

**BID #10-088 YOUTH SERVICES CENTER
EL PASO, TEXAS**

ADDENDUM NUMBER FOUR

January 4, 2011

The following constitutes changes, deletions, additions, and/or clarifications to the contract documents for the project titled herein. This addendum is hereby made a part of and shall be attached to each set of Contract Documents. The Contractor on the proposal form shall acknowledge addendum. Unless specifically modified herein, all work shall remain as indicated in the Contract Documents.

TECHNICAL SPECIFICATIONS

- 1) Add Section 08 44 13 - GLAZED ALUMINUM CURTAIN WALLS not provided in Addendum No. 3.

CONSTRUCTION DRAWINGS

1. Architectural:
 - A. Supplemental Drawings AD1.12 for added note #2.

SECTION 08 44 13 GLAZED ALUMINUM CURTAIN WALLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Related Sections:
 - 1. Division 08 41 13 "Aluminum Entrances and Storefronts"
 - 2. Division 08 51 13 "Aluminum Windows"
 - 3. Division 08 63 00 "Metal-Framed Skylights"
 - 4. Division 08 71 00 "Hardware"
 - 5. Division 08 81 00 "Glazing"

1.2 SYSTEM DESCRIPTION

- A. Architectural Aluminum Curtain Wall Systems, including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of curtain wall framing.
- B. Curtain Wall System Performance Requirements:
 - 1. Wind loads: Provide Curtain Wall system; include anchorage, capable of withstanding wind load design pressures of 100 mi/hr and 18 lbs./sq. ft. inward and 20 lbs./sq. ft. outward. The design pressures are based on the International Building Code; 2003 Edition
 - 2. Air Infiltration: The test specimen shall be tested in accordance with ASTM E 283. Air infiltration rate shall not exceed 0.06 cfm/ft² (0.3 l/s · m²) at a static air pressure differential of 6.24 psf (300 Pa).
 - 3. Water Resistance, (static): The test specimen shall be tested in accordance with ASTM E 331. There shall be no leakage at a static air pressure differential of 12 psf (575 Pa) as defined in AAMA 501.
 - 4. Water Resistance, (dynamic): The test specimen shall be tested in accordance with AAMA 501.1. There shall be no leakage at an air pressure differential of 12 psf (575 Pa) as defined in AAMA 501.
 - 5. Uniform Load: A static air design load of 40 psf (1915 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member at design load. At structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
 - 6. Seismic: When tested to AAMA 501.4, system must meet design displacement of 0.010 x the story height and ultimate displacement of 1.5 x the design displacement.
 - 7. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than 66_{frame} and 60_{glass} (clear),
or
Condensation Index (I): when tested to CSA-A440-00, the Condensation Index shall not be less than 68_{frame} and 54_{glass} (clear).
 - 8. Thermal Transmittance (U-factor): Refer to Glazing specification section.
 - 9. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than 71_{frame} and 71_{glass} (HP glass).

10. Sound Transmission Loss: When tested to ASTM E90 and ASTM E1425, the Sound Transmission Class (STC) and Outdoor/Indoor Transmission Class (OITC) shall not be less than:
STC 31 or OITC 26 based upon 1" insulating glass (1/4", 1/2" AS, 1/4"),
STC 37 or OITC 30 based upon 1" laminated glass (1/4" laminated, 1/2" AS, 1/4" laminated).

1.4 SUBMITTALS

- A. Product Data: For each product specified. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes.
- B. Environmental Performing Construction Products Statement: Submit a percentage by weight of the post consumer and post industrial recycled content on manufacturer's literature along with the material cost of each item, subtracting labor and delivery.
- C. Submit shop drawings and hardware schedule for approval, indicate all items to be furnished, dimensions, details, methods of anchorage, etc.

1.5 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Warranty Period: 2 years from date of Substantial Completion.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing entrance and storefront systems similar to those required for this Project and who is acceptable to manufacturer.
- B. Product Options: Drawings indicate size, profiles, and dimensional requirements of entrance and storefront systems and are based on the specific systems indicated. Other manufacturers' systems with equal performance characteristics may be considered.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- B. Packing, Shipping, Handling, and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful weather conditions. Handle material and components to avoid damage. Protect curtain wall material against damage from elements, construction activities, and other hazards before, during and after curtain wall installation.

PART 2 – PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

- A. Acceptable Manufacturers:
 - 1. Kawneer Company, Inc.
 - 2. US aluminum
 - 3. Approved equal

- B. Acceptable Products:
 - 1. Kawneer Company, Inc.
 - a. Product: Kawneer Aluminum Curtain Wall
 - b. Series: 1600 Wall System^{®1}
 - c. Framing Member Profile: 2 ½" x 6"
 - 2. US Aluminum
 - a. Product: US Aluminum Curtain Wall
 - b. Series: 3250
 - c. Framing Member Profile: 2 ½" x 6"

 - 3. Approved Equal

2.02 MATERIALS

- A. Aluminum (Curtain Wall and Components):
 - 1. Material Standard: Extruded Aluminum, ASTM B 221, 6063-T6 alloy and temper.
 - 2. Member Wall Thickness: Each framing member shall have a wall thickness sufficient to meet the specified structural requirements.
 - 3. Tolerances: Reference to tolerances for wall thickness and other cross-sectional dimensions of curtain wall members are nominal and in compliance with AA Aluminum Standards and Data.

2.03 ACCESSORIES

- A. Fasteners: Where exposed, shall be Stainless Steel.

- B. Gaskets: Glazing gaskets shall comply with ASTM C 864 and be extruded of a silicone compatible EPDM rubber that provides for silicone adhesion.

- B. Perimeter Anchors: Aluminum. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

- C. Thermal Barrier: Thermal separator shall be extruded of a silicone compatible elastomer that provides for silicone adhesion.

- D. Sun Control System: Sunshade by Kawneer, Series 3600 by US Aluminum or approved equal: An aluminum sunshade (consisting of outriggers, louvers, and fascia which may be selected from standard configurations) that is anchored directly to the vertical curtain wall mullions. Outriggers to be painted or anodized (Select from manufacturer's standard paints and colors, or standard anodized finishes.).

2.04 RELATED MATERIALS

- A. Sealants: Refer to Joint Treatment (Sealants) Section.

B. Glass: Refer to Glass and Glazing Section.

2.05 FABRICATION

A. General:

1. Fabricate components per manufacturer's installation instructions and with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
2. Accurately fit and secure joints and corners. Make joints flush, hairline and weatherproof.
3. Prepare components to receive anchor devices. Fabricate anchors.
3. Arrange fasteners and attachments to conceal from view.

2.06 FINISHES

A. Shop Finishing:

1. AA-M12C22A31, AAMA 611, Architectural Class II Clear Anodic Coating (standard)

2.07 SOURCE QUALITY CONTROL

A. Source Quality: Provide aluminum curtain walls specified herein from a single source.

1. Building Enclosure System: When aluminum curtain wall are part of a building enclosure system, including entrances, entrance hardware, windows, storefront framing and related products, provide building enclosure system products from a single source manufacturer.

PART 3 – EXECUTION

3.01 EXAMINATION

- #### A. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions. Verify openings are sized to receive curtain wall system and sill plate is level in accordance with manufacturer's acceptable tolerances.
1. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

3.02 INSTALLATION

- #### A. General: Install curtain wall systems plumb, level, and true to line, without warp or rack of frames with manufacturer's prescribed tolerances and installation instructions. Provide support and anchor in place.
1. Dissimilar Materials: Provide separation of aluminum materials from sources of corrosion or electrolytic action contact points.
 2. Glazing: Glass shall be outside glazed and held in place with extruded aluminum pressure plates anchored to the mullion using stainless steel fasteners spaced no greater than 9" on center.

3. Water Drainage: Each light of glass shall be compartmentalized using joint plugs and silicone sealant to divert water to the horizontal weep locations. Weep holes shall be located in the horizontal pressure plates and covers to divert water to the exterior of the building.

B. Related Products Installation Requirements:

1. Sealants (Perimeter): Refer to Joint Treatment (Sealants) Section.
2. Glass: Refer to Glass and Glazing Section.
 - a. Reference: ANSI Z97.1, CPSC 16 CFR 1201 and GANA Glazing Manual

3.03 FIELD QUALITY CONTROL

- A. Field Tests: Architect shall select curtain wall units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present. Tests not meeting specified performance requirements and units having deficiencies shall be corrected as part of the contract amount.

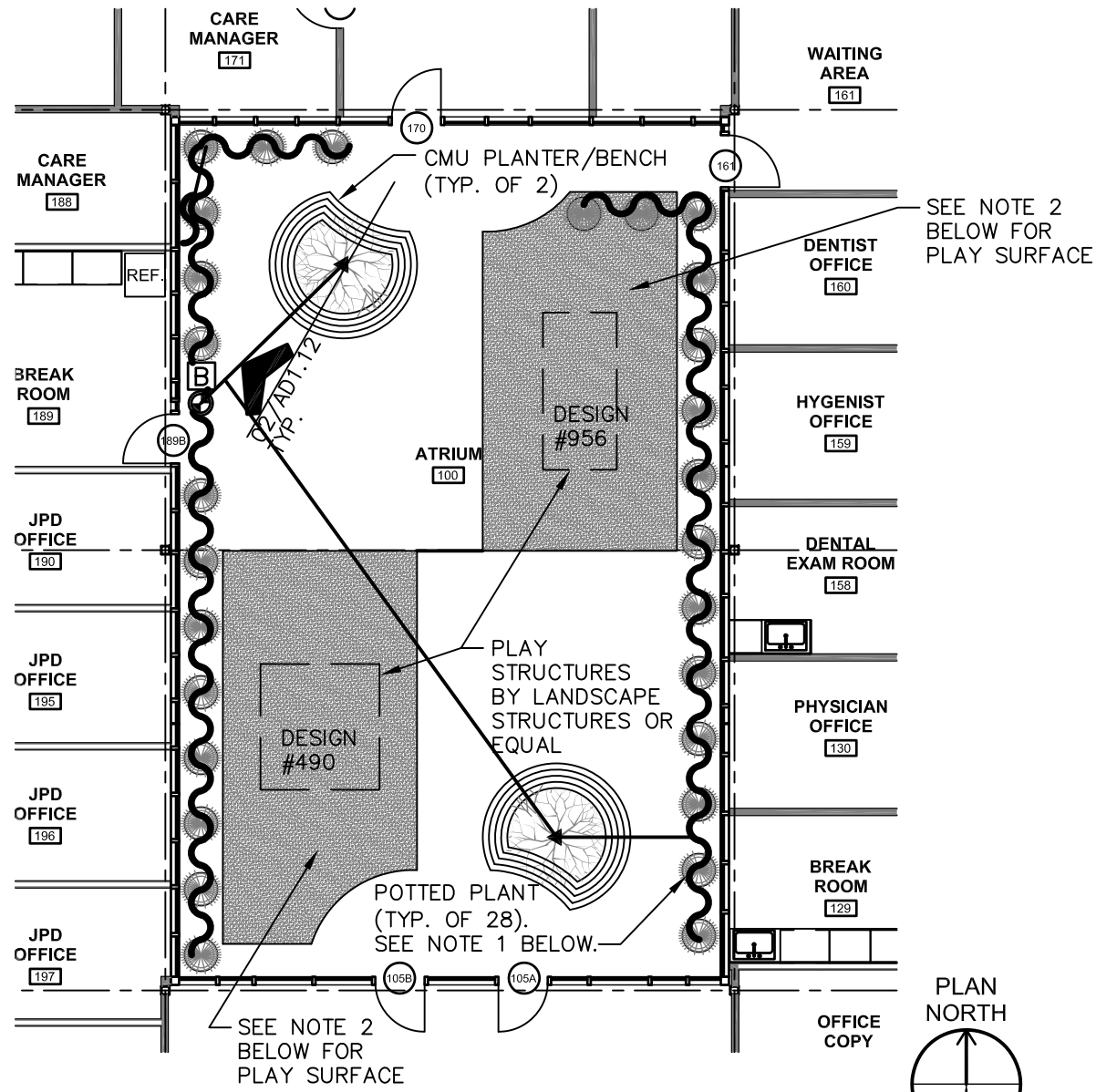
1. Testing: Testing shall be performed per AAMA 503 by a qualified independent testing agency. Refer to Testing Section for payment of testing and testing requirements.
 - a. Air Infiltration Tests: Conduct tests in accordance with ASTM E 783. Allowable air infiltration shall not exceed 1.5 times the amount indicated in the performance requirements or 0.09 cfm/ft², which ever is greater.
 - b. Water Infiltration Tests: Conduct tests in accordance with ASTM E 1105. No uncontrolled water leakage is permitted when tested at a static test pressure of two-thirds the specified water penetration pressure but not less than 8 psf (383 Pa).

- B. Manufacturer's Field Services: Upon Owner's written request, provide periodic site visit by manufacturer's field service representative.

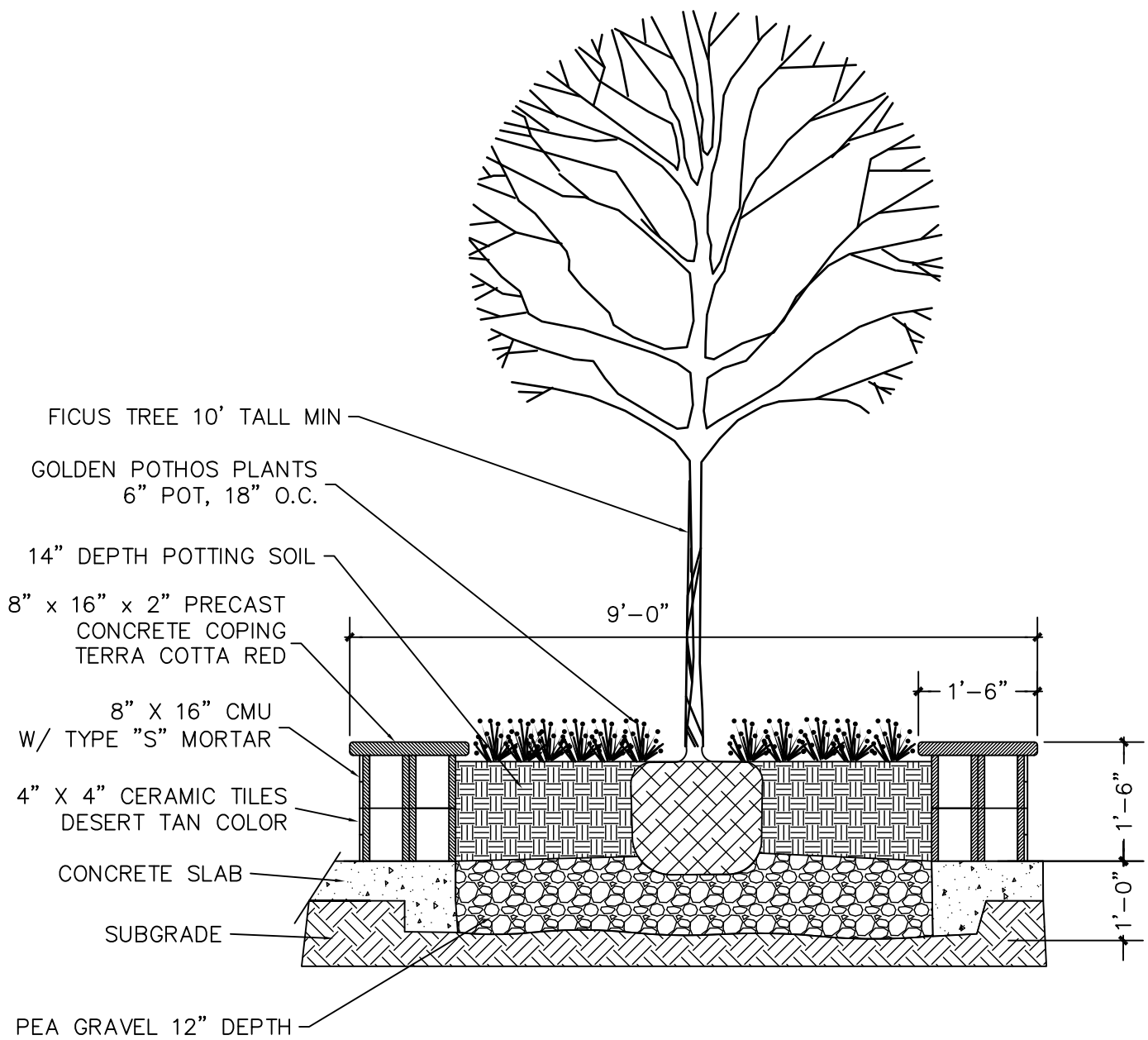
3.04 PROTECTION AND CLEANING

- A. Protection: Protect installed product's finish surfaces from damage during construction. Protect aluminum curtain wall system from damage from grinding and polishing compounds, plaster, lime, acid, cement, or other harmful contaminants.
- B. Cleaning: Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

END OF SECTION 08 44 13



01 ENLARGED ATRIUM PLAN
SCALE: 3/32" = 1' - 0"
PLAN NORTH



02 PLANTER DETAIL
SCALE: 1/2" = 1' - 0"

NOTES:

- 24" DYNAMIC DESIGN ROLLED RIM PLANTER W/ ATTACHED SAUCER TERRA COTTA COLOR, WITH 3-GALLON TROPICAL PLANTS TO CONSIST OF AN ASSORTMENT OF; SCHEFFLERA, DRACENA, BAMBOO PALM, RUBBER PLANT, AND CORN PLANT. TO BE PLANTED IN POTTING SOIL.
- 2" POURED-IN-PLACE PLAY SURFACE WITHIN 2" RECESS IN CONCRETE SLAB. 50% COLOR/BLACK.

IRRIGATION LEGEND

SYM	ITEM	QTY.
[B]	3/4" BACKFLOW PREVENTER W/ ENCLOSURE	1
[⊕]	1" REMOTE CONTROL VALVE, HUNTER PCZ-101 - 1" CONTROL ZONE KIT W/ HUNTER SVC-100 BATTERY POWERED CONTROLLER	1
[S]	AGRIFIM MAXI-FLO ADJUSTABLE BUBBLER MFBA 6	2
[S]	AGRIFIM MAXI-FLO ADJUSTABLE BUBBLER MFBA 6 NOTE: PROVIDE (2) .5 GPH EMITTERS TO EACH POTTED PLANT	
[S]	1" SCHED 40 PVC PIPING, PROVIDE 3" SLEEVING UNDER AL PAVING	