

Division 08: **OPENINGS - METHOD STATEMENT**

**08 10 00 DOORS AND FRAMES**

**08 11 00 Metal Doors and Frames**

Section 08 11 16: **Aluminum Doors and Frames**

**08 50 00 WINDOWS**

**08 51 00 Metal Windows**

Section 08 51 13: **Aluminum Windows**

Section 08 75 00: **Window Hardware**

TECHNICAL METHOD STATEMENT COVER SHEET	REVISED SHEETS
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## Abbreviations

First Draft	D1
Second Draft	D2
Design Review	DR
Technical Committee Review	TCR
Outline Specification	OS
Detailed Specifications	DS
Tender	TD
Construction	CS
Variation Order	VO

**METHOD STATEMENT**  
**FOR**  
**ALUMEG ALUMINUM GLAZED**  
**WINDOWS & DOORS INSTALLATION**

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## **PART 1 - SCOPE**

This works involves the supply and installation of aluminum windows and doors with its accessories. How to Store, handle, install, seal and finish to last touch (BY Contractor).

## **PART 2 - PURPOSE**

The method of statement describes the responsibilities, activities and procedures to be implemented to ensure that the fixation of windows and doors in compliance with approved details in shop drawing, specified types and project specification requirements

## **PART 3 - REFERENCES**

### **3.1 Project specification sections:**

#### **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

##### **SUB-DIVISION 07 90 00: JOINT PROTECTION**

###### **SECTION 07 92 00: Joint Sealants**

###### **SECTION 07 92 13: Elastomeric Joint Sealants**

#### **DIVISION 08 – OPENINGS**

##### **SUB-DIVISION 08 10 00 DOORS AND FRAMES**

###### **SECTION 08 11 00: Metal Doors and Frames**

##### **SUB-DIVISION 08 30 00 SPECIALTY DOORS AND FRAMES**

###### **SECTION 08 32 13: Sliding Aluminum -Framed Glass Doors**

##### **SUB-DIVISION 08 40 00 ENTRANCES, STOREFRONTS, AND CURTAIN WALLS**

###### **SECTION 08 41 13: Aluminum -Framed Entrances and Storefronts**

##### **SUB-DIVISION 08 50 00 WINDOWS**

###### **SECTION 08 51 13: Aluminum Windows**

##### **SUB-DIVISION 08 70 00 HARDWARE**

###### **SECTION 08 71 00 Door Hardware**

###### **SECTION 08 75 00 Window Hardware**

###### **SECTION 08 75 16 Window Operators**

##### **SUB-DIVISION 08 80 00 GLAZING**

###### **SECTION 08 81 00 Glass Glazing**

### **3.2 Approved shop drawing for windows and doors**

To be submitted after contract signature.

### **3.3 Approved material submittal for window and door system.**

To be submitted after contract signature.

### **3.4 Approved material for hardware.**

To be submitted after contract signature.



## **PART 4 - RESPONSIBILITIES**

### **4.1 Project Manager:**

Project manager is responsible for maintaining the safety and progress of the work. He shall ensure that he has the latest drawings of the project and have updated information from the Engineer regarding project.

### **4.2 Construction Manager:**

The Construction Manager is responsible for the arrangement of the work.

### **4.3 HSSE Manager:**

The HSE Manager is responsible for reviewing this procedure method statement, ensuring that the method statement is carried out at the required time by the Safety Officer. Ensuring that all operatives are briefed on the method statement and operatives have signed to confirm receipt of briefing.

### **4.4 Safety Officer (reports directly to the HSE Manager)**

The Safety Officer is responsible for the following:

- Insure that all safety requirements to start the activity are provided by the construction group as per project HSSE manual and specification.
- To conduct daily inspection to ensure that safety requirements are being maintained up to the completion of this activity.
- Ensure operatives understand and briefed on the method statement
- Advise operatives on their responsibilities and safety requirements.

### **4.5 Site Engineer**

Site Engineer and Survey team is to ensure that fenestration fixation works is carried out as per required specifications and Method of Statement. To ensure that all parties required any kind of inspection or test are suitably informed as to the delivery program. Insure that the notification time to QC is sufficient to meet notification time to Engineer.

### **4.6 Site Foreman**

Site Foreman team must work together to ensure that all activities regarding fenestration fixation shall be carried out properly. Preparation of area and necessary requirements for the execution of this method of statement must be carried out carefully to ensure safety and on-time delivery of work.

### **4.7 Architectural QA/QC Engineer/Inspector**

Under the close supervision and control of QC manager some of the responsibilities, but not limited to the following.

- Ensure that the material is approved, inspected, stored and protected in proper way.
- Type and size of fenestration are as per approved shop drawing.

- Check the plumbness and alignment of the fenestration before final touch.
- Ensure that all the screws are fixed properly following the spacing shown in approved shop drawings.
- Ensure that the safety requirements are met prior and during the installation process.
- Report to QC manger if any discrepancies or deficiency are noticed.

## **PART 5 - MANPOWER.**

- (01)Project Manager
- (01) Construction Manager
- (00)Site Engineer
- (00) Site Forman
- (00) Architectural Engineer
- (00) QC inspector
- (01) Safety Engineer/ Inspector
- (00) Installation team (Sub-contractor)

## **PART 6 - HSSE**

- 6.1 Prior to commencement of the works, health and safety engineer will ensure that technical specifications of each product were carefully carried out to avoid any problem at site.
- 6.2 Personal Protective Equipment
  - All required PPE such as helmet, safety vest, gloves, and safety shoes shall be provided and maintained for all workers doing the repair works.
  - For protecting workers eye injury and flying particles, eye protector such as spatula temple, face shield and goggles shall be provided engaged in the related work.
  - Mask and rubber gloves are required to workers involved in mixing and application as per project requirements.
  - All persons working in the site shall wear proper mandatory PPE.
- 6.3 Barricades, signs and Materials to be used:
  - Safety and warning signboards in dual language shall be installed.
  - Barricades shall be erected to isolate the working area with suitable and sufficient access.
  - Materials required for this work shall be properly stored and identified at designated locations.
- 6.4 Only green tagged scaffolding to be used, which shall be inspected prior to use.

## **PART 7 - MATERIAL & EQUIPMENT'S**

### **7.1 Required tools for installation of aluminum glazed windows & doors:**

- 1- Hand tools
- 2- Drill machine
- 3- Circular saw
- 4- Glass suckers
- 5- Cutters
- 6- Ladders
- 7- Sealant applicator
- 8- Try square
- 9- Measuring tape
- 10- Trowels
- 11- Level
- 12- Screw drivers
- 13- Chalk line
- 14- Pliers
- 15- Cutting saw
- 16- Grinders and polishers
- 17- Lifting belt
- 18- blower
- 19- Cradle/scaffolds
- 20- Tower/mobile crane

## **PART 8 - PROCEDURE OF WORKS**

### **8.1 Installation procedure for sliding windows & doors:**

- 1- Ensure that all opening are as per the approved shop drawings.
- 2- Cleaning/ blowing of the dust on plastered rough opening of the fenestration.
- 3- Opening shall be ensured prior to installation to match aluminum schedule.
- 4- Verify site dimensions prior to start of fabrication.
- 5- To ensure plumb and square opening, Kemet will forward to the plaster contractor dummy frame(s) to be used for controlling opening dimensions which will be removed after plastering.
- 6- Frames shall be aligned plumb and square in the openings by use of plumb, spirit level and PVC shims.
- 7- All units shall be installed from inside according to relevant approved shop drawings.
- 8- All fenestrations must be marked showing building, floor, apartment/ section, & room number for easy allocation and material logistics.



- 9- The frame shall be installed first, by using fixing screws according to approved shop drawings using correct shims in place and according to approved material submittals.
- 10- Once the frame is checked for correct alignment, plumb, and square, all fixing screw will be tightened properly.
- 11- All fastenings and anchors shall be concealed whenever possible unless otherwise shown in approved shop drawings.
- 12- Hardware installation for the remaining parts of the locks.
- 13- Any construction mark to the finished frames shall be rectified as per the Engineer's approval.

### **8.2 Glazing method of windows and doors:**

Windows and doors typically comes glazed from the factory. If due to size or weight limitations required to be glazed at site, glazing process will be according to the following procedure:

- 1- Glazing to be secured in sash by bead and EPDM wedge gasket.
- 2- Inserting the glass setting blocks, insuring that it is placed in correct locations.
- 3- Cleaning the glass unit thoroughly.
- 4- Fix the outer gasket vertical and horizontal.
- 5- Corners of gasket ay joints will be sealed with approved silicone sealant.
- 6- Inserting the glass unit into the aperture and set properly onto the setting locks.
- 7- Direct contact between glazing and any metal parts are not allowed.
- 8- Fixing the glazing beads at top and bottom of the shutter.
- 9- Fixing the side glazing beads insuring that the bead retention clips are located in place and tightly fixed.
- 10- Inserting the internal wedge gasket.
- 11- Steps from 8 to 10 might not be required for 45° assembled non-bead system.
- 12- Clean all marks and remove all labels from glass and leaving the glass cleans.
- 13- Application of silicone sealant around the window/door perimeter according to approved color and location.

### **8.3 Installation of hinged windows & doors:**

- 1- Hinged windows and door panels shall be delivered to site fully glazed including hinges, locks etc.
- 2- Place the window and door panels in the respective frames and hinges.
- 3- Ensure that all opening are as per the approved shop drawings.
- 4- Cleaning/ blowing of the dust on plastered rough opening of the fenestration.
- 5- Opening shall be ensured prior to installation to match aluminum schedule.
- 6- Verify site dimensions prior to start of installation.



- 7- To ensure plumb and square opening, Kemet will forward to the plaster contractor dummy frame(s) to be used for controlling opening dimensions which will be removed after plastering.
- 8- Frames shall be aligned plumb and square in the openings by use of plumb, spirit level and PVC shims.
- 9- All units shall be installed from inside according to relevant approved shop drawings.
- 10- All fenestrations must be marked showing building, floor, apartment/ section, & room number for easy allocation and material logistics.
- 11- The frame shall be installed first, by using fixing screws according to approved shop drawings using correct shims in place and according to approved material submittals.
- 12- Once the frame is checked for correct alignment, plumb, and square, all fixing screw will be tightened properly.
- 13- All fastenings and anchors shall be concealed whenever possible unless otherwise shown in approved shop drawings.
- 14- Hardware installation for the remaining parts of the locks, handles and the like.
- 15- Align the striking plate on the frame matching to locks of windows and doors.
- 16- Adjust window and door panels for tight fit, weather tight closure and for smooth operation.
- 17- Keys for aluminum doors, 3 keys for each door lock cylinder. If master key is required, then the cylinder will be provided by main contractor and installed by Kemet according to the approved chart.
- 18- Keys shall be handed over with plastic tag labeling door type and location.
- 19- Any construction mark to the finished works shall be rectified as per the Engineer's approval.

#### **8.4 Sealant application:**

- 1- Clean joints and surfaces free from grease, dust and other contaminates by using blower, brush and cloth.
- 2- Application of approved silicone sealant will be done using gun.
- 3- Adhesion test must be done to ensure proper adhesion. Primer might be used whenever required to improve adhesion based on sealant manufacture recommendation.
- 4- Tooling all sealant surfaces to produce smooth surfaces.
- 5- Dropping and excess sealant will be tooled as work progress and before material sets.
- 6- Sealing of joints will commence prior to final coat of painting in coordination with main contractor.
- 7- Masking tape will be used where necessary to prevent contamination of adjacent surfaces.

- 8- Tape will be removed immediately after completion of the joint.

#### **8.5 Third part testing:**

If required by project specification, field water hose test according to **AAMA 502, Voluntary Specification for Field Testing of Newly Installed Fenestration Products**, which is the proper test method for verifying field air leakage and water penetration resistance of newly installed operable windows and doors; which shall be conducted and submitted as per specifications.

Otherwise, candle flame movement could be used to test air leakage.

#### **8.6 Cleaning:**

- 1- Frame surfaces will be cleaned promptly after installation using mild diluted detergents according to methods recommended by frame manufacturer and powder coating paint supplier.

#### **8.7 Protection:**

- 1- The major surfaces of all metal works shall have low tack tape applied at factory. This remains in place until the glass has been installed and all sealing applied.
- 2- At the time of removal, the fenestration will be cleaned and offered for handover inspection.
- 3- Splashing of slurry liquids should be avoided as it will adhere to the surface of glass and damage painted surfaces.
- 4- All wet trades must be finished prior to windows and doors installation.
- 5- Installed work will be kept clean as work progress and handed over to main contractor.
- 6- Proper protection from damage or deterioration -to suit site condition-will be done – later if required by site condition- by main contractor until time of substantial completion.

### **PART 9 - FREQUENCY OF INSPECTION**

- 7 The QC inspector shall invite the engineer to inspect installed works submitted via the IRs (Inspection Requests).
- 8 An IR will be offered to the Engineer after work is completed and approved by Kemet QC team. Once the Engineer approves the work is ready next stage Subcontractor can proceed.
- 9 Frequency of inspection requests shall be as per the approved ITP (Inspection Test Plan).

## **PART 10 - QUALITY ASSURANCE**

The QA/QC Manager will monitor and ensure that this Method Statement shall be observed so that smooth Work Flow will be attained. Furthermore, the QA/QC Team shall ensure that each individual elements of the work shall be completed substantially in compliance with the approved plans and project specifications to meet client's expectation. The following activities shall be observed:

Single Source Responsibility: Provide data sheets of manufacturer, and use only within recommended limits if needed.

Coordination of Work: Review other Sections of these Specifications

## **PART 11 - APPENDICES**

- HSSE Risk Assessment.
- Inspection and Test Plan.
- Checklists.
- Submittal for approval