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Addendum #1

Project Name:	Nebraska History Museum Renovation 131 Centennial Mall N. Lincoln, NE 68508
Project No.:	13059-05
Documents Issued:	August 20, 2014
Bid Date:	2:00pm (CST), September 18, 2014
Bid Opening:	Department of Administrative Services (DAS) / State Building Division
Location:	1526 Building, Suite 200 1526 K Street Lincoln, NE 68508

This Addendum is issued to all known bidders before receipt of proposals. This Addendum is to authorize the use of the following information in preparing proposals for the above named project. The bidder **must** enter the number of this Addendum on the **Proposal Sheet.**

PRE-BID MEETING INFORMATION

ADD 1-1. Sign-in sheets from the Pre-Bid meeting has been included for information purposes. See attached **Pre-Bid Meeting Sign-In Sheets**.

GENERAL INFORMATION

ADD 1-2. Questions and topics discussed as part of the Pre-Bid Meeting held on August 27, 2014 at 10:00am have been incorporated into the content of this Addendum.

ADD 1-3. Electronic files are available upon request as a matter of convenience and for use in the preparation of bids for this project. Requests shall be made direct to A&D Technical and will be issued by CD along with a letter to the Bidder stating the terms and conditions for use of the electronic files.

ADD 1-4. Contact Charley McWilliams with the Nebraska State Historical Society to arrange access into the building prior to the bid date.

Charley McWilliams
402.440.6380
charley.mcwilliams@nebraska.gov

ADD 1-5. Work associated with Elevators:

If existing masonry infill jambs at existing hoistway openings are required to be removed in order to facilitate replacement / modernization of elevators, work and materials associated with removal and replacement shall be included in the base bid for construction. The base bid shall also include any upgrades or replacement requirements associated with sill angles or headers at hoistway openings.

ADD 1-6. Floor Transition Strips will be required at all locations where finished floor materials transition to an exposed concrete or terrazzo floor surface.

GENERAL QUESTIONS AND CLARIFICATIONS

ADD 1-7. Davis Bacon and or Buy American.

Question: *Does the project have any requirements for Davis Bacon or Buy American?*

Response: No.

ADD 1-8. Exterior Cast-in-Place Concrete Crack Repair.

Question: *Where are crack repairs generally required?*

Response: Some of the cracks are visible from the street and have been noted on the A701 ceiling plan. Other cracks are not visible from the ground and have actually not been mapped but were indicated in a façade assessment report provided to the Design Team. The cracks typically occur on the exposed architectural concrete surfaces near the bottom of columns where they are framed into spandrel beams. Refer to **Attachment A1** for photos showing a representation of the cracks that will require repair.

ADD 1-9. Existing Terrazzo Flooring.

Question: *Are we to protect the existing terrazzo flooring and are we to patch and repair any cracks in the existing terrazzo flooring?*

Response: The existing terrazzo floors (where scheduled to remain as the finished floor surface) shall be protected throughout the duration of construction. At this time, the only patch and repair work required to the terrazzo floors would occur at locations where noted in the documents or where damage has occurred due to construction operations specific to this project. It would be advisable for the contractor to document the condition of existing surfaces scheduled to remain as the finished surface prior to the start of work to avoid any questions about condition at the end of construction.

ADD 1-10. Load Capacities of Existing Concrete Floors.

Question: *What are the load capacities of the existing floors? Will we be able to use bobcats or lifts in the building?*

Response: You may use any equipment with a weight of less than 6,000#. Contractor will still be required to coordinate the specific equipment intended for use with the Structural Engineer of Record for confirmation of loading. Engineer will require equipment specifications for review. Contractor will also need to confirm with Engineer, intended locations for placement of construction materials in relationship to path of travel for equipment.

ADD 1-11. Parking.

Question: *Is there parking available on site and or locations available for waste receptacles?*

Response: The property line is generally at the face of the building on all facades. Contractor may make use of space on the north and south facades of the building where the Second Level cantilevers over the Ground Level.

Parking and or bagging of meters or use of sidewalk right-of-ways will need to be coordinated with the City of Lincoln and any such expenses will be by the Contractor.

The "bus lane" along Centennial Mall is for school tour groups. Since the museum will be closed, that lane will not likely be used. Contractor should however confirm with the City if any arrangements need to be made for use of this lane and if any fees will be assessed with its use since the lane is City property.

MODIFICATIONS TO THE DRAWINGS

ADD 1-12. Refer to Sheet AD100

Refer to Sheet AD101

Refer to Sheet AD102

Refer to Sheet AD103

Refer to Sheet AD104

1. Add General Note 18 to the General Demolition Notes. Note 18 shall read:

   18. Patch and repair existing wall finishes where removal of existing handrails and guardrails occur.

ADD 1-13. Refer to Sheet AD101; It appears that Sheet AD101 Sheet Specific Note 8 did not get placed in several locations on the plan. In general, the design intent is to remove virtually all existing ceiling assemblies from the building and replace them with either a new ceiling assembly or provide an acoustical insulation over the exposed concrete structure. At Ground Level, the only existing ceilings that are scheduled to remain in place are the ceilings in Rooms 104, 104C and 108C. It should be assumed that "Note 8" applies to all other existing ceiling assemblies on Ground Level.

ADD 1-14. Refer to Sheet A104 – Penthouse Level Floor Plan

1. Add Sheet Specific Note 9. Note 9 to read:

   NOTE 9 PROVIDE ROOF PATCH / REPAIR AS REQUIRED AT LOCATIONS OF NEW ROOF DRAINS AND OVERFLOW DRAINS

2. Add NOTE 9 to nine (9) locations on the existing roof where RD and ORD are indicated on Sheet M204. Contractor to also note that existing roof membrane/insulation patch and repair work is required at abandoned and removed VTR locations shown on Sheet MD204.

ADD 1-15. Refer to Sheet A107; Room Finish Schedule

1. Add the following General Note to the Legend:

1. Where damage to existing walls has occurred as a result of demolition of an original adjoining wall, the location where those walls originally met shall be patched and repaired in a manner that blends into the surrounding wall conditions.

ADD 1-16. Refer to Sheet A700, Room 002A; Rotate light fixtures 90 degrees so they appear as shown in attached **Sketch E100a.**

ADD 1-17. Sheet M101 – Ground Level Floor Plan, HVAC

Sheet M102 – Second Level Floor Plan, HVAC

Sheet M103 – Third Level Floor Plan, HVAC

1. General Note #4 shall be updated to read, “COORDINATE FINAL PLACEMENT OF THERMOSTATS, HUMIDISTATS AND CO2 SENSORS WITH OTHER WALL-MOUNTED DEVICES. SUBMIT PROPOSED LOCATIONS ON FLOORPLANS WITH SHOP DRAWINGS FOR FINAL APPROVAL BY ARCHITECT / ENGINEER.”

ADD 1-18. Sheet M401 – Mechanical Details

1. Detail 1/M401 shall be updated to read, “AIR DISTRIBUTION JETS, OR ORIFICE OPENINGS AS RECOMMENDED BY MANUFACTURER TO ACHIEVE THROW LENGTH UP TO 16 FT”.

ADD 1-19. Sheet ED100 - Lower Level Demolition Plan - Electrical

1. Remove existing underground feeders to Main Switchboard, cut below grade and patch floor. See attached **Sketch ED100a**.

ADD 1-20. Sheet ED103 – Third Level Demolition Plan – Electrical

1. Add Flag Note 5. Note 5 shall read: “EXISTING TRACK LIGHTING AND ASSOCIATED COMPONENTS TO BE SALVAGED AND TURNED OVER TO OWNER”.
2. Place Flag Note 5 on the track lighting found south of Grid H, between Grids 4 and 13.

ADD 1-21. Sheet E100 - Lower Level Floor Plan - Lighting

1. See attached **Sketch E100a** for revised lighting layout in Electrical 002A.

ADD 1-22. Sheet E101 - Ground Level Floor Plan - Lighting

1. Revise lighting control box note to read "PROVIDE LOW VOLTAGE CONNECTION FROM LIGHTING SWTICH PACKS LABELED 'ELV' TO RECEPTACLE POWER PACKS WITHIN TRACK LIGHTING ZONE. SEE SHEET E106 FOR LIGHTING CONTROL ZONES."

ADD 1-23. Sheet E102 - Second Level Floor Plan - Lighting

1. Revise lighting control box note to read "PROVIDE LOW VOLTAGE CONNECTION FROM LIGHTING SWTICH PACKS LABELED 'ELV' TO RECEPTACLE POWER PACKS WITHIN TRACK LIGHTING ZONE. SEE SHEET E106 FOR LIGHTING CONTROL ZONES."

ADD 1-24. Sheet E103 - Third Level Floor Plan - Lighting

1. Revise lighting control box note to read "PROVIDE LOW VOLTAGE CONNECTION FROM LIGHTING SWTICH PACKS LABELED 'ELV' TO RECEPTACLE POWER PACKS WITHIN TRACK LIGHTING ZONE. SEE SHEET E106 FOR LIGHTING CONTROL ZONES."

ADD 1-25. Sheet E105 - Alternate No. 01 - Ground Level Floor Plan - Lighting

1. Revise lighting control box note to read "PROVIDE LOW VOLTAGE CONNECTION FROM LIGHTING SWTICH PACKS LABELED 'ELV' TO RECEPTACLE POWER PACKS WITHIN TRACK LIGHTING ZONE. SEE SHEET E106 FOR LIGHTING CONTROL ZONES."

ADD 1-26. Sheet E200 - Lower Level Floor Plan - Power

1. Revise layout of Electrical 002A per attached **Sketch E200a**.

ADD 1-27. Sheet E300 - Lower Level Floor Plan - Special Systems

1. Add general note "10. SEE SHEET E306 FOR INTERCOM SPEAKER ZONING PLAN."

ADD 1-28. Sheet E301 - Ground Level Floor Plan - Special Systems

1. Add general note "10. SEE SHEET E306 FOR INTERCOM SPEAKER ZONING PLAN."

ADD 1-29. Sheet E302 - Second Level Floor Plan - Special Systems

1. Add general note "10. SEE SHEET E306 FOR INTERCOM SPEAKER ZONING PLAN."
2. Add one smoke detector each outside of ELEV EL01 and ELEV EL02 doors to Lobby 200 (similar to E303).

ADD 1-30. Sheet E303 - Third Level Floor Plan - Special Systems

1. Add general note "10. SEE SHEET E306 FOR INTERCOM SPEAKER ZONING PLAN."

ADD 1-31. Sheet E304 - Roof Level Floor Plan - Special Systems

1. Add general note "10. SEE SHEET E306 FOR INTERCOM SPEAKER ZONING PLAN."

ADD 1-32. Sheet E401 - Power Riser Diagram

1. Revise feeders to panel 2B and 3B to read "225-4".

ADD 1-33. Sheet E402 - Telecommunication Riser Diagram

1. Revise sheet title and detail title to read "Telecommunications Riser Diagram"

ADD 1-34. Sheet E601 - Electrical Schedules

1. Revise Distribution Panel Schedule for DP1. Revise active circuit breaker sizes serving panels 2B and 3B to be 225/3.

ADD 1-35. Sheet E602 - Electrical Schedules

1. Revise Lighting Fixture Schedule Note 5 to read "Fixture shall be considered equal by Cooper Portfolio and Pathway."
2. Fixture type 5 shall be considered equal by Prudential Lighting.
3. Fixture type 7 shall be considered equal by Prudential Lighting.
4. Fixture type 16 shall be considered equal by Prudential Lighting.
5. Fixture type 18 shall be considered equal by Prudential Lighting.
6. Fixture type 19 shall be considered equal by Prudential Lighting.
7. Fixture type 20 shall be considered equal by Prudential Lighting.
8. Fixture type 21 shall be considered equal by Prudential Lighting.
9. Fixture type 22 shall be considered equal by Prudential Lighting.
10. Fixture type 23 shall be considered equal by Prudential Lighting.
11. Fixture type 24 shall be considered equal by Prudential Lighting.
12. Fixture type 25 shall be considered equal by Prudential Lighting.
13. Fixture type 31 shall be considered equal by Prudential Lighting.
14. Fixture type 36 shall be considered equal by Erco.
15. Fixture type 40 shall be considered equal by Prudential Lighting.

ADD 1-36. Sheet E604 - Electrical Schedules

1. Panel 2B and Panel 3B shall be rated at 225A.

MODIFICATIONS TO THE SPECIFICATIONS

ADD 1-37. Refer to Section 000101 “Table of Contents”; Add the following:

ADD 1-38. Refer to Section 000101 “Table of Contents”; Modify the following:

ADD 1-39. Refer to Section 003143 “Permit Application”; Modify Paragraph 1.1 B to read:

B. Permit Application: The construction permit application has already been filed and paid for by the Owner with the Authority Having Jurisdiction (AHJ). All other permits associated with this project will be the responsibility of the Contractor.

ADD 1-40. Add Section 004113 “Bid Form – Stipulated Sum (Single-Prime Contract)”. Refer to **Attached Section 004113**

ADD 1-41. Refer to Section 007300 “Supplementary Conditions”, Paragraph 4.1; Replace with the following:

4.1 The construction permit application has already been filed and paid for by the Owner with the Authority Having Jurisdiction (AHJ). All other permit applications and fees required will be the responsibility of the Contractor. The Contractor shall also be responsible for scheduling and attendance of all Inspections required upon completion of the Work and shall pay all fees associated with such inspections.

ADD 1-42. Refer to Section 011000 " Summary", Paragraph 1.3 D.2; Replace the information associated with the Structural Engineer with the following:

2. Structural Engineer

Jeff Pankoke
R.O. Youker Inc.
1201 'O' Street, Suite 310
Lincoln, NE 68508
402.477.7640
jeff@royouker.com

ADD 1-43. Refer to Section 012300 "Alternates"; Add Article 3.1.G as follows:

G. Alternate No. Seven: Temperature Control Contractors.

1. Base Bid: The temperature control system will be an extension of the existing Invinsys building automation system by Control Services, Inc. and will include reuse of existing network controller, 44 VAV terminal unit controllers, 2 AHU controllers, and existing graphics for systems not targeted for replacement (boilers, HHW pumps, etc). Contractor shall provide all additional components required for a complete and operational system per specification Sections 230900 and 230993. The base bid amount listed in the proposal shall include the value of the work associated with the existing Invinsys building automation system by Control Services, Inc.

2. Alternate: Additional temperature control contractors as listed below may submit bids as an owner-option alternate provided one of the following conditions are met:

   a. Provide a BACnet compatible interface to existing control panels and front-end user interface AND provide the ability to program from the existing front-end user interface of all new controllers. Contractor may reuse items listed in base bid provided software interface for programming and setpoint adjustment. Contractor shall provide all additional components required for a complete and operational system per specification Sections 230900 and 230993.

      OR

   b. Provide all new BACnet compatible building automation system including front-end user interface, network controller, and all components required for a complete and operational system per specification Sections 230900 and 230993.

Those acceptable alternate contractors and associated product lines include:

Alternate Contractors	Product Line
Control Logic	Automated Logic
Control Management, Inc.	Alerton
Control Masters	TAC
Direct Digital Control	Siemens
Intelligent Buildings	Delta Controls
Johnson Controls	Johnson Controls
Trane Company	Trane Controls

The alternate shall list the name of the desired alternate contractor as well as the total value to move forward with the alternate system.

ADD 1-44. Add Section 102800 "Toilet, Bath and Laundry Accessories. Refer to **Attached Section 102800.**

ADD 1-45. Refer to Section 233600 "Air Terminals"; Replace this entire section with **Attached Section 233600** "Air Terminal Units".

ARCHITECTURAL PRIOR APPROVALS / SUBSTITUTIONS

ADD 1-46. The manufacturers listed herein will be considered approved for bidding. However, the proposed substitution must meet the intent of the specifications and will be subject to shop submittal approval during construction. Burden of Proof is on Proposer. Bidders shall bear all responsibility for coordinating and performing related changes in the Work necessitated by such substitution and include such costs in the Bid:

Specification Section	Manufacturer / Proposed Product
a. 081113 – Hollow Metal Doors and Frames	Republic Doors and Frames
b. 081416 – Flush Wood Doors	Oshkosh Door Company
c. 087100 – Door Hardware (Hinges)	Stanley FBB Series
d. 087100 – Door Hardware (Continuous Hinges)	ABH 100 Series
e. 087100 – Door Hardware (Overhead Stops)	ABH 4000 Series

ADD 1-47. The following substitutions have **NOT** been approved for use on this Project:

Specification Section	Manufacturer / Proposed Product
a. 087100 – Door Hardware (Locks)	Best Locks 40H Series
Reason: Not compatible with Owner Requirements and Expectations	
b. 087100 – Door Hardware (Closers)	Stanley QDC100 Series
Reason: Not compatible with Owner Requirements and Expectations	
c. 087100 – Door Hardware (Exit Devices)	Stanley Precision 2000
Reason: Not compatible with Owner Requirements and Expectations	

MECHANICAL PRIOR APPROVALS / SUBSTITUTIONS

ADD 1-48. The manufacturers listed herein will be considered approved for bidding. However, the proposed substitution must meet the intent of the specifications and will be subject to shop submittal approval during construction. Burden of Proof is on Proposer. Bidders shall bear all responsibility for coordinating and performing related changes in the Work necessitated by such substitution and include such costs in the Bid:

Proposed Equipment	Manufacturer
a. 221316 – Drainage and Vent Piping	New Age Cast Iron

b.	230960 – Variable Frequency Drives	Yaskawa
c.	232113 / 230523 – Hydronic Piping / Valves	Nexus
		PRO Hydronic Specialties
d.	232113 – Expansion Tanks	Patterson
e.	232123 – Hydronic Pumps	Patterson
f.	233113 – Louvers	United Enertech
g.	233423 – Power Ventilators	Aerovent
h.	238239 – Propeller Unit Heaters	Zehnder / Rittling
		Vulcan
i.	238413 – Humidifiers	Nortec

ATTACHMENTS

ADD 1-49. The following attachments are included as part of this addendum:

- Pre-Bid Meeting Sign-in Sheets (3 Pages)
- Attachment A1
- Sketch ED100a
- Sketch E100a
- Sketch E200a
- Section 004113 – Bid Form – Stipulated Sum (Single-Prime Contract) (3 pages)
- Section 233600 – Air Terminal Units (7 Pages)

End of Addendum #1

Pre-Bid Meeting Attendance Sheet

Date and Time: August 27, 2014
Project: **Nebraska History Museum Renovation**

Name	Phone #		E-mail address
Brad Abels	402 499-4158	O'Keefe Elev.	babels@okeefe-elevator.com
Jim Rowe	402 306-3015	O'Keefe Elev.	jrowe@okeefe-elevator.com
John Eirich	402 - 473-7298	Kidwell	jeirich@kidwell.us.com
Tim Donner	402-477-6745	Cheever Constr.	tdonner@cheeverconstruction.com
Roger Steinmeyer	402-467-5550	Sentry Elect	roger@sentryelectric.com
Jon Eicher	402-435-3514	ABC Electric	jone@abcelectric.net
Ron Brougham	402-510-0843	Meco-Henne Cont.	rbrougham@mecohenne.com
Scott D. Eller	(402) 602-3201	Lund-Ross	ScottE@Gmail.com
Jon Dybdal	402-438-2165	Erich Broer Const	eb90138@windstream.net
Josh Vogel	402-306-2279	KONE Inc.	josh.vogel@kone.com
Jerod Frost	402 612 4000	Cardno ATC	jerod.frost@cardno.com
Tom Scheer / Cardno ATC	(402) 981-5548		tom.scheer@cardno.com

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Pre-Bid Meeting Attendance Sheet

Date and Time: August 27, 2014
Project: **Nebraska History Museum Renovation**

Name	Phone #		E-mail address
DAVID AUTRY	402-466-2616	MEININGER FIRE	DAVID@MFP.COM
Ervin Opp	402-783-2050	BENES H/A	ervinopp@beneshvac.com
Dave Villwok	402-654-2405	Hooper H&AC	hooper.heating@live.com
JAMES BOUCKAERT	402-214-8547	McGill Restoration	jbouckaerT@mcgillrestoration.com
Matt Miller	402-434-3243	Hausmann Const	mattm@hausmannconstruction.com
BEN BOGNER	402-261-5489	NGC GROUP	bbogner@ngcgroupinc.com
NICK BLANCHARD	402-553-1804	BOYD JONES	estimating@boydjones.biz
Tim Maschmeier	402-473-2235	CECM	temaschmeier@commonwealthelectric.com
JOHN HEACOCK	402-471-0423	SBD	
Paul Schaal	402-466-6606	HY-Electric	paschaal@hy-electric.com

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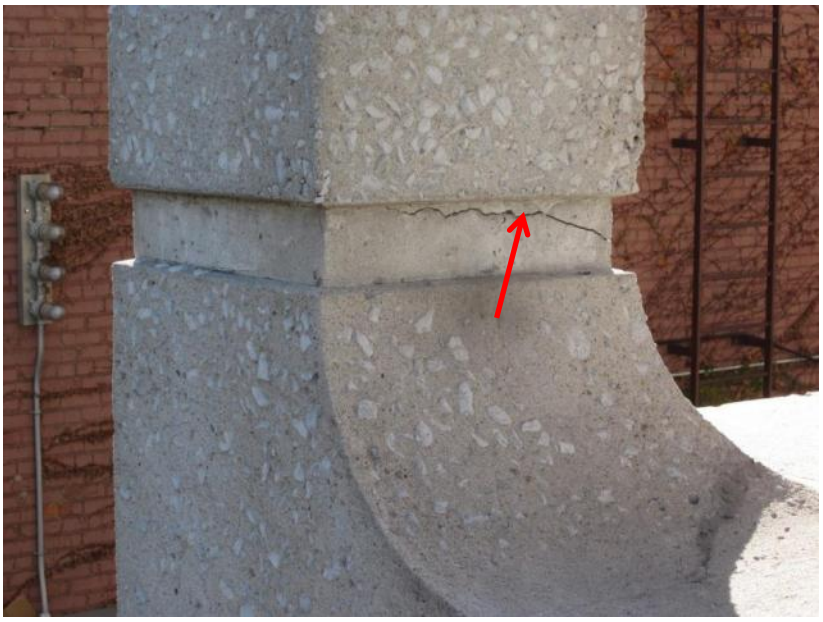
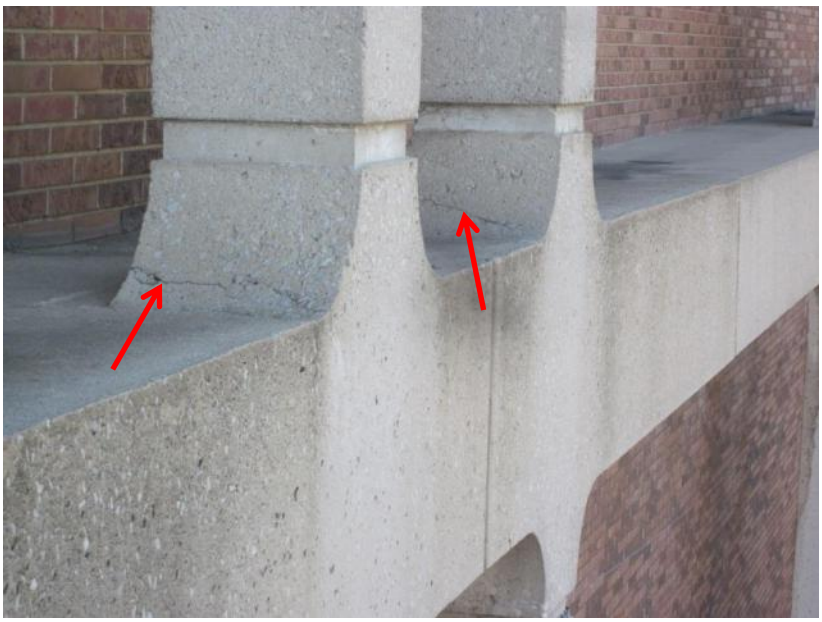
Pre-Bid Meeting Attendance Sheet

Date and Time: August 27, 2014
Project: **Nebraska History Museum Renovation**

Name	Phone #	E-mail address
KENNETH HUGHES	402-466-2772	KHUGHES@MIDMECHINC.COM
JEFF Cooper	402-802-9063	Jcooper@midmechinc.com
GREG RICKERS	402 440-2339	grickers@whitecastleroofing.com
MARK LONG	402 477 0666	MLONG@NIFCO MECHANICAL.COM
Rod Berens	402-465-4400	rodb@kccobuilders.com
DON HEMPEL	402-467-4666 EXT #104	dhempel@judds bro's.com
Craig Beebe	402-431-5403	craig.beebe@sampson-construction.com
Kevin Stratman	402-618-2993	ks4ratman@sei-security.com
Cary McCoy	402-679-7000	cary@eletechinc.com
Matt McCoy	402-499-5334	Mmccoy@sei-security.com
Aaron Jarzynka	402-301-4961	aaronj@mastermechomaha.com



Crack at Concrete Column Reveal



Crack at Column to Spandrel Beam Location

Concrete Crack Repair Images

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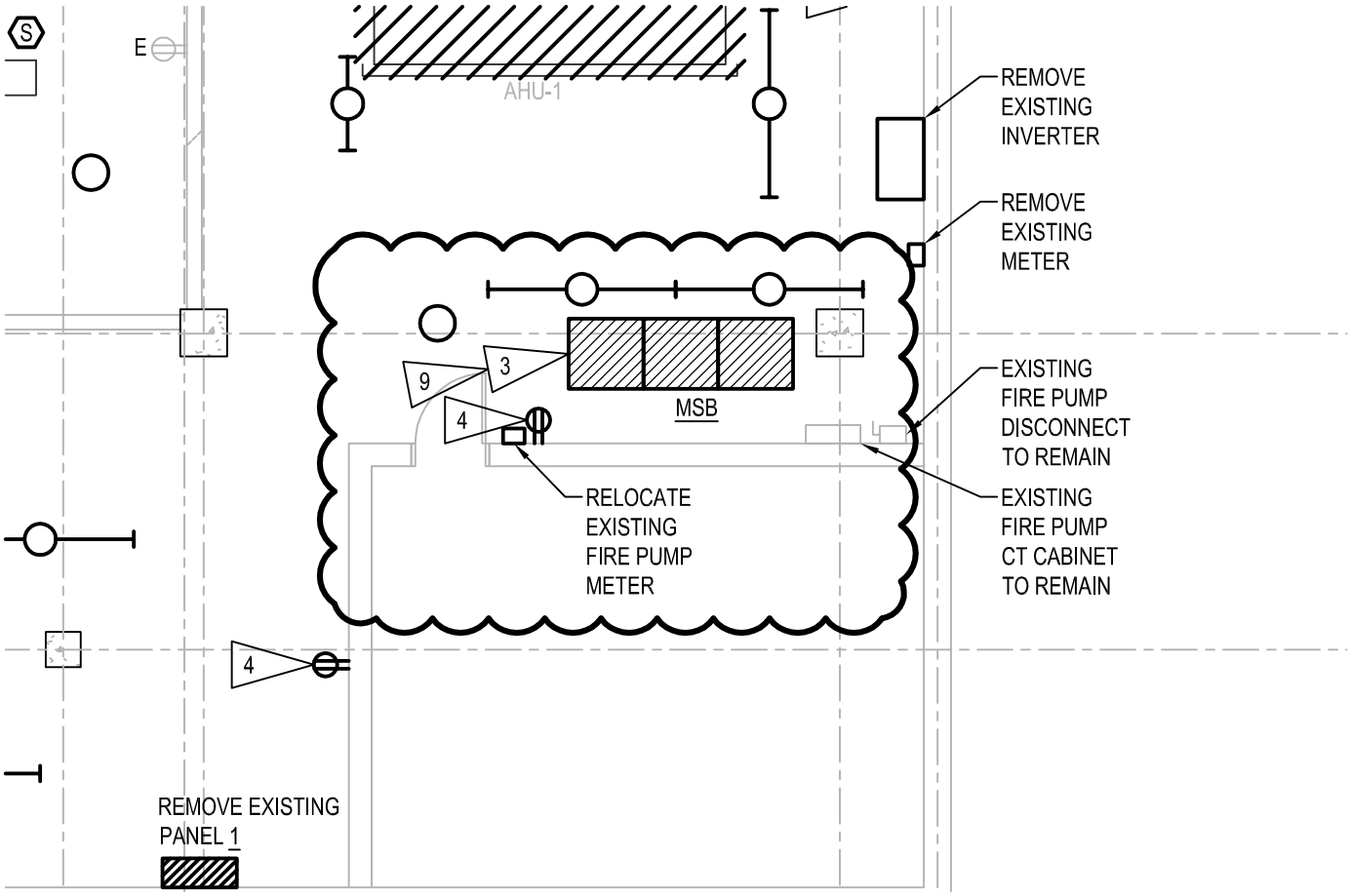
Revision to Detail: **N/A**

Nebraska History Museum Renovation

Attachment: A1

Scale: Not to Scale	Project Number: 13059	Date: August 28, 2014	Attachment to: **Addendum 01**



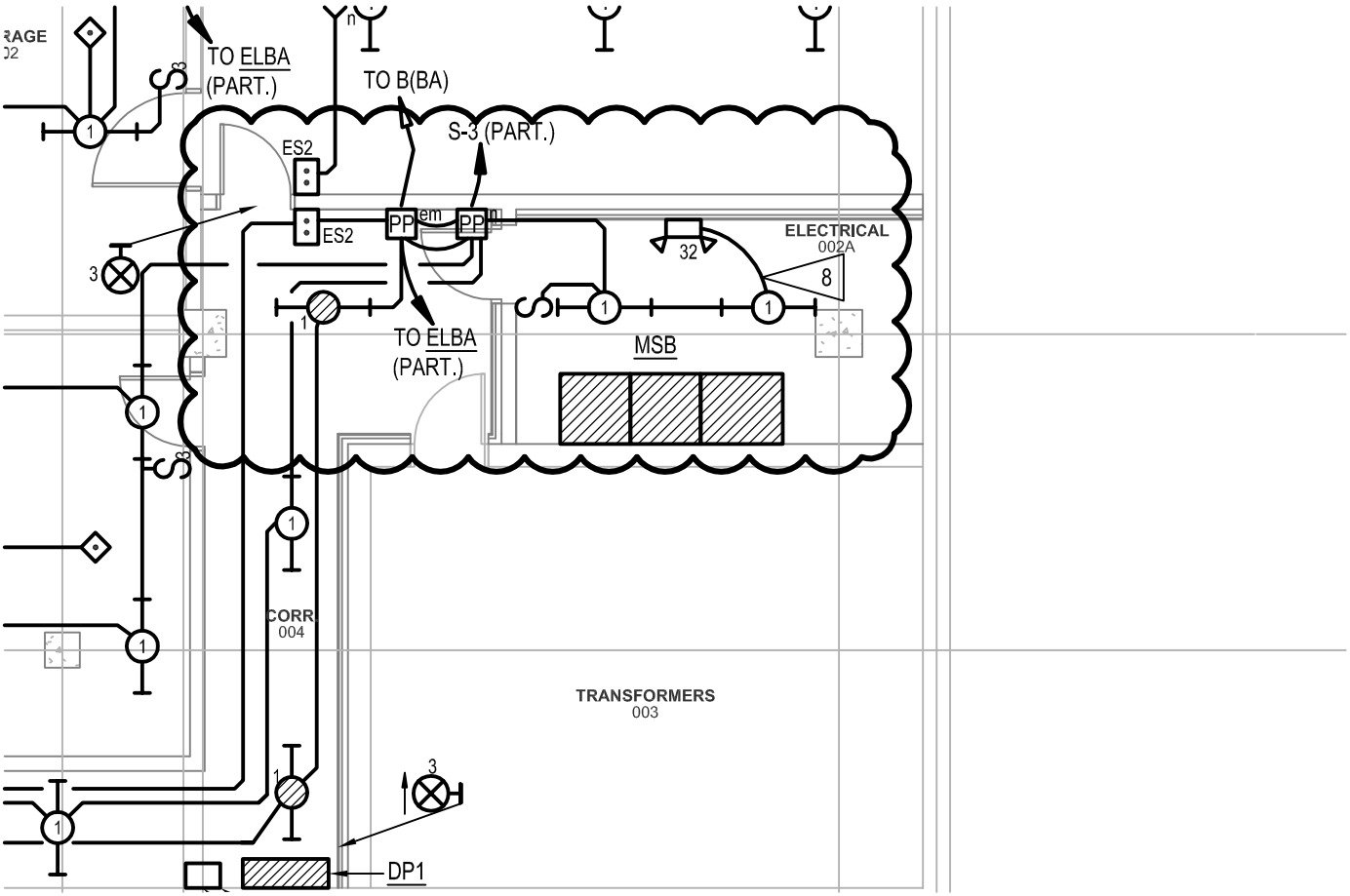
6 REMOVE POWER CONNECTIONS TO EXISTING ELEVATOR.

9 CUT EXISTING CONDUITS TO BELOW FLOOR AND FILL SO THAT FLOOR IS FLUSH.

morrissey engineering inc
mechanical | electrical | lighting | technology | commissioning
4940 North 118th Street
Omaha, NE 68164
P: 402.491.4144
www.morrisseyengineering.com

Nebraska History Museum Renovation
Nebraska State Historical Society
15th and P Streets Lincoln, NE 68508

project no.: 13252	drawing referenced: ED100	ED100a
date: 08/28/2014	addendum no.: 1	sketch



morrissey engineering inc
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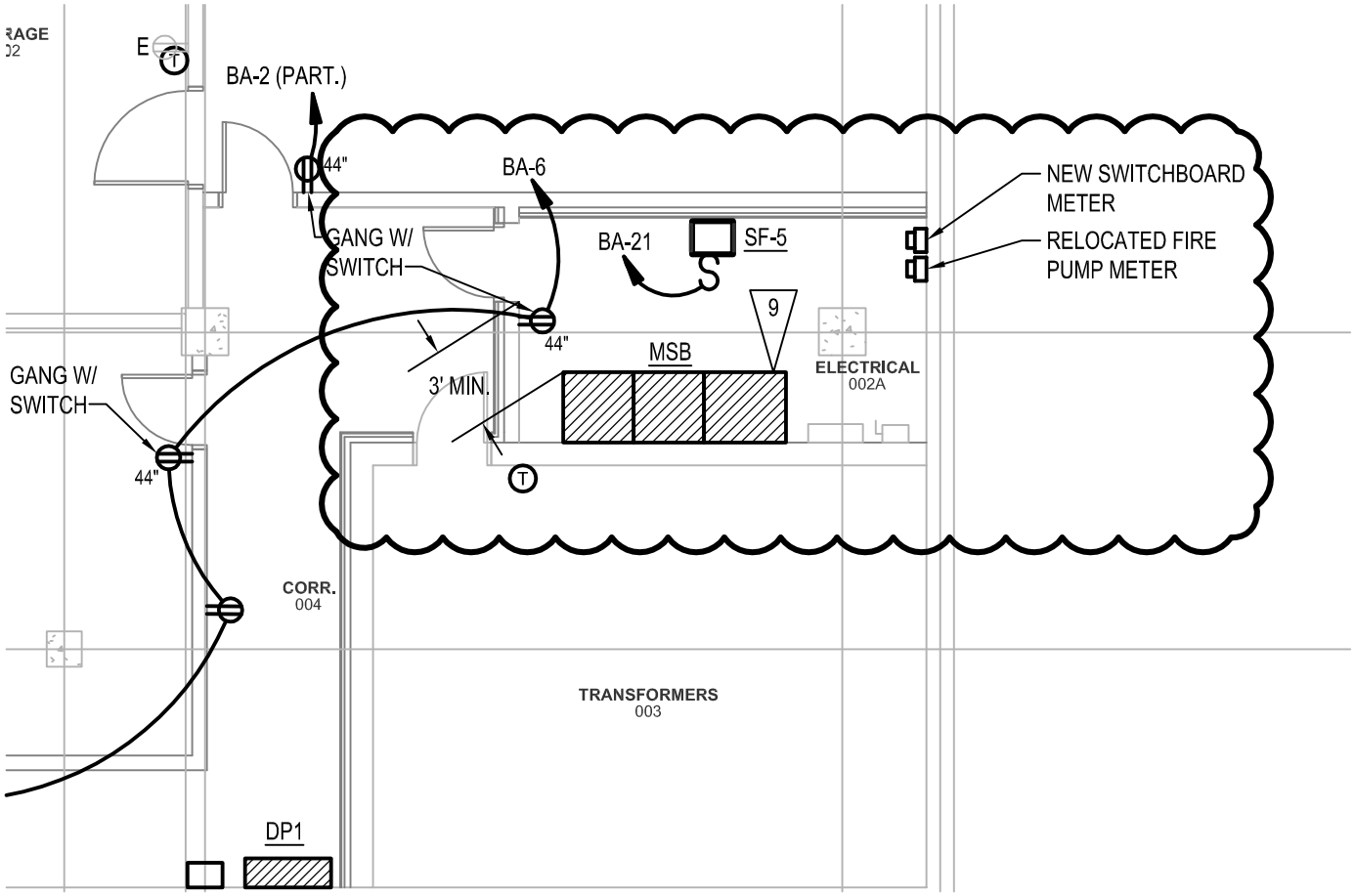
Nebraska History Museum Renovation
Nebraska State Historical Society
15th and P Streets Lincoln, NE 68508

project no.:	13252	drawing referenced:	E100
date:	08/28/2014	addendum no.:	1

sketch E100a



8 UNDER BASE BID PROVIDE CONNECTION TO CHILLED WATER PUMP CWP-1,2.

9 CONFIRM NEC CLEARANCE WITH REVIEWED SHOP DRAWINGS PRIOR TO BEGINNING CONSTRUCTION OF NEW WALLS.

morrissey engineering inc
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4940 North 118th Street
Omaha, NE 68164
P: 402.491.4144
www.morrisseyengineering.com

Nebraska History Museum Renovation
Nebraska State Historical Society
15th and P Streets Lincoln, NE 68508

project no.: 13252	drawing referenced: E200		
date: 08/28/2014	addendum no.: 1	sketch	E200a

DOCUMENT 004113 - BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

The following proposal shall be filled out by each bidder:

Date: _____

Proposal of:

_____

Name

(a Corporation organized and existing under the laws of the State of _____)

or

(an Individual trading as: _____)

TO: **The State of Nebraska Administrative Services**
521 South 14th Street, Suite 500
P.O. Box 98940
Lincoln, NE 68508-2707

PROJECT: **Nebraska History Museum Renovation**

The undersigned in compliance with your Invitation for Bids for construction of **The Nebraska History Museum Renovation**, having examined the plans and specifications with related documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies and to construct the project in accordance with the Contract Documents, at the prices stated below. The prices are to cover all expenses incurred in performing the work required under the contract documents of which this proposal is a part.

I (or We) acknowledge receipt of the following addendum or addenda:

_____

The Contractor shall indicate herein the number of consecutive calendar days anticipated to complete the project after commencing work.

_____ calendar days

BASE PROPOSAL

For all work described in the specifications and shown on the plans for the project, I (or we) agree to perform all work for the sum of

_____Dollars

($_____)

(Amount shall be shown in both written form and figures. In case of discrepancy between the written amount and the figures, the written amount will govern.)

ALTERNATES

A. Alternate No. One: **Museum Store Relocation**

Add or Deduct _____ Dollars

B. Alternate No. Two: **Exterior Façade East and North Lighting**

Add or Deduct _____ Dollars

C. Alternate No. Three: **Air-Cooled Chillers – Replacement for UNL Service**

Add or Deduct _____ Dollars

D. Alternate No. Four: **Entry Wood Planking**

Add or Deduct _____ Dollars

E. Alternate No. Five: **North Façade Storefronts**

Add or Deduct _____ Dollars

F. Alternate No. Six: **Additional Surveillance Cameras**

Add or Deduct _____ Dollars

G. Alternate No. Seven: **Temperature Control Contractors**

Alternate Control Contractor: _____

Add or Deduct _____Dollars

UNIT PRICES

A. Unit Price No. One: **Exterior Cast-in-Place Concrete Crack Repair**

_____ Dollars ($_____) per Lineal Foot

B. Unit Price No. Two: **Exterior Brick Tuckpointing**

_____ Dollars ($_____) per Lineal Foot

C. Unit Price No. Three: **Exterior Brick Replacement**

_____ Dollars ($_____) per Brick Unit

D. Unit Price No. Four: **Visible Fire Alarm Notification Devices**

_____ Dollars ($_____) per Device

E. Unit Price No. Five: **Exit Signs**

_____ Dollars ($_____) per Sign

Upon receipt of notice of the acceptance of the bids, we will execute the formal contract attached within five (5) days and deliver a Surety Bond for a faithful performance of this contract.

Respectfully submitted,

By _____

_____

Title

_____

Business Address

SEAL: If bid is by Corporation

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

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. Section Includes:

1. Public-use washroom accessories.
2. Warm-air dryers.
3. Childcare accessories.
4. Custodial accessories.

1.3 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
3. Include electrical characteristics.

B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.

1. Identify locations using room designations indicated.
2. Identify accessories using designations indicated.

1.5 INFORMATIONAL SUBMITTALS

A. Sample Warranty: For manufacturer's special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For accessories to include in maintenance manuals.

1.7 WARRANTY

A. Manufacturer's Special Warranty for Mirrors: Manufacturer agrees to repair or replace mirrors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, visible silver spoilage defects.
2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 OWNER FURNISHED MATERIALS

A. Owner-Furnished Materials: Products provided by Owner, installed by Contractor.

1. Liquid Soap Dispenser **(102800.C).**
2. Mop and Broom Holder **(102800.K).**

2.2 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.3 PUBLIC-USE WASHROOM ACCESSORIES

A. Source Limitations: Obtain public-use washroom accessories from single source from single manufacturer.

B. Basis-of-Design Product: Requests for manufacturer substitutions prior to bidding will be reviewed and responded to in conformance with Division 1 requirements. Subject to compliance with requirements, provide product indicated in specifications or comparable product by one of the following or by a manufacturer pre-approved during bidding:

1. American Specialties, Inc.
2. Bobrick Washroom Equipment, Inc.
3. Bradley Corporation.

C. Toilet Tissue (Roll) Dispenser **(102800.A):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B-2888.
2. Description: Roll-in-reserve dispenser with hinged front secured with tumbler lockset.
3. Mounting: Surface mounted.
4. Operation: Noncontrol delivery with theft-resistant spindle.
5. Capacity: Designed for 4-1/2- or 5-inch- (114- or 127-mm-) diameter tissue rolls.
6. Material and Finish: Stainless steel, No. 4 finish (satin).

D. Waste Receptacle **(102800.F):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B-43644.
2. Mounting: Semirecessed.
3. Minimum Capacity: 12.8-gal (48.3-L).
4. Material and Finish: Stainless steel, No. 4 finish (satin).

5. Liner: Reusable vinyl liner.

E. Liquid-Soap Dispenser **(102800.C):**

1. Provided by Owner, installed by Contractor.

F. Grab Bar **(102800.D):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B-5806 x 42.
2. Mounting: Flanges with concealed fasteners.
3. Material: Stainless steel, 0.05 inch (1.3 mm) thick.
    a. Finish: Smooth, No. 4 finish (satin).
4. Outside Diameter: 1-1/4 inches (32 mm).
5. Configuration and Length: Straight, 42 inches (1067 mm) long.

G. Grab Bar **(102800.D2):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B-5806 x 36.
2. Mounting: Flanges with concealed fasteners.
3. Material: Stainless steel, 0.05 inch (1.3 mm) thick.
    a. Finish: Smooth, No. 4 finish (satin).
4. Outside Diameter: 1-1/4 inches (32 mm).
5. Configuration and Length: Straight, 36 inches (914 mm) long.

H. Sanitary-Napkin Disposal Unit **(102800.B):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B4354.
2. Mounting: Partition mounted, dual access.
3. Door or Cover: Self-closing, disposal-opening cover.
4. Receptacle: Removable.
5. Material and Finish: Stainless steel, No. 4 finish (satin).

I. Sanitary-Napkin Disposal Unit **(102800.B2):**

1. Basis-of-Design Product: Bobrick Washroom Equipment, Inc. Model No. B4353.
2. Mounting: Recessed.
3. Door or Cover: Self-closing, disposal-opening cover.
4. Receptacle: Removable.
5. Material and Finish: Stainless steel, No. 4 finish (satin).

J. Mirror Unit **(102800.E):**

1. Basis-of-Design Product: American Specialties, Inc. Model No. 8287-A.
2. Mounting: Surface mount to wall with manufacturer's standard hardware.
3. Material: 1/4" thick No. 1 quality polished, silver coated and hermetically sealed plate glass meeting ASTM C 1036-91.
4. Image Quality: Excellent.
5. Size: As indicated on Drawings.

2.4 WARM-AIR DRYERS

A. Source Limitations: Obtain warm-air dryers from single source from single manufacturer.

B. Basis-of-Design Product: Requests for manufacturer substitutions prior to bidding will be reviewed and responded to in conformance with Division 1 requirements. Subject to compliance with requirements, provide product indicated or comparable product by a manufacturer pre-approved during bidding:

C. Warm-Air Dryer **(102800.H):**

1. Basis-of-Design Product: Dyson Airblade AB14.
2. Mounting: Surface mounted.
3. Operation: Touch-free infra-red activation.
4. Cover Material and Finish: Die cast aluminum casing with antimicrobial lacquer coating.
5. Color: Gray
6. Electrical Requirements: 110V-127V 60 Hz; 1400 W.

2.5 CHILDCARE ACCESSORIES

A. Source Limitations: Obtain childcare accessories from single source from single manufacturer.

B. Diaper-Changing Station **(102800.J):**

1. Basis-of-Design Product: Koala Kare Products, KB200-01.
2. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.

    a. Engineered to support minimum of 250-lb (113-kg) static load when opened.

3. Mounting: Surface mounted, with unit projecting not more than 4 inches (100 mm) from wall when closed.
4. Operation: By pneumatic shock-absorbing mechanism.
5. Material and Finish: HDPE in manufacturer's standard color.
6. Liner Dispenser: Built in.

2.6 CUSTODIAL ACCESSORIES

A. Mop and Broom Holder **(102800.K):**

1. Provided by Owner, installed by Contractor.

2.7 MATERIALS

A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch (0.8-mm) minimum nominal thickness unless otherwise indicated.

B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch (0.9-mm) minimum nominal thickness.

C. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 (Z180) hot-dip zinc coating.

D. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.

E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.

F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).

G. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.8 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.

B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

B. Grab Bars: Install to withstand a downward load of at least 250 lbf (1112 N), when tested according to ASTM F 446.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

B. Remove temporary labels and protective coatings.

C. Clean and polish exposed surfaces according to manufacturer's written instructions.

END OF SECTION 102800

SECTION 233600 - AIR TERMINAL UNITS

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.

B. The Owner has contracted directly with the Commissioning Authority (CxA) for this project. All Contractors shall cooperate with the CxA to complete all required commissioning. Specification Section 019113 defines the Contractor's responsibilities with respect to the process. The Contractor shall review this section and shall include in their bids the work associated with the commissioning effort described.

1.2 SUMMARY

A. Section Includes:

1. Single-duct air terminal units.
2. Series, fan-powered air terminal units.
3. Casing liner.

1.3 SUBMITTALS

A. Product Data: Include rated capacities, furnished specialties, and accessories for each type of product indicated:

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

1. Wiring Diagrams: Power, signal, and control wiring. Differentiate between manufacturer-installed and field-installed wiring.

C. Maintenance Data: To include in operation and maintenance manuals.

D. Additional Materials: Furnish one spare filter(s) for each fan-powered terminal unit installed.

1.4 COORDINATION

A. Coordinate installation all equipment with all other trades.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and System Start-up."

C. ASHRAE Compliance: Applicable requirements in ASHRAE/IES 90.1, "Section 6 - Heating, Ventilating, and Air Conditioning."

2.2 SINGLE-DUCT AIR TERMINAL UNITS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Daikin McQuay
2. Krueger
3. METALAIRE, Inc
4. Nailor Industries Inc
5. Price Industries
6. Titus
7. Trane
8. Tuttle & Bailey

B. Configuration: Volume-damper assembly inside unit casing with control components inside a protective metal shroud.

C. Casing: 0.040-inch thick galvanized steel, single wall.

1. Casing Liner: Comply with requirements in "Casing Liner" Article flexible elastomeric duct liner.
2. Air Inlet: Round stub connection or S-slip and drive connections for duct attachment.
3. Air Outlet: S-slip and drive connections, sized per plans and equipment schedule.
4. Access: Removable panels for access to parts requiring service, adjustment, or maintenance; with airtight gasket.
5. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.

D. Regulator Assembly: System-air-powered bellows section incorporating polypropylene bellows for volume regulation and thermostatic control. Bellows shall operate at temperatures from zero to 140 deg F, shall be impervious to moisture and fungus, shall be suitable for 10-inch wg static pressure, and shall be factory tested for leaks.

E. Volume Damper: Galvanized steel with peripheral gasket and self-lubricating bearings.

1. Maximum Damper Leakage: AHRI 880 rated, 2 percent of nominal airflow at 3-inch wg inlet static pressure.
2. Damper Position: Normally open.

F. Attenuator Section: 0.034-inch steel sheet.

1. Attenuator Section Liner: Comply with requirements in "Casing Liner" Article for flexible elastomeric duct liner.
2. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.

G. Hydronic Heating Coils: Copper tube, with mechanically bonded aluminum fins spaced no closer than 0.1 inch, and rated for a minimum working pressure of 200 psig and a maximum entering-water temperature of 220 deg F. Include manual air vent and drain valve.

H. Control devices shall be compatible with temperature controls system specified in Section 230900 "HVAC Instrumentation and Controls."

1. Electronic Damper Actuator: 24 V, powered open, spring return.
2. Electronic Velocity Controller: Factory calibrated and field adjustable to minimum and maximum air volumes; shall maintain constant airflow dictated by thermostat within 5 percent of set point while compensating for inlet static-pressure variations up to 4-inch wg; and shall have a multipoint velocity sensor at air inlet.
3. Terminal Unit Controller: Pressure-independent, variable-air-volume (VAV) controller with electronic airflow transducer with multipoint velocity sensor at air inlet, factory calibrated to minimum and maximum air volumes, and having the following features:

    a. Occupied and unoccupied operating mode.
    b. Remote reset of airflow or temperature set points.
    c. Adjusting and monitoring with portable terminal.
    d. Communication with temperature-control system.

2.3 SERIES FAN-POWERED AIR TERMINAL UNITS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Daikin McQuay
2. Krueger
3. METALAIRE, Inc
4. Nailor Industries Inc
5. Price Industries
6. Titus
7. Trane
8. Tuttle & Bailey

B. Configuration: Volume-damper assembly and fan in series arrangement inside unit casing with control components inside a protective metal shroud for installation above a ceiling.

1. Designed for quiet operation.
2. Low-profile design.

C. Casing: 0.040-inch thick galvanized steel, single wall.

1. Casing Liner: Comply with requirements in "Casing Liner" Article for flexible elastomeric duct liner.
2. Air Inlets: Round stub connections or S-slip and drive connections for duct attachment.
3. Air Outlet: S-slip and drive connections.
4. Access: Removable panels for access to parts requiring service, adjustment, or maintenance; with airtight gasket and quarter-turn latches.

5. Fan: Forward-curved centrifugal.
6. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.

D. Volume Damper: Galvanized steel with flow-sensing ring and peripheral gasket and self-lubricating bearings.

1. Maximum Damper Leakage: AHRI 880 rated, 2 percent of nominal airflow at 3-inch wg inlet static pressure.
2. Damper Position: Normally open.

E. Velocity Sensors: Multipoint array with velocity sensors in air inlets and air outlets.

F. Motor:

1. Comply with NEMA designation, temperature rating, service factor, and efficiency requirements for motors specified in Section 230513 "Common Motor Requirements for HVAC Equipment."
2. Type: Electronically commutated motor.
3. Fan-Motor Assembly Isolation: Rubber isolators.
4. Enclosure: Open dripproof.
5. Efficiency: Premium efficient.
6. Motor Speed: Multispeed.

    a. Speed Control: Infinitely adjustable with electronic controls.

G. Filters: Minimum arrestance according to ASHRAE 52.1 and a minimum efficiency reporting value (MERV) according to ASHRAE 52.2.

1. Material: Glass fiber treated with adhesive; having 80 percent arrestance and 5 MERV.
2. Thickness: 1 inch.

H. Attenuator Section: 0.034-inch galvanized steel sheet.

1. Attenuator Section Liner: Comply with requirements in "Casing Liner" Article for flexible elastomeric duct liner.
2. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.

I. Hydronic Heating Coils: Copper tube, with mechanically bonded aluminum fins spaced no closer than 0.1 inch, and rated for a minimum working pressure of 200 psig and a maximum entering-water temperature of 220 deg F. Include manual air vent and drain valve.

J. Factory-Mounted and -Wired Controls: Electrical components mounted in control box with removable cover. Incorporate single-point electrical connection to power source.

1. Control Transformer: Factory mounted for control voltage on electric and electronic control units with terminal strip in control box for field wiring of thermostat and power source.
2. Wiring Terminations: Fan and controls to terminal strip. Terminal lugs to match quantities, sizes, and materials of branch-circuit conductors. Enclose terminal lugs in terminal box that is sized according to NFPA 70.
3. Disconnect Switch: Factory-mounted, fuse type.

K. Control Panel Enclosure: NEMA 250, Type 1, with access panel sealed from airflow and mounted on side of unit.

L. Control devices shall be compatible with temperature controls system specified in Section 230900 "HVAC Instrumentation and Controls."

1. Electronic Damper Actuator: 24 V, powered open, spring return.
2. Electronic Velocity Controller: Factory calibrated and field adjustable to minimum and maximum air volumes; shall maintain constant airflow dictated by thermostat within 5 percent of set point while compensating for inlet static-pressure variations up to 4-inch wg; and shall have a multipoint velocity sensor at air inlet.
3. Terminal Unit Controller: Pressure-independent, variable-air-volume (VAV) controller with electronic airflow transducer with multipoint velocity sensor at air inlet, factory calibrated to minimum and maximum air volumes, and having the following features:

    a. Occupied and unoccupied operating mode.
    b. Remote reset of airflow or temperature set points.
    c. Adjusting and monitoring with portable terminal.
    d. Communication with temperature-control system.

2.4 CASING LINER

A. Casing Liner: Flexible elastomeric duct liner fabricated of preformed, cellular, closed-cell, sheet materials complying with ASTM C 534, Type II, Grade 1; and with NFPA 90A or NFPA 90B.

1. Minimum Thickness: 1/2 inch.
2. Surface-Burning Characteristics: Maximum flame-spread index of 25 and maximum smoke-developed index of 50 when tested according to UL 723; certified by an NRTL.
3. Liner Adhesive: As recommended by insulation manufacturer and complying with NFPA 90A or NFPA 90B.

    a. Adhesive VOC Content: 50 g/L or less.
    b. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.5 SOURCE QUALITY CONTROL

A. Factory Tests: Test assembled air terminal units according to AHRI 880.

1. Label each air terminal unit with plan number, nominal airflow, maximum and minimum factory-set airflows, coil type, and AHRI certification seal.

PART 3 - EXECUTION

3.1 HANGER AND SUPPORT INSTALLATION

A. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Ch. 5, "Hangers and Supports".

B. Building Attachments: Concrete inserts, powder-actuated fasteners, or structural-steel fasteners appropriate for construction materials to which hangers are being attached.

C. Hangers Exposed to View: Threaded rod and angle or channel supports.

3.2 TERMINAL UNIT INSTALLATION

A. Install air terminal units level and plumb. Maintain sufficient clearance for normal service and maintenance.

B. Install per manufacturer's recommendations per local code requirements and with adequate clearance for service and maintenance.

3.3 CONNECTIONS

A. Where installing piping adjacent to air terminal unit, allow space for service and maintenance.

B. Hot-Water Piping: Comply with requirements in Section 232113 "Hydronic Piping" and Section 232116 Hydronic Piping Specialties," and connect heating coils to supply with shutoff valve, strainer, control valve, and union or flange; and to return with balancing valve and union or flange.

C. Make connections to air terminal units with flexible connectors complying with requirements in Section 233300 "Air Duct Accessories."

3.4 IDENTIFICATION

A. Label each air terminal unit with plan number, nominal airflow, and maximum and minimum factory-set airflows.

3.5 FIELD QUALITY CONTROL

A. Perform the following tests and inspections with the assistance of a factory-authorized service representative:

1. After installing air terminal units and after electrical circuitry has been energized, test for compliance with requirements.
2. Leak Test: After installation, fill water coils and test for leaks. Repair leaks and retest until no leaks exist.
3. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

B. Air terminal unit will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

3.6 STARTUP SERVICE

A. Perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.
2. Verify that inlet duct connections are as recommended by air terminal unit manufacturer to achieve proper performance.
3. Verify that controls and control enclosure are accessible.
4. Verify that control connections are complete.
5. Verify that nameplate and identification tag are visible.
6. Verify that controls respond to inputs as specified..

3.7 CLEANING

A. On completion of installation, internally clean according to manufacturer's written instructions. Remove foreign material and construction debris.

B. After completing system installation, including outlet fitting and devices, inspect exposed finish. Remove burrs, dirt, and construction debris and repair damaged finishes.

3.8 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain terminal units.

1. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment and schedules.
2. Review data in maintenance manuals.
3. Schedule training with Owner, through Architect, with at least seven days' advance notice.

END OF SECTION 233600