



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 DPS0912

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 JOHN ABBOTT
 304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

WEST VIRGINIA STATE POLICE
 STATE POLICE ACADEMY
 ACADEMY DRIVE
 INSTITUTE, WV
 25112

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
11/12/2008				

BID OPENING DATE: 12/04/2008 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM #01						
THIS ADDENDUM IS ISSUED TO ANSWER VENDOR QUESTIONS AS PER ATTACHED, EXTEND THE BID OPENING DATE TO 12/04/08; 1:30 PM, AND ADD AN ADDITIONAL QUESTION PERIOD.						
0001	1	LS		968-20		
BUILDING CONSTRUCTION						
***** THIS IS THE END OF RFQ DPS0912 ***** TOTAL:						_____

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
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TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
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WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
5. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
14. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
15. **WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in case of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130

ADDENDUM NO. 1

for

**WEST VIRGINIA STATE POLICE
STATE POLICE ACADEMY RENOVATIONS
INSTITUTE, WEST VIRGINIA
RFQ #DPS0912
McKinley Project No. 08007.01**

TO ALL BIDDERS:

The following items revise the Bidding Document Drawings and Specifications dated September 26, 2008. Acknowledge receipt of this Addendum at the appropriate location indicated on the bid Proposal Form; failure to do so may be deemed a lack of bid responsiveness and can be cause for rejection of the Bid.

1.0 CHANGES TO BIDDING REQUIREMENTS:

1.1 All questions shall be submitted to:

John Abbott, WV Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, West Virginia 25305
Fax (304) 558-4115
john.h.abbott@wv.gov

No additional questions shall be accepted after November 18, 2008; 3:00 PM.

1.2 ADVERTISEMENT FOR BIDS:**Change:** Bid opening date has been extended to **December 4, 2008 at 1:30 pm** local time.

1.3 The list of attendees is attached.

2.0 CHANGES TO CONTRACT FORMS:2.1 **Revise:** Replace Bid Proposal Form (attached).**3.0 CHANGES TO SPECIFICATIONS: VOLUME I**3.1 **Revise:** TABLE OF CONTENTS – TECHNICAL SPECIFICATIONS

(attached)

3.2 **Change:** SPECIFICATION SECTION 011000 –SUMMARY

Section 1.5: WORK BY OWNER

C. Owner will perform interior painting, all exterior painting shall be included in the Contractor's Bid.

- 3.3 **Change:** SPECIFICATION SECTION 012100 - ALLOWANCES
 A. Distribute this allowance evenly between bids for Buildings A, B, C, D.
 B. Lump sum allowance for targets shall be included in bid for Building D.
 C. Lump sum allowance for Johnson Controls shall be increased to \$400,000.
 F. Distribute this allowance evenly between bids for Buildings A, B, C, D.
 G. Distribute this allowance evenly between bids for Buildings A, B, C, D.
 H. Add Allowance for exterior signage of \$5,000.
- 3.4 **Delete:** SPECIFICATION SECTION 012300 -ALTERNATES
- 3.5 **Delete:** SPECIFICATION SECTION 033000 - CAST-IN-PLACE CONCRETE
 Section 3.9.C.2, omit subsections a, b, & c and omit 3.9.C.3.
- 3.6 **Add:** SPECIFICATION SECTION 042000 - UNIT MASONRY
 Section 2.8.D. Marble sills, Solid Surface (Cultured Marble) Window Sills:
 Window sills from 1/2 inch solid surface fabricated to size and shape as required.
 Seams shall be adhesively joined and inconspicuous. Submit
 Manufacturer's complete and current product data and color charts consisting of
 actual product pieces, demonstrating full range of available colors, for initial
 color selection. Install in accordance with manufacturer's instructions.
- Delete:** Section 3.8 MASONRY-CELL INSULATION.
- 3.7 **Add:** SPECIFICATION SECTION 072140 - FOAMED-IN-PLACE MASONRY
 WALL INSULATION. (attached)
- 3.8 **Change:** SPECIFICATION SECTION 074113 - METAL ROOF PANELS
 Section 2.7.A.1. b. Snow-Gem, Inc. is an approved Manufacturer.
- 3.9 **Add:** SPECIFICATION SECTION 084113- ALUMINUM-FRAMED
 ENTRANCES & STOREFRONTS
 Section 2.1 Manufactures: YKK Architectural Products.
- 3.10 **Add:** SPECIFICATION SECTION 085113 -ALUMINUM WINDOWS (attached)
- 3.11 **Add:** SPECIFICATION SECTION 085200 -FLUSH WOOD DOORS
 (attached)
- 3.12 **Add:** SPECIFICATION SECTION 099113 - EXTERIOR PAINTING (attached)

3.13 SPECIFICATION SECTION 102113 – TOILET COMPARTMENTS

Add: Approved manufacturer: Section 2.1.B: Columbia Accessory.

4.0 CHANGES TO DRAWINGS:

4.1 DRAWING A1.01: BUILDING B

Delete: Add Note: Install gypsum board over existing paneling to deck above.

4.2 DRAWING A1.01: BUILDING B

Add: Add Detail: On Sketch SK-2A. (attached)

4.3 DRAWING A3.01, A3.02, A3.03, A3.04: BUILDINGS A,B,C,D

Modify: Change notes: "1/2 Exterior Sheathing" and "5/8" Exterior Grade Gyp. Bd." to 1/2" Cement board sheathing.

4.4 DRAWING A3.01, A3.02, A3.03, A3.04: BUILDING D

Modify: Finish on 1/2" Cement board sheathing shall be EIFS.

5.0 QUESTIONS FROM BIDDERS:

If the question is not specifically addressed refer to the additions and modifications to the contract documents above.

1. **QUESTION:** What gauge metal studs are required for the 6" exterior walls studs?

ANSWER: See Specification 054000 Cold-Formed Metal Framing, Section 2.3.A.1. Minimum base metal thickness: 0.0538 inch.

2. **QUESTION:** Detail 5&6 on drawing A3.01; is 1/2"=1'-0" the correct scale?

ANSWER: No the correct scale is 1"=1'-0"

3. **QUESTION:** Is the 1/8" correct on A2.01?

ANSWER: No the correct scale is 1/4"=1'-0"

Enclosures: Table of Contents
 Proposal Form
 Specification Sections 072140, 08511, 085200, 092550 and 099113
 Sketch: SK-2A
 Pre-Bid Meeting Minutes of October 28, 2008 dated November 11, 2008
 Pre-Bid Sign-In Sheet dated October 28, 2008

TRW:agb

END OF ADDENDUM NO. 1

November 11, 2008

West Virginia State Police
State Police Academy
Institute, West Virginia
RFQ No: DPS0912
McKinley Project No. 08007.01

PRE-BID MEETING MINUTES

A mandatory Pre-Bid Meeting was held at 1:30 p.m. on October 28, 2008 at the site of the State Police Academy to review the scope of the Project and answer questions.

ATTENDING:

		PHONE	FAX
Dan Hill	Dan Hill Construction Co.	304-632-1600	304-632-1501
Rob Flint	Flint Construction Co.	304-364-5555	304-364-5556
Johnny Payne	BBL Carlton	304-345-1300	304-345-1304
Raymond Gegick	Poerio, Inc.	412-366-6767	412-366-1404
Rick Bernard	Oval Construction Mgmt.	304-347-8820	304-347-8821
Shandy Broom	R. C. General Contractors	304-346-7307	304-346-7310
Mark Stutler	RBS Construction, Inc.	304-755-2800	304-755-3022
Kenneth Nutter	RBS Construction, Inc.		
Tim Hayslett	Hayslett Construction Co.	304-757-9348	304-757-9561
Chris Shaw	Paramount Builders	304-727-2770	304-722-4230
Mary Ann Kiser	Multiplex, Inc.	304-872-6648	304-872-1445
Art Poff	Multiplex, Inc.		
Frank Hopson	City Electric Co.	304-343-6150	304-343-6151
Ronnie Short	City Electric Co.		
Rick Mullins	Dixon Electrical Systems	304-523-2712	304-523-2713
Ron King	Elco Mechanical	304-346-0546	304-346-0548
Tim Bell	Bell Mechanical, Inc.	304-766-6126	304-766-6270
Mike Steorts	J. M. Steorts & Assoc.	304-562-7774	304-562-7770
Ed Penix	A.F.C. Electric, LLC	304-389-9708	304-757-5654
Allen Jones	Rock Branch Mechanical	304-755-0373	304-755-5270
John Lacy	JHL Masonry	304-757-5256	304-757-5256
Jim Oldaker	Summit Electric Co.	304-562-7091	304-562-7137
David Dotson	Reckart, LLC Masonry	304-338-2600	304-338-2602
Henry Neal	Labor Local 1353	304-343-9641	-
Randy Gombos	Sheet Metal Workers 33	304-776-5723	304-776-5724
Mark Samples	Pinnacle Environmental	304-757-5204	304-757-5205
Gary Beighley	McKinley & Associates	304-233-0140	304-233-4613
Thomas R. Worledge	McKinley & Associates	304-233-0140	304-233-4613

DISCUSSION:

The following items supplement bidding requirements and are therefore part of the Bidding Documents.

- 1.1 All Bidders must follow exactly all directions included in the Request for Quotation (RFQ) supplied by the State Purchasing Division. Bids are to be submitted to the State Purchasing Division.

Submission to the State Auditor's Office is no longer required.

- 1.2 Bidders that have not received the "Request for Quotation" from State Purchasing can request the information by contacting John Abbott with the State Purchasing Division at 304-558-2544 and request RFQ No. DPSO912.
- 1.3 Bidders are not required to have a business registration with the State of West Virginia in order to submit a bid, but the selected bidder must be registered with the State prior to award of contract.
- 1.4 The Owner's contact for the West Virginia State Police is First Sgt. Rick Pursley at 304-746-2238.
- 1.5 The Architect contact for McKinley & Associates is Thomas R. Worlledge, AIA at 304-233-0140. Email is an acceptable method for submissions of Request for Information which are to be submitted to:

John Abbott
 State of West Virginia, Department of Administration
 Purchasing Division
 Acquisitions Unit
 State Capital Complex
 2019 Washington Street East
 P. O. Box 50130
 Charleston, West Virginia 25305
 Business Phone: 304-558-2544
 Business Fax: 304-558-4115
 Email: john.h.abbott@wv.gov

- 1.6 **Sealed or emailed bids are due on or before 1:30 p.m. local time on December 4, 2008** per the requirements of RFQ No. DPS0912. The State Purchasing Division is not responsible for bids not received via email prior to the specified time due to incompleteness, delay in transmission or technical difficulties. Submission of bids is the sole responsibility of the Contractor.
- 1.7 The Contractor shall be responsible for paying charges, costs, taxes, and fees charged by federal, state, local entities as well as any such fees assessed by utility companies associated with their work including but not limited to service connections, taps, service charges or fees.
- 1.8 If a conflict exists between the Request for Quotation, supplied by the State Purchasing Division, and the Project Manual, prepared by McKinley & Associates, the Purchasing Division issued Request for Quotation shall govern.

- 1.9 Substitution requests made after project award shall comply with Section 012500 of the project manual and the cost of their review will be assessed to the contractor per the contract documents.
- 1.10 This is a prevailing wage project; certified payrolls will be submitted as required by the West Virginia Department of Labor with all payment requests.
- 1.12 There will not be a vendor preference for in-state vendors during the contract award process.
- 1.13 The Bid Bond is not required to be submitted on the Bid Bond Form in the Project Manual; however, if an alternate Bid Bond Form is used, it must contain all the information required by the Purchasing Division.
- 1.14 Purchasing Affidavit form must be signed and submitted and the bid bond must have the corporation's corporate seal" on the bid bond documentation.
- 1.15 The Contractor is responsible for procuring the necessary building permits; B & O taxes are not applicable.
- 1.16 No Request for Information will be accepted after Tuesday, November 7, 2008. No questions or requests shall be answered or addressed after this deadline.
Change: Question period has been extended to November 18, 2008; 3:00 PM – no additional questions will be accepted after this date.
- 1.17 Site visitation shall be coordinated with:

Captain C. E. Tilley, Commandant
 135 Academy Drive
 Institute, West Virginia
 Phone: 304-766-2600
 Fax: 304-766-2603
 Email: ctalley@wvsp.state.wv.us

Sincerely,

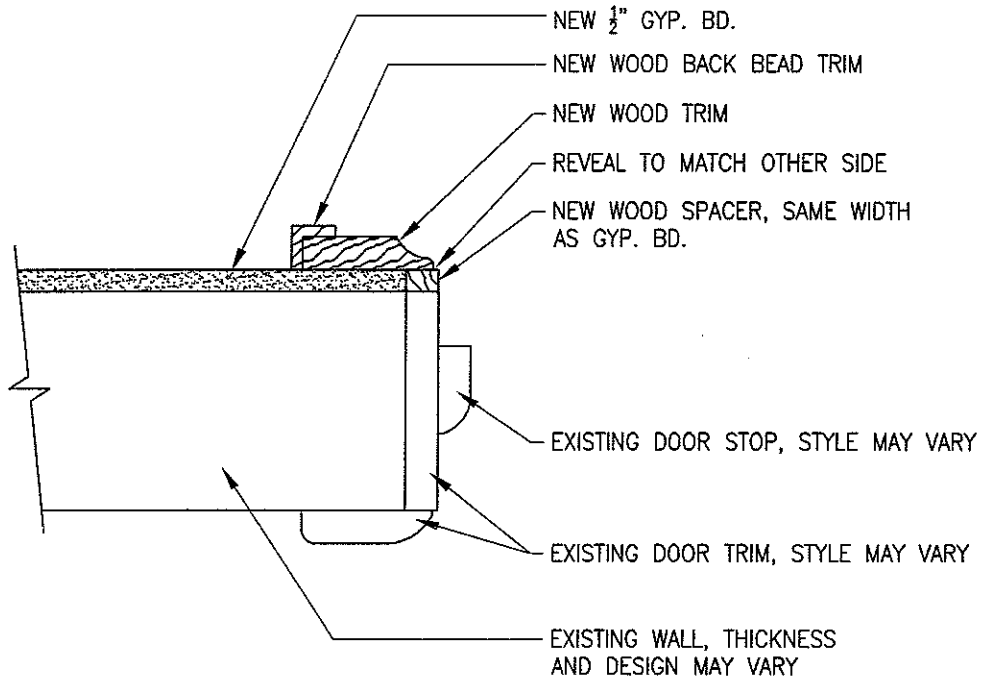
Gary A. Beighley

Gary A. Beighley
 Director of Contract Administration

Enclosures: Original Sign-In Sheet

GAB:agb

cc: First Sgt. Rick Pursley
 John Abbott



WEST VIRGINIA STATE POLICE
 INSTITUTE, WEST VIRGINIA

DATE	10-31-08
DRAWING REF.	A1.01/BLDG. B
DRAWING No.	SK-2A

McKINLEY & ASSOCIATES
 ARCHITECTS/ENGINEERS
 32 - 20th STREET / SUITE 100 / WHEELING, WEST VIRGINIA 26003
 PHONE (304) 233-0140 FAX (304) 233-4813

DRAWING TITLE
 DETAIL-DOOR JAMB WITH NEW GYP. BD.
 SCALE: 3"=1'-0"

SECTION 072140 - FOAMED-IN-PLACE MASONRY WALL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Extent of insulation work is shown on drawings and indicated by provisions of this section.
- B. Applications of insulation specified in this section include the following:
 - 1. Foamed-In-Place masonry insulation for thermal, sound and fire resistance values.

1.2 SUBMITTALS

- A. Product and technical presentation as provided by the manufacturer.
- B. Certified Test Reports: With product data, submit copies of certified test reports showing compliance with specified performance values, including R-values, fire performance and sound abatement characteristics.
- C. Material Safety Data Sheet: Submit Material Safety Data Sheet complying with OSHA Hazard Communication Standard, 29 CFR 1910 1200.

1.3 QUALITY ASSURANCE

- A. Manufacturing Standards: Provide insulation produced by a single and approved manufacturer. The product must come from the manufacturer pre-mixed to ensure consistency.
- B. Installer Qualifications for Foamed-In-Place Masonry Insulation: Engage an experienced dealer/applicator who has been trained and licensed by the product manufacturer and which has not less than three years direct experience in the installation of the product used.
- C. Warranty: Upon request, a one year product and installation warranty will be issued by both the manufacturer and installer.
- D. Fire Performance Characteristics: Provide insulation materials which are identical to those whose fire performance characteristics, as listed for each material or assembly of which insulation is a part, have been determined by testing, per methods indicated below, by a testing agency acceptable to authorities having jurisdiction.

Product must be classified by Underwriters Laboratory® (“UL”) as to Surface Burning Characteristics

Fire Resistance Ratings: ASTM E-119
Surface Burning Characteristics: ASTM E-84

Combustion Characteristics: ASTM E-136

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Manufacturers of Foamed-In-Place Masonry Insulation: Basis of desing is Core-Fill 500 Manufactured by Tailored Chemical Products

Subject to compliance with requirements, provide products from the following Manufactures:

1. Tailored Chemical Products
2. cfiFOAM, Inc.
3. Thermal Corporation of America

2.2 INSULATING MATERIALS

- A. General: Provide insulating materials which comply with requirements indicated for materials, compliance with referenced standards, and other characteristics.
- B. Foamed-In-Place Masonry Insulation: Two component thermal insulation produced by combining a plastic resin and catalyst foaming agent surfactant which, when properly ratioed and mixed, together with compressed air produce a cold-setting foam insulation in the hollow cores of hollow unit masonry walls.
1. Fire-Resistance Ratings: Minimum four (4) hour fire resistance wall rating (ASTM E-119) for 8" and 12" concrete masonry units when used in standard two (2) hour rated CMUs.
 2. Surface Burning Characteristics: Maximum flame spread, smoke developed and fuel contributed of 0, 5 and 0 respectively.
 3. Combustion Characteristics: Must be noncombustible, Class A building material.
 4. Thermal Values: "R" Value of 4.91/inch @ 32 degrees F mean; ASTM C-177.
 5. Sound Abatement: Minimum Sound Transmission Class ("STC") rating of 53 and a minimum Outdoor Indoor Transmission Class ("OITC") rating of 44 for 8" wall assembly (ASTM E 90-90).

PART 3 - EXECUTION

3.1 INSPECTION AND PREPARATION

- A. Application Assemblies:

Block Walls: 6", 8", 10" or 12" concrete masonry units
Cavity Walls: 2" cavity or greater

3.2 INSTALLATION OF FOAMED-IN-PLACE INSULATION

- A. General: Install foamed-in-place insulation from interior, or as specified, prior to installation of interior finish work and after all masonry and structural concrete work is in place; comply with manufacturer's instructions.

- B. Installation: Fill all open cells and voids in hollow concrete masonry walls where shown on drawings. The foam insulation shall be pressure injected through a series of 5/8" to 7/8" holes drilled into every vertical column of block cells (every 8" on center) beginning at an approximate height of four (4) feet from finished floor level. Repeat this procedure at an approximate height of ten (10) feet above the first horizontal row of holes (or as needed) until the void is completely filled. Patch holes with mortar and score to resemble existing surface.

END OF SECTION 072140

SECTION 085113 - ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Material: aluminum windows as on the drawings and specified in this section.
- B. Installation: labor, tools, and material needed to install aluminum windows.
- C. Glass and glazing.

1.2 RELATED SECTIONS - Section 079000 – Joint Protection.

1.3 REFERENCES

- A. AAMA - American Architectural Manufacturers Association - *www.aamanet.org*
 - 1. AAMA/WDMA/CSA 101/LS.2/A440-05 "Standard/Specification for Windows, Doors, and Unit Skylights"
 - 2. AAMA 502-08 "Voluntary Specification for Field Testing of Newly Installed Fenestration Products"
 - 3. AAMA 611-98 "Voluntary Specification for Anodized Architectural Aluminum"
 - 4. AAMA 701/702-04 "Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals"
 - 5. AAMA 800-07 "Voluntary Specifications and Test Methods for Sealants"
 - 6. AAMA 902-07 "Voluntary Specification for Sash Balances"
 - 7. AAMA 2603-02 "Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels"
 - 8. AAMA CW-10-04 "Care and Handling of Architectural Aluminum from Shop to Site"
- B. ASTM - American Society for Testing and Materials – *www.astm.org*
 - 1. ASTM E 283-04 "Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"
 - 2. ASTM E 330-02 "Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference"
 - 3. ASTM E 547-00 "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential"
 - 4. ASTM E 2190-02 "Standard Specification for Insulating Glass Unit Performance and Evaluation"
- C. NFRC – National Fenestration Rating Council – *www.nfrc.org*

1. NFRC 100-04 "Procedure for Determining Fenestration Product U Factors"
 2. NFRC 102-04 "Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems"
 3. NFRC 500-04 "Procedure for Determining Fenestration Product Condensation Resistance Values"
- D. IGCC – Insulating Glass Certification Council – www.igcc.org
- E. SGCC – Safety Glazing Certification Council – www.sgcc.org
1. ANSI Z97.1-04 "American National Standard for Safety Glazing Materials used in Buildings – Safety Performance Specifications and Methods of Test"
 2. 16 CFR 1201 "Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials – codified at Title 16, Part 1201 of the Code of Federal Regulations"

1.4 SYSTEM DESCRIPTION

- A. AAMA Designation: H-C50, HS-C50 and FW-C50
- B. Windows: 3-1/4" frame depth; extruded aluminum with integral structural thermal break made with glass-reinforced nylon strips installed by the window manufacturer in the frame and sash members; equal-leg frame; exterior and interior finishes applied by the window manufacturer; frames and sash assembled by the window manufacturer.
- C. Configuration: single hung bottom sash tilts in for glass cleaning, single sliding sliding and fixed in master frame.
- D. Glazing: exterior 2-part structural silicone; 7/8" insulating glass; interior foam-filled bulb gasket; glass description in paragraph 2.04; glazed by the window manufacturer.

1.5 PERFORMANCE REQUIREMENTS

- A. Conformance to H-C50 specifications in AAMA/WDMA/CSA 101/I.S.2/A440-05 when tests are performed on the prescribed 56" x 91" minimum test size, HS-C50, 71" x 60" minimum test size, and FW-C50, 60" x 60" minimum test size with the following test results:
1. Air Infiltration: not to exceed AAMA 101 standard of maximum .3 cfm/square foot when tested per ASTM E 283-04 at a static air pressure difference of 1.6 psf.
 2. Water Penetration: no uncontrolled water leakage when tested per ASTM E 547-00 at a static air pressure difference of 10 psf.
 3. Uniform Structural Load: no glass breakage or permanent damage to fasteners, and maximum .3% permanent deformation of the span of any frame member when tested per ASTM E 330-02 at a static air pressure difference of 75 psf.
- B. U Value Test: thermal testing per NFRC 102-04 at the prescribed test size glazed with 7/8" insulating glass made with 1/8" glass with a soft coat low E coating on the #2 surface of the exterior lite, thermoplastic butyl spacer, argon gas, and 1/8" glass with a hard coat low E coating on the #4 surface of the interior lite: Standardized Thermal Transmittance to be

maximum 0.40 BTU/HR/SQ.FT/°F. Any windows not meeting or exceeding this U-Value will not be acceptable.

- C. Condensation Resistance Simulation: thermal computer simulation per NFRC 500-04, at the prescribed 48"x 60" Non-Residential Size, glazed with 7/8" insulating glass made with 1/8" clear exterior glass lite, thermoplastic butyl spacer, argon gas, and 1/8" glass with a soft coat low E coating on the #3 surface of the interior lite: Condensation Resistance to be minimum 51.

1.6 SUBMITTALS

- A. Shop drawings: window location chart; typical window elevations; details of assemblies, hardware, and glazing details for units glazed by window manufacturer.
- B. Product data: manufacturer's specifications and test reports from an AAMA-accredited laboratory.
- C. Samples: each specified finish for aluminum; other samples as requested.

1.7 QUALITY ASSURANCE

- A. Submit for prebid approval ten days prior to bid opening a sample window representing the bid window except for color and valid test reports from an AAMA-accredited laboratory conforming to test results in Paragraph 1.7.
- B. Acceptance will be by addendum only as no verbal approvals will be allowed.
- C. Submit bid on prequalified products in prebid written addendum. Bidder must identify manufacturer and model of product on which the bid is based.
- D. Furnish a valid AAMA "Authorization for Product Certification" indicating that the windows for the project conform to AAMA/WDMA/CSA 101/I.S.2/A440-05.
- E. Furnish visible, permanent IGCC certification labels indicating conformance to ASTM E 2190-02 on insulating glass units.
- F. Furnish visible, permanent SGCC certification labels indicating conformance to ANSI Z97.1-04 and/or 16 CFR 1201 on tempered glass lites, if included on the project, and laminated glass lites, if included on the project.
- G. Manufacturer's warranties:
 - 1. Windows: warrant for one year against defects in material or workmanship under normal use.
 - 2. Insulating glass units: warrant seal for five years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.

3. Paint finish: PPG Duracron™ organic finish conforming to AAMA 2603-02: warrant for five years against chipping, peeling, or cracking.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Handle and protect windows and accessories in accordance with AAMA CW-10-04 until project completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Desing: TRACO NX-540 Single Hung Tilt Thermal Aluminum Window, TRACO NX-640 Single Slide Horizontal Sliding Thermal Aluminum Window and TRACO NX-740 Fixed Thermal Aluminum Window
- B. Other acceptable manufacturers who have demonstrated a successful history of manufacturing for 5 years equivalent products:
 1. EFCO
 2. Graham

2.2 MATERIALS

- A. Aluminum extrusions: extruded by the window manufacturer from commercial quality 6063-T5 alloy; free from defects impairing strength and durability.
- B. Single-Hung Hardware: black zinc die cast sweep lock - one per window up to 32" window width, two on wider windows; two zinc pivot bars per sash - pivot bars engage balance shoes when sash are tilted parallel to the floor; two black nylon finger button tilt releases per sash - releases are spring-loaded for safety by automatically engaging the frame jamb when the sash are in their normal vertical position.
- C. Sliding Window Hardware: two white nylon wheel housings per sash with two ball bearing brass wheels per housing; wheel housings mounted in fabricated slots in the sash bottom rail; one black zinc automatic handle/lock mounted with stainless steel screws to engage keeper slot on meeting stile.
- D. Weatherstrip: secured in extruded ports; double rows on sash perimeters: pile conforming to AAMA 701/702-04 with polypropylene center fin.
- E. Single-Hung Balances: constant force conforming to AAMA 902-07 Class 2 with capacity to hold sash stationary and permit them to operate freely; nylon balance shoes which lock when sash are tilted to prevent sash travel.

- F. Insect screens: half; held in exterior tracks with stainless steel leaf springs; 5/16" x 1-1/2" x .045" extruded tubular aluminum frame with same finish as the exterior of the window; corners mitered, gusset reinforced, and crimped; 18 x 16 dark aluminum mesh; PVC spline.

2.3 FABRICATION

- A. Single-Hung Frame: head and sill coped and fastened to jambs with two stainless steel screws per corner; frame sill has two weep holes covered with weep covers for drainage; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- B. Single-Hung Sash: tubular horizontal sash rails coped and fastened to double-tubular vertical sash stiles with a telescope-design joint secured with one stainless steel screw per corner; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- C. Single-Hung Sash design: continuous extruded lift rail on bottom sash interior; mechanical meeting rail interlock.
- D. Sliding Window Frame: jambs coped and fastened to head with two stainless steel screws per corner; jambs coped and fastened to tubular sill with three stainless steel screws per corner; frame sill with two weep slots covered with black exterior weep covers with flaps to allow water to drain by gravity and resist wind-driven water; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- E. Sliding Window Sash: double-tubular horizontal sash rails coped and fastened to tubular vertical sash stiles with a telescope-design joint secured with one stainless steel screw per corner; corners sealed by window manufacturer with sealant conforming to AAMA 800-07.
- F. Sliding Window Sash design: continuous integral extruded full-height pull handle on the interior sash stile that engages the frame jamb; mechanical meeting stile interlock.

2.4 INSULATING GLASS UNITS

- A. Materials
 - 1. Spacer: extruded black thermoplastic butyl with integrated dessicant.
 - 2. Secondary seal: silicone.
 - 3. Airspace fill: plain air.
- B. Performance
 - 1. Dual-seal durability: conformance to ASTM E 2190-02; visible, permanent IGCC certification label on air spacer.
- C. Exterior glass lite
 - 1. Thickness: 1/8".
 - 2. Tint: Gray
 - 3. Type: tempered.

- D. Interior glass lite
 - 1. Thickness: 1/8".
 - 2. Tint: clear.
 - 3. Type: tempered.
 - 4. Coating: PPG Solarban 60 soft coat low E on #3 surface

2.5 FINISH ON EXTERIOR ALUMINUM EXTRUSIONS

- A. Application: on clean extrusions free from serious surface blemishes; on exposed surfaces visible when installed product's operating sash are closed.
- B. Coating: color anodize.
- C. Quality standard: conforming to AAMA 611-98.
- D. Thickness: AAM10C22A44 Class I - .7 mils.
- E. Color: #315 black.

2.6 FINISH ON INTERIOR ALUMINUM EXTRUSIONS

- A. Application: on clean extrusions free from serious surface blemishes; on exposed surfaces visible when installed product's operating sash are closed.
- B. Coating: PPG Duracron™ with acrylic resin; thermosetting.
- C. Quality standard: conforming to AAMA 2603-02, including 1 year Florida exposure and 1500 hours humidity tests.
- D. Pretreatment: five-stage; zinc chromate conversion coating.
- E. Application: electrostatic spray and oven bake by approved applicator.
- F. Coating quantity: one color coat.
- G. Dry film thickness: minimum .8 mils on exposed surfaces, except inside corners and channels.
- H. Color: chosen from manufacturer's standards.

2.7 INSTALLATION ACCESSORIES

- A. Material: extruded aluminum; nominal .062" wall; with exposed surfaces finished to match window color and finish performance; concealed fasteners; required weatherseals; designed for unrestricted expansion and contraction.

- B. Exterior: two-piece receptor with nylon strip thermal break; 10 psf subsill with nylon strip thermal break and factory applied end dams.

PART 3 - EXECUTION

- 3.1 PREPARATION - Prepare openings to be in tolerance, plumb, level, provide for secure anchoring, and in accordance with approved shop drawings.

- 3.2 INSTALLATION

- A. Install windows in accordance with window manufacturer's recommendations and dealer's approved shop drawings with skilled craftspeople who have demonstrated a successful history of installing windows for 5 years.
- B. Provide required support and securely fasten and set windows plumb, square, and level without twist or bow.
- C. Apply sealant per sealant manufacturer's recommendations at joints, wipe off excess, and leave exposed sealant surfaces clean and smooth.

- 3.3 ADJUSTING AND CLEANING

- A. Adjust windows as necessary for smooth and weathertight operation, and leave windows clean and free of construction debris.

END OF SECTION 085113

SECTION 085200 - FLUSH WOOD DOORS

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. Solid-core doors with wood-veneer faces.
 - 2. Factory finishing flush wood doors.

1.3 SUBMITTALS

- A. Product Data: For each type of door. Include details of core and edge construction, trim for openings, and louvers.
 - 1. Include factory-finishing specifications.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; fire rating, construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
- C. Samples for Initial Selection: Color charts consisting of actual materials in small sections for the following:
 - 1. Faces of factory-finished doors with transparent finish. Show the full range of colors available for stained finishes.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors through one source from a single manufacturer.
- B. Quality Standard: Comply with the following standard:
 - 1. NWWDA Quality Standard: NWWDA I.S.1-A, "Architectural Wood Flush Doors."
 - 2. AWI Quality Standard: AWI's "Architectural Woodwork Quality Standards" for grade of door, core, construction, finish, and other requirements.

- C. Fire Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until building is enclosed, wet-work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.

1.6 WARRANTY

- A. General Warranty: Door manufacturer's 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. Door Manufacturer's Warranty: Submit written agreement on door manufacturer's standard form, signed by manufacturer, Installer, and Contractor, agreeing to repair or replace defective doors that have warped (bow, cup, or twist) more than 1/4 inch (6.35 mm) in a 42-by-84-inch (1067-by-2134-mm) section or that show telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch (0.25 mm in a 75-mm) span, or do not comply with tolerances in referenced quality standard.
 - 1. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 2. Warranty shall be in effect during the following period of time after the date of Substantial Completion:
 - a. Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Flush Wood Doors:
 - a. Algoma Hardwoods Inc.
 - b. Buell Door Co.
 - c. Chappell Door Co.
 - d. Graham Manufacturing Corp.
 - e. Mohawk Flush Doors, Inc.
 - f. Weyerhaeuser Co.

2.2 DOOR CONSTRUCTION

- A. Doors for Transparent Finish: Comply with the following requirements:
1. Grade: Premium, with Grade AA faces.
 2. Faces: Maple, flat.
 3. Match between Veneer Leaves: Pleasing match.
- B. Interior Veneer-faced Doors: Comply with the following requirements:
1. Particleboard Core: ANSI A208.1, Grade LD-1.
 2. Blocking: Provide wood blocking at particleboard-core doors as follows:
 - a. 5-inch (125-mm) top-rail blocking, at doors indicated to have closers.
 - b. 5-inch (125-mm) bottom-rail blocking, at exterior doors and doors indicated to have kick, mop, or armor plates.
 - c. 5-inch (125-mm) midrail blocking, at doors indicated to have exit devices.
 3. Construction: 5 or 7 pieces, bonded construction.
- C. Fire-Rated Doors: Comply with the following requirements:
1. Construction: Construction and core specified above for type of face indicated or manufacturer's standard mineral-core construction as required to provide fire rating indicated.
 2. Blocking: For mineral-core doors, provide composite blocking with improved screw-holding capability approved for use in doors of fire ratings indicated and as follows:
 - a. 5-inch (125-mm) top-rail blocking.
 - b. 5-inch (125-mm) bottom-rail blocking, at doors indicated to have kick, mop or armor plates.
 - c. 4-1/2-by-10-inch (114-by-250-mm) lock blocks.
 - d. 5-inch (25-mm) midrail blocking, at doors indicated to have exit devices.
- D. Metal Frames for Light Openings: Manufacturer's standard frame formed of 0.0478-inch- (1.2-mm-) thick, cold-rolled steel sheet; factory primed and approved for use in fire-rated and non-fire rated doors.

2.3 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels, unless otherwise indicated:
1. Comply with clearance requirements of referenced quality standard for fitting. Comply with requirements of NFPA 80 for fire-rated doors.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.

1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.

C. Openings: Cut and trim openings through doors to comply with applicable requirements of referenced standards for kind(s) of door(s) required.

1. Light Openings: Trim openings with moldings of material and profile to match door.

2.4 FACTORY FINISHING

A. General: Comply with referenced quality standard's requirements for factory finishing.

B. Finish wood doors at factory.

C. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect, and sheen.

1. Grade: Custom.

2. Finish: Manufacturer's standard finish with performance requirements comparable to AWI System TR-4 conversion varnish.

3. Staining: None required.

4. Effect: Semifilled finish.

5. Sheen: Satin.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.

B. Factory-Finished Doors: Restore finish before installation, if fitting or machining is required at Project site.

3.2 ADJUSTING AND PROTECTING

A. Operation: Rehang or replace doors that do not swing or operate freely.

B. Finished Doors: Refinish or replace doors damaged during installation.

C. Protect doors as recommended by door manufacturer to ensure that wood doors are without damage or deterioration at the time of Substantial Completion.

END OF SECTION 085200

SECTION 092550 - GYPSUM BOARD ASSEMBLIES

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. Bearing wall steel framing members.
 - 2. Nonload-bearing steel framing members for gypsum board assemblies.
 - 3. Gypsum board assemblies attached to steel framing.

1.3 DEFINITIONS

- A. Gypsum Board Construction Terminology: Refer to ASTM C 11 and GA-505 for definitions of terms for gypsum board assemblies not defined in this Section or in other referenced standards.

1.4 ASSEMBLY PERFORMANCE REQUIREMENTS

- A. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those of assemblies whose STC ratings were determined according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.
- B. Fire Resistance: Provide gypsum board assemblies with fire resistance ratings indicated.

1.5 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of product specified.

1.6 PROJECT CONDITIONS

- A. Environmental Conditions, General: Establish and maintain environmental conditions for applying and finishing gypsum board to comply with ASTM C 840 requirements or gypsum board manufacturer's recommendations, whichever are more stringent.

- B. Room Temperatures: For nonadhesive attachment of gypsum board to framing, maintain not less than 40 deg F (4 deg C). For adhesive attachment and finishing of gypsum board, maintain not less than 50 deg F (10 deg C) for 48 hours before application and continuously after until dry. Do not exceed 95 deg F (35 deg C) when using temporary heat sources.

1.7 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: For gypsum board assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
 - 1. Steel Framing and Furring:
 - a. Clark Steel Framing, Inc.
 - b. Dale Industries, Inc.
 - c. Dietrich Industries, Inc.
 - d. Marino/Ware (formerly Marino Industries Corp.).
 - e. National Gypsum Co.; Gold Bond Building Products Division.
 - 2. Gypsum Board and Related Products:
 - a. Georgia-Pacific Corp.
 - b. National Gypsum Co.; Gold Bond Building Products Division.
 - c. United States Gypsum Co.

2.2 STEEL FRAMING FOR WALLS AND PARTITIONS

- A. General: Provide steel framing members complying with the following requirements:
 - 1. Protective Coating: ASTM A 653, G 40 (ASTM A 653M, Z 90) hot-dip galvanized coating.
- B. Steel Studs and Runners: ASTM C 645, with flange edges of studs bent back 90 degrees and doubled over to form 3/16-inch- (5-mm-) wide minimum lip (return), and complying with the following requirements for minimum thickness of base (uncoated) metal and for depth:
 - 1. Thickness: 22 GA., or as indicated in Construction Documents.
 - 2. Depth: 3-5/8 inches (92.1 mm), unless otherwise indicated.
 - 3. Depth: 6 inches (152.4 mm) where indicated.

4. Depth: 2-1/2 inches (63.5 mm) where indicated.
- C. Deflection Track: Manufacturer's top runner complying with the requirements of ASTM C 645 and with 2-inch- (50.8-mm-) deep flanges.
 - D. Track (Runner): Manufacturer's standard J-profile track with long leg length as standard with manufacturer, but at least 2 inches, in depth matching studs.
 1. Minimum Base Metal Thickness: Manufacturer's standard thicknesses that comply with structural performance requirements for stud depth and deflection limitations indicated.
 - E. Jamb Struts: Manufacturer's standard J-profile strut with long-leg length of 3 inches, in depth matching studs.
 - F. Deflection Limitations: Space framing members and select minimum base metal gages to limit deflection of completed shaftwall assemblies to 1/360 of members' unsupported span.
 - G. Steel Rigid Furring Channels: ASTM C 645, hat shaped, depth and minimum thickness as follows:
 1. Thickness: 25 GA., unless otherwise indicated.
 2. Depth: 1-1/2 inch (38.1 mm).
 - H. Steel Resilient Furring Channels: Manufacturer's standard product designed to reduce sound transmission, fabricated from steel sheet complying with ASTM A 653 (ASTM A 653M) or ASTM A 568 (ASTM A 568M) to form 1/2-inch- (12.7-mm-) deep channel of the following configuration:
 1. Single- or Double-Leg Configuration: Asymmetric-shaped channel with face connected to a single flange by a single-slotted leg (web) or hat-shaped channel, with 1-1/2-inch- (38.1-mm-) wide face connected to flanges by double-slotted or expanded-metal legs (webs).
 - I. Steel Flat Strap and Backing Plate: Steel sheet for blocking and bracing complying with ASTM A 653 (ASTM A 653M) or ASTM A 568 (ASTM A 568M), length and width as indicated, and with a minimum base metal (uncoated) thickness as follows:
 1. Thickness: 25 GA., unless otherwise indicated.
 - J. Fasteners for Metal Framing: Provide fasteners of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel framing and furring members securely to substrates involved; complying with the recommendations of gypsum board manufacturers for applications indicated.
 - K. Z-shaped Furring: With slotted or non-slotted web, face flange of 1-1/4 inch (31.8 mm), wall attachment flange of 7/8 inch (22.2 mm) minimum thickness of 25 GA. and depth to match insulation thickness.

2.3 STEEL SUSPENDED CEILING AND SOFFIT FRAMING

- A. Components, General: Comply with ASTM C 754 for conditions indicated.
- B. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.0625-inch- (1.59-mm-) diameter wire, or double strand of 0.0475-inch- (1.21-mm-) diameter wire.
- C. Hangers: As follows:
 - 1. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.162-inch (4.12-mm) diameter.
- D. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 0.0538 inch (1.37) mm), a minimum ½-inch- (12.7-mm-) wide flange, with manufacturer's standard corrosion-resistant zinc coating.
 - 1. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch (22.2 mm) deep.
 - a. Minimum Base Metal Thickness: 25 GA.
- E. Grid Suspension System for Interior Ceilings: ASTM C 645, direct-hung system composed of main beams and cross-furring members that interlock.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Armstrong World Industries, Inc.; Furring Systems/Drywall.
 - b. Chicago Metallic Corporation; Drywall Furring 640 System.
 - c. USG Interiors, Inc.; Drywall Suspension System.

2.4 GYPSUM BOARD PRODUCTS

- A. General: Provide gypsum board of types indicated in maximum lengths available that will minimize end-to-end butt joints in each area indicated to receive gypsum board application.
 - 1. Widths: Provide gypsum board in widths of 48 inches (1219 mm).
- B. Gypsum Wallboard: ASTM C 36 and as follows:
 - 1. Type: Regular for vertical surfaces, unless otherwise indicated.
 - 2. Edges: Tapered.
 - 3. Thickness: 5/8" unless otherwise indicated.
 - 4. Type X where required for fire-resistance rated assemblies.
 - 5. Use 5/8 inch moisture resistant drywall for restroom walls.
- C. Sag-Resistant Gypsum Wallboard: ASTM C 36, manufactured to have more sag resistance than regular-type gypsum board, 5/8 inch thick, and with long edges tapered. Apply on ceiling surfaces.

- D. Abuse-Resistant Gypsum Wallboard: ASTM C 36, manufactured to produce greater impact and abuse resistance to surface indentation and through-penetration than standard gypsum panels, with Type X gypsum core and 0.010 inch Lexan backing substrate, 5/8 inch thick, and with long edges tapered. Use in Room 109 only.

1. Product Standard:

- a. Hi-Impact Brand 1000 Fire-Shield; National Gypsum Co.
- b. Architect approved equivalent.

- E. Moisture resistant where indicated.

1. Water-Resistant Gypsum Backing Board: A gypsum core wall panel with additives to enhance the water resistance of the core; surfaced with water repellent paper on front, back, and long edges standard taper; and complying with ASTM C 630. Provide 5/8 inch thickness.

- F. Cement Board:

1. Backer Board: Cementitious, water durable, board; surfaced with fiberglass reinforcing mesh on front and back; long edges wrapped; and complying with ANSI A118.9 and ASTM C 1325.
 - a. Thickness: 1/2 inch, 5/8 inch.
 - b. Width: 2 feet 8 inch, 3 foot, or 4 foot.
 - c. Length: 4 foot, 5 foot, 6 foot, or 8 foot.
 - d. Edges: Tapered.
 - e. Compressive Strength: Not less than 2250 lbs. Per sq. in. when tested in accordance with ASTM D 2394.
 - f. Water Absorption: Not greater than 8 percent when tested for 24 hours in accordance with ASTM C 473.

2.5 TRIM ACCESSORIES

- A. Accessories for Interior Installation: Cornerbead, edge trim, and control joints complying with ASTM C 1047 and requirements indicated below:

1. Material: Formed metal or plastic, with metal complying with the following requirement:
 - a. Steel sheet zinc coated by hot-dip process or rolled zinc.
 - b. Steel sheet zinc coated by hot-dip or electrolytic process, or steel sheet coated with aluminum or rolled zinc.
2. Shapes indicated below by reference to Fig. 1 designations in ASTM C 1047:
 - a. Cornerbead on outside corners, unless otherwise indicated.
 - b. LC-bead with both face and back flanges; face flange formed to receive joint compound. Use LC-beads for edge trim, unless otherwise indicated.

- c. L-bead with face flange only; face flange formed to receive joint compound. Use L-bead where indicated.
- d. U-bead with face and back flanges; face flange formed to be left without application of joint compound. Use U-bead where indicated.
- e. One-piece control joint formed with V-shaped slot and removable strip covering slot opening.

2.6 JOINT TREATMENT MATERIALS

- A. General: Provide joint treatment materials complying with ASTM C 475 and the recommendations of both the manufacturers of sheet products and of joint treatment materials for each application indicated.
- B. Joint Tape for Gypsum Board: Paper reinforcing tape, unless otherwise indicated.
- C. Setting-Type Joint Compounds for Gypsum Board: Factory-packaged, job-mixed, chemical-hardening powder products formulated for uses indicated.
- D. Drying-Type Joint Compounds for Gypsum Board: Factory-packaged vinyl-based products complying with the following requirements for formulation and intended use.
 1. Ready-Mixed Formulation: Factory-mixed product.
 - a. Taping compound formulated for embedding tape and for first coat over fasteners and face flanges of trim accessories.
 - b. Topping compound formulated for fill (second) and finish (third) coats.
 - c. All-purpose compound formulated for both taping and topping compounds.

2.8 MISCELLANEOUS MATERIALS

- A. General: Provide auxiliary materials for gypsum board construction that comply with referenced standards and recommendations of gypsum board manufacturer.
- B. Steel drill screws complying with ASTM C 1002 for the following applications:
 1. Fastening gypsum board to steel members less than 0.033 inch (0.84 mm) thick.
 2. Fastening gypsum board to wood members.
 3. Fastening gypsum board to gypsum board.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates to which gypsum board assemblies attach or abut, installed hollow metal frames, cast-in-anchors, and structural framing, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of

assemblies specified in this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLING STEEL FRAMING, GENERAL

- A. Steel Framing Installation Standard: Install steel framing to comply with ASTM C 754 and with ASTM C 840 requirements that apply to framing installation.
- B. Install supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction. Comply with details indicated and with recommendations of gypsum board manufacturer or, if none available, with United States Gypsum Co.'s "Gypsum Construction Handbook."
- C. Isolate steel framing from building structure at locations indicated to prevent transfer of loading imposed by structural movement.
 - 1. Where building structure abuts ceiling perimeter or penetrates ceiling.
 - 2. Where partition framing and wall furring abut structure, except at floor.
 - a. Provide slip- or cushioned-type joints as detailed to attain lateral support and avoid axial loading.
 - b. Install deflection track top runner to attain lateral support and avoid axial loading.

3.3 INSTALLING STEEL FRAMING FOR WALLS AND PARTITIONS

- A. Install runners (tracks) at floors, ceilings, and structural walls and columns where gypsum board stud assemblies abut other construction.
 - 1. Where studs are installed directly against exterior walls, install asphalt felt strips or foam gaskets between studs and wall.
 - 2. Isolate steel framing from building structure to prevent transfer of loading imposed by structural movement.
- B. Installation Tolerances: Install each steel framing and furring member so that fastening surfaces do not vary more than 1/8 inch (3 mm) from the plane formed by the faces of adjacent framing.
- C. Extend partition framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at suspended ceilings. Continue framing over frames for doors and openings and frame around ducts penetrating partitions above ceiling to provide support for gypsum board.
 - 1. Cut studs 1/2 inch (13 mm) short of full height to provide perimeter relief.
 - 2. For STC-rated and fire-resistance-rated partitions that extend to the underside of floor/roof slabs and decks or other continuous solid structural surfaces to obtain ratings, install framing around structural and other members extending below floor/roof slabs and

decks, as needed, to support gypsum board closures needed to make partitions continuous from floor to underside of solid structure.

- D. Install steel studs and furring in sizes and at spacings indicated.
 - 1. Single-Layer Construction: Space studs 16 inches (406 mm) o.c., unless otherwise indicated.
- E. Install steel studs so flanges point in the same direction and leading edge or end of each gypsum board panel can be attached to open (unsupported) edges of stud flanges first.
- F. Frame door openings to comply with GA-219, and with applicable published recommendations of gypsum board manufacturer, unless otherwise indicated. Attach vertical studs at jambs with screws either directly to frames or to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
 - 1. Install 2 studs at each jamb, unless otherwise indicated.
 - 2. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch (12.7-mm) clearance from jamb stud to allow for installation of control joint.
 - 3. Extend jamb studs through suspended ceilings and attach to underside of floor or roof structure above.

3.4 INSTALLING SHAFTWALL ASSEMBLIES

- A. Install gypsum board shaftwall assemblies to comply with requirements of fire-resistance-rated assemblies indicated, manufacturer's written installation instructions, and the following:
 - 1. ASTM C 754 for installing steel framing.
 - 2. Do not bridge building expansion joints with shaftwall assemblies; frame both sides of joints with furring and other support.
 - 3. Install supplementary framing in gypsum board shaftwall assemblies around openings and as required for blocking, bracing, and support of gravity and pullout loads of fixtures, equipment, services, heavy trim, furnishings, and similar items that cannot be supported directly by shaftwall assembly framing.
 - 4. At penetrations in shaftwall, maintain fire-resistance rating of shaftwall assembly by installing supplementary steel framing around perimeter of penetration and fire protection behind boxes containing wiring devices, elevator call buttons, elevator floor indicators, and similar items.
 - 5. Isolate gypsum finish panels from building structure to prevent cracking of finish panels while maintaining continuity of fire-rated construction.
 - 6. Install control joints to maintain fire-resistance rating of assemblies.

3.5 APPLYING AND FINISHING GYPSUM BOARD, GENERAL

- A. Gypsum Board Application and Finishing Standards: Install and finish gypsum panels to comply with ASTM C 840 and GA-216.

- B. Install sound-attenuation blankets, where indicated, prior to installing gypsum panels unless blankets are readily installed after panels have been installed on one side.
- C. Install ceiling board panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- D. Install gypsum panels with face side out. Do not install imperfect, damaged, or damp panels. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.
- E. Locate both edge or end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Avoid joints other than control joints at corners of framed openings where possible.
- F. Spot grout hollow metal door frames for solid-core wood doors, hollow metal doors, and doors over 32 inches (813 mm) wide. Apply spot grout at each jamb anchor clip and immediately insert gypsum panels into frames.
- G. Form control and expansion joints at locations indicated and as detailed, with space between edges of adjoining gypsum panels, as well as supporting framing behind gypsum panels.
- H. Isolate perimeter of nonload-bearing gypsum board partitions at structural abutments, except floors, as detailed. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations and trim edges with U-bead edge trim where edges of gypsum panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- I. Floating Construction: Where feasible, including where recommended by manufacturer, install gypsum panels over wood framing, with floating internal corner construction.
- J. Where STC-rated gypsum board assemblies are indicated, seal construction at perimeters, behind control and expansion joints, openings, and penetrations with a continuous bead of acoustical sealant including a bead at both faces of the partitions. Comply with ASTM C 919 and manufacturer's recommendations for location of edge trim and closing off sound-flanking paths around or through gypsum board assemblies, including sealing partitions above acoustical ceilings.
- K. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's recommendations.
 - 1. Space screws a maximum of 12 inches (304.8 mm) o.c. for vertical applications.
- L. Space fasteners in panels that are tile substrates a maximum of 8 inches (203.2 mm) o.c.

3.6 GYPSUM BOARD APPLICATION METHODS

- A. Single-Layer Application: Install gypsum wallboard panels as follows:

1. On ceilings, apply gypsum panels prior to wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
 2. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated, and provide panel lengths that will minimize end joints.
- B. Wall Tile Substrates: For substrates indicated to receive thin-set ceramic tile and similar rigid applied wall finishes, comply with the following:
1. Install cement backing board panels where indicated. Install with 1/4-inch (6.4-mm) open space where panels abut other construction or penetrations.
- C. Single-Layer Fastening Methods: Apply gypsum panels to supports as follows:
1. Fasten with screws.

3.7 INSTALLING TRIM ACCESSORIES

- A. General: For trim accessories with back flanges, fasten to framing with the same fasteners used to fasten gypsum board. Otherwise, fasten trim accessories according to accessory manufacturer's directions for type, length, and spacing of fasteners.
- B. Install cornerbead at external corners.
- C. Install edge trim where edge of gypsum panels would otherwise be exposed. Provide edge trim type with face flange formed to receive joint compound, except where other types are indicated.
1. Install LC-bead where gypsum panels are tightly abutted to other construction and back flange can be attached to framing or supporting substrate.
 2. Install L-bead where edge trim can only be installed after gypsum panels are installed.
- D. Install control joints according to ASTM C 840 and manufacturer's recommendations and in specific locations approved by Architect for visual effect.

3.8 INSTALLING STEEL SUSPENDED CEILING AND SOFFIT FRAMING

- A. Suspend ceiling hangers from building structure as follows:
1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with the location of hangers required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by reference standards.

3. Secure wire hangers by looping and wire-tying, either directly to structures or to inserts, eyescrews, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause them to deteriorate or otherwise fail.
 4. Do not support ceilings directly from permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
 5. Do not attach hangers to steel deck tabs.
 6. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 7. Do not connect or suspend steel framing from ducts, pipes, or conduit.
- B. Installation Tolerances: Install steel framing components for suspended ceilings so members for panel attachment are level to within 1/8 inch in 12 feet (3 mm in 3.6 m) measured lengthwise on each member and transversely between parallel members.
- C. Wire-tie or clip furring channels to supports, as required to comply with requirements for assemblies indicated.
- D. Install suspended steel framing components in sizes and spacings indicated, but not less than that required by the referenced steel framing and installation standards.
1. Wire Hangers: 48 inches (1219 mm) o.c.
 2. Carrying Channels (Main Runners): 48 inches (1219 mm) o.c.
 3. Furring Channels (Furring Members): 16 inches (406 mm) o.c.
- E. Grid Suspension system: Attach perimeter wall track or angle where grid suspension system meets vertical surfaces. Mechanically join main beam and cross-furring members to each other and butt-cut to fit into wall track.

3.9 FINISHING GYPSUM BOARD ASSEMBLIES

- A. General: Treat gypsum board joints, interior angles, flanges of cornerbead, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration.
- B. Finish water-resistant gypsum backing board to comply with ASTM C 840.
- C. Install cement board behind ceramic tile where indicated on drawings to comply with manufacturer's directions for treatment of joints behind tile.

3.10 CLEANING AND PROTECTION

- A. Promptly remove any residual joint compound from adjacent surfaces.
- B. Provide final protection and maintain conditions, in a manner acceptable to Installer, that ensure gypsum board assemblies are without damage or deterioration at the time of Substantial Completion.

END OF SECTION 092550

SECTION 099113 – EXTERIOR PAINTING

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 surface preparation and field painting of the following:
 - 1. Exposed exterior items and surfaces.
 - 2. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.
- B. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
 - 1. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

1.3 SUBMITTALS

- A. Product Data: For each paint system specified. Include block fillers and primers.
- B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.
- B. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.5 PROJECT CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 deg F (10 and 32 deg C).

- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 deg F (7.2 and 35 deg C).
- C. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
 - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.6 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.
 - 1. Quantity: Furnish the Owner with an additional 5 percent, but not less than 1 gal. (3.785 L) of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Paint and Stain Manufacturers: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed below.
 - 1. Glidden Co. (The) (Glidden).
 - 2. Benjamin Moore & Co. (Moore).
 - 3. PPG Industries, Inc. (PPG).
 - 4. Pratt & Lambert, Inc. (P & L).
 - 5. Sherwin-Williams Co. (S-W).

- C. Paint & Stain Product Standard: Coating systems by Sherwin Williams are specified as product standards for the manufacturers indicated.

2.2 PAINT MATERIALS, GENERAL

- A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

- B. **Material Quality:** Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
- C. **Colors:** Provide color selections made by the Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. **Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.**
 - 1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
 - 2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- B. **Coordination of Work:** Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
 - 1. Notify the Architect about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

- A. **General:** Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.
- B. **Cleaning:** Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.
- C. **Surface Preparation:** Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.

3.3 APPLICATION

- A. **General:** Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. **Scheduling Painting:** Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. Omit primer on metal surfaces that have been shop primed and touchup painted.
 2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.
- E. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
- F. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.
- G. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

3.4 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.6 EXTERIOR PAINT SCHEDULE

Coordinate and submit schedule for items to be painted with architect. Obtain approval before proceeding.

A. Ferrous Metal: Full-Gloss, Alkyd-Enamel Finish.

1. Primer: 1 coat Kem Kromik Metal Primer. Delete on shop-primed materials.
2. Finish Coat: 2 coats DTM Acrylic Coating Gloss.

B. Galvanized Metal: Full-Gloss, Alkyd-Enamel Finish.

1. Primer: 1 coat DTM Acrylic Primer/Finish.
2. Finish Coats: 2 coats DTM Acrylic Coating Gloss.

C. Wood Trim:

1. Primer: 1 coat spot primer A-100 exterior oil wood primer.
2. Finish coats: 2 coats A-100 exterior latex satin.

END OF SECTION 099113

**PROJECT MANUAL
FOR
WEST VIRGINIA STATE POLICE
STATE POLICE ACADEMY
INSTITUTE, WEST VIRGINIA**

CONSTRUCTION REQUIREMENTS

Invitation to Bid

- Instructions to Bidders (AIA A-701, 1997)
- State of West Virginia Supplementary Instructions to Bidders

Proposal Form

Index of Drawings

Bond Requirements

- Bid Bond as required by the Purchasing Division
- Bid Bond Preparation Instructions
- The successful bidder shall furnish the following:
 - Labor and Material Payment Bond
 - Maintenance Bond
 - Performance Bond
 - Contractors License
 - Proof of General liability Insurance
 - Certificate of Workers' Compensation

General Conditions

- General Conditions of the Contract for Construction AIA A-201, 1997
- State of West Virginia Supplementary Conditions to AIA Document A-201, 1997
- Supplementary Conditions to AIA Document A201 – 1997 (Continued)
- Sample Certificate of Insurance
- 2008 Wage Rates for Kanawha County

Forms

- Abbreviated Standard Form of Agreement Between Owner and Contractor for Construction Projects of Limited Scope AIA A-107, 1997

TECHNICAL SPECIFICATIONS:

DIVISION 1

GENERAL REQUIREMENTS

- 011000 Summary
- 012100 Allowances
- 012200 Unit Prices
- ~~012300 Alternates (Addendum No. 1)~~
- 012500 Substitution Procedures
- 012600 Contract Modification Procedures
- 012900 Payment Procedures
- 013100 Project Management and Coordination
 - Electronic Drawing Request Form
 - Contract Closeout Check List
- 015000 Temporary Facilities and Controls
- 017300 Execution
- 017900 Demonstration and Training

DIVISION 2

SITE CONSTRUCTION

- 024116 Structure Demolition

024119 Selective Structure Demolition

DIVISION 3

CONCRETE

033000 Cast-in-Place Concrete
033660 Water Based Concrete Stain
034100 Precast Structural Concrete

DIVISION 4

MASONRY

042000 Unit Masonry

DIVISION 5

METALS

051200 Structural Steel Framing
053100 Steel Decking
054000 Cold-Formed Metal Framing
055100 Metal Stairs

DIVISION 6

WOOD AND PLASTICS

061000 Rough Carpentry
061600 Sheathing
064023 Interior Architectural Woodwork

DIVISION 7

THERMAL AND MOISTURE PROTECTION

071900 Water Repellents
072100 Thermal Insulation
072140 Foamed-in-Place Masonry Wall Insulation (Addendum No. 1)
072419 Water-Drainage Exterior Insulation and Finish System (EIFS)
072726 Fluid-Applied Membrane Air Barriers
074113 Metal Roof Panels
074114 Structural Insulated Panels
074213 Metal Wall Panels
079200 Joint Sealants

DIVISION 8

DOORS AND WINDOWS

081113 Hollow Metal Doors and Frames
083113 Access Doors and Frames
084113 Aluminum-Framed Entrances and Storefronts
085113 Aluminum Windows (Addendum No. 1)
085200 Flush Wood Doors (Addendum No. 1)
087100 Finish Hardware
088000 Glazing

DIVISION 9

FINISHES

092550 Gypsum Board Assemblies (Addendum No. 1)
093000 Ceramic Tile
096510 Resilient Flooring
096513 Resilient Base and Accessories
096723 Resinous Flooring
099113 Exterior Painting (Addendum No. 1)
099123 Interior Painting

DIVISION 10	SPECIALTIES
	102113 Toilet Compartments
	102800 Toilet, Bath, and Laundry Accessories
DIVISION 11	EQUIPMENT
	Not Used
DIVISION 12	FURNISHINGS
	Not Used
DIVISION 13	SPECIAL CONSTRUCTION
	Not Used
DIVISION 14	CONVEYING SYSTEMS
	Not Used
DIVISION 21	FIRE SUPPRESSION
	210500 Common Work Results for Fire Suppression
	211100 Facility Fire-Suppression Water-Service Piping
	211313 Wet-Pipe Sprinkler System
DIVISION 22	PLUMBING
	220500 Common Work Results for Plumbing
	220519 Meters and Gages for Plumbing Piping
	220523 General-Duty Valves for Plumbing Piping
	220529 Hangers and Supports for Plumbing Piping and Equipment
	220553 Identification for Plumbing Piping and Equipment
	220700 Plumbing Insulation
	221113 Facility Water Distribution Piping
	221116 Domestic Water Piping
	221119 Domestic Water Piping Specialties
	221123 Water Distribution Pumps
	221316 Sanitary Waste and Vent Piping
	221319 Sanitary Waste Piping Specialties
	221323 Sanitary Waste Interceptors
	221413 Facility Storm Drainage Piping
	221423 Storm Drainage Piping Specialties
	223300 Electric Domestic Water Heaters
	224000 Plumbing Fixtures
	224700 Drinking Fountains and Water Coolers
DIVISION 23	HEATING, AIR CONDITIONING AND AIR CONDITIONING
	230593 Testing, Adjusting, and Balancing for HVAC
	230700 HVAC Insulation
	230993 Sequence of Operations for HVAC Controls
	233113 Metal Ducts
	233300 Air Duct Accessories
	233423 HVAC Power Ventilators

233713 Diffusers, Registers, and Grilles
233723 HVAC Gravity Ventilators
238126 Split-System Air-Conditioners
238216 Air Coils
238219 Fan Coil Units
238239 Unit Heaters

DIVISION 26

ELECTRICAL

260500 Common Work Results for Electrical
260519 Low-Voltage Electrical Power Conductors and Cables
260526 Grounding and Bonding for Electrical Systems
260529 Hangers and Supports for Electrical Systems
260533 Raceway and Boxes for Electrical Systems
260553 Identification for Electrical Systems
262416 Panelboards
262726 Wiring Devices
262816 Enclosed Switches and Circuit Breakers
265100 Interior Lighting

DIVISION 28

ELECTRONIC SAFETY AND SECURITY

283112 Zoned (DC Loop) Fire-Alarm System

DIVISION 31

EARTHWORK

311000 Site Clearing
312000 Earth Moving
315000 Excavation Support and Protection

DIVISION 32

EXTERIOR IMPROVEMENTS

321216 Asphalt Paving
321313 Concrete Paving
321373 Concrete Paving Joint Sealants
329200 Turf and Grasses

DIVISION 33

UTILITIES

330500 Common Work Results for Utilities
334100 Storm Utility Drainage Piping

BID FORM

**WEST VIRGINIA STATE POLICE
STATE POLICE ACADEMY
ACADEMY DRIVE
INSTITUTE, WEST VIRGINIA 25112**

NAME OF BIDDER _____

ADDRESS _____ **PHONE** _____

_____ **DATE** _____

The undersigned, hereinafter called the Bidder, being familiar with and understanding the Bidding Documents and also having examined the site and being familiar with all local conditions affecting the project hereby proposes to furnish all labor, material, equipment, supplies and transportation and to perform all Work in accordance with the Bidding Documents within the time set forth below for the sum of

**BASE BID:
Building A, B, C, D and all Allowances**

_____ (\$ _____)
(Show Amount in both words and numbers)

(Asbestos Abatement Buildings A, B, C, D):

_____ (\$ _____)
(Show Amount in both words and numbers)

UNIT PRICES:

Unit Price No. 1: Unsatisfactory soil. ADD: \$ _____

Unit Price No. 2: Rock excavation. ADD: \$ _____

Unit Price No. 3: Cutting and patching of
concrete slab. ADD: \$ _____

(For Information only) break out bid in the following divisions:

Divide Allowances #1, 4, 5, 6, 7 evenly between buildings A, B, C & D

(Building A): Including allowance #3 and #4

_____ (\$ _____)
(Show Amount in both words and numbers)

(Building B):

_____ (\$ _____)
(Show Amount in both words and numbers)

(Building C): Include parking lot behind building C

_____ (\$ _____)
(Show Amount in both words and numbers)

(Building D): Including allowance #2, #8 and the site work related to the firing range

_____ (\$ _____)
(Show Amount in both words and numbers)

In the event of a difference between the written amount and the number amount, the written amount shall prevail.

TIME OF COMPLETION

The contractor agrees to commence the work upon receiving a Notice to Proceed and complete the work within **Three Hundred and Sixty (360) days**. In the event the work is not completed within the time period stated above, the Contractor shall pay the Owner as liquidated damages, the sum of \$300.00 per day until substantial completion is achieved.

The Contractor further agrees to be bound by the final payment, retainage and Post-Substantial Completion Liquidated Damages provisions of Paragraph 9.10.2 of the Supplementary Conditions, and to be liable for and pay to the Owner, if assessed, Post-Substantial Completion Liquidated Damages as stated.

ACCEPTANCE PERIOD

The undersigned agrees that their bid will be valid and enforceable for sixty (60) days and, if authorized to proceed within that period, will execute a formal contract with the Owner as prescribed in the bidding documents.

TAXES/PERMITS

The Contractor affirms that all Federal, State and Local Taxes and Permits of whatever character or description are included in this Bid.

ADDENDA

The undersigned acknowledges receipt of the following Addenda covering revisions to the Drawings or Specifications; and the cost, if any, of such revisions is included in the Base Bid hereinbefore quoted.

Addendum No. _____ Dated _____
Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

ADDRESS, LEGAL STATUS AND SIGNATURE OF BIDDER

The undersigned Bidder does hereby designate the address given below as the legal address to which all notices, directions or other communications may be served or mailed.

Street _____
City _____ State _____

The undersigned Bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual
_____ Co-Partnership
_____ Corporation Incorporated
under the laws of the State of _____

The Names and addresses of all persons indicated as partners in this Bid are as follows:

The Bid is submitted in the name of:

By _____
(Signature)

Signed and Sealed this _____ day of _____

Contractor License Number: _____

SIGN IN SHEET

PLEASE PRINT

PRE-BID SIGN-IN SHEET - PLEASE LEAVE A BUSINESS CARD - DPS0912 - 10/28/2008; 1:30 PM

FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>Multiplex, Inc.</u>	<u>PO Box 505</u>	PHONE <u>304-872-6648</u>
Rep: <u>Mary Ann Kiser</u>	<u>Summersville, WV 266651</u>	TOLL FREE
Email Address: <u>multiplexap@yahoo.com</u>		FAX <u>304-872-1445</u>
Company: <u>Multiplex, Inc.</u>	<u>Same as above</u>	PHONE
Rep: <u>Art Poff</u>		TOLL FREE
Email Address: _____		FAX
Company: <u>Pinnacle Env.</u>	<u>200 Prestige Park</u>	PHONE (304) <u>757-5204</u>
Rep: <u>Mark D Samples</u>	<u>Herrigane WV</u>	TOLL FREE
Email Address: _____		FAX
Company: <u>PARAMOUNT BUILDERS</u>	<u>501 6TH AVE</u>	PHONE (304) <u>727-2770</u>
Rep: <u>CHRIS SHAW</u>	<u>St. Albans WV 25177</u>	TOLL FREE
Email Address: <u>cshaw@paramountwv.com</u>		FAX (304) <u>722-4230</u>
Company: <u>Danhill Const. Co.</u>	<u>PO Box 685</u>	PHONE <u>304-632-1600</u>
Rep: <u>Dan Hill</u>	<u>Gauley Bridge, Wv</u>	TOLL FREE 3
Email Address: <u>rdanhill@hotmail.com</u>	<u>25085</u>	FAX <u>304-632-1501</u>

SIGN IN SHEET

PLEASE PRINT

PRE-BID SIGN-IN SHEET- PLEASE LEAVE A BUSINESS CARD - DPS0912 - 10/28/2008; 1:30 PM

FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: FLINT CONSTRUCTION CO., INC	PO Box 146	PHONE (304) 364-5555
Rep: ROB FLINT	CASSALWAY WY 26624	TOLL FREE
Email Address: rob@flintconstruction.com		FAX (304) 364-5556
Company: CITY ELECTRIC Co.	P.O. Box 6220	PHONE 304-845-6150
Rep: FRANK HOPSON	CHARLES RUN WVA	TOLL FREE
Email Address: fhopson@cityelectricwv.com	25301	FAX 304-345-6151
Company: ROERIO, Inc	467 LOWRIES RUN ROAD	PHONE 412-366-6767
Rep: RAYMOND GREGICK	PITTSBURGH, PA	TOLL FREE
Email Address: rggregick@roerio.com	15237	FAX 412-366-1404
Company: CITY ELECTRIC CO.	PO BOX 6550	PHONE 304 345 6150
Rep: RONNIE SHOOT	CHARLESTON W 25302	TOLL FREE
Email Address: RSHOOT@CITYELECTRICWV.COM		FAX 304 345 6151
Company: DIXON ELECTRICAL SYSTEMS	3352 NORWOOD RD.	PHONE 304-523-2712
Rep: RICK MULLINS	HUNTINGTON, WV 25701	TOLL FREE
Email Address: rick@dixonelectrical.com	25205	FAX 304-523-2713

SIGN IN SHEET

PLEASE PRINT

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FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>ELCO MECHANICAL</u>	<u>P.O. Box 349</u>	PHONE <u>304-346-0546</u>
Rep: <u>ROD KING</u>	<u>CHARLESTON, WV 25322</u>	TOLL FREE
Email Address: <u>RONALDKING@SUNDELINKMIL.COM</u>		FAX <u>304-346-0548</u>
Company: <u>OVAL CONSTRUCTION MGMT, LLC</u>	<u>P.O. Box 401</u>	PHONE <u>304-347-8820</u>
Rep: <u>RIK BERNARD</u>	<u>CHARLESTON, WV 25322</u>	TOLL FREE
Email Address: <u>bernard@ovalconstruction.com</u>		FAX <u>304-347-8821</u>
Company: <u>Labar local 1353</u>	<u>1 Union Sq</u>	PHONE <u>304-343-9641</u>
Rep: <u>Henry Neal</u>	<u>Charleston 25302</u>	TOLL FREE
Email Address: <u>henryneal@WVHDC.org</u>		FAX
Company: <u>Bell Mechanical Inc</u>	<u>103 McUnwey Ave</u>	PHONE <u>304-766-6126</u>
Rep: <u>TIM BELL</u>	<u>Dumble WV 25064</u>	TOLL FREE
Email Address: <u>bell@bmi@aol.com</u>		FAX
Company: <u>RC GENERAL CONTRACTORS</u>	<u>318 LEE ST</u>	PHONE <u>304-346-7307</u>
Rep: <u>SHANDY BROOM</u>	<u>CHARLESTON WV 25302</u>	TOLL FREE
Email Address: <u>SBROOM@RCGENERAL.COM</u>		FAX <u>304-346-7310</u>

SIGN IN SHEET

PLEASE PRINT

PRE-BID SIGN-IN SHEET - PLEASE LEAVE A BUSINESS CARD - DPS0912 - 10/28/2008; 1:30 PM

FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>Sheet Metal Workers 33</u>	<u>5038 W. Washington St.</u>	PHONE <u>304-776-5723</u>
Rep: <u>Randy Gombas</u>	<u>Charleston WV 25313</u>	TOLL FREE <u>800-378-2171</u>
Email Address: <u>rgombas@verizon.net</u>		FAX <u>304-776-5724</u>
Company: <u>BBL Carlton</u>	<u>900 Lee St Suite 1400</u>	PHONE <u>345-1300</u>
Rep: <u>Johnny Payne</u>	<u>Charleston WV 25301</u>	TOLL FREE
Email Address: <u>jpayne@bblcarlton.com</u>		FAX <u>345-1304</u>
Company: <u>Wiseman Const. Co. Inc</u>		PHONE <u>344-1200</u>
Rep: <u>Hop White</u>		TOLL FREE
Email Address: <u>hwhite@wisemanconst.com</u>		FAX <u>344-1281</u>
Company: <u>J.M. Steerts & Assoc</u>	<u>206 Chase Drive</u>	PHONE <u>562-7774</u>
Rep: <u>Mike Steerts</u>	<u>Hurricane W.V. 25526</u>	TOLL FREE <u>Call 552-0866</u>
Email Address: <u>msteerts@steertshomes.com</u>		FAX <u>562-7770</u>
Company: <u>A.F.C. Electric, LLC</u>	<u>155 GREEN ACRES DR.</u>	PHONE <u>304-389-9708</u>
Rep: <u>Ed PENIX</u>	<u>HURRICANE, WV 25526</u>	TOLL FREE
Email Address: <u>Afcelectric@yahoo.com</u>		FAX <u>304-757-5654</u>

SIGN IN SHEET

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FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>Rocks Branch Mechanical</u>	<u>Rock Branch Mechanical</u>	PHONE <u>755-0373</u>
Rep: <u>Allen Jones</u>	<u>132 Harris Drive</u>	TOLL FREE
Email Address: <u>ajones@wvdsi.net</u>	<u>Poca, WV 25159</u>	FAX <u>755-5270</u>
Company: <u>RBS Construction</u>		PHONE
Rep: <u>Kenneth Hunter</u>		TOLL FREE
Email Address: _____		FAX
Company: <u>RBS Construction, Inc.</u>	<u>4300 1st Ave Suite 200</u>	PHONE <u>304-755-2800</u>
Rep: <u>MARK STUTLER</u>	<u>NITRO, WV 25143</u>	TOLL FREE
Email Address: <u>MStutler@rbswv.com</u>		FAX <u>304-755-3022</u>
Company: <u>Hayslett Construction Co. Inc.</u>	<u>P.O. Box 447</u>	PHONE <u>304-757-9348</u>
Rep: <u>Troy Hayslett</u>	<u>Hayslett.com WV 25506</u>	TOLL FREE
Email Address: <u>W.Hayslett@Acc.com</u>		FAX <u>304-757-9561</u>
Company: _____		PHONE
Rep: _____		TOLL FREE
Email Address: _____		FAX

Pre-Bid Meeting Sign-In Sheet
West Virginia State Police

Date _____

DPS _____

Page 6 of 6

Business Name: JHK Masonry
Business Address: 2107 Rocky Gap Rd. Sweet Run 25520
Business Phone: 304 757 5226 Fax#: 757-62560
Representative's Name (printed): John Looy Signature: [Signature]

Business Name: SUMMIT ELECTRIC
Business Address: P.O. Box 254, Hurricane, WV 25526
Business Phone: 304 562-7091 Fax#: 304 562-7137
Representative's Name (printed): JIM OLDAKER Signature: [Signature]

Business Name: Rekkart LLC masonry
Business Address: Rt 219 S Beverly W Va 26253
Business Phone: 304 338-2600 Fax#: 304-338-2602
Representative's Name (printed): David L Watson Signature: [Signature]

Business Name: _____
Business Address: _____
Business Phone: _____ Fax#: _____
Representative's Name (printed): _____ Signature: _____

Business Name: _____
Business Address: _____
Business Phone: _____ Fax#: _____
Representative's Name (printed): _____ Signature: _____

Business Name: _____
Business Address: _____
Business Phone: _____ Fax#: _____
Representative's Name (printed): _____ Signature: _____

Business Name: _____
Business Address: _____
Business Phone: _____ Fax#: _____
Representative's Name (printed): _____ Signature: _____