

Request for Proposals (RFP)

Purchase & Installation of New Windows for Various Public Facilities
May 24, 2018

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Application Process

The Philadelphia Redevelopment Authority ("PRA") is pleased to issue this Request for Proposals ("RFP") for qualified, licensed and experienced independent contractors for the purchase and installation of new windows for various City of Philadelphia police stations and engine houses. The selected firm will enter into a "Master" Professional Services Contract with the PRA for one year. During this time the PRA will request services from the selected firm for various projects, on an asneeded basis.

Submission Deadline

Applicants must submit proposals no later than **June 21, 2018** at 3:00 PM; absolutely no proposals will be accepted after that time.

Pre-Bid Meeting/Intention to Submit

All applicants wishing to submit a response to this RFP must either:

- 1. Attend the pre-bid meeting at PRA's offices (1234 Market Street, 16th Floor) at 10:00 A.M. on **June 7, 2018**;
- 2. Submit an Expression of Interest form ("EOI form") located in the Resources section of the RFP webpage in hard copy or by email to Robert.labrum@pra.phila.gov by June 7, 2018.

The names and contact information for all attendees at the pre-bid meeting and those who submitted an EOI form will be posted on PRA's website as public information within two (2) business days of the pre-bid meeting.

Questions/Requests for Additional Information

PRA will accept questions and requests for additional information directed in writing to Robert.labrum@pra.phila.gov until 3:00 PM on June 14, 2018. Questions, responses, and additional information will be posted on the PRA website within seven (7) business days of the pre-bid meeting.

Related Parties

Applicants (i.e. individuals, organizations, and businesses) may submit only one response to this RFP. Individuals or businesses that are legally related to each other or to a common entity may not submit separate proposals. The PRA and City, in their sole and absolute discretion, retains the right to reject any proposal where:

- 1. Applicants or principals of applicants are substantially similar or substantially related parties; or:
- 2. The PRA and City has determined that the applicant has violated these conditions or the spirit of these conditions.

Submission Process

Proposal submission will only be accepted in either of the following:

1. Online Submission – via the electronic portal on PRA's website (http://www.philadelphiaredevelopmentauthority.org/); or

2. Hard Copy Submission – Submit 3 original copies of the proposal and one electronic copy on a USB Flash Drive to the PRA via hand delivery or registered mail. Files on the USB Flash Drive may only be in Microsoft Word or Adobe PDF. Applicants may hand deliver or send proposals via registered mail to:

Robert M. LaBrum
Director, Design & Construction
Philadelphia Redevelopment Authority
1234 Market Street, 16th Floor
Philadelphia, PA 19107

Disqualification

Bids will be disqualified if:

- 1. They are submitted after the specified deadline;
- 2. They are submitted by some means other than the two formats listed above. For electronic submissions, the PRA website portal is the only means that will be accepted. Submissions sent via email, Dropbox or other electronic venues will be disqualified;
- 3. If the bid package is incomplete.

Bid Price

The PRA will award this project to the proposal determined to be the most responsive based on the criteria explained below. Bid price is one of these criteria, though the project will not necessarily be awarded to the lowest bidder.

Schedule

The timeline for this opportunity is as follows:

RFP posted	May 24, 2018
Pre-Bid Meeting	June 7, 2018 at 10:00 A.M.
Intention to Submit due	June 7, 2018
Questions and requests for additional information due by	June 14, 2018
Proposals due	June 21, 2018 at 3:00 P.M.
Respondent selected (Estimate)	June 28, 2018

PRA reserves the right, in its sole discretion, to alter this schedule as it deems necessary or appropriate.

Project Description

The Philadelphia Redevelopment Authority ("PRA") invites competitive proposals from qualified, licensed and experienced independent contractors for the purchase and installation of new windows for various City of Philadelphia police stations and engine houses. The selected firm will enter into a "Master" Professional Services Contract with the PRA for one year. During this time the PRA will request services from the selected firm for various projects, on an as-needed basis.

Proposal Submission Requirements

- 1. Cover letter. Please provide a cover letter no more than two (2) pages in length specifying the name of your firm, name of key individual(s) involved, the cost proposed, and whether your firm is a certified M/W/DBE and/or a local business entity (LBE).
- Personnel. Provide resumes of key individual(s). Provide evidence of successful completion of comparable projects. Indicate experience of the cost estimating and scheduling on similar projects.
- 3. Approach to Project Delivery. Describe your approach to providing the Services described above, and strategies that make you qualified to best perform these services. Indicate your approach to providing these services in the most cost-effective manner possible. Describe past projects with the City of Philadelphia where your firm has successfully monitored project costs to meet budget.
- 4. **Fee for Services.** As a way to measure the rates of each applicant we provided a sample project for Engine House No. 8 (101 N. 4th Street, Philadelphia). Please provide in your Cover Letter, a lump sum, fee proposal for the purchase and installation of fourteen (14) windows as specified in (Attachment D) for Engine House No. 8. Please note: this is one example of the various projects that will be included in the "Master" Professional Services Contract. Provide as much detail as possible to substantiate this fee proposal which should include the analysis, measurement, purchase and installation of the fourteen (14) windows as specified.
- 5. Economic Inclusion. Please provide a narrative describing applicant's past performance in engaging certified Minority Business Enterprises (MBE), Woman Business Enterprises (WBE), or Disabled Business Enterprises (DBE) in subcontracting and in procuring goods and services. In addition please describe the applicant's past performance in hiring diverse workforce, both inhouse and with subcontractors.
- 6. **Declarations and Other Information.** Proposal must also include the completed forms identified below

Evaluation & Selection

PRA intends to award this contract to the respondent that best demonstrates the level of experience, skill and competence required to perform the services called for in this RFP in the most efficient, cost-effective, and professional manner. The PRA will initially review the proposals to determine compliance with the Proposal Submission Requirements. Only proposals that comply with these requirements will be considered for evaluation. If no proposal meets these requirements, the PRA may allow all respondents to supplement their submissions to conform to these requirements.

PRA will evaluate respondents based on the following factors:

-	Qualifications and relevant experience	25 points
-	Proposed approach and strategies	25 points
-	Organizational capacity	20 points
-	Budget and cost proposal	20 points
-	Economic inclusion	10 points

Events of Disqualification or Default

Subsequent to the selection of a firm, and before execution of an Agreement, the PRA may treat any of the following as an event of disqualification or default:

- 1. Unilateral withdrawal by the selected respondent;
- 2. Failure to proceed substantially in accordance with the proposal as submitted;
- 3. Failure by the Respondent for any reason whatsoever to timely execute the Agreement when tendered;
- 4. Material misrepresentation, omission, or inaccuracy contained in any document submitted either as part of the Request for Proposals, or subsequent thereto. For the purposes of this section, the PRA places particular importance on the information required by the Respondent's Statement of Qualifications and Financial Responsibility and the Respondent's Statement for Public Disclosure;
- 5. Failure to provide in a timely manner the additional material required after selection throughout the PRA disposition process.

Upon the happening of an event of disqualification or default by the Respondent, PRA shall have the right, at its election, to:

- 1. Rescind its selection; or
- 2. Declare null and void an Agreement that may already have been executed.

Declarations and Other Information

Economic Inclusion: The PRA strongly encourages and promotes the employment of qualified M/W/DBE firms in all aspects of its procurement of goods and services. If applicant is a Certified M/W/DBE; please submit information to confirm Certification as part of bid proposal.

Tax Clearance and Conflict of Interest Form: Respondents, upon request of the PRA, must provide evidence satisfactory to the PRA that all municipal taxes, including business taxes, real estate, school, water and sewer charges, if applicable, are current for both the individual applicant and the applicant's firm and neither is currently indebted to the City; will at any time during the term of the agreement be indebted to the City, for or on account of any delinquent taxes, liens, judgments, fees or other debts for which no written agreement or payment plan satisfactory to the City has been established. Please complete the Philadelphia Tax Status Certification and Conflict of Interest form (Attachment A) and submit it with your proposal.

Campaign Contribution Disclosure Forms: Please complete the applicable disclosure forms (Attachment B) and submit with your proposal.

Insurance Requirements: Please submit a certificate of insurance evidencing the required coverages as outlined in Attachment C with your proposal. If, for any reason, you cannot comply with the insurance requirements, please provide the reasons for your inability to do so and the PRA will consider any deviations from the insurance requirements on a case-by-case basis.

By submitting a proposal in response to this RFP, an Applicant affirmatively acknowledges: (i) its acceptance of the terms and conditions of this RFP; (ii) the PRA may exercise in its sole discretion the following rights; and (iii) the PRA may exercise the following rights at any time and without notice to any Applicant.

- 1. to reject any and all proposals;
- 2. to supplement, amend, substitute, modify or re-issue the RFP with terms and conditions materially different from those set forth here;
- 3. to cancel this RFP with or without issuing another RFP;
- 4. to extend the time period for responding to this RFP;
- 5. to solicit new proposals;
- 6. to conduct personal interviews with any Applicant to assess compliance with the selection criteria;
- 7. to request additional material, clarification, confirmation or modification of any information in any and all proposals;
- 8. to negotiate any aspect of a proposal, including price;
- 9. to terminate negotiations regarding any and all proposals at any time;
- 10. to expressly waive any defect or technicality in any proposal;
- 11. to rescind a selection prior to contract execution if the PRA determines that the proposal does not conform to the specifications of this RFP;
- 12. to rescind a selection prior to contract execution if the PRA determines that the specifications contained in this RFP are not in conformity with law or that the process in selection of a proposal was not in conformity with law or with the legal obligations of the PRA;
- 13. in the event a contract is awarded, the successful Applicant or Applicants shall procure and maintain during the life of the contract liability insurance in an amount to be determined prior to the award of any contract;
- 14. in the event a contract is awarded, all Applicants agree to perform their services as an independent contractor and not as an employee or agent of the PRA;
- 15. in the event a contract is awarded, all Applicants agree that no portion of performance of the contract shall be subcontracted without the prior written approval of the PRA; and
- 16. each Applicant agrees to indemnify, protect and hold harmless the PRA from any and all losses, injuries, expenses, demands and claims against the PRA or the City of Philadelphia sustained or alleged to have been sustained in connection with or resulting from (i) the submission of the Applicant's proposal; (ii) the delivery by the Applicant to the PRA of any other documents or information; and (iii) any other conduct undertaken by the Applicant in furtherance of or in relation to the Applicant's proposal. Each Applicant agrees that its duty to indemnify and hold harmless shall not be limited to the terms of any liability insurance, if any, required under this RFP or subsequent contract.

The Authority is under no obligation whatsoever to Applicant as a result of this RFP. The RFP does not represent any commitment on the part of the Authority to Applicant or the project. In no event shall the Authority be responsible for any cost, expense or fee incurred by or on behalf of Applicant in connection with the RFP. Applicant shall be solely responsible for all such costs, expenses and fees.

NOTICE: The PRA is subject to the Pennsylvania Right to Know Law. Any information provided in your response to this Request for Proposals may be subject to disclosure to the public. Documents provided in response to this RFP may also be required to be disclosed by applicable law, subpoena, and/or court order.

ATTACHMENT D

Sample Project: Quantity and Specifications for Window Replacement Project at Engine House No. 8 (101 N. 4th Street, Philadelphia, PA)

	ct Spec:	PSF-Wa	ter Res.	Air Int.	CFM/FI@	g Bldg. hght.
DP =		lbs =			PSF =	
Opening	Opening	Model	Finish	Glass	Screens	Draw Sketch as Viewed from the EXTERIOR
Mark	Quantity	Number	Color	Туре	1/2-F-Mesh	List Window Make Sizes as Taken From the INTERIOR
E	7	TR-2400	Anodized	GL-1	Full	Make Size: 25 X 51 1/4
1	Accessory		Clear CL 1		Alum	
						17
Receptor	r at head an	d jambs: S-2	08/S-071			
Subsill:S	-1217				•	17 1/4
Interior trim at head, jambs & sill: #5						
Alcoa sill	: S-1933/ S	-231 clip				17
J	1	TR-2400	Anodized	GL-1	Full	Make Size: 45 X 81
2	Accessory		Clear CL 1		Alum	
	-					17
		id jambs: S-2	08/S-071			
Subsill:S	-1217					
		jambs & sill:	#5			47
Alcoa sill	l: S-1933/ S	-231 clip				
		•				17
CORPORATION SERVICES						
Н	4	TR-2400	Anodized	GL-1	Full	Make Size: 93 X 81
3	Accessory		Clear CL 1		Alum	
						17
		id jambs: S-2	08/S-071			
Subsill:S						47
		jambs & sill:	#5			47
	l: S-1933/ S	-231 clip				17
vert. Mu	llion:S-847					
	piantes constant and a second	TD 0400	-			Make Size: 144 X 104
GF 4	2	TR-2400	Anodized	GL-1	Full	Make Size. 144 \times 104
4	Accessory		Clear CL 1	Open	Alum	17
Pecento	r at head an	id jambs: S-2	08/5 071			
		iu jairibs. 0-2	00/0-07 1			
Subsill:S-1217 Interior trim at head, jambs & sill: #5						
	: S-1933/ S		#5			47
	llion:S-847	-201 ÇIIP				
VOIL IVIU	11011.0-047					17
·						
						from his friend has often a short he stated by others.
						from his franch land the other land the state of the land of the l
Alte	rnates:		1 11 114040			
Alle			1 (4) # 3 40 (4) # 3			
Comments: GL-1 = 1" insul with 1/4 clear low-e (SB60)tempered						
					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
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SECTION 085113 ALUMINUM WINDOW

PART 1 - GENERAL

1.1 Summary

- Section includes Kawneer Architectural Aluminum Windows including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of window units.
 - Types of aluminum windows include:
 - Kawneer Series TR-2400 Windows
 - Project-In Window
 - 2-1/4" (57 mm) frame depth
 - AW-PG80-AP

1.2 Definitions

Definitions: For fenestration industry standard terminology and definitions refer to American Architectural Manufactures Association (AAMA) --AAMA Glossary (AAMA AG).

1.3 Performance Requirements

- General Performance: Aluminum-framed window system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.
- Window Performance Requirements:

Provide aluminum windows of performance indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).

- Performance Class and Grade: AW-PG80-AP.
- Wind loads: Provide window system; include anchorage, capable of withstanding wind load design pressures of (_25_) lbs./sq. ft. inward and (_25_) lbs./sq. ft. outward.
- Air Infiltration: The test specimen shall be tested in accordance with ASTM E283 at a minimum size of 60" x 36" (1524 x 915), Air infiltration rate shall not exceed 0.10 cfm/ft² at a static air pressure differential of 6.24 psf (300 Pa).
- Water Resistance: The test specimen shall be tested in accordance with ASTM E547 and ASTM E331 at a minimum size of 60" x 36" (1524 x 915). There shall be no leakage as defined in the test method at a static air pressure differential of 12 psf (580 Pa).
- Uniform Load Deflection: A minimum static air pressure difference of 80 psf (3830 Pa) shall be applied in the positive and negative direction in accordance with ASTM E330. There shall be no deflection in excess of L/175 of the span of any framing member.
- Uniform Load Structural: A minimum static air pressure difference of 120 psf (5746 Pa) shall be applied in the positive and negative direction in accordance with ASTM E330. The unit shall be evaluated after each load.
- 7. Component Testing: Window components shall be tested in accordance with procedures described in AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).
- Thermal testing per AAMA 1503, at 96 1/2" x 96" (2451 x 2438) test size glazed with 1" insulating glass made with exterior 5/16" clear laminated glass, thermoplastic spacer w/ plain air space, and interior 5/16" clear laminated glass, with the following test results:
 - Condensation Resistance Factor: Minimum (54 frame) and (61 glass) CRF.
 - Thermal Transmittance: Maximum 0.48 BTU/HR/SQ.FT/°F U-value.
- Forced Entry Resistance: All windows shall conform to ASTM F588, Grade 10.
- 10. Thermal Barrier Test: Thermal break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.

1.4 Submittals

- Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of aluminum window indicated.
- R Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances and installation details,
- Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color selection. C.
- D. Samples for Verification: For aluminum windows and components required.
- Product Schedule: For aluminum windows. Use same designations indicated on Drawings,



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1.5 Quality Assurance

- Installer Qualifications: An installer which has had successful experiences with installation of the same or similar units required for this project and other projects of similar size and scope.
 - Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion of test reports, and calculations.

Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type, class, grade, and size

Source Limitations: Obtain aluminum windows through one source from a single manufacturer.

of aluminum window. Test results based on use of downsized test units will not be accepted.

Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

Project Conditions

Field Measurements: Verify aluminum window openings by field measurements before fabrication and indicate measurements on Shop

Warranty 1.7

- Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
 - Warranty Period: Two (2) years from Date of Substantial Completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.

PART 2 - PRODUCTS

2.1 Manufacturers

- Basis-of-Design Product:
 - Kawneer Company Inc.
 - Series TR-2400 Windows Project-In
 - 3. 2-1/4" (57 mm) frame depth
 - AW-PG80-AP

2.2 Materials

- Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.125" (3.18 mm) wall thickness at any location for the main frame and sash members.
- Thermal Barrier: The thermal barrier shall consist of integral structural polyurethane thermal break installed by the window manufacturer in the frame members.
- C. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.
- Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B633 for SC3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B456 for Type SC3 severe service conditions, or zinc-coated steel or iron complying with ASTM B633 for SC3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, non-shrinking, and nonmigrating type recommended by sealant manufacturer for joint size and movement.

2.3 Window System

Series TR-2400 Windows - Project-In

2.4 Glazing

- Glass
 - 1" over Insulating glass unit consisting of one light of 1/4" clear tempered and one light of 1/4" PPG Solarban 60 low-e tempered
- Glazing System: Glazing method shall be a wet/dry type in accordance with manufacturer's standards. Exterior glazing shall be silicone back bedding sealant. Interior glazing shall be snap-in type glazing beads with an interior gasket in accordance with AAMA 702 or ASTM C864.



Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials,

2.5 Hardware

- General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion-resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely lock aluminum windows, and sized to accommodate sash weight and dimensions.
- Project-In Window Typical Hardware:
 - Typical Hardware:
 - White Bronze Cam Handles and Strikes
 - Concealed Stainless Steel Hinges

2.6 Accesories

- Spacers, Setting Blocks, Gaskets, and Bond Breakers: Manufacturer's standard permanent, non-migrating types in hardness recommended by manufacturer, compatible with sealants, and suitable for system performance requirements.
- В. Framing system gaskets, sealants, and joint fillers as recommended by manufacturer for joint type.
- C. Sealants for joints at perimeter of window system to be Dow 795 Silicone
- Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action. D.
- Installation accessories to include 2 peice receptor at opening heads and jambs and subsill starter at sill. E.
- Coupling Mullions: Shall be extruded aluminum of 6063-T6 alloy and temper of profile and dimensions indicated on drawings. Mullions shall provide structural properties to resist wind pressure required by performance criteria and standards.
- Insect Screens: (Full Screen) Field-mounted exterior tracks; two stainless steel leaf springs; 5/16" x 1-1/2" x .050" extruded tubular aluminum frame with finish to match window in color and performance; corners mitered, gusset reinforced, and crimped; 18 x 16 dark fiberglass mesh; PVC splines.

2.7 Fabrication

- Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 - Profiles that are sharp, straight, and free of defects or deformations.
 - 2 Accurately fit joints; make joints flush, hairline and weatherproof.
 - Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior. 3.
 - 4. Physical and thermal isolation of glazing from framing members.
 - 5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - Provisions for field replacement of glazing.
 - Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- R Window Frame Joinery: Mitered and Mechanically clipped and/or staked. Factory sealed frame and corner joints.
- C. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.
- D. Fabricate aluminum windows that are re-glazable without dismantling sash or framing.
- Thermally Broken Construction: Fabricate aluminum windows with an integral, concealed, low-conductance thermal barrier; in a manner that eliminates direct metal-to-metal contact. Thermal barriers shall be designed in accordance with AAMA TIR A8.
 - Thermal Barrier: The thermal barrier shall consist of integral structural polyurethane thermal break installed by the window manufacturer in the frame members.
- Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.
- Sub frames: Provide sub frames with anchors for window units as shown, of profile and dimensions indicated but not less than 0.093" (2.4 mm) thick extruded aluminum. Miter or cope corners, and join with concealed mechanical joint fasteners. Finish to match window units. Provide sub frames capable of withstanding design loads of window units.
- Factory-Glazed Fabrication: Glaze aluminum windows in the factory where practical and possible for applications indicated. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).
- Glazing Stops: Provide snap-on glazing stops coordinated with Division 08 Section "Glazing" and glazing system indicated. Provide glazing stops to match frame.

ALUMINUM FINISHES

- Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes. Α.
- В. Factory Finishing:
 - Kawneer Permanodic™ AA-M10C21A41 / AA-M45C22A41, AAMA 611, Architectural Class I Clear Anodic Coating (Color #14 Clear)





085113 ALUMINUM WINDOWS

PART 3 - EXECUTION

3.1 Examination

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight window installation.
 - 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 - 2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76.2 mm) of opening.
 - 3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Installation

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install aluminum framed window system level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in bed of sealant or with gaskets, as indicated, for weather tight construction.
- D. Install aluminum framed window system and components to drain condensation, water penetrating joints, and moisture migrating within system to the exterior.
- E. Separate aluminum from dissimilar materials to prevent corrosion or electrolytic action at points of contact.

3.3 Adjusting, Cleaning, And Protection

- A. Adjust operating sashes, screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weather tight closure. Lubricate hardware and moving parts.
- B. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Clean glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION 085113

