

Lewis + Malm Architecture

# 2003 / KVCC WHITNEY RESTROOM RENOVATONS 12MAR2021

This Addendum forms a part of the contract documents. It modifies them as follows:

DISCIPLINES: Construction Administration & Architecture

# **CLARIFICATIONS:**

- BUILDER'S RISK The State of Maine / BGS now requires the General Contractor to carry adequate insurance coverage for all State owned projects, as addressed in this Addendum.
- UNIT PRICES Contractor's shall include their Unit Prices as an attachment to their 00 41 13 Contractor Bid Form, written on their letterhead for the Unit Prices described in Section 01 22 00 UNIT PRICES, as addressed in this Addendum.

GENERAL CONTRACTOR'S LETTERHEAD				
We herewith submit the following Unit Prices and confirm their validity for the entire duration of the 2003 / KVCC WHITNEY RESTROOM RENOVATIONS project:				
1.	UNIT PRICE #1: Fire Caulking	\$ / Linear Foot		
2.	UNIT PRICE #2: Sand Blasting of Existing Painted CMU	\$ / Square Foot		
3.	UNIT PRICE #3: Additional Paint on Existing Painted CMU	\$/ Square Foot		
	Signed	Date March, 2021		

# JOB STARTWork on site is subject to end of the Academic year, which is scheduled for Saturday<br/>01MAY2021, therefore on site work shall begin on Monday 03MAY2021.

SUBMITTALS Considering ever increasing difficulties in product availability and lead times, the General Contractor shall begin with the submittal process immediately after the contract has been fully executed.

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- Lewis + Malm Architecture
- SPRINKLERHEAD There is a single sprinkler head called for in Room J-114, the Whitney building is otherwise not sprinklered, therefore no sprinkler company exists.
- ROOF WORK The existing metal roof over the West wing areas of the Whitney building is a Butler Building system. The ballasted roof system over the Whitney East wing installer is unknown. Neither existing roofing system remains under warranty according to KVCC. Water tightness tests for all new roof top penetrations (pipes & curbs), are required immediately after installation is complete, whether indicated or not in the contract documents.
- JOB COMPLETION The Substantial Completion date shall be Thursday 12AUG2021. Final Completion date for construction is Friday 27AUG2021, as specified.

# **DRAWINGS**:

- R4 DETAIL 2 WEST One of the existing CMU walls in Room M-121B indicated in the original bid documents to be removed is incorrectly marked, this CMU wall shall remain in the project as indicated on A1 Detail 2 and A3 Details 2 North & West. See attached Revision 1 Drawing R4 dated 11MAR2021.
- A10 / DETAIL 1 ADD NOTE READING "Perform waterproof test after installation", at the new prefabricated rooftop curb for EF-2 (refer to DWG H2).

#### **SPECIFICATIONS:**

- 00 01 10 ADD TEXT READING "00 63 63 State of Maine Construction Contract Change Order Sample, 1 page."
- 00 01 10 ADD TEXT READING "01 22 00 Unit Prices, 2 pages."
- 00 01 10 ADD TEXT READING "09 51 53 Acoustic Panel Ceiling, 8 pages."
- 00 11 13 PARA 2: REVISE TEXT READING "...shall be completed on or before the Final Completion date of 27. August 2021." TO READ "...shall be substantially completed on or before Thursday 12. August 2021, with a Final Completion date of Friday, 27. August 2021."



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00	11	13	ITEM 8.: REVISE TEXT READING "the Insurance Requirements section of the General Conditions of the contract, shall be Renovation or addition insured by Owner." TO READ_"the Insurance Requirements section of the General Conditions of the contract, shall be <u>Renovation or addition insured by the Contractor.</u> "
	41 41		DELETE in its entirety. ADD the REVISED Contractor Bid Form attached to this Addendum.
00	52	13	ARTICLE 2, PARA 2.1: REVISE TEXT READING "shall be completed on or before the Final Completion date of 31. December 2021", TO READ "shall be substantially completed on or before Thursday 12. August 2021, with a Final Completion date of Friday, 27. August 2021." Note: This section is only a sample contract.
00	63	63	ADD the State of Maine Construction Contract Change Order Sample attached to this Addendum.
01	10	00	ARTICLE1, PARA 1.5.A.: REVISE TEXT READING "The General Contractor mobilization may begin at Letter of Award, followed by contract signing. Existing project scope areas are as indicated." TO READ "Should the General Contractor choose to proceed with material procurement, planning and scheduling of work in order to advance the project, please be alerted that any financial commitments made prior to the contract document being fully executed are made at the General Contractor's own risk and discretion."
01	10	00	ARTICLE 1, PARA 1.5.B.: REVISE TEXT READING "by no later than Friday 27. August, 2021." TO READ " by no later than Friday 12. August, 2021 with a Final Completion date of Friday, 27. August 2021."
01	22	00	ADD NEW Section "Unit Prices" in its entirety as attached to this Addendum.
	23 23		DELETE in its entirety. ADD REVISED Section "Alternates" in its entirety as attached to this Addendum.
07	84	13	ADD PARA 3.3.D. READING "Provide 250 linear feet of Fire Stopping Caulk at junction between existing concrete masonry units and existing metal deck and existing steel beams.

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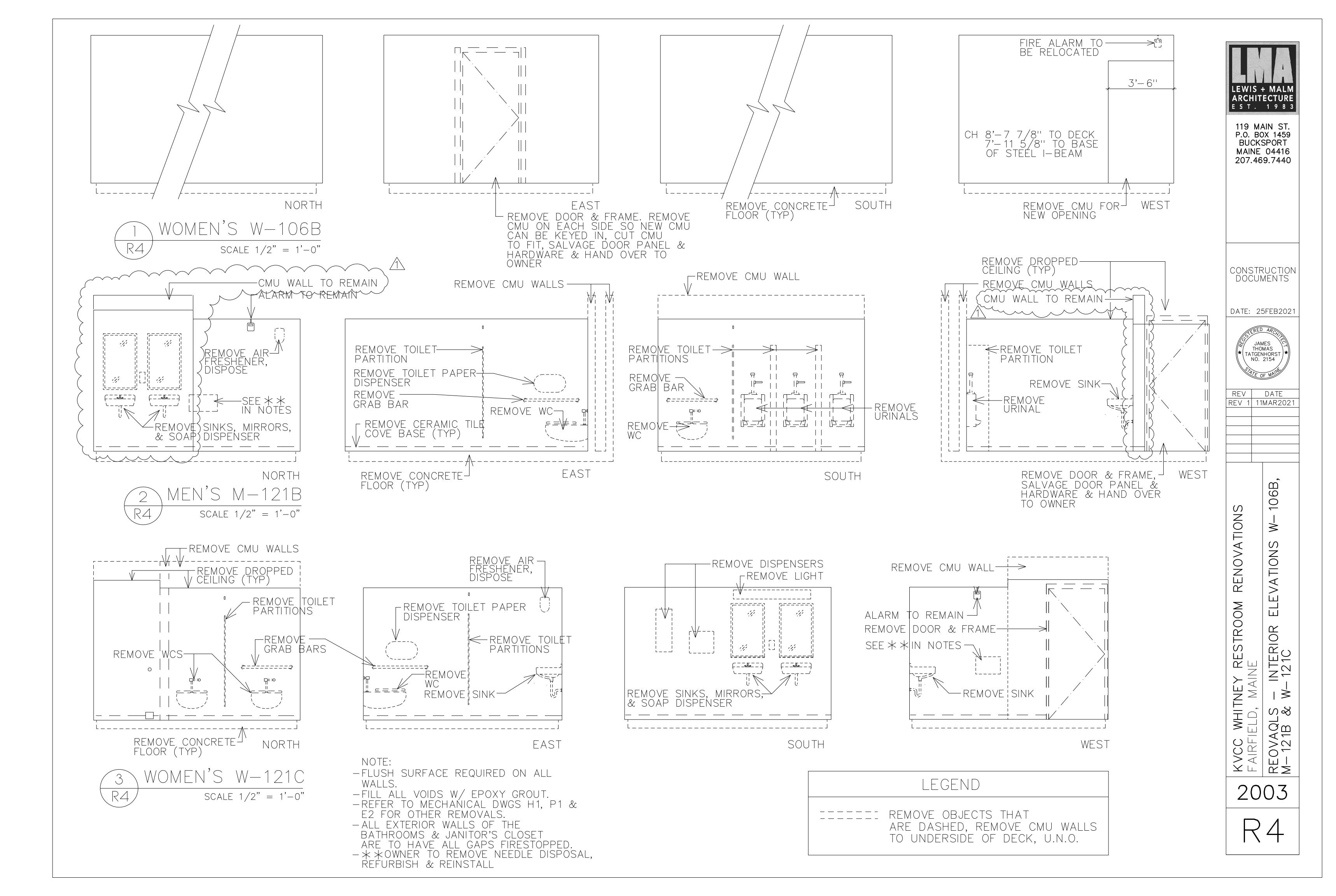


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- 09 25 13 PARA 3.1.E. REVISE TEXT READING "ABI #3", TO READ "ABI #2".
- 09 25 13 PARA 3.1.G. DELETE TEXT READING "ABI #4:".
- 09 25 13 PARA 3.1.G. REVISE TEXT READING "ABI's #3 & #4" TO READ "ABI #3".
- 09 25 13 PARA 3.1.G. ADD TEXT READING "Should the adhesion test specified in 3.1.F. above succeed, and sandblasting is not required, Unit Price #2 will be utilized to calculate a DEDUCT Change Order Proposal based on the 750 square feet quantity of sandblasting required".
- 09 51 53 ADD NEW Section "Acoustic Panel Ceilings", in its entirety as attached to this Addendum.
- **ATTACHMENTS:** 1. Revised DWG R4 REV1 dated 11MAR2021
  - 2. Revised Contractor Bid Form
  - 3. State of Maine Construction Contract Change Order Form Sample
  - 4. New Section 012200 Unit Prices
  - 5. Revised Section 012300 Alternates
  - 6. New Section 095153 Acoustic Panel Ceilings

END OF ADDENDUM NO. 1



#### 00 41 13 Contractor Bid Form

# KVCC WHITNEY RESTROOM RENOVATIONS

BGS project #3251

Bid Form submitted by: *paper documents only to address below* 

Bid Administrator:	
Brianne Pushor	bpushor@kvcc.maine.edu.
Director of Operations and Compliance	
Kennebec Valley Community College	
92 Western Avenue	
Fairfield, Maine 04937	
Bidder:	
Signature:	
Printed name and	
title:	
Company name:	
Mailing address:	
City, state, zip code:	
Dhone number:	
Email address:	
State of	
if a corporation:	
List of all partners,	
if a partnership:	
ii a partitoisiip.	

The Bidder agrees, if the Owner offers to award the contract, to provide any and all bonds and certificates of insurance, as well as Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers if required by the Owner, and to sign the designated Construction Contract within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, or a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the first available business day following the holiday, other closure day, Saturday, or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

# 00 41 13 Contractor Bid Form

 The Bidder, having carefully examined the form of contract, general conditions, specifications and drawings dated <u>25. February, 2021</u>, prepared by <u>Lewis + Malm Architecture</u> for <u>KVCC</u> <u>WHITNEY RESTROOM RENOVATIONS</u>, as well as the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

			\$	.00
2.	Bi	lowances are included on this project. d amount above includes the following Allowances otal amount for Allowances as described in Section 01 23 00		\$ <i>15,000<u>.00</u></i>
3.	Al	ternate Bids <i>are included</i> on this project. <i>ternate Bids are as shown below</i> ny dollar amount line below that is left blank by the Bidder shall b	be read as a bid of \$0	<b>).00</b> .
	1	ABI #1: ADDITIONAL INTERIOR PAINTING	\$	.00
	2	ABI #2: ACRYLIC PLASTER ON CEMENTITIOUS BOARD	\$	.00
	3	ABI #3: ACRYLIC PLASTER ON EXISTING CMU	\$	.00
	4	(NOT USED)	\$	.00

4. The Bidder acknowledges receipt of the following addenda to the specifications and drawings:

Addendum No.	Dated:	Addendum No	Dated:
Addendum No.	Dated:	Addendum No.	Dated:
Addendum No.	Dated:	Addendum No.	Dated:
Addendum No.	Dated:	Addendum No	Dated:

- 5. Bid security *is required* on this project. If noted above as required, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.
- 6. Filed Sub-bids *are not required* on this project. If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

AdvantageME CT# 0000

#### State of Maine CONSTRUCTION CONTRACT **Change Order**

KVCC WHITNEY RESTROOM RENOVATIONS

92 Western Ave., Fairfield, Maine 04937

Change Order Number:

1

Issue Date: 27-Aug-2021

**Contractor Company name** address city state zip code

SAMPLE BGS Project No .:

Other Project No .:

Cost Change	Show Deduct as a negative number, e.g.: "-\$700".				
		Add	Deduct	Total	
	Net Amount of this Change Order	\$0	\$0		
	Net Amount of Previous Change Orders	\$0	\$0		
	Net of Change Orders to Date	\$0	\$0	\$0	
	Original Contract Amount			\$0	
		Revised	Contract Amount	\$0	

Time Change   Show Deduct as a negative number, e.g.: "-14".			
	Add	Deduct	Total
Net Calendar Days Adjusted by this Change Order	0	0	
Net Calendar Days Adjusted by Previous Change Orders	0	0	
Net of Change Orders to Date	0	0	0
Original Contract Final Completion Date			27-Aug-2021
<b>Revised Contract Final Completion Date*</b>			27-Aug-2021

#### **Consultant (Architect or Engineer)**

Lewis + Malm Architecture

Charles Earley, President

#### Contractor

Type company name here Type person's name, title here

#### Owner

Kennebec Valley Community College Richard R. Hopper, President signature

Kennebec Valley Community College **Owner's Representative** Brianne Pushor, Director of Operations & Compliance

#### **Bureau of General Services**

Division of Planning, Design & Construction Joeseph Ostwald, Director Planning Design & Construction

signature

signature

signature

signature

date

date

date

date

date

Attach the "List of Change Order Items" sheet, plus all supporting documentation for each Change Order Item.

\* Notes below are for reference only (see Section 00 71 00 Definitions for full definitions): Substantial Completion Date: the date of first beneficial use by Owner, as certified by Consultant. Contract Final Completion Date : the Contractor's final completion deadline for contract work. Contract Expiration Date: the Owner's deadline for internal management of contract accounts; (this term does not represent any contract obligation of the Contractor).

# PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

# 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Sections:
  - 1. Division 01 Section "Quality Requirements" for general testing and inspecting requirements.

#### 1.3 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

#### 1.4 **PROCEDURES**

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment are as specified herein.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

E. Bidding of Unit Prices: General Contractor's shall attach a list of the required Unit Prices listed herein on their letterhead, dated and signed including the following information:

# GENERAL CONTRACTOR'S LETTERHEAD

We herewith submit the following Unit Prices and confirm their validity for the entire duration of the 2003 / KVCC WHITNEY RESTROOM RENOVATIONS project.

Signe	d	Date	March, 2021
3.	UNIT PRICE #13 Additional Paint on Existing Painted C	MU	\$/ Square Foot
2.	UNIT PRICE #1: Sand Blasting of Existing Painted CMU	J	\$/ Square Foot
1.	UNIT PRICE #1: Fire Caulking		\$/ Linear Foot

Title

PART 2 - PRODUCTS (Not Used)

# PART 3 - EXECUTION

# 3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1: Fire Caulking
  - 1. Unit Price: Provide Unit Price for One (1) linear foot of Fire Caulking work.
  - 2. Description: Fire Caulking scheduled to be installed in accordance with Division 07 Section "Penetration & Junction Fire Stopping." This unit price is separate from the Base Bid quantity of Fire Stopping specified therein.
  - 3. Unit of Measurement: Linear Feet, based upon survey of in place quantity installed. Field conditions may vary and may result in a Change Order (ADD or DEDUCT). Final measurement shall be mutually agreed upon between the Owner, Architect & Contractor.
- B. Unit Price No. 2: Sand Blasting of Existing Painted Concrete Masonry Units
  - 1. Unit Price: Provide Unit Price for One (1) square foot area of Sand Blasting work.
  - 2. Description: Sand Blasting of Existing Painted Concrete Masonry Units work as described in Division 01 Section "Alternates", and Division 09 Section "Decorative Acrylic Plaster Finish". This unit price is separate from the Base Bid quantity of Sand Blasting specified therein.
  - 3. Unit of Measurement: Square Feet, based upon survey of quantity executed. Field conditions may vary and may result in a Change Order (ADD or DEDUCT). Final measurement shall be mutually agreed upon between the Owner, Architect & Contractor.

- C. Unit Price No. 3: Additional Paint on Existing Painted CMU
  - 1. Unit Price: Provide Unit Price for One (1) square foot area of Additional Paint Work, for areas not described in the contract documents.
  - Description: Interior Painting of Existing Painted Concrete Masonry Units work as described in Division 09 Section "Interior Painting", including preparation, primer and finish coats required.
    Unit of Measurement: Square Feet, based upon survey of in place of additional quantity installed. Field conditions may vary and may result in a Change Order (ADD or DEDUCT). Final measurement shall be mutually agreed upon between the Owner, Architect & Contractor.

# END OF SECTION 012200

# SECTION 012300 - ALTERNATES

# PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternate bid items.

#### 1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

#### 1.4 **PROCEDURES**

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

# PART II - SCHEDULE OF ALTERNATES

#### 2. ALTERNATE BID ITEMS SCHEDULE

# A. Alternate # 1: INTERIOR PAINT ON CORRIDOR WALLS & DOOR TRIM

- 1. BASE BID Condition: Provide cleaning of existing- and new- exposed concrete masonry units, door trim & door panel (Room 121A), prepare for proper adhesion, prime (1 coat on new materials), and paint (2 coats to full coverage on existing materials), of limited corridor wall areas, full height, as well as all surfaces of existing door trim located in limited areas indicated, as indicated on Drawing A0.2. Do not paint existing door panels, except for door panel to Room 121A, which shall also be prepped and painted on all surfaces.
- 2. ALTERNATE BID #1 Condition: Provide Base Bid paint works as described in A.1. above and ADD same painting requirements to all remaining walls & door trim, as indicated on Drawing A0.2.

#### B. Alternate # 2: INTERIOR FINISH ON NEW CEMENTITIOUS BOARD WALLS

- 1. Scope Areas: New cementitious board walls in Rooms 106B, 121B (as renovated by combining Rooms 121B & 121C).
- 2. BASE BID Condition: Provide preparations as specified for complete fiberglass reinforced-, water-repellent skim-coat cement plaster- system, including full height embedded metal corner guards, filler/primer (coat & sand as needed to obtain a smooth surface), followed by two (2) finish coats of paint to full coverage. Refer to Section 092900 Cementitious Board and Section 099123 Interior Painting.
- 3. ALTERNATE BID #2 Condition: DELETE Base Bid preparation & paint works as described in PARA B.2. above and provide complete decorative acrylic plaster finish system as specified, including, base coats, fiberglass reinforced-, color-in- decorative acrylic plaster finish system, full height (5" above suspended ceiling and to concrete floor), crisp outside corner edges, and clear sealer coat. Refer to Section 092513 Acrylic Plaster Finish.

#### C. Alternate # 3: INTERIOR FINISH ON EXISTING & REPAIRED CMU WALLS

- 1. Scope Areas: Existing concrete masonry unit walls in Rooms 106B (untreated & new CMU infill areas), 121B & 112 (as renovated by combining Rooms 121B & 121C w/ existing epoxy painted CMU & new untreated CMU repair areas).
- 2. BASE BID Condition: Provide interior paintwork preparations as specified for a) existing CMU walls already treated with epoxy paint (Rooms 121B & 112), which require full surface sanding or sheen removing chemical wash to ensure new epoxy paint adhesion, b) new CMU repair areas (Rooms 121B & 112), and c) existing untreated CMU walls (Room 106B). Prime all exposed CMU surfaces w/ one (1) coat, followed by two (2) finish coats of new epoxy paint to full coverage. Refer to SECTION 099123 Interior Painting.

3. ALTERNATE BID #3 Condition: DELETE Base Bid preparation & paint works as described in PARA C.2. above and provide complete decorative acrylic plaster finish system as specified, including providing of sand-blasting equipment, materials & sand-blasting execution, needed to remove all traces of existing epoxy paint on 750 square feet of existing CMU walls. Sand-blasted surface shall be a suitable roughness for the foreseen wall finish. Provide vacuum powered dust collection system to minimize dust, w/ double layered dust curtains in order to avoid dust making its way into the Corridor during sand-blasting operations. Vacuum sand-blasted walls free of dust prior to proceeding. Remove all debris from site. Apply base coats, color-in- decorative acrylic plaster finish system, full height (5" above suspended ceiling and to concrete floor), crisp outside corner edges, and clear sealer coat. Refer to Section 092513 Acrylic Plaster Finish.

END OF SECTION 012300

# SECTION 095113 - ACOUSTICAL PANEL CEILINGS

# PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. This Section includes:1. Acoustical panels and exposed suspension systems for ceilings.

#### 1.3 DEFINITIONS

- A. AC: Articulation Class.
- B. CAC: Ceiling Attenuation Class.
- C. LR: Light Reflectance coefficient.
- D. NRC: Noise Reduction Coefficient.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
  - 1. Acoustical Panel: Set of 6-inch- square Samples of each type, color, pattern, and texture.
  - 2. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch- long Samples of each type, finish, and color.
- C. Qualification Data: For testing agency.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.
- E. Maintenance Data: For finishes to include in maintenance manuals.
- F. Copy of guarantee and warranty as specified.

#### 1.5 QUALITY ASSURANCE

- A. Acoustical Testing Agency Qualifications: An independent testing laboratory, or an NVLAPaccredited laboratory, with the experience and capability to conduct the testing indicated. NVLAP-accredited laboratories must document accreditation, based on a "Certificate of Accreditation" and a "Scope of Accreditation" listing the test methods specified.
- B. Source Limitations: Obtain each type of acoustical ceiling panel and supporting suspension system through one source from a single manufacturer.
- C. Seismic Standard: Provide acoustical panel ceilings designed and installed to withstand the effects of earthquake motions according to the following:
  - 1. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with IBC 2009.
- D. Noise Reduction Coefficient (NRC) Value: N/A.
- E. CAC Value: 33.
- F. Classification: ASTM E1264 Classification, Type IX, Form 2, Pattern G.
- G. Fire Rating: Class A.
  - 1. Surface-Burning Characteristics: Provide acoustical panels with the following surfaceburning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:
    - a. Smoke-Developed Index: 50 or less.
    - b. Flame Spread Index: 25 or less.
- H. Light Reflection: 0.89.
- I. Anti-Mold/Mildew & Bacteria Resistance: Armstrong BioBlock Plus or proven equal, with 30 Year Guarantee against growth of the following:
  - 1. Mold/Mildew.
  - 2. Gram-positive and/or Gram-negative odor/stain-causing bacteria.
- J. Sag Resistance: Armstrong Humigard Plus or proven equal,
- K. VOC Emissions: N/A.
- L. Water Repellent: Yes.
- M. Washable: Yes.
- N. Material: Wet-formed mineral wool.
- O. Scratch Resistant: Yes, factory applied latex paint finish.
- P. Soil Resistant: Yes.

- Q. Recycled Content: Greater than 50% total recycled content per FTC Guidelines, manufacturer's recycling program.
- R. Warranty: Manufacturer's limited system 30-Year warranty.
- S. Insulation Value: Provide as follows:
  - 1. R-Factor: 1.6 (BTU units).
  - 2. R-Factor: 0.28 (Watt units).

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature for at least 48 hours and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

# 1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

#### 1.8 COORDINATION

A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, projector mounts, fire-suppression system, and partition assemblies.

#### 1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Acoustical Ceiling Panels: Full-size panels equal to 2.0 percent of quantity installed.
  - 2. Suspension System Components: Quantity of each exposed component equal to 2.0 percent of quantity installed.
  - 3. Hold-Down Clips: Equal to 2.0 percent of quantity installed.

#### PART 2 - PRODUCTS

#### 2.1 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
  - 1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per ASTM E 795.
- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.
  - 1. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.
- C. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D 3273 and evaluated according to ASTM D 3274 or ASTM G 21.

#### 2.2 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis of Design Product: KITCHEN ZONE, Square Inlay, Smooth Texture 673 as provided by: 1. Armstrong World Industries, Inc.
  - Armstrong World Industries, Inc. P.O. Box 3001 Lancaster PA 17604 Telephone: 1.717.397.0611 Website: www.armstrong.com
- C. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
- D. Dimensions: 24-inches x 24-inches, as indicated
- E. Color: White.
- F. Thickness: 5/8-inch.

#### 2.3 METAL SUSPENSION SYSTEMS, GENERAL

- A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635.
- B. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.
  - 1. High-Humidity Finish: Comply with ASTM C 635 requirements for "Coating Classification for Severe Environment Performance" where high-humidity finishes are indicated.
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements. Provide attachment devices that enable a code compliant installation in all areas where existing gypsum ceilings are to remain in place. Attach hangers securely.
- D. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
  - 1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
  - 2. Size: Select wire diameter so its stress at 3 times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.
- E. Hanger Rods or Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.
- F. Angle Hangers: Angles with legs not less than 7/8 inch wide; formed with 0.04-inch- thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 coating designation; with bolted connections and 5/16-inch- diameter bolts.
- G. Seismic Stabilizer Bars: Manufacturer's standard perimeter stabilizers designed to accommodate seismic forces.
- H. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces.

#### 2.4 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Prelude 15/16" Exposed Tee System; Armstrong World Industries, Inc.
  - 2. Provide system compatible with panels to provide a 30 year performance guarantee and warranty.

# 2.5 METAL GRID, EDGE MOLDINGS AND TRIM

- A. Roll-Formed, Sheet-Metal Grid, Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.
  - 1. Provide manufacturer's standard edge shadow moldings that fit acoustical panel edge details and suspension systems indicated and that match width and configuration of exposed runners, unless otherwise indicated.
  - 2. Grid T-Profile: Provide the following:
    - a. Armstrong Prelude 15/16-inch, including all concealed hanging elements.
    - b. Color: As selected by the Architect from Manufacturers full range.
      - 1) Basis of Design Color: White.
  - 3. Angle Molding: Provide the following:
    - a. Armstrong 7873 Shadow Molding with manufacturers inside and outside corners enabling a neat continuation of the shadow molding detail, do not field cut corners.
    - b. Flange: 9/16-inch.
    - c. Height: 15/16-inch.
    - d. Reveal: 3/8-inch x 3/8-inch.
    - e. Inside Corners: Armstrong 7861
    - f. Outside Corners: Armstrong 7862
    - g. Edges: Hemmed.
    - h. Color: As selected by the Architect from Manufacturers full range.
      - 1) Basis of Design Color: White.
  - 4. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

## PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
  - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

#### 3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with ASTM C 636 and seismic design requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
  - 1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.
- B. Suspend ceiling hangers from building's structural members and as follows:
  - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
  - 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, counter-splaying, or other equally effective means.
  - 3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
  - 4. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  - 5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
  - 6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, post-installed mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
  - 7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
  - 8. Do not attach hangers to steel deck tabs.
  - 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
  - 10. Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
  - 11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or post-installed anchors.
- D. Install grid as indicated in the Drawings.
- E. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.

- 1. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
- 2. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- F. Install extruded aluminum edge metal as indicated in the Drawings and in accordance with the Manufacturer's recommendations.
- G. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- H. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
  - 1. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
  - 2. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
  - 3. Install hold-down clips in areas within 10 feet of exterior doors or vestibule doors; space as recommended by panel manufacturer's written instructions, unless otherwise indicated or required.

#### 3.4 FIELD QUALITY CONTROL

- A. Above-Ceiling Observation: Before installing acoustical panel ceilings, conduct an aboveceiling observation and report deficiencies in the Work observed. Do not proceed with installation of acoustical panels until deficiencies have been corrected.
  - 1. Coordinate & complete the following:
    - a. Installation of repairs to existing gypsum ceilings.
    - b. Installation of lighting fixtures, powered for operation.
    - c. Installation of ceiling projector mounts, center of tile required.
    - d. Installation of ceiling mounted fixtures and projection screens.
    - e. Installation, insulation, and leak and pressure testing of water piping systems.
    - f. Installation of air-duct systems.
    - g. Installation of air devices.
    - h. Installation of mechanical system control-air tubing.
    - i. Installation of penetration firestopping.

#### 3.5 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

#### END OF SECTION 095113