



**ADDENDUM #3**

**Veterans Memorial Park Locker Room Renovations**

**ITB#4158**

**City of Ann Arbor**

**Parks & Recreation Services**

**Bid Due Date: 2:00 p.m. Monday, May 23, 2011**

**Please see attached pages 1-9**

Please acknowledge receipt of addendums 1-3.

Contractor: \_\_\_\_\_

Contractor's Representative \_\_\_\_\_  
Printed Signed

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email \_\_\_\_\_

Please also note receipt of addendums # 1 and 2 on the proposal page 1 of the contract documents.

## ADDENDUM NO. 3

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Project:	Veteran's Memorial Park Locker Room Reno.	Issued Date:	05-17-11
Owner:	City of Ann Arbor	For Bids Due On:	05-23-11
Architect:	MITCHELL and MOUAT ARCHITECTS, INC. 113 S. Fourth Ave Ann Arbor, Michigan 48104 (734) 662-6070 FAX (734) 662-3802 E-mail MaMA@MitchellandMouat.com	Project No.	1106

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The original 'Bidding' Construction Drawings and Specifications dated 05-02-2011 for this Project are amended as follows:

The following Documents are Clarifications, Modifications and/or Additions per this Addendum:

Clarifications:

There are no clarifications with this Addendum

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Refer to Architectural Specifications:

**Refer to Attached Section 08410:**

Item S-1: Refer to attached Section 08410-Aluminum Storefront and Entrances

Refer to Architectural Drawings:

**Refer to Sheet A1.1 (Not re-issued):**

Item A-1: Refer to Addendum No. 1: Omit the work described in **Item A-4** as it is superseded by this addendum.

Item A-2: Refer to plan 1/A1.1: Refer to attached **Partial Drawing A3-A.1 and Partial Drawing A3-A.2**. The exterior windows along the south wall of the men's and Women's shower room area shall be removed and replaced with aluminum storefront system as indicated.

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### End of Addendum

The receipt of this Addendum shall be acknowledged by listing the Addendum number and date on the Bid Form. All information contained within this Addendum is subject to all of the provisions of the Construction Documents originally issued for Bids, except as modified herein, and are hereby made a part of the Contract Scope of Work. Unless otherwise noted, all materials, workmanship, and services shall be the same as called for in the original Contract Documents. Where changes are made in construction, the contractor shall take into account and shall coordinate all required adjustments made necessary by noted changes, whether each item is specifically noted or not.

**SECTION 08410 - ALUMINUM STOREFRONT AND ENTRANCES****PART 1 - GENERAL****1.01 RELATED DOCUMENTS:**

- A. All Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions, Division 0, and Division 1 Specification sections apply to the Work of this Section.

**1.02 DESCRIPTION OF WORK:**

- A. Furnishing all labor, materials and equipment necessary for a complete installation of aluminum 'storefront' and entry systems, including all hardware and accessories, as shown on the Drawings, Schedules and specified herein.
- B. Types of aluminum storefront entrance components required include the following:
  - 1. Complete 'storefront' glazing system including fixed glazing and windows.
- C. Provide all fasteners, anchors, brackets, clips and all other attachment hardware required for a complete installation of aluminum storefront entrance system. Furnish anchors, brackets, clips and similar devices to other trades for installation well in advance of time needed for coordination with other work.

**1.03 RELATED WORK SPECIFIED ELSEWHERE:**

- A. Section 07900 - Joint Sealants.
- B. Section 08800 - Glass and Glazing.

**1.04 REFERENCES:**

- A. American Architectural Manufacturers Association AAMA 611 for anodized architectural aluminum anodic finishes.
- B. ANSI/ASTM A36 - Structural Steel.
- C. ANSI/ASTM A221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
- D. ANSI/ASTM E283 - Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors.
- E. ANSI/ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- F. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.

**1.05 SYSTEM PERFORMANCES:**

- A. General: Provide exterior entrance assemblies that have been designed and fabricated to comply with requirements for system performance characteristics listed below as demonstrated by testing manufacturer's corresponding stock systems according to test methods designated.
- B. Thermal Movement: System to provide for expansion and contraction within system components caused by a cycling temperature range of 170 degrees F. (96 degrees C.) without causing detrimental effects to system or components.
- C. Uniform Load Deflection Test: Provide capacity to withstand loading indicated below, tested per ASTM E330.
  - 1. System shall withstand 30 psf positive and 30 psf negative design wind pressure normal to the plane of the wall.
  - 2. Deflection under design load shall not exceed L/175 of the clear span.
- D. Uniform Load Structural Test: Test in accordance with ASTM E330 at a pressure 1.5 time the design pressure determined in 1.04.C.1. At conclusion of test, there shall be no glass breakage, permanent damage to fasteners, storefront parts or other damage which would cause the storefront to be defective.

- E. Transmission Characteristics of Fixed Framing: Comply with requirements indicated below for transmission characteristics and test methods.
    - 1. Air and Water Leakages: Air infiltration of not more than 0.06 CFM per sq. ft. of fixed area per ASTM E283 and no uncontrolled water penetration per ASTM E331 at a static test pressure of 6.24 psf (excluding operable door edges).
    - 2. Condensation Resistance: Not less than 60 CRF per AAMA 1502.7.
    - 3. Thermal Transmittance: U-value of not more than 0.61 BTU/hr/°F/sf per AAMA 1503.1.
  - F. Transmission Characteristics of Entrances: Provide entrance doors with jamb and head frames that comply with requirements indicated below for transmission characteristics and test methods.
    - 1. Air Leakage: Air infiltration per linear foot of perimeter crack of not more than 0.50 CFM for single doors and 1.0 CFM for pairs of doors per ASTM E283 at pressure differential of 1.57 psf
    - 2. Condensation Resistance: Not less than 48 CRF per AAMA 1502.7.
    - 3. Thermal Transmittance: U-value of not more than 0.93 BTU/hr/°F/sf per AAMA 1503.1.
- 1.06 QUALITY ASSURANCE:
- A. Drawings are based on one manufacturer's standard aluminum entrance system. Another standard system of a similar and equivalent nature will be acceptable when differences do not materially detract from design concept or intended performances, as judges solely by Architect.
  - B. Single Source Manufacturer: Provide products of same manufacturer for each type of storefront frame and entrance door unit for entire project.
- 1.07 SUBMITTALS:
- A. General: Submit per Section 01300 – Submittals.
  - B. Product Data: Submit manufacturer's specifications, standard details, and installation recommendations for components of aluminum entrances and storefronts required for project, including test reports certifying that products have been tested and comply with performance requirements.
  - C. Shop Drawings: Shop drawings shall address specific installation methods and requirements, including wall elevations at 1/4" scale, typical unit elevations at 3/4" scale, and full size detail sections of every typical composite member. Shop drawings shall include field verified wall opening dimensions; system and component dimensions; wall opening tolerances required; anchors, fasteners, operating hardware and mounting heights, reinforcement, expansion provision and other components not included in manufacturer's standard data; glazing details and standards; and other pertinent data as requested by Architect. Relationship to other work shall be clearly indicated.
  - D. Samples: Submit samples of each type and color of aluminum finish, on 12" long sections of extrusions or formed shapes and on 6" square sheets. Where normal color and texture variations are to be expected, include 2 or more units in each set of samples showing limits of such variations.
  - E. Certifications: Provide test reports from AAMA accredited laboratories certifying the performance as specified above. Test reports shall be accompanied by the storefront-system manufacturer's letter of certification stating that the tested storefront meets or exceeds the referenced criteria for the appropriate storefront type.
  - F. For Renovation projects where new doors and/or hardware are required to be installed in existing frames and/or doors, verify the fit of new doors and hardware in or on the existing frames and/or doors prior to submitting Shop Drawings.
- 1.08 PRODUCT HANDLING:
- A. Deliver and handle system components under provisions of Division 1.
  - B. Store and protect system components under provisions of Division 1.
  - C. Provide wrapping to protect pre-finished aluminum surfaces.

1.09 SPECIAL PROJECT WARRANTY:

- A. Provide written warranty signed by Manufacturer, Installer, and Contractor, agreeing to replace aluminum entrances and storefront that fail in materials or workmanship within time period indicated below of acceptance. Failure of materials or workmanship includes excessive leakage or air infiltration, excessive deflections, faulty operation of entrances, deterioration of finish or construction in excess of normal weathering, and defects in hardware, weatherstripping, and other component of the work.
1. Time Period: Three (3) years from date substantial completion.

1.10 INCONSISTENCIES:

- A. Refer to Section 00100 – Instructions to Bidders for General Contractor, Construction Manager, and/or sub contractor responsibilities pertaining to Specification inconsistencies.

PART 2 - PRODUCTS2.01 MANUFACTURERS:

- A. Proprietary names and/or model numbers used to designate products or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other accepted manufacturers. Pre-bid requests for approval of other products may be accepted in accordance with Section 00100 – Instructions to Bidders. Post-Bid substitutions may be accepted in accordance with Section 01600 – Product Substitutions.
- B. Products which have minor differences will be accepted when, in the judgment of the Architect, such differences do not detract from design concept or performance.
- C. Acceptable Manufacturers of aluminum **Storefront** framing system: Subject to compliance with requirements, provide products by one of the following:
1. Kawneer Company, Inc.;
  2. Wausau Metals;
  3. EFCO;
  5. Reliable Architectural Metals Company (Ramco), Detroit, MI. 1-800-445-0263
  6. Or Architect's approved substitution under provision of Section 01600.
- C. Acceptable Manufacturers of aluminum **Entry** framing system: Subject to compliance with requirements, provide products by:
1. Special-Lite
  2. Or Architect's approved substitution under provision of Section 01600.

2.02 FRAMING SYSTEMS – STOREFRONT COMPONENTS::

- A. Design: Based on Kawneer 451T Framing Systems
- B. Aluminum Framing System: Extruded aluminum.
1. Style: Thermally-broken centered in frame members; see drawings for profiles, dimensions, and arrangement of members.
  2. Framing members:
    - a. Size: 2" x 4-1/2" nominal [or] 1-3/4" x 6" nominal
    - b. Framing subject to exterior exposure: Thermal break design with concealed, low thermal conductance material completely separating exterior metal members from interior metal members. Use only standard construction which has been in use for at least 3 years.
    - c. Flush applied glazing stops, internal weep drainage system
    - d. Reinforced Mullions: Where required to meet wind resistance. Shall fit profile of extruded aluminum cladding with internal reinforcement of steel shaped structural section.
  4. All exterior applications shall receive 1" insulated glazing unless otherwise shown or noted.. See Section 08800 for special considerations of the glazing system.
  5. Glazing method: Resilient gasket glazed, with provision for replacement of glazing without disassembly of framing.

**2.03 MATERIALS AND ACCESSORIES:**

- A. Aluminum Members: Alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish suitable for use in this Project; ASTM B 221 for extrusions, ASTM B 209 for sheet/plate. Aluminum material shall be no less than 0.125" thick.
- B. Fasteners: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be non-corrosive and compatible with aluminum components.
  - 1. Provide any exposed fasteners to match finish of members and hardware being fastened.
  - 2. Do not use exposed fasteners except where unavoidable for application of hardware. Match finish of adjoining metal.
  - 3. Provide Phillips flat-head machine screws for exposed fasteners.
- C. Pre-Finished Break Metal: Where indicated on Drawings. Heavy-gauge aluminum. Finish shall be same as for aluminum storefront system.
- D. Concealed Flashing: Dead-soft stainless steel, 26 ga. minimum, or extruded aluminum, 0.062" minimum, of an alloy and type selected by manufacturer for compatibility with other components.
- E. Brackets and Reinforcements: Manufacturer's high-strength aluminum units where feasible; otherwise, nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A 386.
- F. Concrete/Masonry Inserts: Cast iron, malleable iron, or hot-dip galvanized steel complying with ASTM A-386.
- G. Bituminous Coatings: Cold-applied asphalt mastic complying with SSPC PS 12, compounded for 30 mil thickness per coat.
- H. Sealants and Backing Materials: As specified in Section 07900.
- I. Weatherstripping:
  - 1. At fixed stops: Replaceable, compression type molded gaskets of neoprene or EPDM rubber complying with ASTM C 864 or of polyvinyl chloride complying with ASTM D 2287.
  - 2. At other edges: Replaceable woven polypropylene, wool, or nylon pile, with aluminum or nylon fabric backing, complying with AAMA 701.
  - 3. Provide weatherstripping on all exterior doors.
- J. Glass and Glazing Materials: Provide glass and glazing materials and accessories that comply with requirements of Section 08800 of these specifications.
- K. Operable Units:
  - 1. Operable units shall be equal to GLASSvent-TRIFAB VG 451T. Operable units shall be project-out awning type units
    - a. Hardware shall be cam lock with pole ring
    - b. Provide insect screen with standard wicket

**2.04 FABRICATION:**

- A. General:
  - 1. Sizes and profiles: Required sizes for door and frame units, including profile requirements, are indicated on Drawings. Any variable dimensions are indicated, together with maximum and minimum dimensions required to achieve design requirements and coordination with other work.
  - 2. Prefabrication: To greatest extent possible, complete fabrication, assembly, finishing, hardware application, and other work before shipment to project site. Disassemble components only as necessary for shipment and installation.
    - a. Pre-glaze door and frame units to greatest extent possible, in coordination with installation and hardware requirements.
    - b. Do not drill and tap for surface mounted hardware items until time of installation at project site.

- c. Perform fabrication operations, including cutting, fitting, forming, drilling and grinding of metal work in manner which prevents damage to exposed finish surfaces. For hardware, perform these operations prior to application of finishes.
- d. Provision shall be made for window units to ensure that water will drain properly and not accumulate and remain in contact with the perimeter areas of sealed insulating glass.
- 3. Sequence: Complete cutting, fitting, forming, drilling and grinding of metal work prior to cleaning, finishing surface treatment, and application of finishes. Remove arises from cut edges and ease edges and corners to radius of approximately 1/64".
- 4. Welding: Comply with AWS recommendations to avoid discoloration; grind exposed welds smooth and restore mechanical finish.
- 5. Reinforcing: Install reinforcing as necessary for performance requirements; separate dissimilar metals with bituminous paint or other separator that will prevent corrosion.
- 6. Continuity: Maintain accurate relation of planes and angles, with hairline fit of contacting members.
- 7. Fasteners: Conceal fasteners wherever possible.
- 8. Weatherstripping: For exterior doors, provide compression weatherstripping against fixed stops; at other edges, provide sliding weatherstripping retained in adjustable strip mortised into door edge.
  - a. Provide EPDM/vinyl blade gasket weatherstripping in bottom door rail, adjustable for contact with threshold.
  - b. At interior doors and other locations without weatherstripping, provide neoprene silencers on stops to prevent metal-to-metal contact.
  - c. Provide finger guards of collapsible neoprene or PVC gasketing securely anchored into frame at hinge-jamb of pivoted doors.

#### 2.05 FINISHES:

- A. Anodized Aluminum Finishes: Aluminum profiles shall be given a caustic etch followed by an anodic oxide treatment to obtain an Architectural Class I color anodic coating conforming with AA-M12C22A31/41/44 for colored anodic finish. Refer to Kawneer Permanodic Anodized Finishes.
  - 1. Color: Anodic finish color to be selected by Architect from manufacturer's full Class I range. This shall include Dark Bronze, Clear, Black, and Custom Colors (#26 Light Bronze, #28 Medium Bronze and #18 Champagne).
  - 2. Oxide coating thickness shall be a min. 0.7 mil.
  - 3. Corrosion resistance shall be 3,000 hours.

a.

### PART 3 - EXECUTION

#### 3.01 PREPARATION:

- A. Field Measurement: Where at all possible, take field measurements prior to preparation of shop drawings and fabrication, to ensure proper fitting of work.

#### 3.02 INSPECTION:

- A. Installer shall notify Contractor in writing of conditions detrimental to proper and timely installation of aluminum entrances.
- B. Do not allow Installer to proceed with installation until unsatisfactory conditions have been corrected.
- C. Beginning of installation means Installer accepts existing surfaces and conditions.

#### 3.03 INSTALLATION:

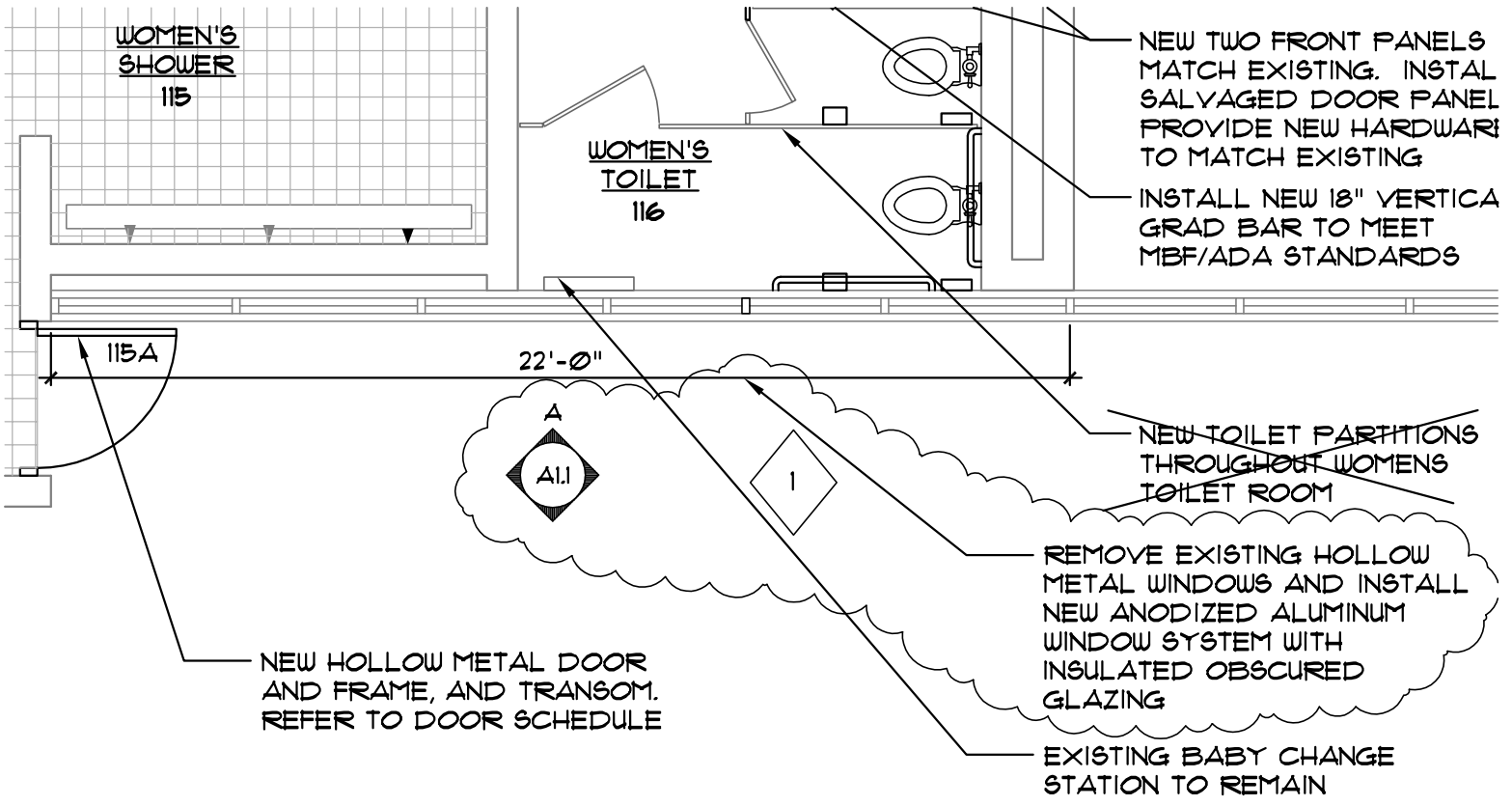
- A. Comply with manufacturer's instructions and recommendations for installation of aluminum entrances and storefronts.

- B. Set units plumb, level, and true to line, without warp or rack of framing members, doors, or panels. Anchor securely in place, separating aluminum and other corrodible metal surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- C. Drill and tap frames and doors and apply surface mounted hardware items, complying with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.
- D. Set sill members and other members in bed of sealant as indicated, or with joint fillers or gaskets as shown to provide weather tight construction. Comply with requirements of Division 7 for sealants, fillers, and gaskets.
- E. Refer to Division 8 for installation of glass and other glazing materials shown to be glazed into doors and framing not pre-glazed by manufacturer.

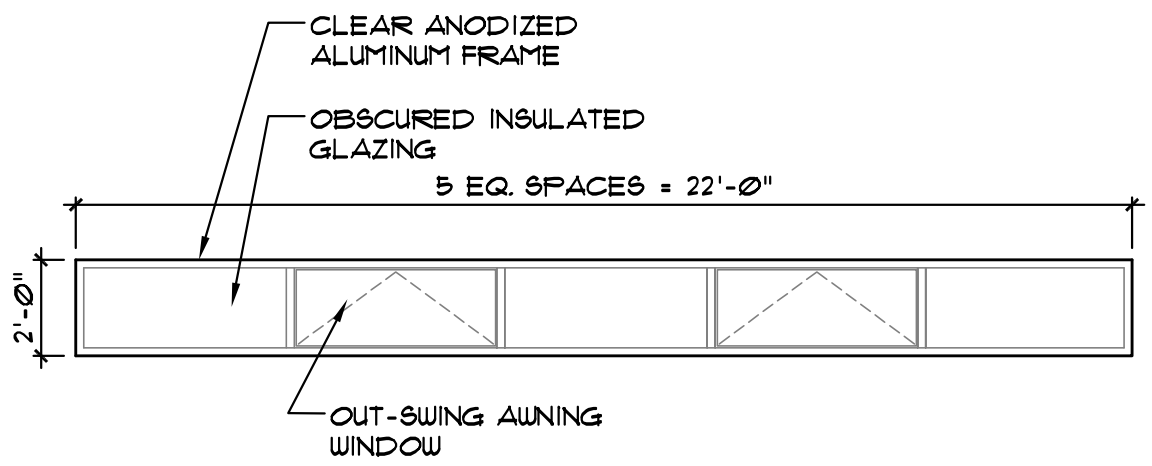
3.04 ADJUST AND CLEAN:

- A. Adjust operating hardware to function properly, without binding and to provide tight fit at contact points and weatherstripping.
- B. Clean completed system, inside and out, promptly after erection and installation of glass and sealants according to manufacturer's recommendations. Remove excess glazing and joint sealant, dirt, and other substances from aluminum surfaces.
- C. Institute protective measures and other precautions required to assure that aluminum entrances and storefronts will be without damage or deterioration, other than normal weathering, at time of acceptance.

END OF SECTION 08410



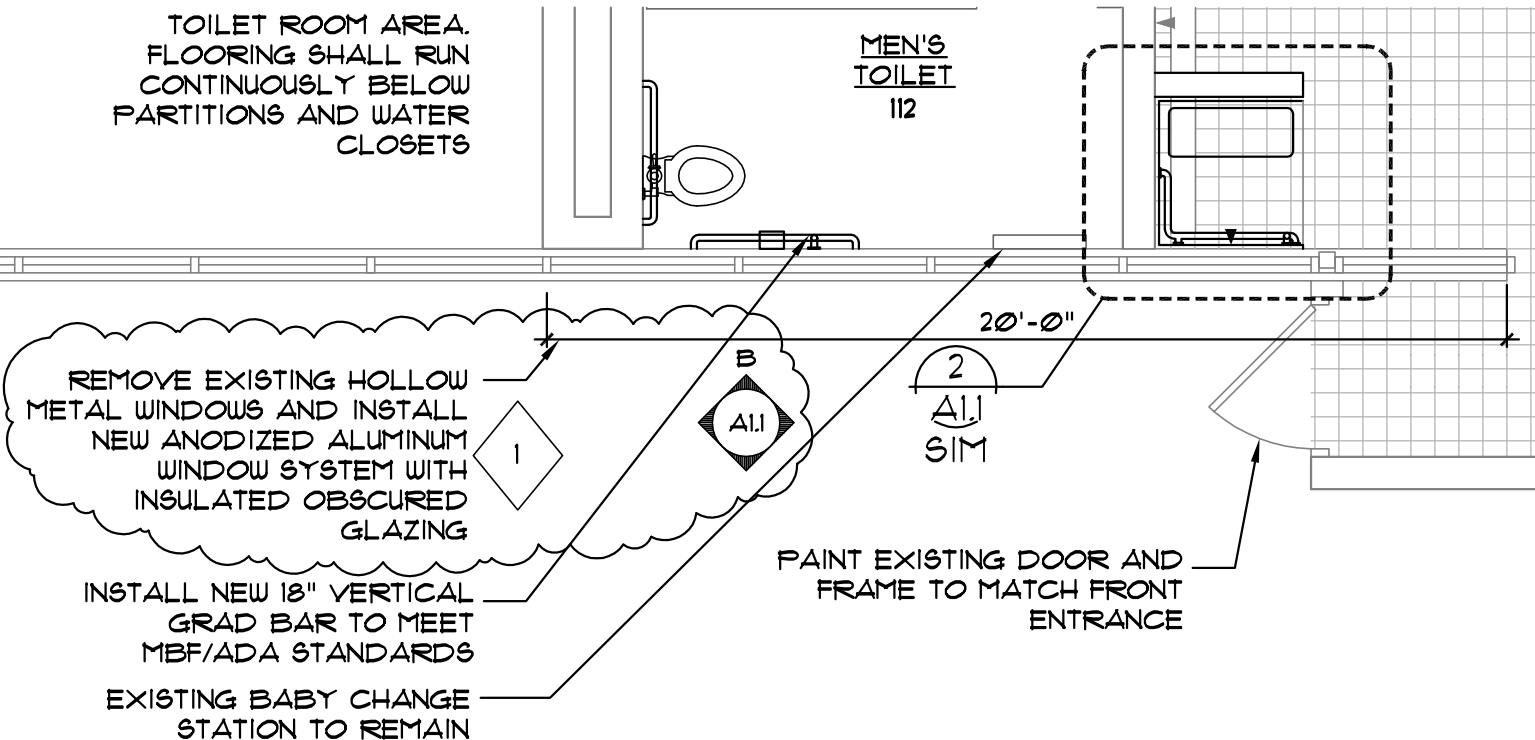
1 Partial Floor Plan  
 A1.1 SCALE: 1/4"=1'-0"



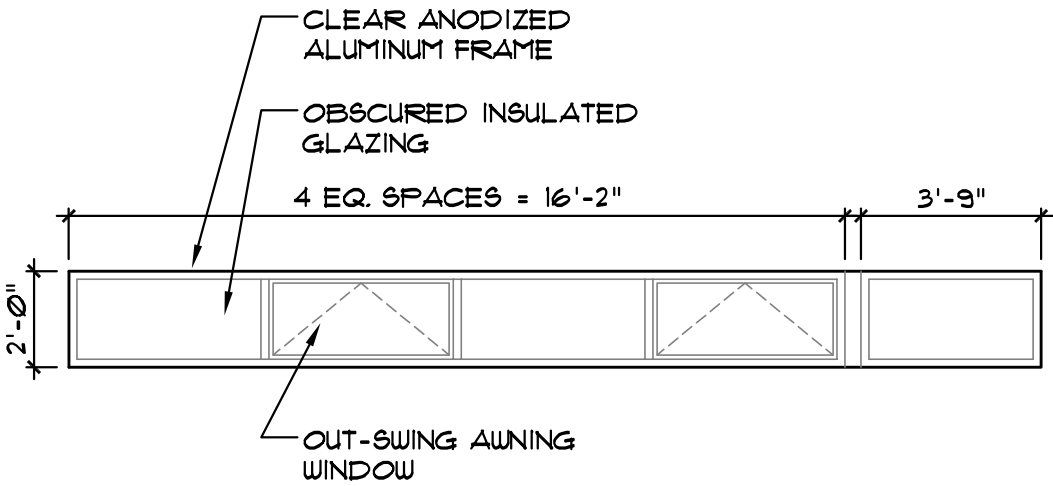
A Window Elevation  
 A1.1 SCALE: 1/4"=1'-0"

TOILET ROOM AREA.  
FLOORING SHALL RUN  
CONTINUOUSLY BELOW  
PARTITIONS AND WATER  
CLOSETS

MEN'S  
TOILET  
112



1 Partial Floor Plan  
A1.1 SCALE: 1/4"=1'-0"



B Window Elevation  
A1.1 SCALE: 1/4"=1'-0"