SECTION 08 46 00
WINDOW WALL ASSEMBLIES

PART 1 GENERAL

1.01 SUMMARY

A. Fenex Corporation Oversized Impact and Flood rated Window.

1.02 RELATED SECTIONS

A. Section 08 01 00: Operation and Maintenance of Openings

B. Section 08 06 00: Schedules for Openings.

C. Section 08 12 00: Metal Frames.

D. Section 08 43 00: Storefronts.

E. Section 08 44 00 Curtainwall and Glazed Assemblies

F. Section 08 46 00 Window Wall Assemblies

G. Section 08 55 00 Pressure-Resistant Windows

H. Section 08 81 00 Glass and Glazing

I. Section 08 88 00 Special Function Glazing

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM):
   1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods,
      Wire, Profiles, and Tubes.
   2. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings
   3. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
   4. ASTM C1115 – Standard Specification for Dense Elastomeric Silicone Rubber Gaskets and Accessories
   5. ASTM E2203 - Standard Specification for Dense Thermoplastic Elastomers Used for Compression Seals, Gaskets, Setting Blocks, Spacers and Accessories
   6. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
   7. ASTM E283 - Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.
   8. ASTM E331 - Standard Test Method for Metal Curtain Walls and Doors by Uniform Static Air Pressure Difference.
   9. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
   10. ASTM 1886 – Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials

11. ASTM 1996 – Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes

B. American Architectural Manufacturers Association (AAMA):
   1. AAMA 101/I.S.2/A440 – NAFS – North American Fenestration Standard/Specifications for Windows, Doors and Skylights
   2. AAMA 501 – Methods of Test for Exterior Walls

C. Consumer Product Safety Commission (CPSC):
   1. CPSC 16 CFR 1201 – Safety Standard for Architectural Glazing Materials

D. American National Standards Institute (ANSI)
   1. ANSI Z97.1 - Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.

E. Aluminum Design Manual (ADM) 2015

F. Glass Association of North America (GANA)
   1. GANA Glazing Manual.

G. Flat Glass Marketing Association
   1. FGMA Sealant Manual.

H. FM Global
   1. Standards testing for flood mitigation (Hydrostatic and Impact)

1.04 **SUBMITTALS**

A. Documentation: Per Section 01 30 00

B. Water Proofing: Provide waterproofing for perimeter of glazing per specifications

C. Installation: Installation details

D. Glazing: Glass specifications and samples

E. Engineering: Mock up drawings and calculations

F. Samples: Material samples for color and texture identification

G. Shop Drawings – Provide site specific drawings with floor plan, product elevations and attachment details

1.05 **QUALITY ASSURANCE**

A. Sealants: Sealant Manufacturer to perform pull tests for sealant/substrate compatibility.

B. Installer: Fenex Corp. or qualified installer by Fenex

C. Manufacturer: Fenex Corp. exclusively

1.06 **DELIVERY, STORAGE AND HANDLING**

A. General: Comply with Division1 Product Requirements Sections.

B. Ordering: Comply with manufacturer’s ordering instructions and lead-times.

C. Delivery: Deliver materials to designated site locations.

D. Storage and Protection: Store under cover, sheltered from weather and construction activities.

1.07 **FABRICATION DIMENSIONS**

A. Field Measurements: Contractor to provide the openings with the dimensions provided by manufacturer and tolerances are not exceeded.

1.08 **WARRANTY**

A. Product Warranty: Refer to Conditions of the Contract for project warranty provisions.

PART 2 PRODUCTS

2.01 **PRODUCTS**

A. Manufacturers: Fenex MD exclusively

B. Description: 3”x6” Aluminum Impact and Flood Rated Oversized Fixed Window. To be used as flood barrier and hurricane impact protection. Max Single Frame area – 132 Sq. Ft. (may be used in multiple frame units with structural mullions).

C. Performance:
1. Air Infiltration: Tested per ASTM E283 and TAS 202 @6.24 P.S.F. (no infiltration)
2. Water Infiltration: ASTM E331, AAMA 501 and TAS 202 - 18 P.S.F
3. Hydrostatic and Impact Flood Mitigation
   a. 10 FT. Dynamic Water Test (FM Global)
   b. Impact Log Test (FM Global): Per project specifications
4. Structural: ASTM E330, AAMA 501and TAS 202 - Design Pressure +/-120 P.S.F.
5. Hurricane Impact: ASTM 1996 and TAS 201 up to missile level “A”, “B”, “C”, & “D”
6. Cycling: ASTM 1886 and TAS 203 (9,000 cycles) 120 P.S.F.

D. Materials – Framing, Glass, Hardware, Gaskets, Structural and Weather Sealants
1. Frame: 6061-t6 or 6005-t5 Structural Extruded Aluminum ASTM B 221
2. Glass: CPSC 16 CFR 1201 - ANSI Z97.1 - ASTM E1300
   a. (1-3/16”) - ½” Tempered / 0.180” SGP/ ½” Tempered
   b. (1-3/4”) - ½” Tempered / 0.090” SGP/ ½” Tempered / 0.090” SGP/ ½” Tempered
   c. (2-3/4”) - ½” Tempered / 0.090” SGP/ 1/4” Tempered, ¾” Air, ½” Tempered / .180 SGP/ ½” Tempered
3. Assembly Screws: 316 Stainless Steel
4. Gaskets: Comply with ASTM C864, C1105 and E2203
5. Sealants: Tremco
   a. SGT900: Structural Glazing Tape
   b. ProGlaze II: 2 Part Silicone for glass to frame installation
   c. Spectrum 2 Silicone: Perimeter seal

E. Finishes:
1. Paint: AAMA 2605 Kynar or equal

PART 3 EXECUTION

3.01 **MANUFACTURER’S INSTRUCTIONS**

A. Compliance: Comply with manufacturer's product data including product technical bulletins and installation instructions.

3.02 **EXAMINATION**

A. Site Verification of Conditions: Verify substrate conditions, have been previously installed under other sections, and are acceptable for product installation in accordance with manufacturer's instructions. Openings shall be plumb, square and within allowable tolerances. The Architect/Engineer shall be notified of any conditions that jeopardize the integrity of the proposed fire wall/door framing system. Do not proceed until such conditions are corrected.

3.03 **INSTALLATION**

A. Fire wall/door installation shall be by a licensed contractor and in strict accordance with the approved shop drawings.

3.04 **CLEANING AND PROTECTION**

A. Protect glass from contact with contaminating substances resulting from construction operations.

B. Wash glass on both faces not more than four days prior to date schedule for inspections intended to establish date of Substantial Completion. Wash glass by method recommended by glass manufacturer.

C. Remove temporary coverings and protection of adjacent work areas.

END OF SECTION