

Date: August 14, 2009

To: ALL BIDDERS

PGAL Job #: R0508003.00

ARCHITECT'S ADDENDUM 04

To the Contract Documents for:

**COLLIN COUNTY COURTHOUSE ADDITION
2100 BLOOMDALE ROAD
MCKINNEY, TEXAS 75071**

This ADDENDUM is herewith made a part of the Contract Documents dated June 4, 2009, of the above-mentioned project. Except as may be otherwise described, labor and material for the Work hereinafter specified shall conform to all requirements of the Contract Documents.

The Contractor on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by the Addendum and required by the intent of the original Contract Documents. The Work is to be carried out in accordance with the following Addendum items issued in accordance with the Contract Documents. The Contractor shall acknowledge receipt of this Addendum in his bid.

This ADDENDUM supersedes and/or supplements all portions of the documents with which it conflicts.

This ADDENDUM supplements and/or amends the original documents as follows:

DRAWING ATTACHMENTS:

Sheet #	Title
G0.00	COVER SHEET
G0.01	SHEET INDEX
A1.00	SITE PLAN
A2.01	LOWER LEVEL PLAN "A"
A2.02	LOWER LEVEL PLAN "b"
A2.03	LOWER LEVEL PLAN "C"
A2.04	LOWER LEVEL PLAN "D"
A6.02	EXTERIOR CONTROL JOINT ELEVATIONS
A7.55	WALL SECTIONS
A7.74	WALL SECTIONS AND DETAILS
A8.07	INTERIOR ELEVATION
A8.10	INTERIOR ELEVATIONS
A8.51	INTERIOR DETAILS
C4.01	SITE UTILITY PLAN

SPECIFICATION ATTACHMENTS:

Section # Title

	Table of Contents – 7 pages
00310	BID FORM
09722	PHENOLIC WALL COVERING
10211	ALUMINUM WALL LOUVER

MODIFICATIONS TO DRAWINGS:

Addendum #1

Sheet #-Item #

A0.10	Remove "One 7/16" layer fiberglass level 3 bullet-resistant material on secured side" from detail 3/A0.10.
A0.20	Revise Finish Legend Number for PA-1 from "RK6003T" to read "NA422" Revise finishes for north section of Corridor 12010 east of column line E to be painted finish and wood base.
A0.30	Door type for 12010K and 12010L revise from type "K" to type "L".
A0.31	Door 30335H revise "PLAM" to be "WD". Doors 10290A, 10300A, 10394A, 10404A, 20298A, 20312A, 20394A, 20404A, 30384A, 30394A revise "GL3" to "GL8". 10222C Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10222E Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10222F Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10222G Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10332B Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10332E Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10332F Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 10332J Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 20238B Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 20238F Head Detail – 24/A0.36 Jamb Detail – 23/A0.36 Notes – CARD READER 20238C Head Detail – 22/A0.36 Jamb Detail – 21/A0.36 NOTES – (WILL BE BLANK – SUBTRACT CARD READER) 20238G Head Detail – 22/A0.36 Jamb Detail – 21/A0.36 NOTES – (WILL BE BLANK SUBTRACT CARD READER)
A0.35	Door 'C': "... & Ballistic Rated Door" & for the door frames F4 & F2 add note "... & Ballistic Rated Frame"
A1.00	Continuation of architectural finishes around south face of existing mechanical yard wall.
A2.01	Window tags turned off between issue of CD and Addendum No. 1. This issue turns back on the window tags.
A2.02	Window tags turned off between issue of CD and Addendum No. 1. This issue turns back on the window tags.
A2.03	Window tags turned off between issue of CD and Addendum No. 1. This issue turns back on the window tags. New coordination elevations to A8.07.
A2.04	Window tags turned off between issue of CD and Addendum No. 1. This issue turns back on the window tags.
A2.16	Revise Keyed Note #21 to read: This portion of non-secure CMU wall to be removed for use of the elevator at this level. Previously installed elevator door, frame, sill, call stations, etc. shall all be verified to be in good working order.
A2.17	Revise Keyed Note #21 to read: This portion of non-secure CMU wall to be removed for use of the elevator at this level. Previously installed elevator door, frame, sill, call stations, etc. shall all be verified to be in good working order.

- A2.26 Revise Keyed Note #21 to read: This portion of non-secure CMU wall to be removed for use of the elevator at this level. Previously installed elevator door, frame, sill, call stations, etc. shall all be verified to be in good working order. Revise section tag "13/A4.10" to read "16/A4.09"
- A2.27 Revise Keyed Note #21 to read: This portion of non-secure CMU wall to be removed for use of the elevator at this level. Previously installed elevator door, frame, sill, call stations, etc. shall all be verified to be in good working order. Revise section tag "13/A4.10" to read "16/A4.09"
- A2.32 Revise Keyed Note #21 to read: This portion of non-secure CMU wall to be removed for use of the elevator at this level. Previously installed elevator door, frame, sill, call stations, etc. shall all be verified to be in good working order. Revise section tag "13/A4.10" to read "16/A4.09"
- A3.01 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.02 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.03 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.04 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.11 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.12 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.13 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.14 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.16 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.17 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.26 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.27 Remove "or equal" from 2'x2' ceiling grid and tile.
- A3.32 Remove "or equal" from 2'x2' ceiling grid and tile.
- A4.04 Drawing 13: Revise wall tags (3) "W6" to read "M6".
- A6.02 Revisions to exterior control joint tag at existing building.
- A7.55 Revisions to exterior control joint tag at existing building.
- A7.74 Revisions to exterior control joint tag at existing building.
- A8.07 Added elevations 24/25
- A8.10 Revisions to banquet seating
- A8.51 Revisions to banquet seating
- C4.01 Gas line coordination shown on plan.
- M0.01 General Notes: Add note 21 to read:
S1 grilles in all holding areas are to be maximum security rating.
- E0.00 Floor box in all courtrooms to be FSR #FL-540P-4 with SLP-C Cover.
- E3.17 Room numbers 10316, 10314, 10312, 10310, 10306 revise type "K" fixture to type "M" maximum in all holding areas.
- E3.18 Room numbers 10410, 10414, 10416, 10418, 10420, 10422 revise type "K" fixture to type "M" maximum in all holding areas.
- E3.23 Room numbers 20326, 20328, 20330, 20332, 20334, 20336 revise type "K" fixture to type "M" maximum in all holding areas.
- E7.01 Fixture EE: DESCRIPTION: Large Suspension Fixture; BASE MANUFACTURER AND CATALOG NO: Hampstead Lighting Thor D1 Large Suspension 120V #14550; LAMPS: (3) 26W flou.; VOLTS: 120; REMARKS: Large Suspension
Fixture FF: DESCRIPTION: Songbird Sconce; BASE MANUFACTURER AND CATALOG NO: Oxygen Lighting Songbird 2-579-124; LAMPS: (1) 24W Twin Tube; VOLTS: 277; REMARKS: Songbird Sconce
Fixture DD: DESCRIPTION: Decorative Heat Lamp; BASE MANUFACTURER AND CATALOG NO: Hatco DL-800-CTR; LAMPS: (1)250; VOLTS: 120; REMARKS: Decorative Heat Lamp
Fixture G: DESCRIPTION: Pendant; BASE MANUFACTURER AND CATALOG NO: Eureka Lighting 4233-XB-SC-2402G-2805-36-WH; LAMPS: (1) 13W CF Double Twin; VOLTS: 277; REMARKS: n/a
- F1.00 General Notes: Add notes 12, 13 to read:
12. Sprinkler heads in holding cell areas are to be vandal resistant and in conformance with all Texas Commission on Jail Standards requirements.

13. Per Texas Commission on Jail Standards requirements, smoke detection to be maximum 60 second detection.
- P4.01 Revise Notes By Symbol #10 to read:
CONTRACTOR SHALL COORDINATE WITH THE LOCAL GAS UTILITY COMPANY FOR EXTENT OF WORK UP TO THE AND INCLUDING THE GAS METER AND GAS REGULATOR. GAS METER TO BE LOCATED AT STREET. PROVIDE GAS REGULATOR AT THIS LOCATION TO REDUCE 5 PSI INCOMING GAS PRESSURE TO 4 OZ DISCHARGE GAS PRESSURE. THE CONTRACTOR SHALL PROVIDE ALL PIPING, VALVES, ETC THAT ARE NOT PROVIDED BY THE LOCAL GAS UTILITY COMPANY AND THAT ARE REQUIRED FOR CONNECTION OF GAS METER. THE CONTRACTOR SHALL PAY ALL FEES AND COSTS REQUIRED BY THE LOCAL GAS UTILITY COMPANY THAT ARE ASSOCIATED WITH THE EXTENSION OF THE GAS SERVICE TO THE LOCATION SHOWN. REFER TO CIVIL DRAWINGS FOR ADDITIONAL GAS ROUTING.

MODIFICATIONS TO SPECIFICATIONS:


Addendum #1

Section-description

- | | |
|-------|--|
| 01300 | 3.08 NUMBER OF COPIES OF SUBMITTALS
Add section E to read:
E. Provide full size color copies of final approved submittals in quantities listed:
1. Owner: 1 copy
2. Architect: 1 copy
3. Field Office: 1 copy |
| 01810 | COMMISSIONING
Delete this section from specifications |
| 04720 | Add:
04720/2.01/A/8. Arriscraft. |
| 08410 | Add:
08410/2.01/B.2. Vistawall. |
| 09511 | Revise:
09511/2.02/A. Acceptable Product: Armstrong Cirrus Square Lay-In, 15/16" 24"x24" acoustical ceiling tile. |
| 09722 | Add section back to project list. |
| 10990 | Revise section 10990/2.02/E to read:
E. Pistol Locker
1. Reference specifications section 11192. |

End of Addendum #4

ISSUED:

By: 
PGAL Architect of Record

8.14.09
Date

SECTION 00310 - PROPOSAL FORM

Proposal of _____ Date _____
(Name of Firm)

PROPOSAL NO.: 06662-09

TO: **COLLIN COUNTY, TEXAS (Owner)**

FOR: **CONSTRUCTION: COLLIN COUNTY COURTHOUSE ADDITION**

The undersigned, as Offeror, declares that the only person or parties interested in this Proposal are those principals named herein, that his/her Proposal is made without collusion with any other person, firm or corporation, that he/she has carefully examined the Contract Documents including the Form of Contract, Invitation to Offerors, Instruction to Offerors, Specifications and the Drawings, therein referred to and has carefully examined the locations, conditions and classes of materials for the proposed work, and agrees that he/she will provide all the necessary labor, machinery, tools, equipment, apparatus and other items incidental to construction and will do all the work and furnish all the materials called for in the Contract Documents in the manner prescribed therein.

It is understood that the following quantities of work to be done at unit prices are approximate only and are intended principally to serve as a guide in evaluating Proposals.

It is agreed that the quantities of work to be done at unit prices and materials to be furnished may be increased or diminished as may be considered necessary in the opinion of Collin County to complete the work fully as planned and contemplated, and that all quantities of work, whether increased or decreased, are to be performed at the unit prices set forth below except as provided for in the Contract Document.

It is understood and agreed that the Bid Security accompanying this Proposal will be returned to the offeror, unless in case of the acceptance of the Proposal the Offeror shall fail to execute a contract and file a Performance Bond, a Payment Bond, a Maintenance Bond and a Certificate of Insurance within ten (10) consecutive calendar days after its acceptance, in which case the Bid Security shall become the property of the Owner and shall be considered as payment for damages caused by delay and other inconveniences suffered by the Owner because of such failure of the Offeror.

It is understood and agreed that all work under this Contract will be completed within _____ consecutive calendar days. Completion date will be established in the Notice to Proceed.

The undersigned proposes and agrees to perform all work of whatever nature required, in strict accordance with the drawings and specifications for the following sum of prices, to-wit:

Labor and Material Breakdown:

A: Total Material Cost
Incorporated in Project* \$ _____

B: Total Labor Cost
Incorporated in Project* \$ _____

C. Proposal Grand Total* \$ _____

*Item A & B Must Add Up to C. the Proposal Grand Total.

* Proposal Grand Total (written in words) _____

Breakout the items below included in your proposal Grand Total

		Unit Price	Total Price
1. Modified Subgrade 6" with Lime, square yard	14,210 SY	\$ _____ SY	\$ _____
2. Hydrated Lime, tons	260 Tons	\$ _____ tons	\$ _____
3. Import fill material, including haul, Compaction and grading, cubic yard	118,650CY	\$ _____ CY	\$ _____

Payment for Additional Items, Unit Prices (all unit pricing is for adds and/or deducts):

Piers-Unit price per linear foot for piers
18" Round \$ _____
36" Round \$ _____

Pier Steel Casing-Unit price per linear foot for casing
18" Round \$ _____
36" Round \$ _____

Modified Subgrade 6" with Lime per square yard \$ _____

Hydrated Lime per ton \$ _____

Import fill material, including haul, compaction and grading
Per cubic yard \$ _____

Sidewalks-Unit price per square foot for sidewalks 4" thick (add and/or deduct) \$ _____

Trench Safety-Unit price per lineal foot of trench exceeding
a depth of five (5) feet \$ _____

Special Shoring-(if any), unit price per square foot of shoring used \$ _____

Complete installed data drop within 200 feet \$ _____

Complete installed receptacle within 200 feet (dedicated circuit) \$ _____Complete installed receptacle within 50 feet (Not dedicated circuit) \$ _____Complete installed 50 linear feet of ¾" rigid conduit \$ _____Complete installed smoke detector/smoke duct detector/heat detector
within 75 feet of another similar fire device \$ _____Complete installed carpet per square foot \$ _____Complete installed VCT per square foot \$ _____Complete installed Flexible Pavement per square yard \$ _____Complete installed 2" modified bit roof penetration with weather head \$ _____**ALTERNATE – Delete Audio/Visual Equipment and Wiring Installation**
(conduit remains) per Courtroom \$ _____

Collin County would like to offer the option for successful offeror to accept credit card payments for services rendered. Collin County currently uses MasterCard as its credit card provider.

Would your company be willing to accept monthly credit card payments? Yes No

If applicable, does your company offer any additional discounts for timely payment with or without credit card payment? Yes No

If yes, please explain _____

Receipt is hereby acknowledged of the following Addenda to the Contract Documents.

Addendum No. 1 dated _____	Received _____
Addendum No. 2 dated _____	Received _____
Addendum No. 3 dated _____	Received _____
Addendum No. 4 dated _____	Received _____

The undersigned Offeror hereby declares that he/she has visited the site of the Work and has carefully examined the Contract Documents pertaining to the Work covered by the above Proposal, and he/she further agrees to commence work within ten (10) consecutive calendar days after date of written Notice to Proceed and to substantially complete the work on which he/she has proposed within _____ consecutive calendar days subject to such extensions of time allowed by Specifications.

August 13, 2009

The undersigned Offeror agrees that this Proposal shall be good and may not be withdrawn for a period of ninety (90) consecutive calendar days after closing time for receiving Proposals.

The undersigned Offeror agrees that if he/she is notified of the acceptance of this proposal within ninety (90) consecutive calendar days of the time set for opening of Proposals, he/she will execute a contract for the Work for the stated prices, and will execute and deliver to Owner within ten (10) consecutive calendar days after signing of contract, a Performance Bond and a Payment Bond for the total amount of the Contract and a Certificate of Insurance, as stipulated in the Specifications.

The undersigned Offeror further agrees that the enclosed Bid Security in the amount of five percent (5%) of the Greatest Amount of Proposal is the agreed amount of liquidated damages which Collin County, Texas will suffer by the failure of the undersigned Offeror to execute the Contract and to furnish the Performance and Payment Bonds and by reason of such failure on the part of the undersigned Offeror, the Bid Security will immediately be forfeited to Collin County, Texas.

The undersigned Offeror also understands that the Commissioners' Court of Collin County, Texas reserves the right to reject any and/or all Proposals covered in this Proposal request and to waive informalities or defects in Proposals or to accept such Proposals as it shall deem to be in the best interest of Owner.

It is understood that the work proposed to be done will be accepted when fully completed in accordance with the Contract Documents.

Accompanying this Proposal, is a certified check, cashier's check or Bid Bond in the amount of five percent (5%) of the total amount proposed. Also accompanying this Proposal, all the information required in Section 00100 – Instructions to Offerors.

The undersigned certifies that the Proposal prices contained in this Proposal have been carefully checked and are submitted as correct and final. The unit prices have been shown in words and figures for each item listed in this Proposal and it is understood that in the event of a discrepancy, the words shall govern.

Respectfully submitted,

Contractor: _____

By: _____

Title: _____

Address: _____

Seal and Authorization
(If a Corporation)

Phone: _____

Fax: _____

E-mail
Address: _____

END OF SECTION

Revised 8/5/09

SECTION 09722

PHENOLIC WALL COVERING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Phenolic wall panels.

1.02 REFERENCES

- A. NEMA LD3 current edition for Type CGS high pressure laminants.

1.03 SUBMITTALS

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on wall covering and installation guidelines for substrates.
- C. Samples: Submit three samples of wall covering, 12 x 12 inch in size illustrating color, finish, and texture.
- D. Test Reports: Indicate verification of flame and smoke ratings, when tested by UL.
- E. Manufacturer's Installation Instructions: Indicate special procedures.
- F. Maintenance Data: Submit data on cleaning, touch-up, and repair of covered surfaces.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section with minimum five years of documented experience.
- B. Installer Qualifications: Company specializing in performing the type of work specified in this section with minimum five years of experience.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the adhesive or wall covering product manufacturer.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Drawings and specifications are based on manufacturer's literature from Nevamar unless otherwise indicated. Other manufacturers to comply with the minimum levels of material and detailing indicated on the drawings and in conformance with provisions of Section 01600 – Product Requirements.
www.nevamar.com

2.02 MATERIALS

- A. Acceptable Product: Provide wall covering materials shown in the drawing finish schedules.
 - 1. Substitutions permitted under provisions of Section 01600.
- B. Requirements for Phenolic Wall Coverings:
 - 1. Manufactured pressed melamine resin impregnated decorative paper over layers of phenolic resin impregnated kraft paper at 1200 lbs. per square in pressure.
 - 2. Panels must contain Nevamar Armored Protection Surface.
 - 3. Thickness: 1/8"
 - 4. Finish: Nevamar Thicklam CGS laminate textured "T" finish with Armored Protection Surface.

C.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces conform to requirements of the phenolic wall covering manufacturer.
- B. Measure moisture content of surfaces using an electronic moisture meter. Do not apply wall coverings if moisture content of substrate exceeds level recommended by wall covering manufacturer.
- C. Verify flatness tolerance of surfaces does not vary more than 1/8 inch in 10 feet nor vary at a rate greater than 1/16 inch/ft.

3.02 INSTALLATION

- A. Saw blades cutting material should be carbide tipped and kept sharp to produce chip free edges.
- B. Mitered edges are not acceptable.
- C. Pre-drill holes to avoid stress cracks in product surfaces.
- D. Edge finishing: Sand with coarse (80 grit) sandpaper followed by a fine (180-220 grit) sandpaper. Edges should be smooth and crisp. Treat final edge treatments with furniture polish.

3.03 CLEANING

- A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.
- B. Reinstall wall plates and accessories removed prior to work of this section.

3.04 PROTECTION OF FINISHED WORK

- A. Do not permit construction activities at or near finished wall covering areas.

3.05 WARRANTY

- A. Contractor to provide standard one year warranty per manufacturer.

END OF SECTION

SECTION 10211

ALUMINUM WALL LOUVERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Fixed, extruded-aluminum louvers.

1.3 DEFINITIONS

- A. Louver Terminology: Definitions of terms for metal louvers contained in AMCA 501 apply to this Section, unless otherwise defined in this Section or in referenced standards.
- B. Maximum Standard Airflow: Airflow at point of beginning water penetration through a louver 48 inches(1220 mm) wide by 48 inches(1220 mm) high, identical to that provided.
- C. Drainable-Blade Louver: Louver designed to collect and drain water to exterior at sill by means of gutters in front edges of blades and channels in jambs and mullions.

1.4 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide exterior metal louvers capable of withstanding the effects of loads and stresses from wind and normal thermal movement without evidencing permanent deformation of louver components including blades, frames, and supports; noise or metal fatigue caused by louver blade rattle or flutter; or permanent damage to fasteners and anchors.
 - 1. Design louvers to withstand uniform wind pressure of winds in accordance with local codes.
 - 2. Thermal Movements: Provide louvers that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, and other detrimental effects:
 - a. Temperature Change (Range): 120 deg F(67 deg C), ambient; 180 deg F(100 deg C), material surfaces.
- B. Air-Performance, Water-Penetration, and Air-Leakage Ratings: Provide louvers complying with performance requirements indicated, as demonstrated by testing manufacturer's stock units 48 inches(1220 mm) wide by 48 inches(1220 mm) high. Test units according to AMCA 500.
 - 1. Perform testing on unpainted, cleaned, degreased units.
 - 2. Perform water-penetration testing on louvers without screens.

1.5 SUBMITTALS

- A. Product Data: For each type of product specified.
- B. Shop Drawings: For louver units and accessories. Include plans; elevations; sections; and details showing profiles, angles, and spacing of louver blades. Show unit dimensions related to wall openings and construction; free area for each size indicated; profiles of frames at jambs, heads, and sills; and anchorage details and locations.
 - 1. For installed louvers and vents indicated to comply with design loadings, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples for Verification: Of each type of metal finish required, prepared on Samples of same thickness and material indicated for final Work. Where finishes involve normal color and texture variations, include Sample sets showing the full range of variations expected.

1.6 QUALITY ASSURANCE

- A. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of kind indicated. Engineering services are defined as those performed for installations of louvers that are similar to those indicated for this Project in material, design, and extent.
- B. Source Limitations: Obtain louvers and vents through one source from a single manufacturer where alike in one or more respects regarding type, design, or factory-applied color finish.
- C. Welding Standards: As follows:
 - 1. Comply with AWS D1.2, "Structural Welding Code--Aluminum."
 - 2. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.
- D. SMACNA Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" recommendations for fabrication, construction details, and installation procedures.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify louver openings by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Airolite Co.
 - 2. American Warming and Ventilating, Inc.
 - 3. Construction Specialties, Inc.
 - 4. Pottorf, A Division of PCI Industries, Inc.
- B. Acceptable Product –Basis of Design: Pottorf, A Division of PCI Industries, Inc.; Model EFD-435.

2.2 MATERIALS

- A. Aluminum Extrusions: **ASTM B 221**(**ASTM B 221M**), alloy 6063-T5 or T-52.
- B. Fasteners: Of same basic metal and alloy as fastened metal or 300 series stainless steel, unless otherwise indicated. Do not use metals that are incompatible with joined materials.
 - 1. Use types and sizes to suit unit installation conditions.
 - 2. Use Phillips flat-head screws for exposed fasteners, unless otherwise indicated.
- C. Anchors and Inserts: Of type, size, and material required for loading and installation indicated. Use nonferrous metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as needed for corrosion resistance. Use toothed steel or expansion bolt devices for drilled-in-place anchors.
- D. Bituminous Paint: Cold-applied asphalt mastic complying with SSPC-Paint 12 but containing no asbestos fibers, or cold-applied asphalt emulsion complying with ASTM D 1187.

2.3 FABRICATION, GENERAL

- A. Assemble louvers in factory to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Maintain equal louver blade spacing, including separation between blades and frames at head and sill, to produce uniform appearance.
- C. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining materials' tolerances, and perimeter sealant joints.
 - 1. Frame Type: Channel type, unless otherwise indicated.

- D. Include supports, anchorages, pre-finished flashings of single length pieces and accessories required for complete assembly. Fasteners and anchors should be stainless steel. Sealants should be applied per division 7 requirements.
- E. Provide concealed blade support where required to produce profiles shown.
- F. Provide vertical mullions of type and at spacings indicated, but not more than recommended by manufacturer, or 72 inches(1830 mm) o.c., whichever is less. At horizontal joints between louver units, provide horizontal mullions, unless continuous vertical assemblies are indicated.
- G. Provide sill extensions and loose sills made of same material as louvers where indicated or required for drainage to exterior and to prevent water penetrating to interior.
- H. Join frame members to one another and to fixed louver blades with fillet welds concealed from view, unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

2.4 FIXED, EXTRUDED-ALUMINUM LOUVERS

- A. Louver Construction: Provide fixed-blade louvers with extruded-aluminum frames and blades.
- B. Horizontal, Sightproof, Drainable-Blade Louvers: As follows:
 - 1. Louver Depth: 4 inches
 - 2. Frame Thickness: 0.081 inch(2.06 mm).
 - 3. Blade Thickness: 0.081 inch(2.06 mm).
 - 4. Free Area: 58.1 percent.
 - 5. Performance Requirements: Maximum standard airflow not less than 8984 cfm with not more than 0.12- inch wg static-pressure loss.

2.5 LOUVER SCREENS

- A. General: Provide each exterior louver with louver screens complying with the following requirements:
 - 1. Screen Location for Fixed Louvers: Interior face.
 - 2. Screening Type: Stainless steel bird screening where indicated.
- B. Secure screens to louver frames with stainless-steel machine screws, spaced a maximum of 6 inches(150 mm) from each corner and at 12 inches(300 mm) o.c.

2.6 BLANK-OFF PANELS

- A. Insulated, Blank-off Panels:
 - 1. Aluminum sheet for aluminum louvers, not less than 0.050-inch(1.2-mm) nominal thickness, unless otherwise indicated.
 - 2. Panel Finish: Same finish applied to louvers.
 - 3. Attach blank-off panels to back of louver frames with stainless-steel, sheet metal screws.

2.7 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish louvers after assembly.

2.8 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with system established by the Aluminum Association for designating aluminum finishes.
- B. High-Performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 1. Fluoropolymer Two-Coat Coating System: Manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 605.2.
 - 2. Color: Custom color as selected by Architect.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate Setting Drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.2 INSTALLATION

- A. Locate and place louver units level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- E. Repair finishes damaged by cutting, welding, soldering, and grinding. Restore finishes so no evidence remains of corrective work. Return items that cannot be refinished in the field to the factory, make required alterations, and refinish entire unit or provide new units.
- F. Protect galvanized and nonferrous-metal surfaces from corrosion or galvanic action by applying a heavy coating of bituminous paint on surfaces that will be in contact with concrete, masonry, or dissimilar metals.
- G. Install concealed gaskets, flashings, joint fillers, and insulation, as louver installation progresses, where weathertight louver joints are required. Comply with Division 7 Section "Joint Sealants" for sealants applied during louver installation.

3.3 ADJUSTING, CLEANING, AND PROTECTING

- A. Periodically clean exposed surfaces of louvers and vents that are not protected by temporary covering to remove fingerprints and soil during construction period. Do not let soil accumulate until final cleaning.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Protect louvers and vents from damage during construction. Use temporary protective coverings where needed and approved by louver manufacturer. Remove protective covering at the time of Substantial Completion.
- D. Restore louvers and vents damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.
 - 1. Clean and touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

END OF SECTION 10211