PART 1 - GENERAL

1.1 SUMMARY

A. Includes But Not Limited To:
   1. Furnish and install aluminum storefront entry and window systems, including hardware, glazing, and calking, as described in Contract Documents.

B. Related Sections:
   1. Section 01 1000: Electronic locking systems and cylinders and cores for High Security Cylinders are excluded from Contract and provided by Owner. This specification establishes quality of materials and installation of those items for information of Contractor, Architect, and Owner’s Representatives.
   2. Section 07 9213: Quality of sealants.
   3. Section 08 7124: Locking cylinders.
   4. Section 08 8100: Quality of glass glazing.

1.2 REFERENCES

A. American Society For Testing And Materials:
   1. ASTM B 221-02, 'Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.'

1.3 SUBMITTALS

A. Product Data:
   1. Manufacturer's literature or cut sheets for storefront system and for each item of hardware.
   2. Color and finish.
   4. Parts lists.

B. Shop Drawings:
   1. Show exact dimensions of factory-fabricated frames and required tolerances for rough openings. Submit shop drawings in time for Pre-Installation Conference specified in Section 06 1100
   2. Show locations, sizes, etc, of hardware reinforcing.
   3. Templates are available for 1/2 round arched windows at entrances.

1.4 QUALITY ASSURANCE

A. Pre-Installation Conference:
   1. Participate in pre-installation conference specified in Section 06 1100.
   2. In addition to requirements of Section 01 3000, make certain rough openings are within tolerances required for installation of factory-fabricated frames. These dimensions have been agreed upon between Owner and Manufacturer and are shown on Standard Plan Drawings.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver all parts of door, together with hardware, to Project at same time.
1.6 WARRANTY

A. Closers: Provide Closer Manufacturer's standard warranty, 10 years minimum.

PART 2 - PRODUCTS

2.1 COMPONENTS

A. Frames:
   1. Aluminum: 6063-T5 aluminum alloy or meeting requirements of ASTM B 221, alloy GS 10A-T5 or T6).
   2. Mullion: Steel reinforced or heavy duty as necessary to prevent lateral flexing of mullion.
   4. Sealer Tape: 3M.
   5. Fasteners: Aluminum or non-magnetic stainless steel. Concealed fastenings shall be cadmium or zinc-plated steel.
   6. Finish: Match doors.
   7. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a. Single Glazed:
         1) Trifab '450' by Kawneer.
         2) Series FG2000 1-3/4x4-1/2 by Vistawall.
      b. Double Glazed:
         1) Trifab '451' by Kawneer.
         2) Series FG3000 2x4-1/2 by Vistawall.

B. Manually Operated Doors:
   1. Aluminum: 6063 T5 aluminum alloy, or meeting requirements of ASTM B 221, alloy GS 10A-T5 or T6.
   2. Stiles: 3-1/2 inches by 1-3/4 inches by 0.125 inches thick nominal 88 mm by 44.5 mm by 3.175 mm thick nominal.
   3. Top Rails: 5-3/4 inches minimum by 1-3/4 inches by 0.125 inches thick nominal 144 mm minimum by 44.5 mm by 3.175 mm thick nominal.
   4. Bottom Rails: 10 inches minimum by 1-3/4 inches by 0.125 inches thick nominal 54 mm minimum by 44.5 mm by 3.175 mm thick nominal.
   5. Construction: Manufacturer's standard.
   6. Glazing Stops: Snap-in type with neoprene bulb-type glazing. Units shall be glazed from exterior side.
   7. Weather stripping:
      a. Neoprene bulb-type.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) Sealair by Kawneer
         2) D125 by Vistawall
   8. Finish:
      a. Polyvinyl fluoride (PVF) Resin-base finish (Kynar or Hylar) containing 50 percent minimum PVF in resin portion of formula and providing a pencil hardness of 3H. Thermocured two-coat system consisting of corrosion inhibiting epoxy primer and topcoat factory-applied over properly pre-treated metal.
      b. Category Four Approved Color. See Section 01 6000 for definitions of Categories.
         1) Bone White by Kawneer.
         2) Vistawall White by Vistawall.
   9. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a. 350 Medium Stile by Kawneer.
      b. Series 375 by Vistawall.

C. Glazing Characteristics
   1. Interior Vestibule Glazing: Clear.
3. All Other Exterior Storefront Doors And Storefront: Obscure interior pane with pattern on surface 3 and Clear exterior pane with Low E treatment on surface 2.

D. Category One VMR Approved Manufacturers. See Section 01 6000 for definitions of Categories.
1. Kawneer, Norcross, GA  Paul Cannon  (801) 201-1080, FAX 801-768-4588 
paul.cannon@kawneer.com.
2. Vistawall, Terrell, TX  Kent Baumann  (800) 869-4567 ext 386, FAX 972-551-6264 
kbaumann@vistawall.com.

2.2 STOREFRONT HARDWARE

A. Hinging: Top and bottom offset, ball bearing pivots per door leaf.

B. Overhead Door Closers
1. Provide parallel arms on closers unless door position requires otherwise.
2. Where possible, closers shall allow for 180 degree opening and not be used as a stop. Provide Cush-N-Stop or equivalent arm where wall stop cannot be used.
3. Adjust closers to provide maximum opening force as required by governing code authority.
4. Closers shall have following features:
   a. Adjustable sweep speed.
   b. Adjustable backcheck.
   c. Non-handed, non-sized.

5. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
a. Surface mounted:
   1) 4041 Series parallel arm by LCN.
   2) 7500 Series Parallel arm by Norton.

C. Exit Devices:
1. Entry Doors:
   a. Operation:
      1) Entry shall be by key. Device shall be locked by cylinder from outside. Key shall be removable when cylinder is in locked or unlocked position.
      2) Dogging operation shall be by accessible, permanent knob, not by removable allen wrench devices.
      3) Exterior Trim: Lever Handle or Pull equal to Kawneer CO-9 or Vistawall PH-12.
   b. Types: Rim Type. Provide type of strike that will allow installation of specified panic devices on storefront system specified.

2. Access Doors:
   a. Operation:
      1) Access accomplished by dogging device. Dogging operation shall be by accessible, permanent knob, not by removable allen wrench devices.
      2) Exterior Trim: Match Entry Doors.
   b. Types: Rim Type. Provide type of strike that will allow installation of specified panic devices on storefront system specified.

3. Emergency Exit Doors:
   a. Operation:
      1) Exit only with no dogging.
      2) Exterior Trim: None.
      3) Type: Rim Type with type of strike that will allow installation of specified panic devices on storefront system specified.

4. Color: Equivalent to clear anodized.

5. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
a. Apex Series by Precision.
b. 80 Series by Sargent.
c. 98 or 99 Rim Series by Von Duprin.
D. Thresholds:
   1. At Vestibule with Thin-Set Paver Tile: Similar to Pemko 253, 254, or 255 Profile.

E. Sweep Strips:
   1. Class Two Quality Standard: Pemko 18041PWP.

F. Stops:
   1. Use wall stops, except where required otherwise on Door Schedule.
   2. Type Three Acceptable Products:
      a. Wall Mounted:
         1) WB35 by Glynn-Johnson.
         2) 1205 by Trimco / BBW / Quality.
         3) Equal as approved by Architect before installation. See Section 01 6000.

G. Push / Pulls:
   1. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a. Kawneer CPII and CO-9, clear anodized.
      b. Vistawall PB16 and PH-12, clear anodized.

H. High Security Cylinders And Cores:
   1. ASSA Instacores with LDS-62 profile key system.
      a. Church And Factory Authorized Distributor:
         1) Clark Security Products, 135 West 2950 South, Salt Lake City, UT.
            a) Local: (801) 487-3227.
            b) Other: (800) 453-6430.
            c) FAX: (801) 487-3254.
   2. Medeco cores with Level Six HUK-IC keying system with special Church keyway.
      a. Church And Factory Authorized Distributors:
         1) Intermountain Lock & Supply Co, 3106 South Main, Salt Lake City, UT.
            a) Utah: (800) 662-5941.
            b) Other: (800) 453-5386.
            c) FAX: (801) 485-7205.
         2) Clark Security Products, 135 West 2950 South, Salt Lake City, UT.
            a) Local: (801) 487-3227.
            b) Other: (800) 453-6430.
            c) FAX: (801) 487-3254.
   3. Schlage cores with Primus Level 4+ keying system with special Church side bit milling.
      a. Church And Factory Authorized USA Distributors:
         1) Architectural Building Supply, P O Box 65678, Salt Lake City, UT 84165-0678 or 2965 South Main St, Salt Lake City, UT 84115.
            a) (801) 486-3481.
            b) FAX: (801) 484-6817.

I. Electronic Locking System: Provided by Owner.
   1. Control Unit No. 5353EXT.
   2. Rim Cylinder Keylok No. 5353 with extension cable.
   3. System software with key reader and cabling.
   5. Approved Manufacturer:

J. Removable Mullion:
   1. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a. Von Duprin 4954 steel mullion with KR4954 lock assembly.
2.3 FINISHES

A. Finishes for steel, brass, or bronze hardware items shall be US26D, Chromium plated, satin. Materials other than steel, brass, or bronze shall be finished to match the appearance of US26D.

2.4 FABRICATION

A. Fabricate in factory to dimensions required to fit framed openings detailed on Drawings. Joints shall be tightly closed.

B. Mortise in manner to give maximum hardware-door connection strength and neatness of appearance. Adequately reinforce with backplates or rivnuts to hold pivots and closers.

PART 3 - EXECUTION

3.1 INSTALLERS

A. Category One Approved VMR Installers. See Section 01 6000 for definitions of Categories.
   1. Kawneer:
      a. <Insert List of Installers>.
   2. Vistawall:
      a. <Insert List of Installers>.

3.2 EXAMINATION

A. Site Verification Of Conditions: Verify that framed openings will accommodate factory-fabricated storefront entry and window frames of dimensions agreed upon by Owner and Manufacturer and shown on Standard Plan documents. Notify Architect and Owner in writing if framed openings are not as agreed upon. Do not install storefront entry and window frames until deficiencies in framed openings have been corrected to allow installation of standard entries and windows.

3.3 INSTALLATION

A. Accurately cut thresholds to fit profile of storefront frame. Bed exterior thresholds in specified sealant at contact points with floor and make watertight.

B. Use sealer tape to prevent electrolytic action.

C. Set plumb, square, level, and in correct alignment and securely anchor. If used, line up horizontal rail in sidelight with door rail.

D. Adjust doors for proper operation after glazing door and storefront. Calk joints between frames and walls, both interior and exterior.

3.4 FIELD QUALITY CONTROL

A. Site Tests: Pull test doors, especially pairs of single doors separated by permanent mullions, to ensure security of opening.

END OF SECTION