 - Joint Sealants.

3.3 TOLERANCES

- A. Maximum Variation from Level or Plumb: 1/16 inches every 3 ft non-cumulative or 1/8 inches per 10 ft, whichever is less.

3.4 FIELD QUALITY CONTROL

- A. Provide services of aluminum window manufacturer's field representative to inspect the installation and certify that the window installation has been furnished and installed in accordance with manufacturer's instructions and as specified.
 1. Submit written report after each inspection.

3.5 ADJUSTING

- A. Adjust operating sashes and ventilators, screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weathertight closure. Lubricate hardware and moving parts

3.6 CLEANING

- A. Remove protective material from factory finished aluminum surfaces.
- B. Wash surfaces by method recommended and acceptable to window manufacturer; rinse and wipe surfaces clean.
- C. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.
- D. Remove excess glazing sealant by moderate use of mineral spirits or other solvent acceptable to sealant and window manufacturer.
- E. Clean all glass surfaces. Remove all sticker residue, fingerprints and suction cup marks.

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- F. Protection of newly installed windows and/or final cleaning of glass and aluminum to remove any accumulations that may have occurred during the construction period is to be the responsibility of the General Contractor or Owner.
- G. Comply with manufacturer's written recommendations for final cleaning and maintenance

3.7 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain window operating system

END OF SECTION

**SECTION 08 7105
FINISH HARDWARE**

PART 1 GENERAL:

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.

1.2 WORK INCLUDES:

- A. Work of this Section includes all labor, materials, equipment and services necessary to furnish all the finish hardware as shown on the drawings and specified herein.

1.3 RELATED WORK:

- A. Section 08 1116 Aluminum Doors and Aluminum Frames

1.4 REFERENCES:

- A. American National Standards Institute - ANSI 156.18 - Materials and Finishes.
- B. ANSI A117.1 - Specifications for making buildings and facilities usable by physically handicapped people.
- C. BHMA - Builders Hardware Manufacturers Association.
- D. DHI - Door and Hardware Institute.
- E. New York State Building Code.
- F. NAAM - National Association of Architectural Metal Manufacturers.

1.5 QUALITY ASSURANCE:

- A. Hardware: shall be suitable and adapted for its required use and shall fit its designated location. Should any hardware as shown, specified or required fail to meet the intended requirements or require modification to suit or fit the designated location, determine the correction or modification necessary and notify the Architect in ample time to avoid delay in the manufacture and delivery of hardware.
- B. Hardware Supplier Qualifications: The Hardware Supplier shall have been regularly engaged in the sale and distribution of Finish Hardware for projects of comparable scope and size for a minimum of five (5) years. The Hardware Supplier shall have an AHC of the Door and Hardware Institute on staff who will be responsible for overseeing the scheduling, detailing, ordering, and coordinating of Finish Hardware, and shall be available for consultation with the Architect, at no additional cost to the Owner, during progress of construction. The Hardware Supplier shall be a direct factory authorized distributor for all Finish Hardware items being furnished in accordance with this Specification.

1.6 SUBMITTALS:

- A. Submittals: shall be in accordance with Conditions of the Contract, Division 1, and Specification sections.
- B. Hardware submission: Submit hardware schedule in vertical format as illustrated by the "Sequence and Format for Hardware Schedule" pamphlet published by the Door and Hardware Institute. Schedules which do not comply will be returned for correction before checking.
- C. Hardware schedule shall clearly indicate architect's hardware set and manufacturer of each item proposed.
- D. Hardware Supplier shall provide all product information, wiring diagrams, and electrical data to the Electrical Contractor.

1.7 PRODUCT HANDLING:

- A. Pack finish hardware in manufacturer's containers, complete with trimmings, bolts, screws, washers, etc., as required for application. Each container shall bear a suitable label which shall state the quantity and kind of contents of said container, as well as identifying marks relating to the approved Hardware Schedule and its location in the project.

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1. Knobs, handles, pulls and other items of finish hardware with easily damaged finishes shall be individually wrapped before placing in containers and with sufficient sheet cloth or cotton-backed paper which shall be adequately secured all as necessary to protect the finishes.
2. Finish hardware shall be delivered, as directed, to the building site or the factories of the various fabricators of metal or wood work to which such hardware is to be applied. Deliver hardware in the order required and in ample time to permit application at the building, or fabricators' shops, within the time required for the completion of the building.

1.8 JOB CONDITIONS:

- A. Templates: Promptly following approval of the Hardware Schedule by the Architect, furnish and deliver template information, to the fabricators, of items to which finish hardware is to be applied.
 1. Such deliveries shall be made in ample time to avoid delays in such work of said fabricators. Provide drawings, schedules and detailed information to other trades as necessary for them to accommodate and prepare their work to receive the finish hardware.
- B. Existing Conditions: Verify all existing conditions in the field to ensure compatibility with hardware specified in the Hardware Sets herein. Any discrepancies between the existing field conditions and hardware specified shall be brought to the attention of the Architect immediately. Hardware Supplier shall not order any hardware until all discrepancies are rectified and the Architect grants written approval.

PART 2 PRODUCTS:

2.1 GENERAL:

- A. Requirements for design, grade, function, finish, size and other distinctive qualities of each type of finish hardware are indicated herein. Products are identified by using appropriate hardware designation numbers.

2.2 MANUFACTURERS:

- A. Provide hardware as indicated in hardware sets. Products other than those listed in the sets may be considered, provided that they are proven to be of equal quality and have equal performance to those products specified. See product description for each type of product for details on performance and quality requirements. The architect reserves the right to review and approve all proposed equivalents.

2.3 HANGING MEANS:

- A. Continuous Hinges:
 1. For interior or exterior doors up to 450lbs, and 4'-0" wide.
 2. To be constructed of extruded aluminum 6063-T6 alloy with thermoplastic polyester bearings.
 3. Shall meet ANSI/BHMA A156.25.
 4. Provide 12-24 x 1/2" steel self tapping screws and #12 x 1 1/2" Flathead Wood Screws, unless otherwise specified.
 5. Hinge Series: Ives 112HD , as specified in hardware sets.

2.4 EXIT DEVICES:

- A. Exit Devices shall be touch bar type, as specified in hardware sets.
 1. Furnish stainless steel touch bars on all exit devices
 2. Touch bar and touch bar end caps shall overlap the mechanism case.
 3. Touch bar sub assembly shall be minimum .160" thick, with minimum .060 supports.
 4. Touch bar surface shall be minimum 2-1/4" high x 18" long for 36" doors, and minimum 2-1/4" high x 24" long for doors wider than 36".
 5. Exit device touch bars shall be equipped with a fluid sound dampening feature.
- B. Rim and Mortise type devices shall have 3/4" throw latch bolt. Surface and Concealed Vertical Rod devices shall have 5/8" throw latch bolts.
 1. Latch bolt security deadlocking shall be standard.

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- C. Furnish roller strikes, which interlock the door to the frame (499F) for all rim devices and surface vertical rod devices, unless noted otherwise.
- D. All internal springs shall be compression type.
- E. Furnish all necessary Glass Bead Kits where exit device may interfere with raised glass beads on doors.
- F. Certifications:
 - 1. Devices shall be Underwriters Laboratories™ listed for Panic Hardware (FVSR) SA163
 - 2. Fire Devices shall be Underwriters Laboratories™ listed Fire Exit Hardware (GXHX) R4501, A Label
 - 3. Cycle Testing: Exit devices shall be certified by an independent testing lab for 1,000,000 cycles.
- G. Exit Device Series & Design: Von Duprin 99 series exit devices with outside trim as specified in hardware sets.

2.5 CLOSERS:

- A. All surface closers shall exceed ANSI A156.4 Grade 1 requirements in all aspects as called for below. All closers shall have certification by an independent testing laboratory of 10,000,000 cycles without failure.
- B. Closer cylinders shall be cast iron. Closer pinions shall be dual heat treated. Pinion and piston shall be steel alloy. Piston diameter shall be minimum 1-1/2".
- C. Closers shall be barrier free with spring tension adjustable from size 1 to size 5.
- D. Closers shall maintain control of the door in all conditions. Closers shall have 3 non critical adjusting valves: latch, main and backcheck. Backcheck shall take effect at 45 (AVB) degrees of opening for parallel arm closers and 70 degrees for regular arm closers. Closers with pressure relief valves are not acceptable.
- E. All closers shall have forged main arms. Forearms of parallel arm closers shall be forged. Parallel arm brackets shall be forged. All parallel arm joints shall have bronze bushings with minimum 5/8" diameter pins. Cylinders, arms, brackets and mounting plates shall be powder coated.
- F. Provide all plates, brackets and special templates when needed for interface with particular header, door and wall conditions and neighboring hardware. Consult factory for special template ("ST" suffix to closer number) pricing.
- G. All closers shall be installed so that closer bodies are positioned on room side of doors to and from corridors. Out-swing doors shall have an extra heavy duty parallel arm (EDA). Parallel arm shall be used on connecting doors between rooms.
- H. All exterior closers shall have all weather fluid that does not require seasonal adjustment to control speed of door, and shall exhibit the same viscosity from -30 ° F to +120° F.
- I. All closers shall have a powder coated aluminum finish on cylinder, arm and accessories. There shall be a full metal, powder coated cover.
- J. Furnish all brackets, drop plates and any other necessary hardware required to insure proper installation.
- K. All Closers shall comply with UL 10C requirements for positive pressure testing.
- L. All closers shall be of one manufacturer's products. All closers shall be inspected after installation by a factory representative to insure proper adjustment and operation.
- M. Closer Series: LCN 4040XP series.

2.6 PROTECTION PLATES:

- A. All kick plates and mop plates unless otherwise noted shall be 8" high x 2" less door width (LDW), beveled three sides x .050 thick

2.7 WEATHER SEALS AND THRESHOLDS:

- A. Weather Seals and Thresholds: Zero as Scheduled.

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- B. Perimeter seals: shall be of compressible black Neoprene material. Housing shall be solid alum stock. Furnish seals on three sides of the opening. Coordinate the amount of material is required in each specified opening.
- C. Seals shall be mechanically fastened to door frame.
- D. Door sweeps: shall be extruded aluminum and black neoprene sweep.
 - 1. Fasten door sweeps with wood screws for wood doors and sheet metal screws for hollow metal and fiberglass reinforced doors.
 - 2. Door sweep shall be 1 ¼” in overall height with a ½” high neoprene sweep.
 - 3. Mount door sweep on the exterior side of the door, with the neoprene engaged with the threshold or finish floor.
- E. Thresholds: shall be extruded aluminum meeting ADA requirements. They shall not exceed ¼” in height with a wall thickness of .125” unless specified otherwise. Coordinate templates for any and all hardware, which may require cutouts or slots within the threshold for the proper installation of that hardware.
 - 1. Furnish threshold with non-slip epoxy abrasive bonded within the grooves of the threshold.
 - 2. Thresholds shall extend a minimum of 1” past the exterior face of the door, and have returned closed ends.
 - 3. Set all thresholds in grout, and seal with silicone caulk.
 - 4. Fasten thresholds with expansion shield mounting at masonry sub-straight locations, and wood screws at wood substrate locations.

2.8 KEY REQUIREMENTS:

- A. Final keying: requirements to be determined by the Owner. A meeting must take place between the owner, the end user, the owner's representative, and the hardware distributor prior to cylinders being ordered, to establish the keying requirements and required keyway. Tie into the existing Best Access Key System.
- B. Interchangeable Cores: Match existing school system.
- C. Provide Concealed Key Control (CKC) keyset symbol stamping on the side of each master keyed core. Provide visual key control for all operating and master keys.
- D. Construction keying: provide brass keyed-alike temporary cores for all cylinders.
- E. Provide: Three change keys for each keyed lock. Provide control keys for construction cores, and control keys for permanent cores.

PART 3 EXECUTION:

3.1 PREPARATION:

- A. Verify that doors and frames are ready to receive work; doors and frames are present and properly installed, and dimensions are as indicated on shop drawings.
- B. Ensure that walls and frames are square and plumb before hardware installation.
- C. The installer shall notify the architect, in writing, of all unacceptable condition that could affect the proper operation of the finish hardware.
- D. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
- E. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.

3.2 INSTALLATION:

- A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation.
 - 1. Unless otherwise specified, locate all hardware in accordance with the recommended locations for builders hardware for standard doors and frames as published by the Door and Hardware Institute.

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2. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
3. Unless otherwise specified or detailed, install thresholds with the bevel in vertical alignment with the outside door face. Notch and closely fit thresholds to frame profile. Set thresholds in full bed of sealant.
4. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
5. Shim doors as required to maintain proper operating clearance between door and frame.
6. Use only fasteners supplied by or approved by the manufacturer for each respective item of hardware.
7. Where necessary, adjust doors and hardware as required to eliminate binding between strike and latchbolt. Doors should not rattle.
8. Adjust spring power of door closers to insure exterior and fire rated doors will consistently close and latch doors under existing conditions. Adjust all other door closers to insure opening force does not exceed 5 lbs.
9. Adjust "sweep", "latch", & "back check" valves on all door closers to properly control door throughout the opening and closing cycle. Adjust total closing speed as required to comply with all applicable state and local building codes.
10. Deliver to the owner 1 complete set of installation and adjustment instructions, and tools as furnished with the hardware.

3.3 QUALITY ASSURANCE:

- A. After installation has been completed, the hardware supplier and manufacturers representative for locksets, door closers, exit devices, and overhead stops shall check the project and verify compliance with installation instructions, adjustment of all hardware items, and proper application according to the approved hardware schedule. Provide a written report, with itemized confirmation, by hardware supplier listing all hardware that has not been installed correctly.

3.4 ADJUSTING AND CLEANING:

- A. Adjust and check for proper operation and function. Replace units which cannot be adjusted to operate freely and smoothly.
- B. At final completion, and when H.V.A.C. equipment is in operation, installer shall make final adjustments to and verify proper operation of all door closers and other items of hardware. Lubricate moving parts with type lubrication recommended by the manufacturer.
- C. All hardware shall be left clean and in good operation. Hardware found to be disfigured, defective, or inoperative shall be repaired or replaced.
- D. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of space or area, return to work during week prior to acceptance or occupancy, and make final check and adjustment of hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors.

3.5 PROTECTION:

- A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.6 SCHEDULE OF FINISH HARDWARE:

- A. See door schedule in drawings for hardware set assignments.

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Hardware Group No. 01

Provide each SGL door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
1EA	CONT. HINGE	112HD	628	IVE
1EA	PANIC HARDWARE	99-NL-CD 626	VON	
2EA	PERM CORE	LFIC	626	BEST
1EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
1EA	KICK PLATE	8400 8" X 2" LDW	630	IVE
1EA	HEAD SEAL	429A	AL	ZER
2EA	JAMB SEAL	429A	AL	ZER
1EA	DOOR SWEEP	8198AA	AL	ZER
1EA	THRESHOLD	566A MSLA-10	AL	ZER
1EA	ELEC. STRIKE	6300 (verify voltage)	630	VON (Door 01)

Pull by door manufacturer.

Hardware Group No. 02

Provide each Pair door(s) with the following:

Qty	Description	Catalog Number	Finish	Mfr
2EA	CONT. HINGE	112HD	628	IVE
1EA	PANIC HARDWARE	99-NL-CD	626	VON
1EA	PANIC HARDWARE	99-EO-CD	626	VON
5EA	PERM CORE	LFIC	626	BEST
2EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
2EA	KICK PLATE	8400 8" X 2" LDW	630	IVE
1EA	REM. MULLION	KR-4954		VON
1EA	HEAD SEAL	429A	AL	ZER
2EA	JAMB SEAL	429A	AL	ZER
1EA	DOOR SWEEP	8198AA	AL	ZER
1EA	THRESHOLD	566A MSLA-10	AL	ZER
1EA	ELEC. STRIKE	6300 (verify voltage)	630	VON (Door 01)

Pulls by door manufacturer.

END OF SECTION

**SECTION 08 8000
GLAZING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.
- B. All glazing specified herein is to be incorporated in the sections for window and doors provisions.

1.2 SECTION INCLUDES

- A. Insulating glass units.
- B. Glazing compounds.

1.3 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants: Sealants for other than glazing purposes.
- B. Section 08 116 - Aluminum Doors and Aluminum Frames
- C. Section 08 4313 - Aluminum-Framed Storefronts: Glazing provided as part of storefront assembly.
- D. Section 08 5113 - Aluminum Windows

1.4 DEFINITIONS

- A. Manufacturer: A firm that produces primary glass or fabricated glass as defined in referenced glazing publications.
- B. Interspace: Space between lites of an insulating-glass unit that contains dehydrated air or a specified gas.
- C. Sealed Insulating Glass Unit Surface Designations:
 - 1. Surface 1 - Exterior surface of the outer glass lite.
 - 2. Surface 2 - Interspace surface of the outer glass lite.
 - 3. Surface 3 - Interspace surface of the inner glass lite.
 - 4. Surface 4 - Interior surface of the inner glass lite.
- D. Deterioration of Insulating Glass: Failure of the hermetic seal under normal use that is attributed to the manufacturing process and not to causes other than glass breakage and practices for maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1.5 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; current edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015.
- C. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; 2005 (Reapproved 2015).
- D. ASTM C1036 - Standard Specification for Flat Glass; 2016.
- E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
- F. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.
- G. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass; 2015.
- H. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings; 2016.
- I. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes; 2017.
- J. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; 2010.

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- K. GANA (SM) - GANA Sealant Manual; 2008.
- L. NFRC 100 - Procedure for Determining Fenestration Product U-factors; 2017.
- M. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence; 2014, with Errata (2017).
- N. NFRC 300 - Test Method for Determining the Solar Optical Properties of Glazing Materials and Systems; 2017.

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by each of the affected installers.

1.7 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data on Insulating Glass Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
- C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
- D. Samples: Submit two samples 12 by 12 inch in size of glass units.
- E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Edgemont School District's name and registered with manufacturer.

1.8 QUALITY ASSURANCE

- A. Perform Work in accordance with GANA (SM) and GANA (LGRM) for glazing installation methods.
- B. Safety Glazing Products: Comply with testing requirements in 16 CFR 1201 and, Insulating Glass Manufacturers Alliance ANSI Z97.1.
 - 1. Subject to compliance with requirements, obtain safety glazing products permanently marked with certification label of the Safety Glazing Certification Council or another certification agency acceptable to authorities having jurisdiction.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten (10) years of documented experience.
- D. Installer Qualifications: Company specializing in performing work of the type specified and with at least five (5) years documented experience and approved by manufacturer.
 - 1. Installer of security glass shall be approved by the manufacturer.
- E. Source Limitations for Glass: Obtain the following through one source from a single manufacturer for each glass type:
 - 1. Insulating Glass: Obtain insulating-glass units from one manufacturer using the same type of glass and other components for each type of unit indicated.
 - 2. Glazing Accessories: Obtain glazing accessories from one source for each product and installation method indicated.
- F. Insulating Glass products are to be permanently marked either on spacers or at least one component lite of units with appropriate certification label of inspecting and testing agency indicated below:
 - 1. Single Source fabrication responsibility: All fabrication processes, including Low E and reflective coatings, insulating, laminating, silkscreen, and tempering, shall be fabricated by a single Fabricator.
 - 2. Glass fabricator to have 10 years of experience and meet ANSI / ASQC Q9002 1994.
 - 3. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

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1.9 DELIVERY, STORAGE, AND HANDLING

- A. Protect glazing materials according to manufacturer's written instructions and as needed to prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

1.10 FIELD CONDITIONS

- A. Do not install glazing when ambient temperature is less than 40 degrees F.

1.11 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a five (5) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.
- C. Coated-Glass Products: Manufacturer's standard form, made out to the glass fabricator, in which the coated glass manufacturer agrees to replace coated glass units that deteriorate during normal use within the specified warranty period. Deterioration of the coated glass is defined as peeling and/or cracking, or discoloration that is not attributed to glass breakage, seal failure, improper installation or cleaning and maintenance that is contrary to the manufacturer's written instructions.
 - 1. Warranty Period: five (5) from date of Substantial Completion

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES

- A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
 - 1. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
 - 2. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
 - 3. Glass thicknesses listed are minimum.
- B. Weather-Resistive Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure water-resistive barrier, vapor retarder, and/or air barrier.
 - 1. In conjunction with weather barrier related materials described in other sections, as follows:
- C. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
 - 1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
 - 2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
 - 3. Solar Optical Properties: Comply with NFRC 300 test method.

2.2 GLASS MATERIALS

- A. Float Glass: Provide float glass based glazing unless otherwise indicated.
 - 1. Kind FT - Fully Tempered Type: Complies with ASTM C1048.
 - 2. Fully Tempered Safety Glass: Complies with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.

2.3 INSULATING GLASS UNITS

- A. Insulating Glass Units: Types as indicated.
 - 1. Durability: Certified by an independent testing agency to comply with ASTM E2190.

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2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
 3. Metal-Edge Spacers: Aluminum, bent and soldered corners.
 4. Spacer Color: Aluminum.
 5. Edge Seal:
 - a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
 - b. Color: Black.
 6. Purge interpane space with dry air, hermetically sealed.
- B. Insulating Glass Units: Vision glass, double glazed.
1. Applications: Exterior glazing unless otherwise indicated.
 2. Space between lites filled with argon.
 3. Outboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.
 - a. Tint: Clear.
 - b. Coating: Low-E (passive type), on #2 surface.
 4. Metal edge spacer.
 5. Inboard Lite: Fully tempered float glass, 1/4 inch thick, minimum.
 - a. Tint: Clear.
 6. Total Thickness: 1 inch.
 7. Thermal Transmittance (U-Value), Summer - Center of Glass: 0.38, nominal. fixed unit.
 8. Visible Light Transmittance (VLT): 85 percent, nominal.
 9. Solar Heat Gain Coefficient (SHGC): 0.36, nominal.
 10. Glazing Method: Dry glazing method, gasket glazing.
 11. Use for all windows and exterior doors

2.4 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch by width of glazing rabbet space minus 1/16 inch by height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Continuous by one half the height of the glazing stop by thickness to suit application, self adhesive on one face.
- C. Glazing Clips: Manufacturer's standard type.

PART 3 EXECUTION

3.1 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- C. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

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3.3 INSTALLATION, GENERAL

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.
- D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
- F. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, etc.
- G. Manufacturer's standard factory-glazing system that produces weather tight seal. Refer to Section 08 1613 Fiberglass Doors & Aluminum Frames and Section 08 5113 Aluminum Windows.

3.4 CLEANING

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations

3.5 PROTECTION

- A. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION

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**SECTION 09 9000
PAINTING AND COATING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface preparation.
- B. Interior painting and coating systems.
- C. Exterior painting and coating systems.
- D. Scope:
 - 1. Paint all finish surfaces exposed to view that are newly installed, noted to be painted, or any surfaces disturbed by construction activities, unless fully factory-finished and unless otherwise indicated.
 - a. Interior:
 - a) Drywall: Walls, ceilings, gypsum board, and similar items.

1.2 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. SSPC-SP 2 - Hand Tool Cleaning; 1982, with Editorial Revision (2004).
- C. SSPC-SP 3 - Power Tool Cleaning; 1982, with Editorial Revision (2004).

1.3 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Product characteristics.
 - 2. Surface preparation instructions and recommendations.
 - 3. Primer requirements and finish specification.
 - 4. Storage and handling requirements and recommendations.
 - 5. Application methods.
 - 6. Clean-up information.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience and approved by manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, product name, product code, color designation, VOC content, batch date, environmental handling, surface preparation, application, and use instructions.
- C. Paint Materials: Store at a minimum of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.6 FIELD CONDITIONS

- A. Do not apply materials when environmental conditions are outside the ranges required by manufacturer.
- B. Follow manufacturer's recommended procedures for producing the best results, including testing substrates, moisture in substrates, and humidity and temperature limitations.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Products: Subject to compliance with requirements, provide Sherwin-Williams Company (The) products indicated; www.sherwin-williams.com/#sle.
- B. Comparable Products: Products of approved manufacturers will be considered in accordance with 01 6000 - Product Requirements, and the following:

2.2 PAINTINGS AND COATINGS

- A. General:
 - 1. Provide factory-mixed coatings unless otherwise indicated.
 - 2. Do not reduce, thin, or dilute coatings or add materials to coatings unless specifically indicated in manufacturer's instructions.
- B. Volatile Organic Compound (VOC) Content:
 - 1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
- C. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

2.3 Paint Systems - Exterior

- A. Metal, Miscellaneous: ferrous metal.
 - 1. Latex Systems:
 - a. Semi-Gloss Finish:
 - a) 1st Coat : Sherwin-Williams Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series: www.sherwin-williams.com/#sle.
(a) 5 to 10 mils wet, 1.8 to 3.6 mils dry per coat.
 - b) 2nd and 3rd Coat: Sherwin-Williams Pro Industrial Acrylic Semi-Gloss, B66-650 Series: www.sherwin-williams.com/#sle.

2.4 Paint Systems - INTERIOR

- A. Drywall: Walls, ceilings, gypsum board, and similar items.
 - 1. Latex Systems:
 - a. Eg-Shel Finish Scuff Resistant Waterbase Enamel:
 - a) 1st Coat: Sherwin-Williams ProMar 200 Zero VOC Interior Latex Primer, B28W2600: www.sherwin-williams.com/#sle.
(a) 4 mils wet, 1.5 mils dry per coat.
 - b) 2nd and 3rd Coat: Sherwin-Williams Scuff Tuff Interior Waterbased Enamel, Matte, S24-50 Series: www.sherwin-williams.com/#sle.
(a) 4 mils wet, 1.2 mils dry per coat.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Test shop-applied primer for compatibility with subsequent cover materials.

3.2 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

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- C. Remove mildew from impervious surfaces by scrubbing with solution of water and bleach. Rinse with clean water and allow surface to dry.
- D. Gypsum Board: Fill minor defects with filler compound; sand smooth and remove dust prior to painting.
- E. Ferrous Metal:
 - 1. Shop-Primed and previously painted Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
 - 2. Remove rust, loose mill scale, and other foreign substances using methods recommended by paint manufacturer and power tool cleaning in accordance with SSPC-SP-3.. Protect from corrosion until coated.

3.3 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions.
- B. Apply coatings at spread rate required to achieve manufacturer's recommended dry film thickness.

3.4 Priming

- A. Apply primer to all surfaces unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.
- B. Primers specified in painting schedules may be omitted on items factory primed or factory finished items if acceptable to top coat manufacturers.

3.5 Cleaning

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.
- B. Clean surfaces immediately of overspray, splatter, and excess material.
- C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

3.6 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

SECTION 12 2400
WINDOW SHADES - MECHOSHADE SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Manual roller shades and accessories.

1.2 REFERENCE STANDARDS

- A. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; 2015.
- B. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films; 2015.
- C. WCMA A100.1 - Safety of Window Covering Products; 2018.

1.3 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product to be used including materials, finishes, fabrication details, dimensions, profiles, mounting requirements, and accessories.
- C. Selection Samples: Include fabric samples in full range of available colors and patterns.
- D. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- E. Operation and Maintenance Data: List of all components with part numbers, and operation and maintenance instructions; include copy of shop drawings.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of this type with minimum ten years of documented experience with shading systems of similar size, type, and complexity; manufacturer's authorized representative.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver shades in manufacturer's unopened packaging, labeled to identify each shade for each opening.
- B. Handle and store shades in accordance with manufacturer's recommendations.

1.6 FIELD CONDITIONS

- A. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's standard, non-depreciating warranty, for interior shading only, covering the following:
 - 1. Shade Hardware: 10 years unless otherwise indicated.
 - 2. Shade Fabric: 10 years unless otherwise indicated.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: MechoShade Systems LLC; www.mechoshade.com/#sl.
- B. Substitutions: See Section 01 6000 - Product Requirements.

2.2 ROLLER SHADES

- A. General:

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1. Provide shade system components that are capable of being removed or adjusted without removing mounted shade brackets.
 2. Provide shade system that operates smoothly when shades are raised or lowered.
- B. Roller Shades - Basis of Design: MechoShade Systems LLC; Mecho/5 System; www.mechoshade.com/#sle.
1. Description: Single roller, manually operated fabric window shades.
 - a. Provide universal drive capability to offset drive chain for reverse roll or regular roll shades.
 - b. Drop Position: Regular roll.
 2. Brackets and Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
 - a. Material: Steel, 1/8 inch thick.
 3. Roller Tubes:
 - a. Material: Extruded aluminum.
 - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
 - c. Fabric Attachment: Utilize extruded channel in tube to accept vinyl spline welded to fabric edge. Shade band to be removable and replaceable without removing roller tube from brackets or inserting spline from the side of the roller tube.
 - d. Roller tubes to be capable of being removed and reinstalled without affecting roller shade limit adjustments.
 4. Hembars: Designed to maintain bottom of shade straight and flat.
 - a. Style: Full wrap fabric covered bottom bar, flat profile with heat sealed closed ends.
 5. Clutch Operator: Manufacturer's standard material and design integrated with bracket/brake assembly.
 - a. Provide a permanently lubricated brake assembly mounted on a oil-impregnated hub with wrapped spring clutch.
 - b. Brake must withstand minimum pull force of 50 pounds in the stopped position.
 - c. Mount clutch/brake assembly on the support brackets, fully independent of the roller tube components.
 6. Drive Chain: Continuous loop stainless steel beaded ball chain, 95 pound minimum breaking strength. Provide upper and lower limit stops.
 - a. Chain Retainer: Chain tensioning device complying with WCMA A100.1.
 7. Accessories:
 - a. Fascia: Removable extruded aluminum fascia, size as required to conceal shade mounting, attachable to brackets without exposed fasteners; clear anodized finish.
 - a) Fascia to be capable of installation across two or more shade bands in one piece.
 - b) Provide single fascia to accommodate regular roll shades.
 - c) Configuration: Captured, fascia stops at captured bracket end.

2.3 Shade FABRIC

- A. Fabric: Non-flammable, color-fast, impervious to heat and moisture, and able to retain its shape under normal operation.
1. Material Composition:
 - a. 100 percent TPO coated polyolefin yarn.
 2. Performance Requirements:
 - a. Flammability: Pass NFPA 701 large or small scale test.
 - b. Fungal Resistance: No growth when tested according to ASTM G21.
 3. Products:

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- a. MechoShade Systems LLC Inc; ThermoVeil Basket Weave - 1500 Series (3% open):
www.mechoshade.com/#sle.

2.4 Roller Shade FABRICATION

- A. Field measure finished openings prior to ordering or fabrication.
- B. Dimensional Tolerances: Fabricate shades to fit openings within specified tolerances.
 - 1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch space between bottom bar and window stool.
 - 2. Horizontal Dimensions - Inside Mounting: Provide symmetrical light gaps on both sides of shade not to exceed 3/4 inch total.
- C. At openings requiring continuous multiple shade units with separate rollers, locate roller joints at window mullion centers; butt rollers end-to-end.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine finished openings for deficiencies that may preclude satisfactory installation.
- B. Start of installation shall be considered acceptance of substrates.

3.2 PREPARATION

- A. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under the project conditions.
- B. Coordinate with window installation and placement of concealed blocking to support shades.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings, using mounting devices as indicated.
- B. Replace shades that exceed specified dimensional tolerances at no extra cost to Edgemont School District.
- C. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric. Ensure smooth shade operation.

3.4 CLEANING

- A. Clean soiled shades and exposed components as recommended by manufacturer.
- B. Replace shades that cannot be cleaned to "like new" condition.

3.5 PROTECTION

- A. Protect installed products from subsequent construction operations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 12 3600
SOLID SURFACING WINDOW SILLS AND COUNTERTOPS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Window Stools.
- B. Countertops for manufactured casework.

1.3 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry for plywood substrate.
- B. Section 12 3200 - Plastic Laminated Casework.

1.4 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2018b.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2016).

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Specimen warranty.
- C. Shop Drawings: Complete details of materials and installation .
- D. Verification Samples: For each finish product specified, minimum size 6 inches square, representing actual product, color, and patterns.
- E. Test Reports: Chemical resistance testing, showing compliance with specified requirements.
- F. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of countertop surfaces.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.
- B. Manufacturer: Company specializing in manufacturing the products specified in this section, with minimum ten years of documented experience.

1.7 MOCK-UP

- A. Provide mockup for window stools.
- B. Should mock-up not be approved, rework or remake until approval is secured. Remove rejected units from Project site.
- C. Approved mock-up will be used as standard for acceptance of subsequent work.
- D. See Section 01 4000 - Quality Requirements for additional requirements.
- E. Locate where directed.
- F. Mock-up may remain as part of the Work.

1.8 DELIVERY, STORAGE, AND HANDLING

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

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- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 FIELD CONDITIONS

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

1.10 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Manufacturer Warranty: Provide manufacturer's standard warranty for material only for period of 10 years against defects and/or deficiencies.
- C. Correct defective Work within a two year period after Date of Substantial Completion, at no additional cost to Edgemont School District. Defects include, but are not limited to:
 - 1. Cracks.
 - 2. Discoloration or lack of finish integrity.
 - 3. Failure of adhesives.

PART 2 PRODUCTS

2.1 WINDOW STOOL AND COUNTERTOP ASSEMBLIES

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Solid Surfacing Window Countertops and Stools: Solid surfacing sheet or plastic resin casting over continuous substrate:
 - 1. Flat Sheet Thickness: 1/2 inch, minimum.
 - 2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
 - a. Manufacturers:
 - a) Dupont: www.corian.com.
 - b) Substitutions: See Section 01 2500 Substitution Procedures.
 - b. Surface Burning Characteristics: Flame spread 25, maximum; smoke developed 25, maximum; when tested in accordance with ASTM E84.
 - c. Finish on Exposed Surfaces: Polished, gloss rating of 55 to 80.
 - d. Color and Pattern: As indicated on finish schedule.
 - e. Exposed Edge Treatment: Built up to minimum 1 inch thick; radiused edge.
 - f. Fabricate in accordance with manufacturer's standard requirements.

2.2 MATERIALS

- A. Plywood for Supporting Substrate: 1 Exterior Grade, A-C veneer grade, minimum 5-ply; minimum 1/2 inch thick; join lengths using metal splines.
- B. Adhesives: Chemical resistant waterproof adhesive as recommended by manufacturer of materials being joined.
- C. Joint Sealant: Mildew-resistant silicone sealant, color as selected..
 - 1. Mildew resistant conforming to FDA NSF 51, UL listed.
- D. Joint Sealant: Refer to Section 07 9200 - Joint Sealants.

2.3 FABRICATION

- A. Field measure and verify all dimensions before fabrication is complete.

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- B. Solid Surfacing: Fabricate tops up to 72 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions. Form joints between components to be non conspicuous. Locate joints at window mullions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Fuller and D'Angelo, P.C. of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Verify dimensions of all existing countertops to be replaced.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Attach solid surfacing window stools using compatible silicone bonding material.
- B. Seal joint between window stools back and end splashes and adjacent surfaces.
- C. Provide products in largest pieces available.
- D. Cut and finish edges with clean sharpe returns.
- E. Provide radius at outside corners.
- F. Dress joints smooth, remove surface scratches and clean entire surfaces.
- G. Install to comply with all manufactures written instructions, including for adhesive, sealers, fabrication and finishing.

3.4 TOLERANCES

- A. Variation From Horizontal: 1/8 inch in 10 feet, maximum.

3.5 CLEANING

- A. Clean surfaces thoroughly. Remove adhesives, sealant and other stains.

3.6 PROTECTION

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

END OF SECTION

**SECTION 32 1216
ASPHALT PAVING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Asphalt Repairs.
- B. Hot mix asphalt overlay.

1.3 RELATED REQUIREMENTS

- A. Section 32 1823 - Asphalt Tennis Court Surface Color Coating System.

1.4 REFERENCE STANDARDS

- A. AI MS-2 - Asphalt Mix Design Methods; 2015.
- B. Asphalt-Paving Publication: Comply with AI MS-22, "Construction of Hot Mix Asphalt 1. Pavements," unless more stringent requirements are indicated.
- C. AI MS-19 - Basic Asphalt Emulsion Manual; 2008.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B. Material Test Reports: For each paving material.
- C. Material Certificates: For each paving material, signed by manufacturers.

1.6 QUALITY ASSURANCE

- A. Manufacturer shall be a paving-mix manufacturer registered with and approved by the New York DOT.
- B. Obtain materials from same source throughout.

1.7 FIELD CONDITIONS

- A. Prime and Tack Coats: Minimum surface temperature of 60 deg F
- B. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
- C. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Asphalt concrete and all related items shall meet the requirements of NYSDOT Section 400
- B. Tack Coat: ASTM D 977, emulsified asphalt or ASTM D 2397, cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.
- C. Water: Potable.
- D. Surface Course: Type 7F, NYSDOT Sections 401, 403
- E. Tack Coat: In accordance with State of New York Highways standards 702-90.

2.2 ASPHALT PAVING MIXES AND MIX DESIGN

- A. Asphalt Wearing Course: 5 to 7 percent of asphalt cement by weight in mixture in accordance with AI MS-2.
- B. Submit proposed mix design of each class of mix for review prior to beginning of work.

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PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
- D. Review condition of subgrade and preparatory work.
- E. Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.

3.2 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
- D. Average Density: 96 percent of reference laboratory density according to AASHTO T 245, but not less than 94 percent nor greater than 100 percent.
- E. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
- F. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- G. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- H. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- I. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- J. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.3 PREPARATION - MILLING

- A. Mill top surface of existing asphalt to a minimum depth of 1".
- B. Provide a uniform base surface.
- C. Use proper milling equipment suitable for the project.

3.4 PREPARATION - TACK COAT

- A. Apply tack coat on asphalt surfaces over subgrade surface at uniform rate of 1/3 gal/sq yd.

3.5 PLACING ASPHALT PAVEMENT - SINGLE COURSE

- A. Asphalt concrete shall not be applied on a wet surface or when the air temperature is below 45 degrees F. unless otherwise directed, or when weather conditions would prevent proper construction
- B. Place asphalt within 24 hours of applying primer or tack coat.
- C. Place asphalt to 1 inch compacted thickness.

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- D. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- E. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.

3.6 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Compacted Thickness: Within 1/4 inch of specified or indicated thickness.
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements

3.7 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for general requirements for quality control.
- B. Provide field inspection and testing. Take samples and perform tests in accordance with AI MS-2.

3.8 DISPOSAL

- A. Except for material indicated to be recycled, if any, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.
- B. Do not allow excavated materials to accumulate on-site

3.9 PROTECTION

- A. Immediately after placement, protect pavement from mechanical injury for three (3) days or until surface temperature is less than 140 degrees F.

END OF SECTION

**SECTION 32 1623
SIDEWALKS**

PART 1 GENERAL

1.1 Section Includes

- A. Concrete walks.

1.2 Reference Standards

- A. ACI PRC-211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide; 2022.
- B. ACI PRC-305 - Guide to Hot Weather Concreting; 2020.
- C. ACI PRC-306 - Guide to Cold Weather Concreting; 2016.
- D. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- E. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2018.
- F. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types); 2018.

1.3 Submittals

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Concrete: Provide data concrete mixes and admixtures.

1.4 Field Conditions

- A. Follow recommendations of ACI PRC-305 and ACI PRC-306 when concreting during hot and cold weather, respectively.

PART 2 PRODUCTS

2.1 Concrete Sidewalks

- A. Gravel Subbase: Thickness as indicated on drawings. 3/4" washed crushed stone.
- B. Concrete Forms: Wood.
- C. Concrete Materials: Comply with ASTM C94/C94M.
- D. Aggregate: Pit Run, washed, 3/4 inch (2 cm) stone; free of shale, clay, friable material and debris.
- E. Reinforcement:
 - 1. Steel Welded Wire Reinforcement: ASTM A1064/A1064M, plain type, flat sheets, epoxy coated.

PART 3 EXECUTION

3.1 Examination

- A. Verify gradients and elevations of the subgrade are correct as shown on drawings. Where poor subgrade material is encountered, remove and replace with suitable material.
- B. Verify compacted subgrade is acceptable, ready to support imposed loads and paving, and ready to receive work.

3.2 Subbase Preparation

- A. Maintain subgrade in a smooth, compacted condition with required section and established grade until concrete is placed.
- B. Install aggregate base course to thickness detailed.

3.3 Concrete Walk Installation

- A. Mixing:
 - 1. Proportioning Normal Weight Concrete: Comply with ACI PRC-211.1 recommendations.

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- B. Forming:
 - 1. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
 - 2. Sidewalk Forms: Place and secure forms to location, dimension, profile, and gradient shown on drawings. Height equal to the full depth of the finished sidewalk.
 - 3. Slope top of walk 1/8"/foot to prevent surface ponding.
- C. Reinforcement:
 - 1. Place wire-mesh reinforcement mid-height of forms.
- D. Placement:
 - 1. Place concrete in a single lift.
 - 2. Consolidate concrete by tamping and spading.
- E. Finishing:
 - 1. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge, 1/4 inch radius.

3.4 Tolerances

- A. Surface Flatness: 1/4 inch, maximum, measured with 10 foot straight edge.

3.5 Protection

- A. Immediately after placement, protect sidewalk from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Do not permit pedestrian traffic over sidewalk for 7 days minimum after finishing.

END OF SECTION

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SECTION 32 1823
ASPHALT TENNIS COURT SURFACE COLOR COATING SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Asphalt tennis court surface color coating system.

1.2 RELATED REQUIREMENTS

- A. Section 32 1216 – Asphalt Paving.

1.3 REFERENCE STANDARDS

- A. American Sports Builders Association (ASBA).
- B. United States Tennis Association (USTA) Rules of Tennis.
- C. International Tennis Federation (ITF).

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including surface and crack preparation and application instructions.
- B. Samples: Submit manufacturer's color samples of color coating.
- C. Test Reports:
 - 1. Submit independent test results for solar reflectance index.
 - 2. Submit independent test results for 2000 Hour ASTM G154, accelerated weathering UV test, to demonstrate long-term durability and fade resistance.
 - 3. Submit independent test results for 2000 Hour, accelerated weathering ASTM G155 Xenon Arc test, to demonstrate long-term fade resistance and quality of pigment.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Manufacturer's Project References: Submit manufacturer's list of successfully completed asphalt tennis court surface color coating system projects, including project name, location, and date of application.
- F. Applicator's Project References: Submit applicator's list of successfully completed asphalt tennis court surface color coating system projects, including project name, location, type and quantity of color coating system applied, and date of application.
- G. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer regularly engaged, for past 5 years, in manufacture of asphalt tennis court surface color coating systems of similar type to that specified.
 - 2. United States owned company.
 - 3. Member: ASBA.
 - 4. Manufacturer has surfaces that are classified by the ITF's (International Tennis Federation) pace classification program.
- B. Applicator's Qualifications:
 - 1. Applicator regularly engaged, for past 3 years, in application of tennis court surface color coating systems of similar type to that specified.
 - 2. Employ persons trained for application of tennis court surface color coating systems.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

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- B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer's instructions.
 2. Keep materials in manufacturer's original, unopened containers and packaging until application.
 3. Store materials in clean, dry area indoors.
 4. Store materials out of direct sunlight.
 5. Keep materials from freezing.
 6. Protect materials during storage, handling, and application to prevent contamination or damage.
 7. Close containers when not in use.

1.7 AMBIENT CONDITIONS

- A. Do not apply asphalt tennis court surface color coating system when air or surface temperatures are below 50 degrees F during application or within 24 hours after application.
- B. Do not apply asphalt tennis court surface color coating system when rain is expected during application or within 24 hours after application.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Asphalt Tennis Court Surface Color Coating System: Specifications are based on products manufactured by SportMaster Color Coating System as establishing performance level of product.
- B. Crack Filler: SportMaster "Acrylic Crack Patch".
1. 100 percent acrylic emulsion trowel-grade crack filler.
 2. Use to fill cracks in asphalt pavement over 1/2" up to 1 inch wide in existing asphalt paving.
 3. Chemical Characteristics, by Weight, Minimum:
 - a. Acrylic Emulsion: 10.0 percent.
 - b. Hiding Pigment: 0.2 percent.
 - c. Mineral Inert Fillers: 78.0 percent.
 - d. Film Formers, Additives: 1.8 percent.
 - e. Water: 8.5 percent.
 4. Weight per Gallon at 77 Degrees F: 15.2 lbs., plus or minus 1.0 lbs.
 5. Non-Volatile Material: 80 percent, plus or minus 5 percent.
 6. Color: [Green] [Neutral] [Red].
- C. Patch Binder: SportMaster "Acrylic Patch Binder".
1. 100 percent acrylic emulsion liquid binder.
 2. Mix on-site with sand and cement.
 3. Use to level and repair low spots and depressions in existing asphalt pavement.
- D. Filler Course: SportMaster "Acrylic Resurfacer".
1. 100 percent acrylic emulsion resurfacer.
 2. Mix on-site with silica sand.
 3. Apply to asphalt surfaces or previously colored acrylic surfaces in preparation of color coating system.
 4. Chemical Characteristics, by Weight, Minimum:
 - a. Acrylic Emulsion: 44.0 percent.
 - b. Hiding Pigment: 2.0 percent.
 - c. Mineral Inert Fillers: 5.0 percent.
 - d. Film Formers, Additives: 0.2 percent.
 - e. Water: 45.0 percent.
 5. Weight per Gallon at 77 Degrees F: 8.5 lbs., plus or minus 0.5 lbs.
 6. Non-Volatile Material: 27.5 percent, plus or minus 5.0 percent.

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7. Color: [Black] or [Neutral].
- E. Color Coating: SportMaster “ColorPlus System”.
 1. 100 percent acrylic emulsion coating.
 2. Mix on-site with silica sand and water.
 3. Color coats tennis and multipurpose courts.
 4. Weight per Gallon at 77 Degrees F: 9.2 lbs., plus or minus 0.5 lbs.
- F. Color: As selected by owner from manufacturer's standard colors.
- G. Line Markings Primer: SportMaster “Stripe-Rite”.
 1. 100 percent acrylic emulsion primer, clear drying.
 2. Primes line markings and prevents bleed-under for sharp lines.
 3. Chemical Characteristics, by Weight, Nominal:
 - a. Acrylic Emulsion: 38.0 percent.
 - b. Hiding Pigment: 0.0 percent.
 - c. Mineral Inert Fillers: 7.0 percent.
 - d. Film Formers, Additives: 1.5 percent.
 - e. Water: 50.0 percent.
 4. Weight per Gallon at 77 Degrees F: 8.9 lbs., plus or minus 0.5 lbs.
 5. Non-Volatile Material: 29 percent, plus or minus 5 percent.
- H. Line Paint: SportMaster “Textured Line Paint”.
 1. Pigmented, 100 percent acrylic emulsion line paint.
 2. Line marking on asphalt tennis courts.
 3. Chemical Characteristics, by Weight, Nominal:
 - a. Acrylic Emulsion: 25.89 percent.
 - b. Pigment: 14.90 percent.
 - c. Mineral Inert Fillers: 13.12 percent.
 - d. Additives: 4.73 percent.
 - e. Water: 41.36 percent.
 4. Weight per Gallon at 77 Degrees F: 10.65 lbs., plus or minus 0.75 lbs.
 5. Non-Volatile Material: 45.17 percent, plus or minus 5 percent.
 6. Color: White.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine existing asphalt tennis court surfaces to receive color coating system.
- B. Notify Architect of conditions that would adversely affect application or subsequent use.
- C. Do not begin surface preparation or application until unacceptable conditions are corrected.

3.2 SURFACE PREPARATION

- A. Protection of In-Place Conditions: Protect adjacent surfaces and landscaping from contact with asphalt tennis court surface color coating system.
- B. Prepare surfaces in accordance with manufacturer’s instructions.
- C. Cure new asphalt surfaces a minimum of 14 to 30 days before application of asphalt tennis court surface color coating system.
- D. Remove dirt, dust, debris, oil, grease, vegetation, loose materials, and other surface contaminants which could adversely affect application of asphalt tennis court surface color coating system. Pressure wash entire surface and allow to thoroughly dry..

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- E. Repair cracks, depressions, and surface defects in existing asphalt surfaces using materials specified for applicable defect in accordance with manufacturer's instructions before application of filler course and color coating.
- F. Level depressions 1/8 inch and deeper with patch binder in accordance with manufacturer's instructions.
- G. Apply 2 coats of filler course to provide smooth underlayment for application of color coating.
- H. Ensure surface repairs are flush and smooth to adjoining surfaces.

3.3 APPLICATION

- A. Apply asphalt tennis court surface color coating system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Mix materials in accordance with manufacturer's instructions.
- C. Apply Filler Course and Color Coating with a 50-60 durometer, soft rubber squeegee.
- D. Filler Course:
 - 1. Apply 2 coats
- E. Color Coating: Apply 2 coats of color coating to prepared surfaces in accordance with manufacturer's instructions.
- F. Allow material drying times in accordance with manufacturer's instructions before applying other materials or opening completed surface to foot traffic.

3.4 LINE MARKINGS

- A. Lay out tennis court line markings in accordance with USTA Rules of Tennis.
- B. Apply line markings primer, after masking tape has been laid, to seal voids between masking tape and tennis court surface to prevent bleed-under when line paint is applied.
- C. Apply a minimum of 1 coat of line paint in accordance with manufacturer's instructions.

3.5 PROTECTION

- A. Allow a minimum of 24 hours curing time before opening tennis courts for play.
- B. Protect applied asphalt tennis court surface color coating system to ensure that, except for normal weathering, coating system will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

**SECTION 32 3113
CHAIN LINK FENCES AND GATES**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Posts, rails, and frames.
- B. Wire fabric.
- C. Manual gates with related hardware.
- D. Accessories.

1.3 REFERENCE STANDARDS

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- C. ASTM A392 - Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric; 2011a (Reapproved 2017).
- D. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2018.
- E. ASTM F567 - Standard Practice for Installation of Chain-Link Fence; 2014a.
- F. ASTM F668 - Standard Specification for Polyvinyl Chloride (PVC) and Other Organic Polymer-Coated Steel Chain-Link Fence Fabric; 2017.
- G. CLFMI CLF-FIG0111 - Field Inspection Guide; 2014.
- H. CLFMI CLF-SFR0111 - Security Fencing Recommendations; 2014.
- I. CLFMI WLG 2445 - Wind Load Guide for the Selection of Line Post and Line Post Spacing; 2018.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on fabric, posts, accessories, fittings and hardware.
- C. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components. See CLFMI CLF-SFR0111 for planning and design recommendations.
- D. Samples: Submit two samples of fence fabric, slat infill, 12 inch by 12 inch in size illustrating construction and colored finish.
- E. Manufacturer's Installation Instructions: Indicate installation requirements
- F. Project Record Documents: Accurately record actual locations of property perimeter posts relative to property lines .

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five (5) years of documented experience.
- B. Fence Installer: Company with demonstrated successful experience installing similar projects and products, with not less than five years of documented experience.

1.6 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

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PART 2 PRODUCTS

2.1 COMPONENTS

- A. Mid Brace Rail: 1-5/8 inch diameter, plain end, sleeve coupled.
- B. Gate Frame: 2 inch diameter for welded fabrication.
- C. Fabric: 2 inch diamond mesh interwoven wire, 6 gauge, 0.1920 inch thick, top selvage knuckle end closed, bottom selvage knuckle end closed.
- D. Truss rod and turnbuckle.
- E. Tension Wire: 6 gauge, 0.1920 inch thick steel, single strand.
- F. Tie Wire: Aluminum alloy steel wire.

2.2 MATERIALS

- A. Rails shall be standard weight galvanized steel pipe of the sizes shown on the plans and shall conform to ASTM Serial Designation F-1083, Schedule 40. Posts and rails shall be galvanized in accordance with ASTM Serial Designation 1-123.
 - 1. All rails shall have a minimum 10 mil polyvinyl chloride coating meeting the requirements below. Color to match fabric.
- B. Wire Fabric: 6ga. bonded black vinyl coated, ASTM668, Type 2B, 7 mil thermally fused PVC over :

2.3 MANUAL GATES AND RELATED HARDWARE

- A. Hardware for Single Swinging Gates: 180 degree hinges, 2 for gates up to 60 inches high, 3 for taller gates; fork latch with gravity drop and double padlock hasp; keeper to hold gate in fully open position.
- B. Hinges: Finished to match fence components.
 - 1. Brackets: Round.
 - 2. Mounting: Center.
 - 3. Closing: Manual.
- C. Latches: Finished to match fence components.
 - 1. Brackets: Round.
- D. Gates shall be furnished and installed where indicated on the plans or directed by the Owner's Representative. All necessary fittings and gate holders to lock gates in both open and closed positions shall be furnished. The locking device shall be entirely enclosed as shown on the plans or shall be an approved equal locking device. Gates shall be constructed of the same materials and finishes as the fence. All gates shall be braced with truss rods and turnbuckles. All gates shall be so arranged that they can be locked when closed and locked back to the fence when open.
- E. Owner will furnish padlocks.

2.4 ACCESSORIES

- A. Caps: Malleable iron galvanized; sized to post diameter, set screw retainer.
- B. Fittings: Sleeves, bands, clips, rail ends, tension bars, fasteners and fittings; steel.
- C. Finish: Match fence posts.

2.5 FINISHES

- A. Components and Fabric: 5 ga. Bonded Vinyl coated, over coating of 1.8 oz/sq ft galvanizing, on 6 ga. core.
- B. Hardware: Hot-dip galvanized to weight required by ASTM A153/A153M.
- C. Accessories: Same finish as fabric.
- D. Color(s): Black.

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PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Verify that areas are clear of obstructions or debris.

3.2 PREPARATION

- A. Ground Preparation.

3.3 INSTALLATION

- A. Install framework, fabric, accessories and gates in accordance with ASTM F567.
- B. Brace each gate and corner post to adjacent line post with horizontal center brace rail and diagonal truss rods. Install brace rail one bay from end and gate posts.
- C. Stretch fabric between terminal posts or at intervals of 100 feet maximum, whichever is less.
- D. Position bottom of fabric 1 inches above finished grade.
- E. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15 inches on centers.
- F. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.
- G. Install bottom tension wire stretched taut between terminal posts.
- H. Install gate with fabric to match fence. Install hardware.

3.4 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Position: 1 inch.
- C. Do not infringe on adjacent property lines.

3.5 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for additional requirements.
- B. Layout: Verify that fence installation markings are accurate to design, paying attention to gate locations, underground utilities, and property lines.
- C. Gates: Inspect for level, plumb, and alignment.
- D. Workmanship: Verify neat installation free of defects. See CLFMI CLF-FIG0111 for field inspection guidance.

3.6 CLEANING

- A. Clean jobsite of excess materials; scatter excess material from post hole excavations uniformly away from posts. Remove excess material.
- B. Clean fence with mild household detergent and clean water rinse well.

3.7 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

END OF SECTION