

MANATEE COUNTY GOVERNMENT
INVITATION FOR BID (IFB) #09-0246DC
PARRISH OLD SCHOOL HOUSE
WINDOWS AND DOORS REPLACEMENT

Manatee County, a political subdivision of the state of Florida, (hereinafter "Manatee County" or the "County" or "Owner") will receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the state of Florida or authorized to conduct business in the state of Florida.

INFORMATION CONFERENCE & SITE VISIT

In order to insure that all prospective bidders have sufficient information and understanding of the County's needs, an information conference will be held **December 3, 2008 at 10:00 A.M.** at the **Parrish Old School House, 12214 State Road 301, Parrish, Florida**. All interested bidders are encouraged to attend. Note Article A.02 - inspection of the site is a requirement to be considered for award of this contract.

CONTACT FOR SITE ACCESS: Alan Meronek @ 941-749-3097


TIME AND DATE DUE: December 10, 2008 at 10:00 A.M.

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Important Note: A prohibition of Lobbying has been enacted. Please review paragraph A.21 carefully to avoid violation and possible sanctions.

FOR INFORMATION CONTACT:
DEBORAH CAREY-REED
(941) 749-3074 FAX (941) 749-3034

AUTHORIZED FOR RELEASE: 

MEMORANDUM



Property Management
1112 Manatee Ave. W. Ste. 803
Bradenton, Florida 34205

MANATEE COUNTY
FLORIDA

Phone: 941-749-3017
Fax: 941-742-5880
www.mymanatee.org

To: RENEE NORDBYE, PURCHASING DIVISION
From: AL MERONEK, PROJECT MANAGER, PROPERTY MANAGEMENT DEPARTMENT
Date: OCTOBER 23, 2008
Subject: PARRISH OLD SCHOOLHOUSE / INVITATION FOR BIDS / WINDOWS AND DOORS

Property Management Department received a request to remodel and renovate the Old Parrish Schoolhouse located at 12214 US 301 in Parrish. As part of the renovation, all existing windows and exterior doors are to be replaced with new aluminum units. The new window units will be designed to match the existing window, as closely as possible; elevation, profile, and color. The new windows will have hurricane rated frames with impact resistant glazing. Our estimate to remove and install these units, including labor and material, is expected to be \$180,000.00.

CC: Jim Staples, Director, Property Management Department
Cindy Turner, Director, Parks and Recreation Department
Charlie Bishop, Property Management
Tom Yarger, Property Management
Debra Leavenworth, Property Management
Michael Wood, Planning Department
Deborah Carey-Reed, Financial Management
Project File

SECTION 00010
INFORMATION TO BIDDERS

A.01 OPENING LOCATION

These bids will be publicly opened at Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205 in the presence of County officials at the time and date stated, or soon thereafter. All bidders or their representatives are invited to be present.

A.02 INSPECTION OF THE SITE

Prior to the submission of a bid, each bidder shall visit the site to become familiar with all conditions that may affect services that are required to completely execute the full intent of these specifications. For **coordination of site inspection**, bidders shall contact the Owner's Representative, **Alan Meronek at 941-749-3097**. Inspection of the site is a requirement to be considered for award of this bid.

A.03 BID AND PROPOSAL DOCUMENTS

Manatee County Purchasing Division posts **notices of bid opportunities and addenda** on the Purchasing Division's web page at <http://www.myanatee.org> which can be accessed by clicking on the "Purchasing" button on the left side of the screen and then clicking on the "Bids and Proposals" button and **on the County's document distribution service** at <http://www.demandstar.com>.

Electronic copies of Bid documents may be requested at no cost per Florida Statute 119.01 (2) (e). These files in PDF format may be obtained by calling the person or persons identified to contact on page one.

A fee may be charged for creating a CD recording or a printed copy of the documents requested. Cost Details shall be provided when you specify the format.

The **documents are available in a portable document format (.PDF) files** which you may view and print using Adobe Acrobat software. You may download a free copy of this software (Adobe) from the County's web page if you do not have it.

Onvia **DemandStar** provides direct electronic distribution of email/fax notices of the agency's formal bid opportunities, at no charge. The distribution lists provided by this service are supplemented by the County.

Vendors may choose to download individual documents from DemandStar for a download fee posted on that services website. Vendors may contact DemandStar regarding an agency level subscription option that allows vendors to download bid documents and transact business with any one (1) agency for free. If a vendor chooses to increase the number of agencies beyond their single agency, subscription fees based on the level of service chosen will apply.

Documents may be purchased from Onvia DemandStar. The cost for copies of documents purchased from Onvia DemandStar is established per document and the cost information is published as part of the specific Proposal detail, subsection "Pre Bid Conference" on the Onvia DemandStar web pages.

A.03 BID AND PROPOSAL DOCUMENTS (cont'd)

Award Document/Recommendations appear on the Onvia DemandStar web page.

Notices of Source Selections appear on the Onvia DemandStar web page and the County's web page (Financial Management – Purchasing Division).

Onvia DemandStar may be directly contacted at <http://demandstar.com>, or by calling 800-331-5537, if you have any questions.

IMPORTANT NOTE: AUTOMATED NOTICES OF ADDENDA ARE ISSUED ONLY VIA THE ONVIA DEMANDSTAR "PLANHOLDER" DISTRIBUTION SYSTEM

IF YOU OBTAIN A COPY OF THIS BID DOCUMENT FROM OTHER THAN REGISTERING WITH ONVIA DEMANDSTAR WEB SERVICE FOR THIS SPECIFIC PROPOSAL – YOU SHALL NOT RECEIVE AUTOMATED NOTIFICATIONS OF ADDENDA.

IT IS THE RESPONSIBILITY OF EACH BIDDER OR PROPOSER, PRIOR TO SUBMITTING THEIR BID, TO CONTACT THE MANATEE COUNTY PURCHASING OFFICE (see contact information on page one) TO DETERMINE IF ADDENDA WERE ISSUED AND TO MAKE SUCH ADDENDA A PART OF THEIR BID.

Please contact the individual named on the first page of this bid document, if you have questions on this instruction.

A.04 BID FORM DELIVERY REQUIREMENTS

Any bids received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder to have their bid delivered to the Manatee County Purchasing Office for receipt on or before the stated time and date. If a bid is sent by U.S. Mail, the bidder shall be responsible for its timely delivery to Purchasing. Bids delayed by mail shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the bidder's request and expense.

A.05 CLARIFICATION & ADDENDA

Each bidder shall examine all Invitation For Bid documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Invitation For Bid shall be made through the Manatee County Purchasing Office. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

If any addenda are issued to this Invitation For Bid, the County will BROADCAST THE ADDENDA ON ONVIA DEMANDSTAR TO "PLANHOLDERS" IDENTIFIED ON THIS WEB SERVICE, however, it shall be the responsibility of each bidder, prior to submitting their bid, to contact the Manatee County Purchasing Office (see contact information on page 1) to determine if addenda were issued and to make such addenda a part of their bid.

A.06 SEALED & MARKED

Three signed copies of your bid shall be submitted in one sealed package, clearly marked on the outside "Sealed Bid #09-0246DC Parrish Old School House – Windows and Doors Replacement" with your company name. Address package to:

Manatee County Purchasing Office
1112 Manatee Avenue West, Suite 803
Bradenton, Florida 34205

A.07 LEGAL NAME

Bids shall clearly indicate the legal name, address and telephone number of the bidder. Bids shall be signed above the typed or printed name and title of the signer. The signer must have the authority to bind the bidder to the submitted bid.

A.08 BID EXPENSES

All expenses for making bids to the County are to be borne by the bidder.

A.09 IRREVOCABLE OFFER

Any bid may be withdrawn up until the date and time set for opening of the bid. Any bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of 90 days to sell to Manatee County the goods or services set forth in the attached specifications until one or more of the bids have been duly accepted by the County.

A.10 RESERVED RIGHTS

The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission. Also, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received by the first submission date may or may not be rejected by the County depending on available competition and current needs of the County. For all items combined, the bid of the lowest responsive, responsible bidder will be accepted, unless all bids are rejected. The lowest responsible bidder shall mean that bidder who makes the lowest bid to sell goods and/or services of a quality which conforms closest to or most exceeds the quality of goods and/or services set forth in the attached specifications or otherwise required by the County, and who is fit and capable to perform the bid as made.

To be responsive, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the Invitation For Bid. To be a responsible bidder, the bidder shall have the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance. Also, the County reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information the County deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to: current financial statements, verification of availability of equipment and personnel, and past performance records.

A.11 APPLICABLE LAWS

Bidder must be authorized to transact business in the state of Florida. All applicable laws and regulations of the state of Florida and ordinances and regulations of Manatee County will apply to any resulting agreement. Any involvement with any Manatee County procurement shall be in accordance with Manatee County Purchasing Code Ordinance 08-43, as amended. Any actual or prospective Bidder or Proposer who is aggrieved in connection with the solicitation or award of a contract may protest to the Board of County Commissioners of Manatee County as required in Section 2-26/61 of the Purchasing Code.

A protest with respect to this Invitation For Bid shall be submitted in writing prior to the scheduled opening date of this bid, unless the aggrieved person did not know and could not have been reasonably expected to have knowledge of the facts giving rise to such protest prior to the scheduled opening date of this bid. The protest shall be submitted within seven calendar days after such aggrieved person knows or could have reasonably been expected to know of the facts giving rise thereto.

A.12 CODE OF ETHICS

With respect to this proposal, if any Bidder or Proposer violates or is a party to a violation of the Code of Ethics of Manatee County per Manatee County Purchasing Code Ordinance 08-43, Article 3, Ethics in Public Contracting, and/or the state of Florida per Florida Statutes, Chapter 112, Part III, Code of Ethics for Public Officers and Employees, such Bidder or Proposer may be disqualified from performing the work described in this proposal or from furnishing the goods or services for which the proposal is submitted and shall be further disqualified from submitting any future bids for work or for goods or services for Manatee County.

The County anticipates that all statements made and materials submitted in a proposal will be truthful. If a bidder or proposer is determined to be untruthful in its proposal or any related presentation, such bidder or proposer may be disqualified from further consideration regarding this Invitation For Bid.

A.13 COLLUSION

By offering a submission to this Invitation For Bid, the bidder certifies that the bidder has not divulged, discussed or compared their bid with other bidders, and has not colluded with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization, that in connection with this bid:

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and or cost data, with any other bidder or with any competitor;
- b. any prices and or cost data quoted for this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder, prior to the scheduled 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 or firm to submit or not to submit a bid for the purpose of restricting competition;

A.13 COLLUSION (cont'd)

- d. the only person or persons interested in this bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or in the contract to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by bidder for purpose of doing business.

A.14 BID FORMS

Bids must be submitted on attached County forms, although additional pages may be attached. **Bidders must fully comply with all bid specifications, terms, and conditions.** Failure to comply shall result in contract default, whereupon, the defaulting vendor shall be required to pay for any and all reprourement costs, damages, and attorney fees as incurred.

A.15 DISCOUNTS

Any discounts must be incorporated in the prices bid; and not shown separately. The prices as shown on the bid form shall be the price used in determining award(s).

A.16 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes (F.E.T. Exempt Cert. No. 59-78-0089K and FL Sales Tax Exempt Cert. No. 51-02-027548-53C); therefore, the bidder is prohibited from delineating a separate line item in his bid for any sales or service taxes. Nothing herein shall affect the bidder's normal tax liability.

A.17 MATHEMATICAL ERRORS

Bids submitted shall be based on the quantities stated on the Bid Form. Quantities shall be used for the comparison of Bids. Payment to the Contractor will be made based on the actual quantity of work completed and accepted at the date of payment request, in accordance with the terms of the contract. In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s), the extended totals shall prevail. All bids shall be reviewed mathematically and corrected, if necessary, using these standards prior to additional evaluation. Calculations shall be factored to the second decimal point.

A.18 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the specifications, all equipment, materials and articles incorporated in the work covered by this contract shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.19 MODIFICATION OF BID SPECIFICATIONS

If a bidder wishes to recommend changes to the bid Contract Documents, the bidder shall furnish in writing, data and information necessary to aid the County in evaluating the request to modify the bid Contract Documents. The County is not obligated to make any changes to the bid Contract Documents. Unless an addendum is issued as outlined in Article A.05, the bid Contract Documents shall remain unaltered. **Bidders must fully comply with the bid Contract Documents, terms, and conditions.**

A.20 AMERICAN DISABILITIES ACT

The Board of County Commissioners of Manatee County, Florida, does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the County's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an **Information Conference** or **Bid Opening** should contact the person named on the first page of this Bid Document at least twenty-four (24) hours in advance of either activity.

A.21 LOBBYING

After the issuance of any Invitation For Bid, prospective bidders, proposers or any agent, representative or person acting at the request of such bidder or proposer shall not contact, communicate with or discuss any matter relating in any way to the Invitation For Bid with any officer, agent or employee of Manatee County other than the Purchasing Director or as directed in the Invitation For Bid. This prohibition begins with the issuance of any Invitation For Bid and ends upon execution of the final contract or when the invitation or request has been cancelled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Procurement Code. The County reserves the right to amend or to add to the names listed as persons to contact. All amendments or additions to the names listed as persons to contact shall be issued by Purchasing, in writing.

A.22 DRUG FREE WORK PLACE

The Manatee County Board of County Commissioners adopted a policy regarding Bidders maintaining a Drug Free Work Place, prohibiting the award of bids to any person or entity that has not submitted written certification to the County that it has complied with those requirements [Reference Resolution R-93-22, Manatee County Purchasing Policies, Section 4, E (1) (a)]. A Drug Free Work Place Certification Form is attached to this bid for this purpose.

A.23 PUBLIC ENTITY CRIMES

In accordance with Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid with a public entity for the construction or repair of a public building or public work, may not submit bids on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for Category Two (as of 1/01/2005 is \$25,000) for a period of 36 months from the date of being placed on the convicted vendor list.

A.24 PUBLIC CONTRACTING/ENVIRONMENTAL CRIMES CERTIFICATION

In accordance with Ordinance 08-43, adding Article 5, Manatee County Board of County Commissioners adopted a policy prohibiting the award of County contracts to persons, business entities, or affiliates of business entities who have not submitted written certification to the County that they have not been convicted of bribery, attempted bribery, collusion, restraints of trade, price fixing, and violations of certain environmental laws. A Non-Conviction Certification Form is attached for this purpose.

A.25 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Manatee County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

A.26 DISCLOSURE

Upon receipt, all inquires and responses to inquires related to this Invitation For Bid or Request For Proposal become "Public Records" and are subject to public disclosure consistent with Chapter 119, Florida Statutes.

Bids become "Public Records" ten (10) days after the proposal opening or if an award decision is made earlier than this time as provided by Florida Statue 119.071. No announcement or review of the bid documents shall be conducted at the public opening of the proposals.

NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS; BASIS OF AWARD, TERMS AND CONDITIONS OF THE CONTRACT, OR SPECIFICATIONS WHICH VARY FROM THE INFORMATION TO BIDDERS SHALL HAVE PRECEDENCE.

SECTION 00020
BASIS OF AWARD

B.01 BASIS OF AWARD

Award shall be to the most responsive, responsible bidder meeting specifications and having the lowest Total Bid Price for **Bid "A"**, or the lowest Total Bid Price for **Bid "B"**, for the requirements listed on the Bid Form for the Work as set forth in this Invitation For Bid. Bid Prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the Contract Documents to the County's satisfaction within the prescribed time. **Note: Inspection of the site is a prerequisite to be considered for award of this bid.**

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specific stated time shall be offered as a separate Total Bid Price. The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

Whenever two or more bids are equal with respect to price, quality and service, the bid received from a local business shall be given preference in award. Whenever two or more bids which are equal with respect to price, quality and service are received, and both bids or neither of these bids are received from a local business, the award shall be determined by a chance drawing conducted by the Purchasing Office and open to the public.

Local business is defined as a business duly licensed and authorized to engage in the sale of goods and/or services to be procured, which has a place of business in Manatee County with full time employees at that location.

B.02 QUALIFICATIONS OF BIDDERS

Each bidder must secure all licenses required for the Work which is the subject of this bid; and, upon request, shall submit a true copy of all applicable licenses. **The minimum license requirement for this project: Certified Building Contractor, Registered Building Contractor, or a Specialty Contractor who is registered in Manatee County and have performed verifiable work on window installations as specified herein.**

Contractors that have failed to meet a project completion date within the past five years shall not be considered for award.

Bidder must be able to provide evidence of Bidder's qualification to do business in the state of Florida, specifically Manatee County. Each bidder shall submit as a portion of their bid a completed Contractor's Questionnaire included as Section 00430.

SECTION 00030
GENERAL TERMS AND CONDITIONS OF THE CONTRACT

C.01 CONTRACT FORMS

The agreement resulting from the acceptance of a bid shall be in the form of a purchase order.

C.02 ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this Contract or of his right, title, or interest therein, or his power to execute such Contract, or to assign any monies due or to become due thereunder to any other person, firm or corporation unless first obtaining the written consent of the County. The giving of such consent to a particular subcontractor assignment shall not dispense with the necessity of such consent to any further or other assignment.

C.03 COMPLETION OF WORK

The Work will be substantially complete and ready for occupancy within the specific calendar days from the date the Contract Time commences to run (upon issuance of Purchase Order). Two bids shall be considered based on **90** calendar days and based on **60** calendar days. The County has the sole authority to select the bid based on the Completion time which is in the best interest of the County. Only one award shall be made.

C.04 LIQUIDATED DAMAGES

If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will hinder its completion within the time specified, the County may seek damages. The actual damages for delay will be impossible to determine and in lieu thereof, the Contractor shall pay to the Owner the sum of **\$715** as fixed, agreed, and liquidated damages for each calendar day of the delay until the Work is finally accepted by the County and the Contractor and his Surety shall be liable for the amount thereof.

C.05 PAYMENT

Contractor may apply for partial payment on monthly estimates, based on the amount of Work done or completed in compliance with the provisions of the Contract.

C.06 WARRANTY AND GUARANTEE PROVISIONS

All work, materials, and equipment furnished as defined herein shall be guaranteed and warranted by the contractor for a minimum period of one year, unless otherwise specified, from final acceptance by the Owner to be free from defects due either to faulty materials or equipment or faulty workmanship.

C.07 ROYALTIES AND PATENTS

The contractor shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Contractor shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

C.08 AUTHORIZED PRODUCT REPRESENTATION

The contractor, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in the County's sole discretion, be deemed a breach of contract, and shall constitute grounds for the County's immediate termination of the contract.

C.09 REGULATIONS

It shall be the responsibility of the bidder to assure compliance with any OSHA, EPA and/or other federal or state of Florida rules, regulations or other requirements, as each may apply.

C.10 CANCELLATION

Any failure of the contractor to furnish or perform the Work (including, but not limited to, commencement of the Work, failure to supply sufficient skilled workers or suitable materials or equipment) in accordance with the contract, the County may order the stop of the Work, or any portion thereof, until the cause for such order has been eliminated. If the contractor persistently fails to perform the Work in accordance with the contract, the County reserves the right to terminate the contract.

C.11 INDEMNIFICATION

The contractor covenants and agrees to indemnify and save harmless the County, its agents and employees, from and against all claims, suits, actions, damages, causes of action, or judgments arising out of the terms of the resulting agreement for any personal injury, loss of life, or damage to the property sustained as a result of the performance or non-performance of services or delivery of goods; from and against any orders, judgments, or decrees, which may be entered against the County, its agents or employees; and from and against all costs, attorney's fees, expenses and other liabilities incurred in the defense of any such claim, suit or action, and the investigation thereof. Nothing in the award, resulting agreement, contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in Florida Statute Section 768.28.

C.12 MANUALS, SCHEMATICS, HANDBOOKS

All manuals, schematics and handbooks shall be provided which are applicable to the equipment delivered. An operators manual, parts manual and technician manual must also be provided. Parts lists (manuals) must include OEM part numbers for items not manufactured by the bidder. Vendor shall furnish two (2) copies of each.

C.13 INSURANCE

The contractor will not commence work under a contract until all insurance under this section and such insurance coverage as might be required by the County has been obtained. The contractor shall obtain, and submit to Purchasing within 15 calendar days of request, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

C.13 INSURANCE (cont'd)**a. Workers' Compensation/Employers' Liability**

Part One - There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Worker's Compensation Act or any other coverage required by the contract documents which are customarily insured under Part One of the standard Worker's Compensation Policy.

Part Two - The minimum amount of coverage required by the contract documents which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

<u>\$100,000</u>	(Each Accident)
<u>\$500,000</u>	(Disease-Policy Limit)
<u>\$100,000</u>	(Disease-Each Employee)

b. Commercial General Liability

The limits are to be applicable only to work performed under this contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) to a Commercial General Liability Policy with the following minimum limits.

General Aggregate:

Products/Completed Operations Aggregate	<u>\$1,000,000</u>
Personal and Advertising Injury	<u>\$300,000</u>
Each Occurrence	<u>\$300,000</u>
Fire Damage (Any One Fire)	\$ Nil
Medical Expense (Any One Person)	\$ Nil

c. Business Auto Policy

Each Occurrence Bodily Injury and	
Property Damage Liability Combined	<u>\$300,000</u>
Annual Aggregate (if applicable):	<u>\$1,000,000</u>

d. Owners Protective Liability Coverage

The minimum OPC Policy limits per occurrence and, if subject to an aggregate, annual aggregate to be provided by the contractor shall be the same as the amounts shown above as the minimum per occurrence and general policy aggregate limits respectively required for the Commercial General Liability coverage. The limits afforded by the OPC Policy and any excess policies shall apply only to the Owner and the Owner's officials, officers, agents and employees and only to claims arising out of or in connection with the work under this contract.

e. Property Insurance

If this contract includes construction of or additions to above ground buildings or structures, contractor shall provide "**Builder's Risk**" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

C.13 INSURANCE (cont'd)**f. Installation Floater**

If this contract does not include construction of or additions to above ground building or structures **but does involve** the installation of machinery or equipment, contractor shall provide an "**Installation Floater**" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

g. Certificates of Insurance and Copies of Policies

Certificates of Insurance in triplicate evidencing the insurance coverage specified in the six above paragraphs a., b., c., d., e. and f., shall be filed with the Purchasing Director before operations are begun. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the bid number, project title and location of project. Insurance shall remain in force at least one year after completion and acceptance of the project by the County, in the amounts and types as stated herein, with coverage for all products and services completed under this contract.

ADDITIONAL INSURED: - The contractor shall name Manatee County as additional insured in each of the applicable policies.

If the initial insurance expires prior to the completion of operations and/or services by the contractor, renewal certificates of insurance and required copies of policies shall be furnished by the contractor and delivered to the Purchasing Director 30 days prior to the date of their expiration. Nothing herein shall in any manner create any liability of the County in connection with any claim against the contractor for labor, services, or materials, or of subcontractors; and nothing herein shall limit the liability of the contractor or contractor's sureties to the County or to any workers, suppliers, materialmen or employees in relation to this contract.

SECTION 00100
INSTRUCTIONS TO BIDDERS

D.01 THE WORK

The Work is generally described as the replacement of 43 window and 8 door openings with aluminum units as specified herein at the Parrish Old School House. Record drawings shall fully meet the requirements of all current federal, state and county laws, rules, regulations and standards, with the most stringent applying.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of subcontractors, suppliers, and other persons (including those who are to furnish the principal items of material and equipment) may be requested by the Owner for each bid item from any of the Bidders; and the Bidder shall respond within five days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such subcontractor, supplier, persons or organization if requested by Owner. If Owner, after due investigation has reasonable objection to any proposed subcontractor, supplier, other person or organization, Owner may request the apparent successful Bidder to submit an acceptable substitute without an increase in Contract Price or Contract Time.

D.03 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Bid Documents thoroughly; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Bid Documents; and (e) notify Owner of all conflicts, errors, or discrepancies in the Bid Document. Each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine his Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions. Owner will provide each Bidder access to the site to conduct such explorations and tests. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

D.04 PERMITS AND FEES

Manatee County shall apply for and is responsible for all permits, notifications, and fees which may be required for this project. The contractor shall not be responsible for any permits or fees that may be associated with this project.

D.05 MATERIALS AND WORKMANSHIP

All materials and apparatus required for the Work, except as specifically specified otherwise, shall be new, of first class quality, and shall be furnished, delivered, connected and finished in every detail. The window and door replacements/installation shall be as prescribed by good industry practice and in accordance with manufacturer's recommendations for the type being installed.

Use skilled workman trained and experienced in the necessary trades and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.

Comply with the most current codes and regulations of all jurisdictional local, state and federal governmental agencies having jurisdiction.

D.06 REGULATIONS AND MATERIAL DISPOSAL

It shall be the responsibility of the contractor to assure compliance with any OSHA, EPA, federal, state, and/or local rules, regulations or other requirements as each may apply.

D.07 PROJECT CLOSE-OUT

Clean installation site and remove any and all excess materials. Correct any damages to property that may have occurred as a result of installation and/or delivery. Repair and patch all surfaces cut for installation.

The Contractor shall remedy any deficiencies promptly should the County determine any work is incomplete or defective.

When the County determines the Work is acceptable in accordance with this Invitation For Bid, the Contractor shall provide the close out submittals, including but not necessarily limited to the following:

- 1 set - Certificate of warranties
- 1 set - Manufacturer's product literature

D.08 BID SUBMITTALS

1. Documentation that you have been in business as a building contractor for at least five years.
2. Manufacturer's specification of the windows and doors being proposed, if manufacturer differs from those specified herein.
3. Warranty information.
4. Evidence stating you are an authorized installer of the units being proposed.

SECTION 00110
MINIMUM SPECIFICATIONS

E.01 GENERAL SCOPE OF WORK

Contractor shall remove all existing windows and exterior doors and install new units in accordance with the most current codes and regulations of all jurisdictional local, state, and federal governmental agencies having jurisdiction. **The Work shall be performed at the Parrish Old School House, 12214 State Road 301, Parrish, Florida.** For coordination of site inspection after the Information Conference date, bidders shall contact the Owner's Representative, Alan Meronek, at 941-749-3097.

East Elevation: 22 openings

32 window units required; 1 door / window required

West Elevation : 19 openings

26 window units required; 1 door / window required

2 existing window openings to be changed to doors and transoms.

South Elevation: 5 openings

3 window units required; 1 door opening changed to a window

1 existing window opening to be changed to doors and transoms

North Elevation: 5 openings

3 window units required; 1 door opening changed to a window

1 existing window opening to be changed to doors and transoms

E.02 MINIMUM REQUIREMENTS

1. All existing window and exterior doors are to be replaced with new aluminum units, hurricane rated.
2. Windows shall match the existing windows as closely as possible in elevation, profile, and color and have hurricane rated frames with impact resistant glazing. The windows must meet both positive and negative wind pressures of the Bradenton, Florida area - Zone 5, +26.8 / -35.8.
3. Manufacturers listed shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. Other manufacturers are acceptable provided they meet the specification and building code requirements.
4. Work hours are Monday through Friday, 7:30 AM to 5:00 PM.

E.03 DISCRETIONARY WORK

This Bid Item entails minor increases (requiring no Board action) in existing bid item quantities or minor modification items not bid which were unforeseen and necessary during the construction to provide a safe, complete project in accordance with Bid Documents. (This will not effect the requirement for change orders involving major modifications to the project.) Payment for all Work under this item shall be made only at the Owner's discretion in order to satisfactorily complete the project. In general, this item is for unanticipated conflicts and/or design changes required during construction which are necessary to complete the project without changing the initial scope of the Work and without costly delays.

SECTION 00300
BID FORM
(BID "A" - BASED ON COMPLETION TIME OF 90 DAYS)

For: Parrish Old School House Windows and Doors Replacement

	DESCRIPTON	TOTAL COST
OPTION 1	Replacement of Windows and Doors as specified herein based on IR 501 Frames with 1 5/16" Impact Glazing.	\$
	Discretionary Work	\$30,000.00
	TOTAL BID PRICE – BID "A" OPTION 1 (90 DAYS)	\$
OPTION 2	Replacement of Windows and Doors as specified herein based on 500 Frames with 5/8" Impact Glazing.	\$
	Discretionary Work	\$30,000.00
	TOTAL BID PRICE – BID "A" OPTION 2 (90 DAYS)	\$

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price." The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

Window Brand/Manufacturer/Model: _____

Door Brand/Manufacturer/Model: _____

Literature attached for other that manufacturers listed? _____ Date of site inspection: _____

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation For Bid. We understand that the bid specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all reprourement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Address: _____ Phone: _____

Date: _____ email address: _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s)

CO. MAILING ADDRESS: _____

TELEPHONE: (____) _____ FAX: (____) _____

Acknowledge Addendum Nos. _____ Dated: _____

SECTION 00300
BID FORM
 (BID "B" - BASED ON COMPLETION TIME OF 60 DAYS)

For: Parrish Old School House Windows and Doors Replacement

	DESCRIPTON	TOTAL COST
OPTION 1	Replacement of Windows and Doors as specified herein based on IR 501 Frames with 1 5/16" Impact Glazing.	\$
	Discretionary Work	\$30,000.00
	TOTAL BID PRICE – BID "B" OPTION 1 (60 DAYS)	\$
OPTION 2	Replacement of Windows and Doors as specified herein based on 500 Frames with 5/8" Impact Glazing.	\$
	Discretionary Work	\$30,000.00
	TOTAL BID PRICE – BID "B" OPTION 2 (60 DAYS)	\$

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price." The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

Window Brand/Manufacturer/Model: _____

Door Brand/Manufacturer/Model: _____

Literature attached for other that manufacturers listed? _____ Date of site inspection: _____

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation For Bid. We understand that the bid specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all reprocurment costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Address: _____ Phone: _____

Date: _____ email address: _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s)

CO. MAILING ADDRESS: _____

TELEPHONE: (____) _____ FAX: (____) _____

Acknowledge Addendum Nos. _____ Dated: _____

CONTRACTOR'S QUESTIONNAIRE

(Submit in Triplicate)

The Bidder warrants the truth and accuracy of all statements and answers herein contained. (Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

1. LICENSE # and COMPANY'S NAME: _____
 CO. PHYSICAL ADDRESS: _____
 STATE OF INCORPORATION, IF APPLICABLE: _____
 TELEPHONE NUMBER: () _____ FAX: () _____

2. Bidding as an individual: ____; a partnership: ____; a corporation: ____; a joint venture: ____

3. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of venturers and the same if any venturer is a corporation for each such corporation, partnership, or joint venture:

4. Your organization has been in business (under this firm's name) as a _____
 for how many years? _____

5. Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:

6. Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

7. Have you ever failed to complete work awarded to you? Provide projects not completed within contract time. If so, state when, where (contact name, address, phone number) and why?

8. Have you ever been debarred or prohibited from bidding on a governmental entity's solicitation? If yes, name the entity and describe the circumstances:

9. Name three individuals, governmental entities, or corporations for which you have performed similar work and to which you refer. Include contact name and phone number:

1. _____

2. _____

3. _____

10. What specific steps have you taken to examine the physical conditions at or contiguous to the site? Have you visited the site? _____

11. What specific physical conditions have you found which will, in any manner, affect cost, progress, performance, or finishing of the work?

12. Will you subcontract any part of this Work? If so, describe which major portion(s):

13. If any, list (with contract amount) WBE/MBEs to be utilized:

14. What equipment do you own to accomplish this Work?

15. What equipment will you purchase/rent for the Work? (specify which)

SECTION 00491

Drug Free Work Place Certification

SWORN STATEMENT PURSUANT TO RESOLUTION R-01-36 SECTION 4, E (1) (a)
MANATEE COUNTY PURCHASING POLICIES, ON DRUG FREE WORK PLACES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____

[print individual's name and title]

for _____

[print name of entity submitting sworn statement]

whose business address is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____ (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by:

(1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by §893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:

- (i) the dangers of drug abuse in the work place;
- (ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
- (iii) any available drug counseling, rehabilitation, and employee assistance programs; and
- (iv) the penalties that may be imposed upon employees for drug abuse violations.

(2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).

(3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:

- (i) abide by the terms of the statement; and
- (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.

- (4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.
- (5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.
- (6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or Resolution R-01-36 Section 4, E (1) (a) or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by Resolution R-01-36 Section 4, E (1) (a).

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 200____ by _____.

Personally known _____ OR Produced identification _____
[Type of identification]

Notary Public Signature My commission expires _____

[Print, type or stamp Commissioned name of Notary Public]

SECTION 00491

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

SWORN STATEMENT PURSUANT TO ARTICLE 6,
MANATEE COUNTY PURCHASING CODE

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____
 [print individual's name and title]

_____ for _____
 [print name of entity submitting sworn statement]

whose business address is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____. If the entity has no

FEIN, include the Social Security Number of the individual signing this sworn statement: _____

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it has not:

- (1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Director, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Director. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 20____ by _____.
Personally known _____ OR Produced identification _____
[Type of identification]

Notary Public Signature My commission expires _____

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

DIVISION 7
07900 - JOINT SEALANTS

SCOPE OF WORK

A. **WORK SPECIFIED IN THIS SECTION**

1. THE GENERAL REQUIREMENTS ARE MADE A PART OF THIS SECTION AND APPLY TO THE WORK SPECIFIED.
2. PROVIDE CAULKING AND SEALANTS REQUIRED TO MAKE BUILDING AIRTIGHT AND WEATHERTIGHT.

B. **WORK SPECIFIED IN OTHER SECTIONS**

- CAULKING OF DOORS AND WINDOWS - EXTERIOR AND INTERIOR JOINTS
- CAULKING RELATED TO ROOF FLASHING
- CAULKING OF JOINTS IN MASONRY AND CONCRETE WORK - EXTERIOR AND INTERIOR
- CAULKING OF ALL INTERIOR EXPOSED JOINTS
- COMPRESSIBLE FILLERS IN UNCAULKED EXPANSION JOINTS
- FIRE BARRIER SEALING STRIPS, WRAPS, PUTTY AND CAULK
- SEAL AROUND PIPE PENETRATIONS THROUGH WALLS, FLOOR, CEILINGS

C. **SUBMITTALS**

1. SAMPLES:
 - a) SAMPLES TO INCLUDE SEALANT, BACKUP MATERIAL AND JOINT PRIMER. SAMPLES MUST DEMONSTRATE COLOR AND TEXTURE OF MATERIAL.
 - b) LITERATURE FOR INFORMATION ONLY: SUBMIT TWO COPIES OF MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF SEALANT, CAULKING COMPOUND AND ASSOCIATED MISCELLANEOUS MATERIAL REQUIRED. INCLUDE MANUFACTURER'S PUBLISHED DATA, OR LETTER OF CERTIFICATION, OR CERTIFIED TEST LABORATORY REPORT INDICATING THAT EACH MATERIAL COMPLIES WITH THE REQUIREMENTS AND IS INTENDED GENERALLY FOR THE APPLICATIONS SHOWN.
2. JOINT PRIMER: SUBMIT WRITTEN DIRECTIONS OF PRIMER MANUFACTURER FOR EACH TYPE OF APPLICATION. INCLUDE WRITTEN EXEMPTION FOR JOINTS NOT REQUIRING PRIMER.
3. QUALITY ASSURANCE: SUBMIT UPON REQUEST LIST OF PROJECTS, CONTACT PERSONS, TELEPHONE NUMBERS AND ADDRESSES AS REQUIRED TO CONFIRM MINIMUM FIVE YEARS SUCCESSFUL EXPERIENCE IN APPLICATION OF SPECIFIED MATERIALS.

07900 - JOINT SEALANTS

D. STORAGE

DELIVER SEALANT MATERIALS TO JOBSITE IN ORIGINAL PACKAGES INDICATING TYPE AND MANUFACTURER'S NAME. STORE IN DRY LOCATION, PROPERLY PROTECTED FROM DIRECT SUNLIGHT, FREEZING AND PHYSICAL DAMAGE.

PRODUCTS

A. MATERIALS - GENERAL

1. PROVIDE MATERIALS OF MANUFACTURERS WHO WILL RENDER QUALIFIED TECHNICAL ASSISTANCE AT PROJECT SITE, ADVISING INSTALLER OF PROPER PROCEDURES FOR USE OF MATERIALS.
2. COMPATIBILITY: BEFORE PURCHASE OF EACH SPECIFIED SEALANT, INVESTIGATE ITS COMPATIBILITY WITH THE JOINT SURFACES, JOINT FILLERS AND OTHER MATERIALS IN THE JOINT SYSTEM. PROVIDE ONLY MATERIALS (MANUFACTURER'S RECOMMENDED VARIETY OF THE SPECIFIED MATERIALS) WHICH ARE KNOWN TO BE FULLY COMPATIBLE WITH THE ACTUAL INSTALLATION CONDITION, AS SHOWN BY MANUFACTURER'S PUBLISHED DATA OR CERTIFICATION.
3. PROVIDE SIZE AND SHAPE OF PREFORMED SEALANT UNITS AS SHOWN OR, IF NOT SHOWN, AS RECOMMENDED BY THE MANUFACTURER, EITHER IN HIS PUBLISHED DATA OR UPON CONSULTATION WITH HIS TECHNICAL REPRESENTATIVE.
4. DO NOT USE POLYSULFIDE SEALANTS IN CONJUNCTION WITH BITUMINOUS OR PLASTIC MATERIALS. USE ONE COMPONENT POLYSULFIDE ONLY WHERE UNPLEASANT CURING ODOR, 14 TO 60 DAY CURE TIME, 1" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE IS ACCEPTABLE.

B. COLORS

1. PROVIDE COLOR SELECTED FROM FULL RANGE OF MANUFACTURER'S STANDARD COLOR RANGE FOR EACH SEALANT TYPE.
2. COLORS: PROVIDE CLEAR, WHITE OR OTHER NATURAL COLOR WHEREVER NO OTHER COLOR IS AVAILABLE. WHEREVER COMPOUND IS NOT EXPOSED TO VIEW, PROVIDE MANUFACTURER'S STANDARD COLOR WHICH HAS THE BEST OVERALL PERFORMANCE CHARACTERISTICS FOR THE APPLICATION SHOWN.
3. PROVIDE CUSTOM COLORS AS SELECTED BY THE ARCHITECT.

C. POLYSULFIDE, ONE-COMPONENT

1. ONLY USE ONE-COMPONENT POLYSULFIDE WHERE UNPLEASANT CURING ODOR, 14 TO 60 DAY CURE TIME, 1" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE ARE ACCEPTABLE.

07900 - JOINT SEALANTS

2. ONE-COMPONENT POLYSULFIDE BASE SEALANT, GUN GRADE, NONSAGGING SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-S-00230C.

3. ACCEPTABLE MANUFACTURERS:

- SONOLASTIC 1-PART BY SONNEBORN - CONTECH
- SYNTHACAULK GC-9 BY PECORA
- THIOTOK RM SEALANT BY TOCH
- FLEXISEAL 1-PART POLYSULFIDE SEALANT BY DAP

D. POLYSULFIDE, TWO-COMPONENT

1. USE TWO-COMPONENT POLYSULFIDE WHERE UNPLEASANT CURING ODOR, 44 TO 77 DAY CURE TIME, 2" MAXIMUM JOINT WIDTH, 25% TO 50% JOINT MOVEMENT, AND 10 TO 20 YEAR SERVICE LIFE ARE ACCEPTABLE.

2. TWO-COMPONENT POLYSULFIDE POLYMER BASE SEALANT, GUN GRADE, NONSAGGING SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-S-00227. PROVIDE COMPOUND BEARING THE THIOKOL CHEMICAL CORPORATION SEAL OF APPROVAL.

3. ACCEPTABLE MANUFACTURERS - PROVIDE ONE OF THE FOLLOWING PRODUCTS:

- CHURCHILL 3C-50 AND 3C-55 - CHURCHILL CHEMICAL CORP.
- FLEXISEAL 700 SERIES - DAP, INC.
- HORNFLX & VERTICAL - W.R. GRACE & CO.
- NOVACALK 200 SERIES - NOVAGARD CORP.
- PARMASTIC - PARR, INC.
- SYNTHACAULK GC-5 SERIES - PECORA CORP.
- PRC RUBBER CAULK 150 & 250 - PRODUCTS RE. & CHEM. CORP.
- PTI-748 - PROTECTIVE TREATMENTS, INC.
- SONOLASTIC TWO-PART - SONNEBORN/CONTECH, INC.
- THIOCAULK ARCH. GRADE - STEELCOTE MFT. CO.
- ULTRATITE 101 - TELEDYNE COAST PRO-SEAL
- LASTO-MERIC - TREMCO MFG. CO.
- CHEMCAULK 200 - WOODMONT PRODUCTS, INC.
- A-H POLY SEALANT BP - ANTI-HYDRO WTP. CO.
- SEALTIGHT CM-60 - W.R. MEADOWS, INC.
- VERSALASTIC GG-15 - APPLIED POLY. OF AMERICA, INC.
- COLMA J.S. NS - SICA CHEMICAL CORP.
- THORSPAN (TWO-PART) - STANDARD DRYWALL PRODUCTS, INC.
- THIOTOK SEALANT - TOCH BROTHERS, INC.

4. OPTIONAL SEALANT - WHEN APPROVED, PROVIDE "DYMERIC" SEALANT BY TREMCO, IN LIEU OF THE SPECIFIED ABOVE, PROVIDED MANUFACTURER FURNISHES CERTIFICATION THAT SEALANT PERFORMANCE IS EQUAL TO OR BETTER THAN THE SPECIFIED IN EVERY RESPECT, AND IS RECOMMENDED FOR THE APPLICATION SHOWN.

07900 - JOINT SEALANTS

E. URETHANE, ONE-COMPONENT

1. USE ONE-COMPONENT URETHANE WHERE ¾" MAXIMUM JOINT WIDTH, 14 TO 30 DAY CURE TIME, 25% TO 40% JOINT MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. URETHANE MAY BE APPLIED TO BITUMINOUS OR ASPHALTIC COMPOUNDS, BUT NOT ON PLASTICS. URETHANE MAY STAIN ADJACENT SURFACES.
2. ONE-COMPONENT URETHANE SEALANT, GUN GRADE SHALL CONFORM TO LATEST FEDERAL SPECIFICATION TT-00230, TYPE II, CLASS A.
3. ACCEPTABLE MANUFACTURERS:
 - SONOLASTIC NPI BY SONNEBORN - CONTECH
 - VULKEM 116 BY MAMECO
 - DYNASEAL W-100 BY WILLIAMS PRODUCTS, INC.
 - SIKAFLEX 1A BY SIKA

F. URETHANE, TWO-COMPONENT

1. USE TWO-COMPONENT URETHANE WHERE 1½" MAXIMUM JOINT WIDTH, 3 TO 6 DAY CURE TIME, 25% TO 40% MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. NOTE THAT 3-COMPONENT IIS AVAILABLE FOR JOINTS UP TO 5" WIDE.
2. TWO COMPONENT URETHANE SEALANT, GUN GRADE, CONFORMING TO LATEST FEDERAL SPECIFICATION TT-S-00227E, TYPE II, CLASS A.
3. ACCEPTABLE MANUFACTURERS:
 - SONOLASTIC NP II BY SONNEBORN
 - SYNATROL II DYNAMIC SEALANT BY PECORA
 - VULKEM 227 BY MAMECO
 - DUALTHANE BY W.R. MEADOWS

G. ACRYLIC, ONE-COMPONENT

1. USE ACRYLIC SEALANT WHERE ¾" MAXIMUM JOINT WIDTH, 14 TO 21 DAY CURE TIME - 30F TO 300F, 10% TO 20% MAXIMUM JOINT MOVEMENT, AND 20 PLUS YEAR SERVICE LIFE ARE APPLICABLE. ACRYLICS RELEASE OFFENSIVE ODOR AND SHOULD NOT BE USED IN FOOD STORAGE OR PREPARATION AREAS. ACRYLICS WILL SELF-HEAL AFTER COHESIVE FAILURE. SELF-BONDS TO METAL, WOOD, MASONRY, PLASTIC, AND GLASS.
2. ONE-COMPONENT ACRYLIC POLYMER SEALANT, GUN GRADE, CONFORMING TO LATEST FEDERAL SPECIFICATION TT-S-00230, CLASS B, TYPE II.

07900 - JOINT SEALANTS

3. ACCEPTABLE MANUFACTURERS:

- MONO BY TREMOC
- DAP 1-PART ACRYLIC SEALANT BY DAP
- 60 UNICRYLIC BY PECORA
- SOLAPLY BY W.R. MEADOWS

H. SILICONE, ONE-COMPONENT

1. USE SILICONE WHERE 11" MAXIMUM JOINT WIDTH, 22 TO 55 DAY CURING TIME, 12% TO 50% MAXIMUM JOINT MOVEMENT, AND 20 PLUS YEAR LIFE ARE APPLICABLE. FOR WIDER JOINTS, 2-PART SILICONE IS AVAILABLE. MOST SILICONES CANNOT BE PAINTED. STRONG ACETIC ACID SMELL WHILE SILICONE CURES.
2. EXTERIOR SILICONE - ACID-TYPE, NON-SAG, ELASTOMERIC RUBBER-BASED SEALANT, GUN GRADE SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001543, CLASS A AS RECOMMENDED BY MANUFACTURER FOR NON-POROUS EXTERIOR JOINT SURFACES.
3. ACCEPTABLE MANUFACTURERS (EXTERIOR SILICONE):
 - RHODORSIL SEALANT 3B BY RHODIA, INC.
 - SILICONE SEALANT 1200 BY GENERAL ELECTRIC
 - SILICONE RUBBER SEALANT BY DOW CORNING
4. EXTERIOR SILICONE NONACID - TYPE, NON SAG, ELASTOMERIC RUBBER-BASED SEALANT, GUN GRADE SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001543, CLASS A; AS RECOMMENDED BY MANUFACTURER FOR POROUS EXTERIOR JOINT SURFACES.
5. ACCEPTABLE MANUFACTURERS (EXTERIOR SILICONE, NON-ACID TYPE):
 - 790 BUILDING SEALANT - DOW CORNING CORP.
 - SILICONE SEALANT 1300 - GENERAL ELECTRIC CO.
 - 862 SILICONE ARCH. SEALANT - PECORA CORP.
 - RHODORSIL SEALANT 4C - RHODIA, INC.
 - SEALANT SWS-940 - STAUFFER-WACKER SILICONE CORP.
6. INTERIOR SILICONE RUBBER SEALANT - SILICONE RUBBER-BASED, ONE-PART, NON-SAFING, ELASTOMERIC SEALANT, AS RECOMMENDED BY THE U.S.D.A. FOR INTERIOR APPLICATIONS, INCLUDING FOOD PREPARATION AREAS, PHARMACEUTICAL CLEAN AREAS, AND SIMILAR APPLICATIONS SUBJECTED TO ATTACK BY MILDEW. PROVIDE TYPE RECOMMENDED BY MANUFACTURER FOR THE POROSITY OF THE JOINT SURFACES (NON-ACID FOR POROUS SURFACES, ACID FOR NON-POROUS).

07900 - JOINT SEALANTS

I. BUTYL SEALANT (VULCANIZED)

1. GUN GRADE, BUTYL RUBBER BASE SEALANT, NONSAFING SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-001657, TYPE I.
2. ACCEPTABLE MANUFACTURERS:
 - BC-158 BY PECORA
 - BUTYL-FLEX BY DAP
 - BUTAKAUK BY SONNEBORN

J. FIRE BARRIER SEALANT

PROVIDE INTUMESCENT FIRE, SMOKE AND WATER BLOCKING STRIPS, PIPE WRAP SHEETS, PUTTY OR CAULKING AT ALL PENETRATIONS THROUGH FIRE WALLS OR WHEREVER ELSE INDICATED ON THE DRAWINGS. PRODUCTS TO BE USED MUST BE FACTORY MUTUAL APPROVED. ACCEPTABLE PRODUCTS ARE THOSE OF THE 3M BRAND FIRE BARRIER SEALING SYSTEMS, STANDARD OIL Fyre PUTTY, OR ENGINEER APPROVED EQUALS.

K. PRECOMPRESSED FOAM SEALANT

1. WHERE INDICATED ON THE DRAWINGS AND ESPECIALLY IN ALL PIPE PENETRATIONS IN PRODUCTION AREA WALLS AND CEILINGS, PROVIDE A PRECOMPRESSED FOAM SEALANT WRAP AROUND PENETRATING PIPES TO SEAL THE WALL OPENING THROUGH WHICH THE PIPES PASS AND TO PROVIDE A FIRM, FLEXIBLE BACK-UP FOR OTHER SEALANTS APPLIED FROM THE ROOM SIDE TO THE RESULTING JOINT.
2. PRECOMPRESSED FOAM SEALANT SHALL BE WILL-SEAL 150G TAPE AS MANUFACTURED BY WILL-SEAL CONSTRUCTION FOAMS, 447 ELMWOOD, TROY, MICHIGAN 48084, (313) 585-4363, OR APPROVED EQUIVALENT.

L. FLOOR AND WALL PIPE PENETRATION SEALS

THE PIPE TO WALL PENETRATION CLOSURES SHALL BE "LINK-SEAL" AS MANUFACTURED BY THUNDERLINE CORPORATION - BELLEVILLE, MI. 48111. SEALS SHALL BE MODULAR MECHANICAL TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS RUBBER BELT AROUND THE PIPE WITH A PRESSURE PLATE UNDER EACH BOLT HEAD AND NUT. AFTER THE SEAL ASSEMBLY IS POSITIONED IN THE SLEEVE, TIGHTENING OF THE BOLTS SHALL CAUSE THE RUBBER SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATERTIGHT SEAL BETWEEN THE PIPE AND WALL OPENING. THE SEAL SHALL BE CONSTRUCTED SO AS TO PROVIDE ELECTRICAL INSULATION BETWEEN THE PIPE AND WALL, THUS REDUCING CHANGES OF CATHODIC REACTION BETWEEN THESE TWO MEMBERS.

07900 - JOINT SEALANTS

M. BUTYL RUBBER SEALANT TAPE

1. A PARTIALLY-VULCANIZED, SELF-ADHESIVE, NON-STAINING, ELASTOMERIC BUTYL RUBBER TAPE, RECOMMENDED BY THE MANUFACTURER FOR WATERPROOF CONSTRUCTION WHEN COMPRESSED 35% IN DYNAMICALLY MOVING JOINTS; NOT LESS THAN 98% SOLIDS; NO DETERIORATION AFTER 3,000-MAN HOUR TEST IN ATLAS WEATHERMETER.
2. ACCEPTABLE MANUFACTURERS PROVIDE ONE OF THE FOLLOWING PRODUCTS:
 - INCOLASTIC 7500 - INTERCOASTAL CORP.
 - PTI 606 - PROTECTIVE TREATMENTS, INC.

N. JOINT BACKING

1. SEALANT BACKER ROD - COMPRESSIBLE ROD STOCK POLYETHYLENE FOAM, POLYETHYLENE JACKETED POLYURETHANE FOAM, BUTYL RUBBER FOAM, NEOPRENE FOAM OR JOINT PRIMER/SEALER - PROVIDE THE TYPE OF JOINT CLEANING COMPOUND RECOMMENDED BY THE SEALANT MANUFACTURER, FOR THE JOINT SURFACES TO BE PRIMED OR SEALED. USE NEOPRENE IN VARYING WIDTH JOINTS. PROVIDE SIZE AND SHAPE OF ROD WHICH WILL CONTROL THE JOINT DEPTH FOR SEALANT PLACEMENT, BREAK BOND OF SEALANT AT BOTTOM OF JOINT, FOR OPTIMUM SHAPE OF SEALANT BEAD ON BACK SIDE, AND PROVIDE A HIGHLY COMPRESSIBLE BACKER TO MINIMIZE THE POSSIBILITY OF SEALANT EXTRUSION WHEN JOINT IS COMPRESSED. THE USE OF ANY POLYSTYRENE FOAM SHALL NOT BE PERMITTED.
2. ACCEPTABLE MANUFACTURERS:
 - WILLIAMS PRODUCTS, INC.
 - DOW CORNING CORPORATION
 - SONNEBORN-CONTECH

O. JOINT PRIMER

PROVIDE TYPE RECOMMENDED BY MANUFACTURER OF SEALANT. USE STAINING, SURFACE PRIMER, WITH MASKING.

P. BOND BREAKER TAPE

PROVIDE POLYETHYLENE OR OTHER PLASTIC TAPE AS RECOMMENDED BY SEALANT MANUFACTURER TO PREVENT ADHESION OF SEALANT TO SUBSTRATE WHERE JOINT BACKING CANNOT BE USED. PROVIDE SELF-ADHESIVE TAPE WHEREVER APPLICABLE.

Q. JOINT CLEANER

PROVIDE THE TYPE OF JOINT CLEANING COMPOUND RECOMMENDED BY THE SEALANT OR CAULKING COMPOUND MANUFACTURER, FOR THE JOINT SURFACES TO BE CLEANED.

07900 - JOINT SEALANTS

EXECUTION

A. **JOB CONDITIONS**

EXAMINE THE JOINT SURFACES, BACKING, AND ANCHORAGE OF UNITS FORMING SEALANT RABBET, AND THE CONDITIONS UNDER WHICH THE SEALANT WORK IS TO BE PERFORMED, AND NOTIFY IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK AND PERFORMANCE OF THE SEALANTS. DO NOT PROCEED WITH THE SEALANT WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN AN APPROVED MANNER.

B. **WEATHER CONDITIONS**

1. DO NOT PROCEED WITH INSTALLATION OF SEALANTS UNDER ADVERSE WEATHER CONDITIONS, OR WHEN TEMPERATURES ARE BELOW OR ABOVE MANUFACTURER'S RECOMMENDED LIMITATIONS FOR INSTALLATION.
2. PROCEED WITH THE EXTERIOR WORK ONLY WHEN FORECASTED WEATHER CONDITIONS ARE FAVORABLE FOR PROPER CURE AND DEVELOPMENT OF HIGH EARLY BOND STRENGTH. WHEREVER JOINT WIDTH IS AFFECTED BY AMBIENT TEMPERATURE VARIATIONS, INSTALL ELASTOMERIC SEALANTS ONLY WHEN TEMPERATURE ARE IN THE LOWER THIRD OF MANUFACTURER'S RECOMMENDED INSTALLATION TEMPERATURE RANGE, SO THAT SEALANT WILL NOT BE SUBJECTED TO EXCESSIVE ELONGATION AND BOND STRESS AT SUBSEQUENT LOW TEMPERATURES. COORDINATE TIME SCHEDULE WITH OTHERS TO AVOID DELAY OF PROJECT.

C. **CLEANING JOINTS**

RAKE OUT AND CLEAN JOINTS TO REMOVE SPALL AND DEBRIS. REMOVE DUST AND FILM FROM JOINT SURFACES WITH CLEANER RECOMMENDED BY MANUFACTURER OF SEALANT.

D. **TESTING FOR ADHESION, SURFACE PREPARATION**

1. VERIFY BY TESTING, IF NECESSARY, THAT SEALANT SPECIFIED WILL ADHERE TO EVERY SURFACE WHICH IS REQUIRED TO RECEIVE SEALANT.
2. PRIOR TO INSTALLATION OF SEALANT OVER JOINT SURFACES WHICH HAVE BEEN PAINTED, LACQUERED, WATERPROOFED, TREATED WITH WATER REPELLENT OR OTHER TREATMENT OR COATING, SUBMIT LABORATORY TEST DEMONSTRATING THAT ADHESION AND SEALANT BOND ARE NOT IMPAIRED BY COATING OR TREATMENT OF JOINT SURFACES BEFORE INSTALLING SEALANT. PERFORM TEST IN CONFORMANCE WITH APPLICABLE REQUIREMENTS OF FEDERAL SPECIFICATION TT-S-00227 FOR SEALANT BOND (ADHESION IN PEEL).
3. ETCH CONCRETE AND MASONRY SURFACES TO REMOVE EXCESS ALKALINITY, UNLESS SEALANT MANUFACTURER'S PRINTED INSTRUCTIONS INDICATE THAT ALKALINITY DOES NOT INTERFERE WITH SEALANT BOND AND PERFORMANCE. ETCH WITH 5% SOLUTION OF MURIATIC ACID; NEUTRALIZE WITH DILUTED

07900 - JOINT SEALANTS

AMMONIA SOLUTION, RINSE THOROUGHLY WITH WATER AND ALLOW TO DRY BEFORE SEALANT INSTALLATION.

E. PRIMING

1. APPLY MASKING TAPE TO PROTECT ADJACENT SURFACES WHERE REQUIRED BEFORE PRIMING.
2. PRIME JOINTS IN MASONRY AND OTHER LOCATIONS. APPLY WITH BRUSH TO PENETRATE IRREGULARITIES.
3. PRIME OR SEAL THE JOINT SURFACES WHEREVER SHOWN OR RECOMMENDED BY THE SEALANT MANUFACTURER. DO NOT ALLOW PRIMER/SEALER TO SPILL OR MIGRATE ONTO ADJOINING SURFACES.

F. BACKING

1. PROVIDE BACKING COMPATIBLE WITH SPECIFIED SEALANT.
2. INSTALL BACKING FOR SEALANTS TO DEPTH BELOW SURFACE EQUAL TO $\frac{1}{2}$ JOINT WIDTH, BUT NEVER MORE THAN $\frac{1}{2}$ " OR LESS THAN $\frac{1}{4}$ " BELOW SURFACE.
3. INSTALL POLYETHYLENE BACKING EXCEPT AS OTHERWISE SPECIFIED OR REQUIRED.
4. INSTALL VINYL BACKING AT EXTERIOR JOINTS.
5. INSTALL NEOPRENE BACKING AT EXTERIOR DYNAMIC JOINTS AND JOINTS OF VARYING WIDTH. DO NOT USE NEOPRENE WITH SILICONE JOINTS.
6. INSTALL COMPRESSIBLE NEOPRENE TUBE AT EXTERIOR JOINTS OVER $\frac{3}{4}$ " IN WIDTH.
7. INSTALL SEALANT BACKER ROD FOR LIQUID ELASTOMERIC SEALANTS, EXCEPT WHERE SHOWN TO BE OMITTED OR RECOMMENDED TO BE OMITTED BY SEALANT MANUFACTURER FOR THE APPLICATION SHOWN.
8. INSTALL BOND BREAKER TAPE WHEREVER SHOWN AND WHEREVER REQUIRED BY MANUFACTURER'S RECOMMENDATIONS TO ENSURE THAT ELASTOMERIC SEALANTS WILL PERFORM PROPERLY.

G. SEALANTS - GUN GRADE

1. MIX AND APPLY SPECIFIED SEALANT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

07900 - JOINT SEALANTS

2. POINT UP FREE OF WRINKLES, SMOOTH, SLIGHTLY COVERED AND APPROXIMATELY 1/32" BELOW ADJACENT SURFACES. KNIFE FLOOR JOINT SEALANTS FLUSH WITH FLOOR SURFACE.
3. AVOID EXCESSIVE WORKING OF SURFACE. REMOVE TAPE AFTER FINAL TOOLING AND BEFORE CAULKING SETS. CLEAN ADJACENT SURFACES AFTER COMPLETION OF CAULKING WORK.

H. CURE AND PROTECTION

1. CURE SEALANTS AND CAULKING COMPOUNDS IN COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, TO OBTAIN HIGH EARLY BOND STRENGTH, INTERNAL COHESIVE STRENGTH, AND SURFACE DURABILITY.
2. TAKE NECESSARY PROCEDURES REQUIRED FOR THE CURING AND PROTECTION OF SEALANTS AND CAULKING COMPOUNDS DURING THE CONSTRUCTION PERIOD, SO THAT THEY WILL BE WITHOUT DETERIORATION OR DAMAGE (OTHER THAN NORMAL WEAR AND WEATHERING) AT THE TIME OF ACCEPTANCE.

I. FLOOR AND WALL PIPE PENETRATION SEAL

THE CONTRACTOR SHALL DETERMINE THE REQUIRED INSIDE DIAMETER OF EACH INDIVIDUAL WALL OPENING OR SLEEVE BEFORE ORDERING, FABRICATING OR INSTALLING. THE INSIDE DIAMETER OF EACH WALL OPENING SHALL BE SIZED AS RECOMMENDED BY THE MANUFACTURER. INSTALLATION SHALL BE AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS.

J. GUARANTEE

PROVIDE TWO YEAR WRITTEN GUARANTEE OF WORK PERFORMED UNDER THIS SECTION. UNDER GUARANTEE, SIGNED BY CONTRACTOR AND SEALANT INSTALLER, REPAIR OR REPLACE SEALANTS WHICH FAIL TO PERFORM AS AIRTIGHT AND WATERTIGHT JOINTS, OR FAIL IN JOINT ADHESION, COHESION, ABRASION RESISTANCE, WEATHER RESISTANCE, EXTRUSION RESISTANCE, MIGRATION RESISTANCE, STAIN RESISTANCE, OR GENERAL DURABILITY.

END OF SECTION

DIVISION 8
08120 - ALUMINUM DOORS AND FRAMES (ENTRANCES)

08120.01 **SCOPE OF WORK**

A. WORK SPECIFIED IN THIS SECTION

1. PROVIDE ALUMINUM DOORS AND FRAMES, 350 SERIES HURRICANE RATED WITH INTRGRAL PANIC DEVICE AS MANUFACTURED BY THE KAWNEER COMPANY. DOORS AND FRAMES SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE STORE FRONTS AND WINDOW WALL SYSTEM.
2. DOOR NUMBER 7 SHALL BE POWER ASSIST.
3. FURNISH AND INSTALL FINISH HARDWARE.

B. WORK SPECIFIED IN OTHER SECTIONS

- ALUMINUM WINDOWS
- GLASS AND GLAZING
- JOINT SEALANTS
- HARDWARE

C. SUBMITTALS

1. SHOP DRAWINGS: SHOP DRAWINGS TO SHOW METHOD OF JOINTING, SIZE AND THICKNESS OF MEMBERS, REINFORCEMENTS, FASTENINGS, HARDWARE COORDINATION, AND NECESSARY CONNECTIONS TO WORK OF OTHER TRADES.
2. SAMPLES:
 - a) SUBMIT SAMPLES, APPROXIMATELY 2" X 4" FOR EACH PROPOSED ALUMINUM, COLOR AND FINISH.
 - b) SUBMIT CORNER SECTION SAMPLE OF DOOR, GLAZING BEADS OR GLAZING GASKETS.
 - c) FINISHED WORK TO CONFORM TO ACCEPTED SAMPLES.

D. STORAGE AND HANDLING

1. STORE AND HANDLE ALUMINUM IN ACCORDANCE WITH RECOMMENDATIONS OF PUBLICATION, HANDLING AND STORING ALUMINUM, PUBLISHED BY THE ALUMINUM COMPANY OF AMERICA.
2. PROTECT MATERIAL FROM CONSTRUCTION HAZARDS THAT MAY DAMAGE THEIR APPEARANCE OR FINISH.

08120 - ALUMINUM DOORS AND FRAMES (ENTRANCES)

E. DISSIMILAR AND CONCEALED SURFACES

1. PROTECT ALUMINUM IN CONTACT WITH DISSIMILAR METALS, EXCEPT STAINLESS STEEL OR ZINC, BY ONE OF THE FOLLOWING METHODS:
 - a) ZINC-CHROMATE PRIMER, AND TWO COATS ALUMINUM AND MASONRY PAINT HEAVY COATING OF ALKALI-RESISTANT BITUMINOUS PAINT.
 - b) ALLOW COATING TO DRY BEFORE ASSEMBLY OF PARTS.
 - c) PAINT SURFACES OF ALUMINUM IN CONTACT WITH MORTAR, PLASTER, CONCRETE OR OTHER MASONRY MATERIALS WITH HEAVY BRUSH COAT OF ALKALI-RESISTANT BITUMINOUS PAINT.

F. CLEAN-UP

1. REMOVE FOREIGN MATERIALS LIKELY TO CAUSE STAIN ON ALUMINUM SURFACES, INCLUDING MORTAR, PLASTER AND PAINT ON SAME DAY THAT SUCH SPOTTING OCCURS ON METAL. DO NOT ALLOW TO REMAIN. THOROUGHLY CLEAN, AFTER INSTALLATION IS COMPLETE, ALUMINUM WORK WHICH PRESENTS AN UNSATISFACTORY SOILED APPEARANCE. USE CLEANING AGENTS AND METHODS RECOMMENDED BY ALCOA PUBLICATION CARE OF ARCHITECTURAL ALUMINUM DURING CONSTRUCTION, AND LEAVE WORK IN SATISFACTORY CONDITION.
2. OBTAIN AND KEEP A COPY OF ALCOA PUBLICATIONS CARE OF ARCHITECTURAL ALUMINUM DURING CONSTRUCTION AND HANDLING AND STORING ALUMINUM, AVAILABLE AT JOBSITE.

G. WIND PRESSURE

DESIGN COMPONENTS AND ASSEMBLIES ON EXTERIOR OF BUILDING TO RESIST WIND LOAD OF 130 MPH. PER SQ. FT.

H. APPLICABLE PUBLICATIONS

FABRICATE ALUMINUM WORK IN CONFORMANCE WITH STANDARDS OF THE ARCHITECTURAL ALUMINUM MANUFACTURERS ASSOCIATION, EXCEPT AS MODIFIED HEREIN.

I. COORDINATION

COORDINATE ALUMINUM WORK WITH WORK OF OTHER TRADES. COORDINATE ALUMINUM COLOR AND FINISH WITH HARDWARE FOR ALUMINUM DOORS AND FRAMES.

08120.02 PRODUCTS

A. SHEET ALUMINUM

5005 ALLOY.

08120 - ALUMINUM DOORS AND FRAMES (ENTRANCES)

B. EXTRUDED ALUMINUM

6063-T5 ALLOY.

C. CAST ALUMINUM

AA 514.0 ALLOY.

D. FASTENERS

PROVIDE SCREWS, NUTS, WASHERS, BOLTS AND OTHER MISCELLANEOUS FASTENING DEVICES OF ALUMINUM, OR NONMAGNETIC STAINLESS STEEL, OF SUFFICIENT STRENGTH. PROVIDE EXPOSED FASTENERS MADE OF PROPER ALLOY TO PRODUCE MATCHING COLORS.

E. FINISHES - GENERAL

FINISH DESIGNATIONS AND STANDARDS HEREIN AFTER SPECIFIED ARE DESIGNATIONS OF THE ALUMINUM ASSOCIATION (AA).

F. FINISHES

ENTRANCE DOORS SHALL BE SHOP FINISHED WITH FLUROPON ARCHITECTURAL FINISH, COLOR 395F518 HARTFORD GREEN, AS FURNISHED BY THE KAWNEER COMPANY.

G. ALUMINUM ENTRANCES

1. MANUFACTURERS: PROVIDE ALUMINUM ENTRANCES AS MANUFACTURED BY:

- PPG INDUSTRIES, INC., KOKOMO, IN (800) 428-0721
- KAWNEER COMPANY, INC., NORCROSS, GA (404) 449-5555
- AMARLITE ARCHITECTURAL PRODUCTS, ATLANTA, GA (404) 691-5750
- CROSS ALUMINUM PRODUCTS, DOWAGIAC, MI 49047 (616) 782-7044
- SPECIAL-LITE, INC., DECATUR, MI 49045 (800) 821-6531
- TUBLITE INDAL ARCHITECTURAL SYSTEMS, REED CITY, MI (616) 832-2211
- VISTAWALL ARCHITECTURAL PRODUCTS, TERRELL, TX (214) 551-6100
- YKK AP AMERICA, INC., ATLANTA, GA (404) 344-2981

2. DESIGN SYSTEM: DOORS: MEDIUM STILE
 FRAMES: MEDIUM PROFILE (4½" DEEP X 1¼" WIDE)

3. FABRICATION:

- a) PROVIDE STRUCTURAL REINFORCEMENT FOR SUBSTANTIAL AND RIGID INSTALLATION. FABRICATE ALUMINUM WORK TO PREVENT DISTORTION OR OVERSTRESSING FROM EXPANSION AND CONTRACTION. SECURE ALUMINUM FRAMES TO BUILDING TO WITHSTAND WIND LOADS. MAJOR STILE AND RAIL SECTIONS TO HAVE MINIMUM 0.125" WALL THICKNESS.

08120 - ALUMINUM DOORS AND FRAMES (ENTRANCES)

- b) FABRICATE FRAMES AND DOORS FROM EXTRUDED ALUMINUM SHAPES AND SECTIONS. SURFACE JOINTS TO BE HAIRLINE WIDTH. WELD CORNERS ALONG CONCEALED LINES OF CONTACT. FABRICATE FREE OF TWIST AND MAKE TRUE AND SQUARE. PREPARE AND REINFORCE DOORS AND FRAMES FOR REQUIRED HARDWARE.
- c) GLAZED DOORS AND FRAMES TO HAVE EXTRUDED ALUMINUM SNAP-IN GLASS STOPS WITH VINYL INSERTS FOR PUTTYLESS GLAZING.
- d) FULLY WEATHER STRIP DOORS WITH SILICON TREATED PLASTIC PILE TYPE WEATHER STRIPPING IN RECESSED CONTAINERS.
- e) ALL SUBDIVIDED WINDOW LITES SHALL BE APPLIED SNAP-ON EXTRUDED ALUMINUM MULLIONS AND MUTTONS.

08120.03 EXECUTION

A. INSTALLATION:

INSTALL DOORS AND FRAMES IN ACCORDANCE WITH ACCEPTED SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS. CAREFULLY FIT TOGETHER WORK MADE IN SECTIONS. FLAT SURFACES TO BE SMOOTH AND MOLDINGS AND CORNERS SHARP, CLEAN CUT AND TRUE. MEMBERS PLUMB, SQUARE, ALIGNED IN TRUE PLANES.

B. CONNECTIONS

PROVIDE CONNECTIONS AND ANCHORS REQUIRED FOR SECURING WORK TO MASONRY, STRUCTURAL FRAMING OR OTHER PARTS OF STRUCTURE.

C. FINISH HARDWARE

FINISH HARDWARE: FURNISH AND INSTALL FINISH HARDWARE. FINISH HARDWARE FINISH TO MATCH DOOR FINISH SEE SECTION 08700 FOR SPECIFIC HARDWARE REQUIREMENTS.

END OF SECTION

DIVISION 8
08520 - ALUMINUM WINDOWS

SCOPE OF WORK

A. **WORK SPECIFIED IN THIS SECTION**

1. PROVIDE AND INSTALL ALUMINUM WINDOWS AND WINDOW FRAMES AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.
2. PROVIDE ALUMINUM STORE FRONT WINDOWS AS INDICATED AND SPECIFIED.
3. PROVIDE THE FOLLOWING ALUMINUM WINDOWS AS INDICATED AND SPECIFIED:
 - a) FIXED WINDOW UNITS.

B. **QUALITY ASSURANCE**

1. DRAWINGS FOR TYPES 1 AND 2 ABOVE, ARE BASED ON KAWNEER'S IR 501 AND 1600 WALL SYSTEMS. ANOTHER STANDARD SYSTEM OF A SIMILAR AND EQUIVALENT NATURE WILL BE ACCEPTABLE WITHIN DIFFERENCES THAT DO NOT MATERIALLY DETRACT FROM DESIGN CONCEPT OR INTENDED PERFORMANCES, AS JUDGED SOLELY BY THE ARCHITECT.
2. THE EXISTING SCHOOLHOUSE WAS BUILT IN APPROXIMATELY 1926 AND HAS WINDOWS THAT REFLECT A DESIGN OF THAT PERIOD. THE NEW WINDOWS SHALL BE DESIGNED TO RESEMBLE, AS CLOSELY AS POSSIBLE, THE EXISTING AREA, SECTION, AND PROFILE.

C. **WORK SPECIFIED IN OTHER SECTIONS**

ALUMINUM ENTERANCES	SECTION 08410
GLAZING	SECTION 08810
AUTOMATIC ENTRANCE DOORS	SECTION 08460
FINISH HARDWARE	SECTION 08700
FINISH HARDWARE LIST	SECTION 08710
JOINT SEALANTS (CAULKING)	

D. **SUBMITTALS**

SUBMIT SHOP DRAWINGS OF WINDOW UNITS.

E. **STORAGE AND HANDLING**

STORE AND HANDLE ALUMINUM WINDOWS IN A MANNER TO PREVENT DAMAGE BY FLEXING OR BENDING, "TRAFFIC MARKS", AND WATER STAINS IN ACCORDANCE WITH RECOMMENDATIONS OF THE ALCOA PUBLICATION HANDLING AND STORING ALUMINUM.

08520 - ALUMINUM WINDOWS

F. PROTECTION

1. WHERE ALUMINUM IS FASTENED TO STEEL OR OTHER DISSIMILAR METAL PARTS, KEEP FROM DIRECT CONTACT BY A HEAVY COATING OF SUITABLE ALKALI-RESISTANT BITUMINOUS OR OLEO-RESINOUS PAINT BEFORE ASSEMBLY. ALLOW SUCH COATING TO DRY BEFORE ASSEMBLY OF PARTS.
2. PROVIDE COATING ON ALL ALUMINUM FOR PROTECTION OF THE MATERIAL DURING SHIPPING, STORAGE AND ERECTION. COATING TO BE CLEAR METHACRYLATE OR OTHER SUITABLE LACQUER APPLIED IN NOT LESS THAN 2 COATS TO THICKNESS OF NOT LESS THAN 6 MILS. THE APPLIED LACQUER ON THE ALUMINUM SURFACE MUST BE SUCH AS TO WITHSTAND THE ACTION OF LIME MORTAR FOR A PERIOD OF AT LEAST 1 WEEK IN AN ATMOSPHERE OF 100% RELATIVE HUMIDITY AT ROOM TEMPERATURE.
3. AFTER INSTALLATION, PROTECT ALUMINUM MATERIALS FROM CONSTRUCTION HAZARDS THAT WILL INTERFERE WITH THEIR OPERATION OR DAMAGE THEIR APPEARANCE OR FINISH.

G. FIELD INSPECTION

1. SECURE FIELD MEASUREMENTS TO INSURE PROPER COORDINATION.
2. AND FIT OF WINDOW UNITS INSPECT FOR DEFECTS, IMPROPER MATERIALS, OR WORKMANSHIP OR OTHER CONDITIONS WHICH WILL EFFECT SATISFACTORY INSTALLATION OF WINDOW UNITS. STARTING OF ERECTION OF WINDOWS CONSTITUTES ACCEPTANCE OF CONDITIONS AND MATERIALS TO RECEIVE WINDOWS.

H. SPECIFIC REQUIREMENTS

FABRICATE WINDOWS IN CONFORMANCE WITH STANDARDS OF THE ARCHITECTURAL ALUMINUM MANUFACTURERS ASSOCIATION. MEET AND/OR EXCEED AAMA A3 PERFORMANCE SPECIFICATIONS.

PRODUCTS

A. MATERIALS AND FABRICATION - GENERAL

PROVIDE FRAMES, MULLIONS, GLAZING BEADS AND OTHER WEATHERING MEMBERS OF 6063-T5 ALUMINUM ALLOY OF EXTRUDED AND TUBULAR SHAPES.

B. WINDOW MANUFACTURERS

ACCEPTABLE ALUMINUM WINDOW MANUFACTURERS ARE AS FOLLOWS:

- ALENCO, REDMAN BUILDING PRODUCTS, INC., BRYAN, TX (800) 444-1444
- COLUMBIA BUILDING PRODUCTS, ROCKWELL, TX (214) 771-7100

08520 - ALUMINUM WINDOWS

- DESCO THERMAL BARRIER WINDOWS, DESMET, SD (605) 854-9126
- HOPE'S ARCHITECTURAL PRODUCTS, INC., JAMESTOWN, NY (716) 665-5124
- KAWNEER CO., INC., NORCROSS, GA CENTRAL OFFICE: (317) 738-2600
- PEERLESS PRODUCTS, INC., SHAWNEE MISSION, KS (800) 279-9999
- REBCO, INC., PATERSON, NJ (800) 777-0787
- THERMAL WINDOWS, INC., TULSA, OK (800) 259-7580
- TRACO, THREE RIVERS ALUMINUM CO., WARRENDALE, PA (800) 837-7002

C. WINDOW TYPE

1. PROVIDE STANDARD ALUMINUM FIXED WINDOW FRAME SERIES **IR 501 AND 1600 WALL SYSTEMS, HIGH IMPACT AND HURRICANE RATED** AS MANUFACTURED BY KAWNEER.

D. GLAZING METHODS

1. DESIGN WINDOWS FOR OUTSIDE GLAZING WITH SCREW SPLINE SYSTEM.
2. DESIGN WINDOWS FOR GLAZING WITH 1" THICK INSULATED GLASS.

E. MULLIONS

PROVIDE WINDOW MANUFACTURER'S STANDARD EXTERIOR ALUMINUM MULLION, DESIGNED TO WITHSTAND 130 MPH WIND LOAD.

F. HARDWARE FOR FIXED WINDOW

1. PROVIDE NECESSARY CLIPS, ANCHORS AND FASTENERS OF DIE CAST ALUMINUM, ZINC OR STAINLESS STEEL.

G. FINISH

ALL WINDOWS TO BE CLEANED AND FURNISHED WITH A FLUOROPON ARCHITECTURAL FINISH, COLOR 395F518 HARTFORD GREEN.

H. WEATHER STRIPPING

1. PROVIDE WOVEN PILE FABRIC OR CLOSED CELL NEOPRENE WEATHER STRIPPING CONTINUOUSLY AROUND PERIMETER OF SLIDING WINDOW.
2. WEATHER STRIPPING REPLACEABLE WITHOUT REMOVAL OF SASH.
3. COAT NEOPRENE WITH HYPALON TO PREVENT DETERIORATION.

I. ACCESSORIES

1. PROVIDE ALUMINUM BRICK MORTARING ON THE EXTERIOR CONTINUOUSLY AROUND PERIMETER OF ALL WINDOWS.

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- 2 PROVIDE EXTRUDED ALUMINUM STOOL EXTENSIONS WITH DRYWALL RECEIVER AT ALL INTERIOR WINDOW SILLS.
- 3 ALL SUBDIVIDED WINDOW PANES SHALL BE APPLIED SNAP-ON EXTRUDED ALUMINUM MULLIONS AND MUTTIONS.

EXECUTION

A. **INSTALLATION**

- 1 CONTRACTOR SHALL NEATLY REMOVE AND LEGALLY DISPOSE ALL OF THE EXISTING WINDOWS AND EXTERIOR DOORS. WINDOWS AND DOORS SHALL BE REMOVED AS NEW WINDOWS ARE INSTALLED LEAVING THE BUILDING SECURE EVERY NIGHT.
- 2 SEVERAL EXISTING WINDOW OPENING HAVE BEEN INFILLED TO ACCOMMODATE SMALLER WINDOWS. THE CONTRACTOR SHALL NEATLY REMOVE THESE INFILLS AND PREPARE ORIGINAL OPENING FOR NEW WINDOWS.
- 3 SET WINDOW UNITS PLUMB AND TRUE, ACCORDING TO SHOP DRAWINGS AND MANUFACTURERS' DIRECTIONS. ADJUST SLIDING WINDOW AFTER GLAZING TO INSURE PROPER FIT AND PERFECT WORKING ORDER. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY REINFORCEMENT AND ANCHORS TO INSURE PROPER INSTALLATION.

B. **CLEAN-UP**

1. REMOVE FOREIGN MATERIALS LIKELY TO CAUSE STAIN ON ALUMINUM SURFACES, INCLUDING MORTAR SPOTS, PLASTER DROPPING, AND PAINT SPOTS, DURING DAY THAT SUCH SPOTTING OCCURS ON THE METAL.
2. AFTER INSTALLATION IS COMPLETE, CLEAN ALUMINUM WORK WHICH, IN THE OPINION OF THE OWNER, HAS BECOME SOILED AND PRESENTS AN UNSATISFACTORY APPEARANCE. USE CLEANING AGENTS AND METHODS RECOMMENDED BY THE ALCOA PUBLICATION "CARE OF ARCHITECTURAL ALUMINUM DURING CONSTRUCTION".

C. **MANUALS**

CONTRACTOR TO KEEP A COPY OF EACH OF THE ALCOA PUBLICATIONS CARE OF ARCHITECTURAL ALUMINUM DURING CONSTRUCTION AND HANDLING AND STORING ALUMINUM AT THE JOBSITE AND AVAILABLE FOR USE AT ALL TIMES.

END OF SECTION

DIVISION 8
08810 - GLASS AND GLAZING

SCOPE OF WORK

A. **WORK SPECIFIED IN THIS SECTION**

GLASS AND GLAZING FOR EXTERIOR AND INTERIOR OF PROJECT.

B. **WORK SPECIFIED IN OTHER SECTIONS**

GLASS IN FIRE HOSE AND EXTINGUISHER CABINETS.

C. **SUBMITTALS**

1. SAMPLES: SUBMIT 12" X 12" SAMPLES OF EACH TYPE OF GLASS PROPOSED FOR USE, AND GLAZING ACCESSORIES AND SEALANTS.
2. MANUFACTURER'S LITERATURE FOR:
 - SEALANTS
 - GLAZING TAPES
 - PREFORMED NEOPRENE CHANNELS
 - WEDGE STRIPS
 - SETTING BLOCKS
 - INSTALLATION RECOMMENDATIONS
3. CERTIFICATIONS:
 - a) SUBMIT CERTIFICATION ATTESTING THAT GLAZING MATERIALS TO BE USED ARE COMPATIBLE WITH EACH OTHER AND THE GLASS UNITS.
 - b) SUBMIT CERTIFICATION FROM THE GLASS UNIT MANUFACTURER ATTESTING THAT GLAZING MATERIALS AND METHODS TO BE EMPLOYED ARE COMPATIBLE WITH THE GLASS UNITS AND WILL NOT AFFECT THE SPECIFIED WARRANTY REQUIREMENTS.
 - c) SUBMIT AN AFFIDAVIT STATING THE QUALITY, THICKNESS, TYPE AND MANUFACTURER OF GLASS FURNISHED.
4. DELIVERY AND STORAGE: DELIVER GLASS TO SITE IN SUITABLE CONTAINERS THAT WILL PROTECT GLASS FROM THE WEATHER AND BREAKAGE. CAREFULLY STORE GLASS IN A WARM, DRY BUILDING OR SECTION OF BUILDING.
5. LABELS: LABEL EACH LIGHT OF GLASS, UNLESS NOT RECOMMENDED BY GLASS MANUFACTURER, WITH THE TYPE OF GLASS, THICKNESS, QUALITY, AND MANUFACTURER'S NAME OR BRAND. REMOVE LABELS AFTER GLASS HAS BEEN INSPECTED OR WHEN RECOMMENDED BY GLASS MANUFACTURER.
6. STANDARDS: GLASS TO CONFORM TO FEDERAL SPECIFICATION DD-G-451D AND U.S. CONSUMER PRODUCT SAFETY COMMISSION STANDARD 16 CFR1201, CATEGORY I AND II.

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7. CODES: ALL GLASS AND GLAZING MUST COMPLY WITH APPLICABLE REQUIREMENTS OF LOCAL, STATE AND FEDERAL CODES, LAWS, RULES AND REGULATIONS HAVING JURISDICTION.
8. THICKNESS: PROVIDE GLASS THICKNESS AS RECOMMENDED BY MANUFACTURER FOR SIZE OF GLASS UNITS, BUT NOT LESS THAN THICKNESS INDICATED OR SPECIFIED.

PRODUCTS

A. **MANUFACTURERS**

THE FOLLOWING MANUFACTURERS ARE ACCEPTABLE FOR THIS PROJECT:

- FORD GLASS, DEARBORN, MI (313) 322-0037
- GLOBE-AMERADA GLASS CO., ELK GROVE VILLAGE, IL (800) 323-8776
- MONSANTO CO., ST. LOUIS, MO (800) 248-6844
- SPECTRUM GLASS PRODUCTS, CLINTON, NC (800) 334-1797
- VIRACON, OWATONNA, MN (800) 533-2080
- GUARDIAN INDUSTRIES, CARLETON, MI (313) 962-2252
- ADVANCED GLASS SYSTEMS (AGS), TRUMB АуЕРSVILLE, PA (215) 536-0333
- LOF COMPANY, TOLEDO, OH (419) 247-4721
- PPG INDUSTRIES, FORD CITY, PA (412) 763-0191

B. **SHEET GLASS**

FLAT DRAWN, DOUBLE STRENGTH "A" QUALITY, LIGHT GRAY TINT, 1-5/16" THICK, LOW-E, HURRICANE AND HIGH IMPACT RATED GLASS.

C. **HEAVY SHEET GLASS**

FLAT DRAWN, HEAVY SHEET, ¼" THICK, "A" QUALITY.

D. **PLATE GLASS AND FLOAT GLASS**

1. LIGHT GRAY TINT, GLAZING QUALITY, FLOAT GLASS.
2. FLOAT GLASS 1-5/16" THICK.
3. HEAT STRENGTHENED.

E. **TINTED FLOAT GLASS**

1. PROVIDE TINTED FLOAT GLASS, GLAZING QUALITY, 1-5/16" THICK, LOW-E, HURRICANE AND HIGH IMPACT RATED GLASS.
2. HEAT STRENGTHENED.
3. TINT TO MATCH EXISTING.

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F. WIRE GLASS

1. CLEAR POLISHED WIRE GLASS ¼" THICK, 25 ASW GAUGE WIRE.
2. WHERE WIRE GLASS IS INSTALLED IN FIRE RATED OPENINGS, COMPLY WITH REQUIREMENTS OF UNDERWRITERS' LABORATORIES, INC. (UL).
3. TYPES AND MANUFACTURERS:
 - WIRE MESH BY AGS CORPORATION INDUSTRIES, INC.
 - OMNILITE BY VIRACON
4. PATTERN: DIAMOND PATTERN.

G. FIRE RATED GLASS

1. ALL FIRE-RATED GLASS DESIGNATED ON THE DRAWINGS SHALL BE 3/16" THICK FIRELITE. THE SURFACE CONDITION SHALL BE: STANDARD FIRELITE (UNPOLISHED SURFACES). ALL PIECES OF FIRELITE SHALL BE PERMANENTLY LABELED WITH THE LISTING MARK OF UNDERWRITERS' LABORATORIES, INC. AND WARNOCK HERSEY INTERNATIONAL, INC. FIRELITE SHALL BE GLAZED INTO THE APPROPRIATE FIRE-RATED FRAME WITH METACAULK A LISTED PRODUCT, AS SUPPLIED BY TECHNICAL GLASS PRODUCTS, (800) 426-0279.
2. WHERE FIRE RATED GLASS IS INSTALLED IN FIRE-RATED OPENINGS, COMPLY WITH REQUIREMENTS OF UL.

H. TEMPERED GLASS

1. PROVIDE TEMPERED GLASS ¼" OR 3/8" THICK.
2. TINT: CLEAR.
3. TYPE AND MANUFACTURERS:
 - TEMPGLASS, INC., TOLEDO, OH (800) 537-4064
 - HERCULITE BY PPG INDUSTRIES, FORD CITY, PA (412) 763-0191
 - GLOBE AMERADA GLASS CO., ELK GROVE VILLAGE, IL (800) 323-8776
 - GLASSTEMP, BENSENVILLE, IL (708) 595-3750
 - TUF-FLEX BY LOF COMPANY, TOLEDO, OH (419) 247-4721
 - TEMPERED SAFETY BY AGS CORP., TRUMB АуЕРSVILLE, PA (215) 536-0333
 - VIRACON, OWATONNA, MN (800) 533-2080
4. TEMPERED SAFETY GLASS TO MEET REQUIREMENTS OF FEDERAL SPECIFICATION DD-G-001403B AND ANSI Z97.1. PERMANENTLY MARK SO THAT IDENTIFICATION IS VISIBLE AFTER INSTALLATION. DO NOT CUT, DRILL, GRIND OR OTHERWISE ALTER TEMPERED GLASS AFTER HEAT TREATMENT.

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5. TINTED SAFETY GLASS TO MATCH COLOR AND APPEARANCE OF EXISTING TINTED GLASS.

I. LAMINATED GLASS

1. LAMINATED SAFETY GLASS: PROVIDE LAMINATED FLOAT GLASS ¼" TO 3/8" THICK.
2. TYPES AND MANUFACTURERS:
 - WATCHGUARD BY PPG INDUSTRIES
 - LAMINATED SAFETY GLASS BY LOF COMPANY
 - LAMINATED SAFETY GLASS BY AGS CORP
 - SAFLEX BY MONSANTO
3. PROVIDE CLEAR LAMINATED GLASS.
4. PROVIDE TINTED LAMINATED GLASS TO MATCH EXISTING.
5. WHERE APPLICABLE, LAMINATED FLOAT GLASS MUST MEET ANSI Z97.1 TEST REQUIREMENTS FOR SAFETY GLASS.

J. INSULATED GLASS

1. INSULATED GLASS SHALL BE 1" THICK, LIGHT GRAY TINT, LOW-E, HURRICANE AND HIGH IMPACT RATED GLASS.
2. COLOR AS REQUIRED TO PROVIDE VISUAL CONTINUITY WITH SPECIFIED WINDOW GLASS.
3. TYPES AND MANUFACTURERS: BY PPG INDUSTRIES.

EXECUTION

A. ACRYLIC PLASTIC GLAZING

1. ACRYLIC PLASTIC GLAZING ¼" THICK.
2. TINT: CLEAR.
3. TYPES: GENERAL ELECTRIC LEXAN 9030.

B. GLAZING MATERIALS

1. EXTERIOR GLAZING COMPOUND:
 - a) GUNNABLE SEALANT FOR CHANNEL (BEAD) GLAZING.

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- b) ACRYLIC:
 - DAP ACRYLIC BY DAP, INC
 - UNICRYLIC BY PECORA CORP
 - MONO BY TREMCO
- c) SILICONE SEALANT:
 - 795 BUILDING SEALANT BY DOW CORNING CORP
 - SILGLAZE BY GENERAL ELECTRIC COMPANY
- d) INTERIOR GLAZING COMPOUND FOR CHANNEL (BEAD) GLAZING:
OLEORESINOUS OR SYNTHETIC RESIN GLAZING COMPOUND, KNIFE.
- e) GRADE CONSISTENCY:
 - FLEXIGLAZE U231 GLAZING BY DAP, INC
 - M-251 GLAZING BY PECORA CORP
- f) EXTERIOR FACE GLAZING COMPOUND: OLEORESINOUS GLAZING
COMPOUND, KNIFE GRADE CONSISTENCY:
 - 1012 GLAZING COMPOUND BY DAP, INC
 - M-242 GLAZING COMPOUND BY PECORA CORP

2. PROVIDE PREFORMED BUTYL TAPE:

- DAP BUTYL RUBBER TAPE BY DAP, INC
- WEATHERBAN 1202 BY 3M COMPANY
- TREMCO 440 BY TREMCO
- EXTRU-SEAL BY PECORA CORP

3. SETTING BLOCKS: PROVIDE PREFORMED SETTING BLOCKS WITH SHORE A
HARDNESS OF 70-90, NEOPRENE. SELECT NEOPRENE SETTING BLOCKS TO LIMIT
THE LOAD FROM THE GLASS WEIGHT TO 15 LBS. PER SQUARE INCH, BUT IN NO
CASE SHORTER THAN 4".

4. SPACER SHIMS: PROVIDE NONPOROUS RESILIENT SPACER SHIMS WITH SHORE
HARDNESS OF 40-50, PREFORMED NEOPRENE.

C. GLAZING

- 1. INSPECTION: INSPECT SASH, FRAMES, DOOR OPENINGS AND SURROUNDS TO BE
GLAZED FOR IMPROPER MATERIAL OR WORKMANSHIP OR OTHER CONDITIONS
WHICH WILL EFFECT SATISFACTORY INSTALLATION OF GLASS. ABSENCE OF
NOTIFICATION OR BEGINNING OF GLAZING CONSTITUTES ACCEPTANCE OF THE
CONDITION OF FRAME, SASH OR DOOR OPENING.

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2. PREPARATION OF GLASS AND RABBETS:
 - a) CLEAN SEALING SURFACES AT PERIMETER OF GLASS, RABBETS AND STOP BEADS WITH SOLVENTS AND CLEANING AGENTS RECOMMENDED BY GLAZING COMPOUND MANUFACTURER.
 - b) RABBETS IN HOLLOW METAL AND WOOD DOORS AND FRAMES TO BE PRIMED AND DRY BEFORE GLAZING.
3. WORKMANSHIP AND INSTALLATION: PERFORM GLAZING WORK USING SKILLED WORKMEN AND IN ACCORDANCE WITH BEST TRADE PRACTICES. FOLLOW GLASS MANUFACTURER'S INSTRUCTIONS AND GLAZING MATERIALS MANUFACTURER'S PRINTED DIRECTIONS.

D. GLASS SETTING

1. GENERAL:
 - a) NIPPING OF GLASS EDGES IS PROHIBITED. IF FACTORY EDGEWORK HAS BEEN NIPPED OR ALTERED, REMOVE GLASS AND REPLACE WITH NEW MATERIAL AT NO ADDITIONAL COST.
 - b) SET GLASS IN CLEAN, DRY RABBETS. PROVIDE SETTING BLOCKS, 2 PER GLAZING UNIT, AT QUARTER POINTS OF SILL.
 - c) CENTER GLASS IN GLAZING RABBETS WITH 1/4" MINIMUM SPACE BETWEEN GLASS AND INTEGRAL BEAD AND BETWEEN GLASS AND APPLIED BEAD, USING SPACERS FOR ALL GLASS OVER 50 UNITED INCHES IN AREA. MAINTAIN 1/4" MINIMUM EDGE CLEARANCE AROUND ENTIRE PERIMETER OF GLASS. PROVIDE GREATER CLEARANCE WHERE RECOMMENDED BY MANUFACTURER FOR SIZE AND TYPE OF GLASS.
2. CHANNEL (BEAD) GLAZING:
 - a) APPLY GLAZING TAPE TO INTEGRAL BEADS. APPLY HORIZONTAL HEAD AND SILL STRIPE FIRST, THEN VERTICAL JAMB STRIPS.
 - b) SET GLASS. APPLY GLAZING TAPE TO ENTIRE PERIMETER OF GLASS AND INSTALL APPLIED BEADS.
 - c) SET GLASS AND INSTALL APPLIED BEADS. FILL SPACE BETWEEN GLASS AND BEADS COMPLETELY WITH GUNNABLE SEALANT. PROVIDE BACKER RODS AS RECOMMENDED BY GLASS MANUFACTURER. TOOL EXPOSED SURFACE OF SEALANT TO PROVIDE SLOPE AWAY FROM GLASS AND FORM NEAT CORNERS. DO NOT OBSTRUCT SASH WEEPAGE SYSTEM.
3. INTERIOR DOORS AND VISION PANELS: BED GLASS, BOTH SIDES, WITH COMPOUND. SET BEAD AND FILL REMAINING SPACE BETWEEN GLASS AND BEAD WITH COMPOUND. CUT BEDDED EDGES OF COMPOUND FLUSH WITH BEADS.

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4. EXTERIOR DOORS:
- a) INSTALL WITH GLAZING TAPE BOTH SIDES OF GLASS TO A DEPTH THAT WILL LEAVE SPACE $\frac{1}{4}$ " DEEP ON BOTH SIDES. SET GLASS AND APPLY BEAD AND FILL SPACE ON BOTH SIDES OF GLASS WITH GUNNABLE SEALANT.
 - b) AT CONTRACTOR'S OPTION, OMIT GLAZING TAPE AND BED GLASS FULLY, BOTH SIDES, WITH GUNNABLE SEALANT. PROVIDE SPACERS AS REQUIRED TO MAINTAIN PROPER JOINT WIDTH.
5. ALUMINUM DOORS: GLAZING STRIPS ARE SUPPLIED BY MANUFACTURER OF DOORS. REMOVE BEADS, SET GLASS IN GLAZING STRIPS AND RESET BEADS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

G. SETTING MIRRORS

SET MIRRORS AS INDICATED WITH CONCEALED HANGERS, USING THEFTPROOF LOCKING DEVICE.

F. CLEANING AND REPLACING

AT COMPLETION OF WORK, WHEN SO DIRECTED, REPLACE BROKEN, SCRATCHED OR OTHERWISE DAMAGED GLASS. REMOVE EXCESS GLAZING COMPOUNDS, LABELS AND DIRT. WASH CLEAN AND POLISH ALL GLASS SURFACES.

END OF SECTION