Board of County Commissioners
Pete Gerken
President
Tina Skeldon Wozniak
Carol Contrada

Office of Support Services
Kelly Roberts
Director
Lynn DiPierro
Manager

Addendum #5 – Issued on January 2, 2013

Regarding Bids for **Renovations to Buildings B, C & D (ITB 12-033P)** for Lucas County Commissioners, bid opening originally scheduled for December 17, 2012 at 2:00 P.M. (local time).

This document becomes a fully incorporated part of the specifications, and this letter constitutes legal notice of this requirement.

The entire original Bid Packet including this addendum must be submitted prior to the Bid Opening Date and Time.

The Bid Due Date and Time has been rescheduled for January 7, 2013 at 2:00 PM (local time).

Please see the following attachment.

December 31, 2012

ADDENDUM NO. 005

To the Drawings and Specifications for:

Renovations to Buildings B, C and D At the McCord Road Complex

106048

Lucas County Board of Commissioners

Prepared By:

THE COLLABORATIVE INC
Architects
Landscape Architects
Interior Designers
500 Madison Avenue
Toledo, Ohio 43604
Telephone: (419) 242-7405
Fax: (419) 242-7400

TO ALL BIDDERS:

This addendum supplements and amends the original drawings and specifications, and shall be taken into account in preparing proposals, and shall become a part of the contract documents. Receipt of this Addendum must be acknowledged in the Bid Form.

GENERAL

Questions:

A. Refer to bidder questions received and answered in Addendum #005 (Questions 46 – 56).

Clarifications

A. No individual clarifications issued.

Invitation to Bid

Section F - PRICING (Re-Issued)

Item #1 Clarified wording on combined bid that requires a combined bid including general trades that does not include all prime trades (plumbing, mechanical, electrical), to remain the designated "Lead Contractor" for the remaining prime trade(s) not contained within the combined bid with general trades.

Item #2 Added acknowledgment line for Addendum #5.

Specifications

Section 08 3313 – Coiling Counter Door (Re-Issued)

Item #1 Part 2, Section 2.2, Paragraph D: Delete items 1 and 2.

Item #2 Part 2, Section 2.2, Paragraph G: Revised wording to remove integral frame reference and specify finish and configuration for hood assembly.

Item #3 Part 2, Section 2.2, Paragraph H: Deleted original paragraph referencing sill configuration. Subsequent paragraphs were re-lettered as required.

Section 08 3613 – Sectional Doors (Re-Issued)

Item #1 Delete Part 2, Section 2.2, Paragraph D and related sub-item in its entirety.

Item #2 Part 2, Section 2.3, Paragraph C: Revised wording to require manufacturer's standard air infiltration requirements for door type specified and equivalent models by listed manufacturers

Item #3 Part 2, Section 2.6, Paragraph A, Item 3: Delete reference to slotting of vertical track sections and door-drop safety device.

Item #4 Part 2, Section 2.8, Paragraph D: Delete paragraph in its entirety.

Item #5 Part 2, Section 2.8, Paragraph F: Delete paragraph in its entirety.

Drawings

Architectural Drawings – Building B

None

Architectural Drawings – Buildings C-D

None

Mechanical Drawings – Buildings C-D

M1.01 – Mechanical Schedules & Details (not re-issued)

Item #1: Add to the Sequence of Operation required control of the added bypass damper to F-1 VAV system.

M1.02 – 1st Floor Plan – Mezzanine Plan - Mechanical (not re-issued)

Item #1: Provide a 12" dia. Bypass damper and ductwork to furnace F-1 VAV system. Insulate round duct per specifications.

Electrical Drawings – Buildings C-D

E3.01 – Floor Plans - Electrical (re-issued)

Item #1: New power to added overhead doors in Storage Building C. See re-issued drawing for additional details.

E5.01 – Electrical One-Line Diagram, Panel Schedules & Specifications (not re-issued)

Item #1: 20 Amp – 1 Pole breakers added (6 total) to MDP panel circuits 19, 21, 23, 25, 27, 29 to correspond with new overhead door power requirements. See reissued sheet E3.01 for circuiting details.

END OF ADDENDUM #05 (03 written pages, Bidders' Question List, 01 Drawings Re-Issued or Newly Issued, and 02 Specification Sections Re-Issued or Newly Issued)

Question Number	Question From	Question	Answer	Answered in Addendum:
1	Dotson Company	Project Labor Agreement Article II Item 2.2 - Off Site Labor is problem with sub-contractors/material suppliers. Please revise to On-Site only.	The Owner offers the following clarification to Article II, Item 2.2 of the Project Labor Agreement: "The parties to this agreement want to further clarify that any construction work performed for the project off-site and not adjacent to the work site does not fall under this project labor agreement for the purposes of Article III of the Project Labor Agreement".	1
2	Dotson Company	Have Plans been submitted for building permit?	No. Permit plans will be submitted within one week of Addendum 001.	1
3	Dotson Company	Has a starting date and completion date been set?	A firm start and completion date has not been established for this project. It is anticipated that contracts will be awarded in January 2013 and work will be substantially complete in June 2013	1
4	Dotson Company	Is Lathrop Company the Construction Manager on this Project? If they are what is their role in conjunction with the General Trades Contractor being the Lead Contractor.	A construction manager is not assigned to this project. The administration of the project will be through Lucas County and the Architect.	1
5	Dotson Company	Confirm that each prime contractor will provide their own Builder's Risk Policy and Performance Bond equal to their contract.	Confirmed	1
6	Dotson Company	Confirm who provides temporary heat? General Conditions item 2.7.3.2 says the Lead Contractor but Multiple C ontracts Item 1.6D says it's the responsibility of the HVAC Contractor.	Section 1.6, Article D has been revised to "Lead Contractor". See written narrative for temporary heating allowance to be included in General Trades bid.	1

Question Number	Question From	Question	Answer	Answered in Addendum:
7	Dotson Company	Confirm all cutting, removal, framing and patching is to be done under each Prime C ontract for it's own work. This includes but is not limited to concrete floors, wall openings for louvers/fans, roof openings, landscaping, asphalt, etc.	Each Prime Trade Contractor is responsible for their own cutting, removal, framing and patching for work directly related to their contracts.	1
8	Dotson Company	Confirm Office Trailer Location or can we aquire an area inside one of the buildings? Can cell phones be used rather than actual phone lines?	Space for an office trailer can be coordinated with the Owner; however no power, water or telephone service will be provided by the Owner for the Contractor office trailer(s). Cell phone use by the Contractors is permissable as there will be an occupied office in Building 'A' for hardline phone use.	1
9	Dotson Company	With the toilets being removed and renovated, how many "VIP" type toilets do you want? Confirm (1) for each sex in Building "B" _ "C+D" together. Should separate toilets be provided for construction workers? Locations?	The Owner does not intend to occupy Buildings B, C and D until determined to be substantially complete. Lead Contractor shall provide adequate number of construction worker portable toilets for each building.	1
10	Dotson Company	Confirm dumpster locations.	Dumpster locations will be determined with Owner input after award of contract. Location will be adjacent to building.	1
11	Dotson Company	Building "B" - is door 100 a totally new door and frame? Demo plan does not indicate existing coming out.	Door 100 is a new door and frame in an existing opening.	1
12	Dotson Company	Confirm H.M. frames in masonry wall are to be welded and use expansion type sleeve anchors in existing walls/wire anchors in new walls.	New hollow metal frames in masonry shall be welded. Use expansion type sleeve anchors where installed in existing masonry and wire anchors in new masonry construction.	1

Question Number	Question From	Question	Answer	Answered in Addendum:
13	Dotson Company	Confirm all H.M. frames in stud walls to be knock-down type.	Hollow metal frames for stud and gypsum board walls shall be slip-on (knock-down) type as specified.	1
14	Dotson Company	Please advise lock manufacturer and keyway of existing building keying system.	This question will be further investigated and answered in Addendum 002	1
15	Dotson Company	Please advise at pre-bid as to what extent the building will be occupied. Confirm Owner removed all furnishings.	Owner will not have personnel occupying Buildings "B", "C" or "D" until they have achieved Substantial Completion. Office type furnishings will be removed by Owner. Owner has equipment stored in Building "B" and will move or relocate equipment as necessary for Contractors to complete their work.	1
16	Dotson Company	Confirm Bldg. "D" door EX-1 is only door with Automatic Door Operator. Spec's say EX11 & EX12.	Hardware set 007 for Building "C-D" has been revised. See attached written narrative.	1
17	Dotson Company	Building "B" + "C+D", please advise location and size of fire extinguishers and cabinets.	Building "B" - fire extinguisher added adjacent to doors EX-2 and EX7. Building "C+D" - See attached plan for locations of fire extinguishers. Fire extinguishers shall be steel containers, red enamel finish, wall hung, 4A:60B:C.	1
18	Dotson Company	Bldg "B" + "D" entry awnings is aluminum frame acceptable?	Yes	1
19	Dotson Company	Confirm graphics "Building B" + "Building D".	Confirmed	1
20	Dotson Company	Is project sign required? By who?	No project sign is required.	1
21	Dotson Company	Any interior signage required? Locations? Schedule?	An interior signage allowance has been added to the General Trades requirements.	1
22	Dotson Company	Building "C+D" - Partition "K": confirm spacing of steel tubes for lateral wall support. Please call to discuss.	Type "K" wall partition detail has been revised to correcty reflect the steel tube spacing for lateral support.	1

Question Number	Question From	Question	Answer	Answered in Addendum:
23	Dotson Company	Exterior Painting - Please define what gets painted: just new doors/bumper posts or everything including wall siding. Confirm no roof panel painting.	Exterior painting is limited to new work or existing work damaged while installing new work as described on the documents. Roof panels are pre-painted as clearly indicated in the specifications.	1
24	Dotson Company	Confirm no site work or exterior concrete work required for Buildings "B-C-D" Including stoops	Site work is related to the fiber optic backbone work as shown on sheets T-1 and T-2. Refer to these sheets for work associated with Electrical Trades.	1
25	Dotson Company	Building "B" - Confirm filling of existing openings in masonry wall betwee Office Area and Garag does not have to be toothed.	There is a single door opening that is noted to filled in Building "B" and it shall be toothed into the existing masonry wall.	1
26	Dotson Company	Building "B" rolling shutter 110 spec's say between jamb mounting vs. dwg's show surface mounted. What do you want?	Rolling counter shutter 110 shall be between jamb mounted.	1
27	Dotson Company	Building "B" Garage Room 101. Confirm no rubber base except new work.	Rubber base has been deleted from any areas in Garage 101.	1
28	Dotson Company	Building "B" Garage Room 101. Confirm painting walls & ceiling. Do you want to paint rigid frames, girts, purlins only or spray vinyl facing on insulation or both?	Note above Garage 101 finishes on sheet A1.02 states finishes on new construction only.	1
29	Dotson Company	Building "C" - confirm what to do with interior demo. Wall @ column line 'A'=exposed wood, no insulation. Wall@column line 11=half exposed wood no insul'n, from door opening to Col. 11 is gypsum board. Do you want removed down to exposed wood? Wall@ column line F=half gypsum board + insulation and half just exposed insul'n. - Please advise what to do.	We are puzzled by this question since the only General Trades demolition work in Building 'C' is along column line 'F' at the location of new doors. The details show the extend of new work and demolition should address the removal required to install the new work. The other areas listed in the question have not General Trades demolition work.	1

Question Number	Question From	Question	Answer	Answered in Addendum:
30	Dotson Company	Confirm no work on existing wall along column line #5.	Only work on the existing wall along column line '5' is associated with new work and penetrations shown on drawings.	1
31	Dotson Company	Provide engineering for removal of intermediate col's between main building columns and new door openings 114D, 114F & 114H.	Sheet A1.01, Detail C5 "Overhead Door Details".	1
32	Dotson Company	Main building column 'F7' is half rotted off @ floor line.	Refer to sheet A1.01, Detail C5 "Overhead Door Details". This was identified and provided for new support in these details.	1
33	Dotson Company	Building "C" - confirm wall finishes. Paint walls - existing bare wood or what? Rubber wall base? Over what?	Interior wall surfaces, columns, trusses, misc. exposed framing shall be painted. Rubber base has been deleted from this area.	1
34	Dotson Company	Building "C" - Alternate Standing Seam Roof. Question roof insulation spec for over exist. 2x purlins or think a insulated roof panel would be better. Confirm all new gable trim, fascia/soffit along column line A & F. Confirm no gutters and downspouts.	There is no roof insulation specified or detailed associated with Building "C". For base bid roofing: vertical fascia and soffits shall remain. Existing rake profile and flashing shall be new. Alternate 1: Provide all new trim including vertical fascia and soffit panels.	1
35	Dotson Company	Building "C" - Base Bid interior roof demo. 2/3 is exposed 2x purlins + back of exposed corrugated roof panels. 1/3 is insul'n, etc. Confirm you want 1/3 to look like 2/3.	All new base bid corrugated roofing is exposed to interior. No spray-applied insulation is requested, specified or required.	1
36	Dotson Company	Building "D" - existing drywall has plaster or knockdown type finish, confirm what to do when new drywall meets existing.	Question will be answered in Addendum #002	1

Question Number	Question From	Question	Answer	Answered in Addendum:
37	Dotson Company	Building "D" - (2) new aluminum windows detail 6/A301 shows tubular aluminum, spec's 085113 says dbl. hung, existing windows like like fiberglas/vinyl. Champion Windows? Project Labor Agreement? Please advise.	Windows in question shall be aluminum, double-hung units as specified in Section 085113. Finish color on aluminum to match existing windows as closely as possible with Architect's approval.	1
38	Dotson Company	Building "D" - confirm concrete pad for heat pump is by mechanical contractor.	Confirmed	1
39	Dotson Company	Building "C+D" - Need chain link fence spec. Also are posts cored in floor or base plate with expansion bolts. Confirm no top over fenced in area.	Chain link fencing shall be typical galvanized steel weave, 9 gauge, with 9 gauge ties. Corner and tension posts shall be minimum of 2" diameter. Intermediate posts, top and bottom rails shall be 1-5/8" diameter. Fabric shall meet ASTM A 392, Class I, 1.2 oz/sq. ft. with zinc coating. Comply with ASTM F 1043 for framing and ASTM F 900 for gate. Gate shall be provided with receiving for padlock. Fencing shall be 10'-0" height above finish floor as indicated with no fence fabric forming a roof enclosure.	1
40	Dotson Company	FYI - Existing C.B. btw. Col's 8 & 9 east of Bldg "C". Confirm direction of drain pipe will door steel bumper post hit line?	This condition will be investigated and direction provided in Addendum 002.	1
41	Dimech	Drawings A0.11 and A1.01 indicate the plumbing wall between Women's Room 109 and Men's Room 110 does not get removed. Can this wall be removed and rebuilt in the General Contractors scope of work to allow for the cutting and patching of concrete floor for the plumbing waste, vent and water rough for new fixtures?	Drawings have been revised to show the existing wall between Women's 109 and Men's 110 being demolished and a new wall constructed.	1

Question Number	Question From	Question	Answer	Answered in Addendum:
42	Dotson Company	Is a steel stud wall with fiberglass insulation and gypsum board finish required on the north wall of Data 107?	See drawing A1.01 and related notes issued with Addendum 002	2
43	Dotson Company	Please provide clarification if existing insulation and gypsum board along the east and portion of south wall of Building 'C' is to be removed.	Refer to sheet A0.11 for new demolition notes and indicators for removal of existing wall materials in Building 'C'.	2
44	Dotson Company	Please advise lock manufacturer and keyway of existing building keying system.	Existing locksets on doors are Falcon . Keyway designation was added to the Hardware Specification.	2
45	Dotson Company	FYI - Existing C.B. btw. Col's 8 & 9 east of Bldg "C". Confirm direction of drain pipe will door steel bumper post hit line?	It is difficult to make an accurate determination if there will be interference with this existing catch basin. Any adjustments will be made after award when new door openings are formed and an accurate determination of the conditions are visible.	2
46	Overhead Door Company	Section 083313, Section 2.2D, #1 calls for insulated slats and #2 calls for between slat gasketing, both of which are not available for any of the manufacturers listed. Please clarify	Refer to Section 083313 "Coiling Counter Door" for clarifications. Items #1 and #2 under Paragraph 2.2, Item D are deleted.	5
47	Overhead Door Company	Section 083313, Section 2.2G and 2.4A calls for integral frame, hood and fascia in galvanized steel but item 2.2H call for no sill. The integral frame is used with an integral sill so the entire unit can be built into the wall instead of a traditional installed unit into a finished masonry opening. If it is an integral frame & sill please clarify the finishes.	First, the unit is being installed into a framed wall with gypsum board on both sides and not into a concrete masonry wall. Refer to written narrative for Addendum #005 and re-issued specification Section 083313.	5

Question Number	Question From	Question	Answer	Answered in Addendum:
48	Overhead Door Company	Section 2.2, Item I, #1 is an incomplete sentence. The locks are typically operable from the coil side only using either a slide bolt lock or a keyed cylinder lock. Please clarify operable side and lock type.	Revised Section 083313, Part 2, Paragraph 2.2, Item I to clarify lock operations (slide bar/bolt) and from the coil side (Room #104).	5
49	Overhead Door Company	There is no drawing detail showing the between jamb mounted counter shutter so can you please clarify the dimensions given on the door schedule of 4'-0"x3'-8". Is this the clear masonry opening? Or the clear opening between the door unit guides and from sill to underside of coil box?	This coiling shutter is being installed in an existing framed wall with gypsum board finish on both sides. The given dimensions are the clear dimensions from face-to-face of the guides and from sill to underside of coil box.	5
50	Overhead Door Company	Section 083613, Paragraph 2.2 B, #1 calls for 20 lbf/sq. ft. windload. Is this required?	Yes	5
51	Overhead Door Company	Section 083613, Paragraph 2.2 D calls for seismic performance rating. None of the listed manufacturers offer such a rating. Should this be omitted? Please clarify.	Seismic performance requirement will be deleted from the specification. Refer to written narrative and re-issued Section 083613.	5
52	Overhead Door Company	Section 083613, Paragraph 2.3 C calls for air infiltration rating, however, the basis of design model #416 is a 16 ga non-insulated door that does not have such a rating. Please clarify.	Original wording was taken from Overhead Door Corporation Sectional Overhead door guide specification. After review of model and design requirements, this paragraph has been revised. See written narrative for Addendum #005.	5

Question Number	Question From	Question	Answer	Answered in Addendum:
53	Overhead Door Company	Section 083613, Paragraph 2.3 I #4 calls for exterior, dusty, wet, or humid motor exposure. There are no motor, wiring, accessory or control details shown on the electrical drawings. Please clarify - do the doors require motors? If so, do they require the exterior, dusty, wet, or humid exposure rating? Do the controls and accessories require the exterior, dusty, wet, or humid exposure rating?	Refer to revised electrical drawings issued with Addendum #005 for sectional door motor and controls locations. Due to the type of storage (unheated) and potential for humid conditions the specified motor types and controls are required for exterior, dusty, wet, or humid exposure rating.	5
54	Overhead Door Company	Section 083613, Paragraph 2.6 A, #3 and 2.8 D calls for slotted track and door-drop safety devices which are not applicable to a standard lift tracking … the solenoid brake specified in the operator would stop the door from dropping if these are motorized. Please clarify	Requirement will be deleted. See written narrative for Addendum #005 and the re-issued specification section.	5
55	Overhead Door Company	Section 083613, Paragraph 2.8 F calls for spring bumpers on the horizontal tracks which are not required for a motorized door with standard lift tracking. Please clarify if these are required.	Requirement will be deleted. See written narrative for Addendum #005 and the re-issued specification section.	5
56	Overhead Door Company	Please be aware that the basis of design model 416 is only available in a factory pre-finished color of white. If any other color is required then field painting by the painting contractor should be specified.	Noted. White is the desired color.	5

SECTION F – PRICING

PRICING SHEET

RENOVATIONS TO BUILDINGS B, C AND D AT 1049 S. McCORD ROAD

Company Name: _____

Street Address: _____

City, State, Zip: _____

Mailing Address: (If Different) _____

Contact Name: _____

Telephone No.: _____

Fax No.: _____

Email Address: _____

Due: January 7, 2013 @ 2:00 PM LOCAL TIME

To: Lucas County Support Services, Purchasing Division
One Government Center, Suite 480
Toledo, Ohio 43604-2247

We, the undersigned, having carefully examined the Bid Documents agree to perform all work required by these documents heretofore submitted to bidder, as modified by addenda listed herein.

1.0 BASE BIDS – BUILDINGS B, C AND D

1.1 – General Trades Contract: (Estimate: $ 324,600.00):

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, required allowances, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

1.2 – Plumbing Contract (Estimate: $ 100,100.00):

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, required allowances, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

1.3 – HVAC Contract (Estimate: $ 141,295.00):

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, required allowances, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

1.4 – Electrical / Data / Communications Contract (Estimate: $ 265,100.00):

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, required allowances, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

1.4.1 – Site Technology
Provide the amount included in the above bid for the Site Technology portion of the work:
Base Bid Amount: _____

_____ **Dollars $** _____

COMBINED BIDS – BUILDINGS B, C AND D

2.1 – Combined Bids for Selected Trades Below:

INCLUDED (check trades below)	PRIME TRADE DESIGNATION
	General Trades
	Plumbing
	Mechanical
	Electrical including Site Technology

The Bidder proposes to provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, sub-contractors and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the prime trade designations indicated and checked above for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

Bidder acknowledges that if combined bid is accepted and does not include all prime trade designations, and the bid includes General Trades and is awarded, the Bidder becomes the Lead Contractor responsible for the specified coordination and responsibilities specified in the bidding document for the remaining Prime Trade Contractors not included in the combined bid.

3.0 ALTERNATE BIDS

3.1 – Alternate #1: Standing Seam Metal Roof System Over Building C:

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications to provide a field-seamed Standing Seam Metal Roof System for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

3.2 – Alternate #2: Replacement of Existing Windows in Building D:

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications to provide replacement of the existing windows in Building 'D' for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

3.3 – Alternate #3: New Vinyl-Clad Wood Windows in Building D:

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications to provide new windows in Building 'D' as indicated for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

3.4 – Alternate #4: Replacement of Existing Windows in Building D with Vinyl-Clad Wood Windows:

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications to provide replacement of the existing windows in Building 'D' for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

3.5 – Alternate #5: Formed Metal Roof System Over Building C:

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications to provide a FormedMetal Roof System for the lump sum price of:

Base Bid Amount: _____

_____ **Dollars $** _____

4.0 TAXES

Project is tax exempt.

5.0 UNIT PRICES

1. Unit prices will be used to determine the cost for work that is not inclusive or a part of the base bid for unknown items which may be incorporated into the Contract Price by way of a Change Order as determined by the Owner's Representative.
2. Unit prices will be used to determine the amount to be added to, or deducted from, the bid price for minor adjustments to the specified scope of work.
3. Unit prices shall be provided in accordance with the materials and procedures specified (including labor, material, overhead, profit and taxes) to remove/dispose of existing materials and provide the following:
    a. Wood roof purlins for roof replacement for Building 'C' (base bid and alternate)

2 X 4 **$** _____ **/ LF**

2 X 6	**$ _____ / LF**
2 X 8	**$ _____ / LF**
2 X 10	**$ _____ / LF**
2 X 12	**$ _____ / LF**

b. Wood exterior wall purlins for Building 'C' (base bid and alternate)

2 X 6	**$ _____ / LF**

6.0 CONTRACTOR'S FEE

After the signing of the contracts for the work included for this project, in the event it becomes necessary to authorize changes to the Scope of Work included in the Base Bid, the following "fees" shall apply.

a. For additional work performed by Contractor's own forces, a fee of eight (8%) percent of the Contractor's approved cost of the work.

b. For additional work performed by Subcontractors, a fee of five (5%) percent of the Subcontractor's approved cost of the work.

The "fee" stated above shall be the total amount to be added to the "approved cost" of the extra work and shall include "Profit and Overhead".

Cost shall be limited to the following: Cost of materials, including applicable tax and cost of delivery, cost of labor and applicable fringe benefits including Social Security, and Unemployment Insurance (labor cost may include a pro rata share of foreman's time; Workmen's Compensation and other applicable insurance); rental value of power tools and equipment.

Profit and Overhead shall include the following: travel, supervision, wages of timekeepers, watchmen and clerks, small tools, incidentals, general office expense and all other expenses not included in "Cost". The cost as used herein shall include all items of labor, materials and equipment.

Fee shall include all profit and overhead and shall include the following: Travel other than required by Labor Agreement for trades directly involved in the work, supervision, wages of timekeepers, field engineers and clerks, small tools, incidentals, general field and main office expenses and all other expenses not included in "Cost".

7.0 ADDENDA

In the event that addenda have been received during the bidding period covering changes to the bid documents, the undersigned bidder subscribes to the following statement:

The work described in the following addenda is included in this proposal:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

8.0 TIME OF COMPLETION

The undersigned bidder agrees to complete the work in accordance with the Bid Documents within _____ consecutive calendars days from date of Notice to Proceed.

9.0 REJECTION OF BIDS

The undersigned bidder acknowledges that the Owner reserves the right to reject any and all proposals and to award the work to other than the low bidder.

All bids will be opened publicly.

10.0 SITE INSPECTION

The undersigned bidder acknowledges that bidder has been afforded the opportunity to inspect the jobsite to arrive at a clear understanding of the Conditions under which the work is to be done; to compare the site with the drawings and specifications; to satisfy bidder as to the condition of the premises; existing obstructions; condition, location, and size and configuration of buildings and areas allocated for construction purposes; location and availability of roads; location and availability of utilities, including the electrical characteristics of the available power; proximity and nature of Owner's existing operations; and any other conditions affecting the performance of the work.

No allowances or extra consideration on behalf of the undersigned bidder will be allowed by Owner by reason of additional costs, damages or other difficulties incurred by the undersigned bidder that could have been avoided had an adequate site inspection been undertaken by him.

11.0 EEO

The undersigned bidder agrees to comply with all applicable local, state, and federal EEO.

12.0 BID GUARANTEE

The undersigned bidder agrees that this proposal will remain firm for a period of not less than sixty (60) days and extended past sixty (60) days when in accordance with the requirements of the instructions to bidders.

13.0 LEGAL STATUS AND SIGNATURE OF BIDDER

Check one of the following:

a. Bidder is an individual _____.
b. Bidder is a corporation _____.
c. Bidder is a partnership _____.

1) If Corporation -
State of Corporation _____

States in which qualified to do business -

_____

2) If partnership, list names of all partners.

_____

_____

_____

_____
Name of Contractor

_____
By (Signature)

_____
Title

_____
Address of Bidder

SECTION 083313 - COILING COUNTER DOORS

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. Counter doors.

1.3 ACTION SUBMITTALS

A. Product Data: For each type and size of coiling counter door and accessory.

1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include plans, elevations, sections, and mounting details.
2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For coiling counter doors to include in maintenance manuals.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

1. Maintenance Proximity: Not more than two hours' normal travel time from Installer's place of business to Project site.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

A. Source Limitations: Obtain coiling counter doors from single source from single manufacturer.

1. Obtain operators and controls from coiling counter door manufacturer.

2.2 COUNTER DOOR ASSEMBLY

A. Counter Door: Coiling counter door formed with curtain of interlocking metal slats.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Alpine Overhead Doors, Inc.
b. Clopay Building Products.
c. Cornell Iron Works, Inc.
d. Overhead Door Corporation.
e. Raynor.
f. Wayne-Dalton Corp.

B. Operation Cycles: Door components and operators capable of operating for not less than 10,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.

C. Door Curtain Material: Aluminum.

D. Door Curtain Slats: Curved profile slats of Manufacturer’s standard slat height but not greater than 2-inches center-to-center height.

E. Bottom Bar: Manufacturer's standard continuous channel or tubular shape, fabricated aluminum extrusion and finished to match door.

F. Curtain Jamb Guides: Aluminum with exposed finish matching curtain slats. Provide continuous integral wear strips to prevent metal-to-metal contact and to minimize operational noise.

G. Hood: Match curtain material and finish.

1. Shape: Square.
2. Mounting: Between jambs.

H. Locking Devices: Equip door with locking device assembly.

1. Locking Device Assembly: Jamb-side sliding locking bars, operable from coil side (Room #104).

I. Manual Door Operator: Push-up operation.

J. Curtain Accessories: Equip door with push/pull handles.

K. Door Finish:

1. Aluminum Finish: Clear anodized.
2. Interior Curtain-Slat Facing: Match finish of exterior curtain-slat face.

2.3 DOOR CURTAIN MATERIALS AND CONSTRUCTION

A. Door Curtains: Fabricate coiling counter-door curtain of interlocking metal slats in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

1. Aluminum Door Curtain Slats: ASTM B 209 (ASTM B 209M) sheet or ASTM B 221 (ASTM B 221M) extrusions, alloy and temper standard with manufacturer for type of use and finish indicated; thickness of 0.050 inch (1.27 mm); and as required.
2. Metal Interior Curtain-Slat Facing: Match metal of exterior curtain-slat face.

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent over-travel of curtain.

1. Removable Posts and Jamb Guides: Manufacturer's standard.

2.4 HOODS

A. Integral Frame, Hood, and Fascia: Welded sheet metal assembly of the following sheet metal(s):

1. Galvanized Steel: Hot-dip galvanized steel sheet with G90 (Z275) zinc coating, complying with ASTM A 653/A 653M.

2.5 LOCKING DEVICES

A. Locking Device Assembly: Fabricate with spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in tracks.

2.6 CURTAIN ACCESSORIES

A. Push/Pull Handles: Equip each push-up-operated or emergency-operated door with lifting handles on each side of door, finished to match door.

2.7 COUNTERBALANCING MECHANISM

A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.

B. Counterbalance Barrel: Fabricate spring barrel of manufacturer's standard hot-formed, structural-quality, seamless or welded carbon-steel pipe, of sufficient diameter and wall thickness to support rolled-up curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. (2.5 mm/m) of span under full load.

C. Counterbalance Spring: One or more oil-tempered, heat-treated steel helical torsion springs. Size springs to counterbalance weight of curtain, with uniform adjustment accessible from outside barrel. Secure ends of springs to barrel and shaft with cast-steel barrel plugs.

D. Torsion Rod for Counterbalance Shaft: Fabricate of manufacturer's standard cold-rolled steel, sized to hold fixed spring ends and carry torsional load.

E. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate.

2.8 MANUAL DOOR OPERATORS

A. General: Equip door with manual door operator by door manufacturer.

B. Push-up Door Operation: Design counterbalance mechanism so that required lift or pull for door operation does not exceed 25 lbf (111 N).

2.9 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.10 ALUMINUM FINISHES

A. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates areas and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install coiling counter doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

B. Install coiling counter doors, hoods, controls, and operators at the mounting locations indicated for each door.

3.3 ADJUSTING

A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

B. Lubricate bearings and sliding parts as recommended by manufacturer.

3.4 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of coiling-door Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for door operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.

1. Perform maintenance, including emergency callback service, during normal working hours.

END OF SECTION 083313

SECTION 083613 - SECTIONAL DOORS

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 electrically operated sectional doors.

1.3 ACTION SUBMITTALS

A. Product Data: For each type and size of sectional door and accessory.

1. Include construction details, material descriptions, dimensions of individual components, profile door sections, and finishes.
2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include plans, elevations, sections, and mounting details.
2. Include details of equipment assemblies. Indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
4. Include diagrams for power, signal, and control wiring.

C. Samples for Initial Selection: For units with factory-applied finishes.

1. Include Samples of accessories involving color selection.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For sectional doors to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

B. Regulatory Requirements: Comply with applicable provisions in ICC A117.1.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of sectional doors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including, but not limited to, excessive deflection.
b. Failure of components or operators before reaching required number of operation cycles.
c. Faulty operation of hardware.
d. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use; rust through.
e. Delamination of exterior or interior facing materials.

2. Warranty Period: Two years from date of Substantial Completion.

B. Special Finish Warranty: Manufacturer agrees to repair or replace components that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

A. Source Limitations: Obtain sectional doors from single source from single manufacturer.

1. Obtain operators and controls from sectional door manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Sectional doors shall comply with performance requirements specified without failure due to defective manufacture, fabrication, installation, or other defects in construction and without requiring temporary installation of reinforcing components.

B. Structural Performance, Exterior Doors: Capable of withstanding the design wind loads.

1. Design Wind Load: Uniform pressure (velocity pressure) of 20 lbf/sq. ft. (960 Pa), acting inward and outward.
2. Testing: According to ASTM E 330.
3. Deflection Limits: Design sectional doors to withstand design wind loads without evidencing permanent deformation or disengagement of door components.

a. Deflection of door sections in horizontal position (open) shall not exceed 1/120 of the door width.
b. Deflection of horizontal track assembly shall not exceed 1/240 of the door height.

C. Windborne-Debris Impact Resistance: Provide sectional doors that pass missile-impact and cyclic-pressure tests according to DASMA 102.

1. Large Missile Test: For overhead coiling doors located within 30 feet (9.144 m) of grade.

2.3 DOOR ASSEMBLY

A. Steel Sectional Door: Sectional door formed with hinged sections and fabricated according to DASMA 102 unless otherwise indicated.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Overhead Door Corporation Series 416 or comparable product by one of the following:

a. Clopay Building Products.
b. Haas Door.
c. Raynor.
d. Rite-Hite Corporation.
e. Wayne-Dalton Corp.
f. Windsor Door.

B. Operation Cycles: Door components and operators capable of operating for not less than 25,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.

C. Air Infiltration: Manufacturer's standard requirements based on model specified above.

D. Steel Sections: Zinc-coated (galvanized) steel sheet with G60 (Z180) zinc coating.

1. Section Thickness: 2 inches (51 mm).
2. Exterior-Face, Steel Sheet Thickness: 0.064-inch- (1.63-mm-) nominal coated thickness.

a. Surface: Flat.
b. Surface: Manufacturer's standard, paneled.

E. Track Configuration: Standard-lift track.

F. Weatherseals: Fitted to bottom and top and around entire perimeter of door.

G. Roller-Tire Material: Manufacturer's standard.

H. Counterbalance Type: Torsion spring.

I. Electric Door Operator:

1. Usage Classification: Standard duty, up to 25 cycles per hour and up to 90 cycles per day.
2. Operator Type: Trolley.
3. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use; moving parts of operator enclosed or guarded if exposed and mounted at 8 feet (2.4 m) or lower.
4. Motor Exposure: Exterior, dusty, wet, or humid.
5. Emergency Manual Operation: Push-up type.
6. Obstruction-Detection Device: Automatic photoelectric sensor.
7. Control Station: Interior-side mounted.

2.4 MATERIALS, GENERAL

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.

2.5 STEEL DOOR SECTIONS

A. Exterior Section Faces and Frames: Zinc-coated (galvanized), cold-rolled, commercial steel (CS) sheet, complying with ASTM A 653/A 653M, with indicated zinc coating and thickness.

1. Fabricate section faces from single sheets to provide sections not more than 24 inches (610 mm) high and of indicated thickness. Roll horizontal meeting edges to a continuous, interlocking, keyed, rabbeted, shiplap, or tongue-in-groove weather-resistant seal, with a reinforcing flange return.

B. Section Ends and Intermediate Stiles: Enclose open ends of sections with channel end stiles formed from galvanized-steel sheet not less than 0.064-inch- (1.63-mm-) nominal coated thickness and welded to door section. Provide intermediate stiles formed from not less than 0.064-inch- (1.63-mm-) thick galvanized-steel sheet, cut to door section profile, and welded in place. Space stiles not more than 48 inches (1219 mm) apart.

C. Reinforce bottom section with a continuous channel or angle conforming to bottom-section profile.

D. Reinforce sections with continuous horizontal and diagonal reinforcement, as required to stiffen door and for wind loading. Provide galvanized-steel bars, struts, trusses, or strip steel, formed to depth and bolted or welded in place.

E. Provide reinforcement for hardware attachment.

F. Fabricate sections so finished door assembly is rigid and aligned, with tight hairline joints and free of warp, twist, and deformation.

2.6 TRACKS, SUPPORTS, AND ACCESSORIES

A. Tracks: Manufacturer's standard, galvanized-steel track system of configuration indicated, sized for door size and weight, designed for lift type indicated and clearances indicated on Drawings, Provide complete system including brackets, bracing, and reinforcement to ensure rigid support of ball-bearing roller guides for required door type, size, weight, and loading.

1. Galvanized Steel: ASTM A 653/A 653M, minimum G60 (Z180) zinc coating.
2. Slope tracks at an angle from vertical or design tracks to ensure tight closure at jambs when door unit is closed.
3. Track Reinforcement and Supports: Galvanized-steel members to support track without sag, sway, and vibration during opening and closing of doors.

    a. For Vertical Track: Continuous reinforcing angle attached to track and attached to wall with jamb brackets.
    b. For Horizontal Track: Continuous reinforcing angle from curve in track to end of track, attached to track and supported at points by laterally braced attachments to overhead structural members.

B. Weatherseals: Replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted to bottom and top of sectional door unless otherwise indicated.

2.7 HARDWARE

A. General: Heavy-duty, corrosion-resistant hardware, with hot-dip galvanized, stainless-steel, or other corrosion-resistant fasteners, to suit door type.

B. Hinges: Heavy-duty, galvanized-steel hinges of not less than 0.079-inch- (2.01-mm-) nominal coated thickness at each end stile and at each intermediate stile, according to manufacturer's written recommendations for door size. Attach hinges to door sections through stiles and rails with bolts and lock nuts or lock washers and nuts. Use rivets or self-tapping fasteners where access to nuts is impossible. Provide double-end hinges where required, for doors more than 16 feet (4.88 m) wide unless otherwise recommended by door manufacturer.

C. Rollers: Heavy-duty rollers with steel ball-bearings in case-hardened steel races, mounted with varying projections to suit slope of track. Extend roller shaft through both hinges where double hinges are required. Provide 3-inch- (76-mm-) diameter roller tires for 3-inch- (76-mm-) wide track and 2-inch- (51-mm-) diameter roller tires for 2-inch- (51-mm-) wide track.

D. Push/Pull Handles: Equip each push-up operated or emergency-operated door with galvanized-steel lifting handles on each side of door, finished to match door.

2.8 COUNTERBALANCE MECHANISM

A. Torsion Spring: Counterbalance mechanism consisting of adjustable-tension torsion springs fabricated from steel-spring wire complying with ASTM A 229/A 229M, mounted on torsion shaft made of steel tube or solid steel. Provide springs designed for number of operation cycles indicated.

B. Cable Drums and Shaft for Doors: Cast-aluminum or gray-iron casting cable drums mounted on torsion shaft and grooved to receive door-lifting cables as door is raised. Mount counterbalance mechanism with manufacturer's standard ball-bearing brackets at each end of torsion shaft. Provide one additional midpoint bracket for shafts up to 16 feet (4.88 m) long and two additional brackets at one-third points to support shafts more than 16 feet (4.88 m) long unless closer spacing is recommended by door manufacturer.

C. Cables: Galvanized-steel, multistrand, lifting cables with cable safety factor of at least 5 to 1.

D. Bracket: Provide anchor support bracket as required to connect stationary end of spring to the wall and to level the shaft and prevent sag.

2.9 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and "operation cycles" requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.

1. Manufacturers: Subject to compliance with requirements, provide products by same manufacturer as overhead door including manufacturer recommended accessories as specified or indicated elsewhere in this Section.
2. Comply with NFPA 70.
3. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6; with NFPA 70, Class 2 control circuit, maximum 24-V ac or dc.

B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.

C. Door-Operator Type: Unit consisting of electric motor, gears, pulleys, belts, sprockets, chains, and controls needed to operate door and meet required usage classification.

1. Trolley: Trolley operator mounted to ceiling above and to rear of door in raised position and directly connected to door with drawbar.

D. Motors: Reversible-type motor for motor exposure indicated.

1. Electrical Characteristics:

a. Phase: Single phase.
b. Volts: 115 V.
c. Hertz: 60.

2. Motor Size: Minimum size as indicated. If not indicated, large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than 8 in./sec. (203 mm/s) and not more than 12 in./sec. (305 mm/s), without exceeding nameplate ratings or service factor.
3. Operating Controls, Controllers (Disconnect Switches), Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
4. Coordinate wiring requirements and electrical characteristics of motors and other electrical devices with building electrical system and each location where installed.
5. Use adjustable motor-mounting bases for belt-driven operators.

E. Limit Switches: Equip motorized door with adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

F. Obstruction Detection Device: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening. Activation of device immediately stops and reverses downward door travel.

1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.

a. Self-Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device. When self-monitoring feature is activated, door closes only with sustained pressure on close button.

G. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure, push-button control labeled "Close."

1. Interior-Mounted Units: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.

H. Emergency Manual Operation: Equip electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 25 lbf (111 N).

I. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from

floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

J. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

2.10 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.11 STEEL AND GALVANIZED-STEEL FINISHES

A. Baked-Enamel or Powder-Coat Finish: Manufacturer's standard baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for cleaning, pretreatment, application, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.

B. Examine locations of electrical connections.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install sectional doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

B. Tracks:

1. Fasten vertical track assembly to opening jambs and framing, spaced not more than 24 inches (610 mm) apart.
2. Hang horizontal track assembly from structural overhead framing with angles or channel hangers attached to framing by welding or bolting, or both. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track and door-operating equipment.

C. Accessibility: Install sectional doors, switches, and controls along accessible routes in compliance with regulatory requirements for accessibility.

D. Power-Operated Doors: Install automatic garage doors openers according to UL 325.

3.3 STARTUP SERVICES

A. Engage a factory-authorized service representative to perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.
2. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.

3.4 ADJUSTING

A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

B. Lubricate bearings and sliding parts as recommended by manufacturer.

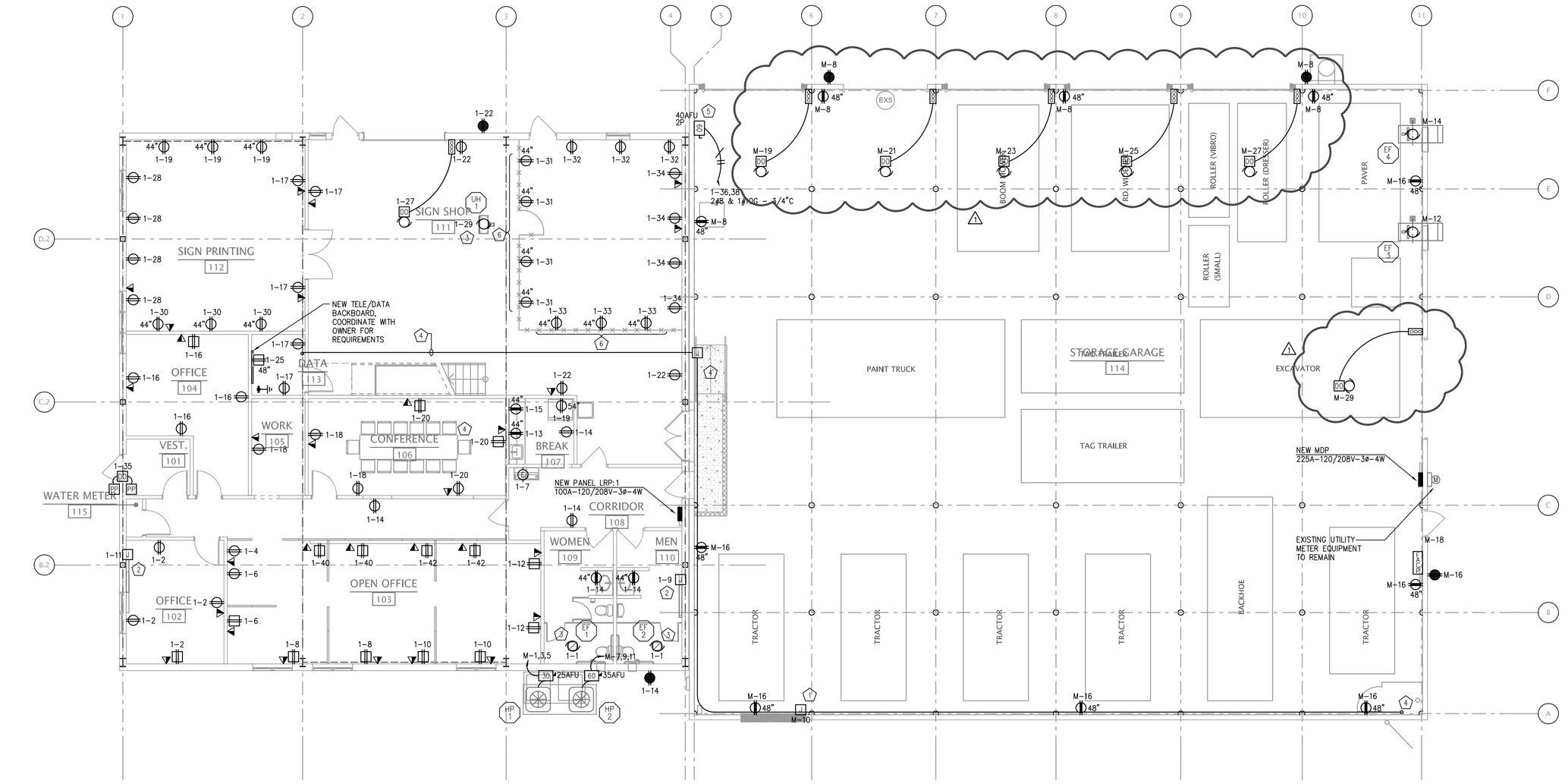
C. Adjust doors and seals to provide weather-resistant fit around entire perimeter.

D. Touch-up Painting: Immediately after welding galvanized materials, clean welds and abraded galvanized surfaces and repair galvanizing to comply with ASTM A 780/A 780M.

3.5 DEMONSTRATION

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

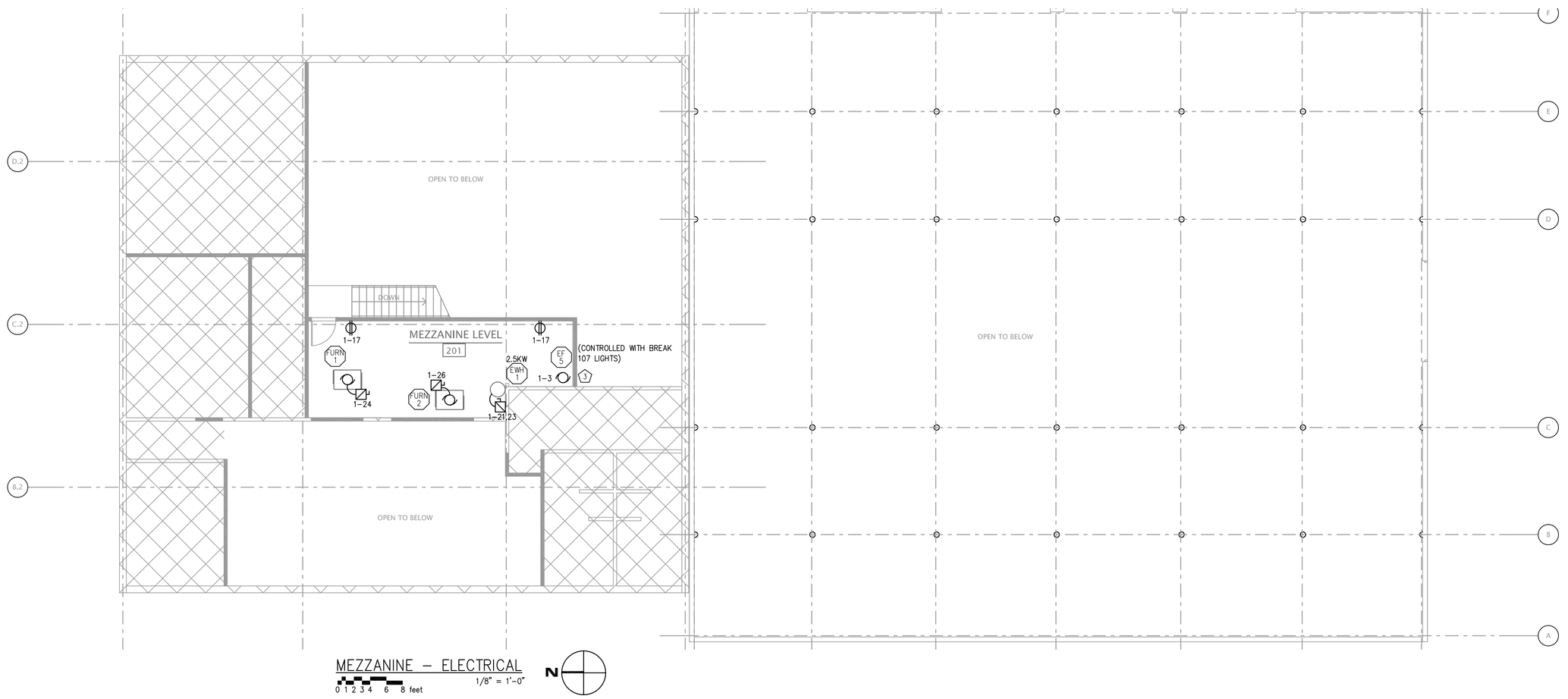
END OF SECTION 083613



1ST FLOOR PLAN – ELECTRICAL

0 1 2 3 4 6 8 feet

1/8" = 1'-0"



MEZZANINE – ELECTRICAL

0 1 2 3 4 6 8 feet

1/8" = 1'-0"

FLOOR PLAN NOTES:

1. PROVIDE 120V BRANCH CIRCUIT FOR MECHANICAL LOUVERS. LOUVERS CONTROLS BY M.C. COORDINATE ELECTRICAL REQUIREMENTS OF LOUVERS WITH M.C./EQUIPMENT PROVIDER.
2. NEW ELECTRIC BASEBOARD HEATER, 1200 WATT, 120V WITH INTEGRAL THERMOSTAT. BERKO "BKOC" SERIES OR ENGINEER APPROVED EQUAL.
3. EXHAUST FAN SHALL BE CONTROLLED BY ROOM LIGHTING CONTROLS/SWITCHING.
4. PROVIDE 4" CONDUIT AS SHOWN ON PLAN FOR TELE/DATA SERVICE. RUN CONDUIT ALONG WALL AND ABOVE CEILING TO DROP INTO NEW IT ROOM. FIELD VERIFY EXISTING CONDITIONS AND COORDINATE ROUTE WITH OWNER/SERVICE PROVIDER. PROVIDE ADEQUATELY SIZED PULL BOX.
5. FOR OWNER PROVIDED AIR COMPRESSOR, E.C. TO VERIFY OVERCURRENT PROTECTION SIZE AND ADJUST ACCORDINGLY. ALSO VERIFY CONNECTION/DISCONNECT MEANS.
6. MOUNT RECEPTACLES TO FENCE SUPPORTS.

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS

STATE OF OHIO
RONALD S. TIMKO
E-65132
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN N.T.S.

PROJECT TITLE

Lucas County Engineer

Renovations to Building C & D

S. McCord Road Toledo, Ohio

12.28.12	ADDENDUM 002
11.07.12	ISSUED FOR BIDDING
09.10.12	ISSUED FOR PERMITS

CHECKED B.STOTZ
APPROVED R.TIMKO

TCI JOB NO. 106048

SHEET TITLE

FLOOR PLANS – ELECTRICAL

SHEET NO.

E3.01

mda engineering, inc
Mechanical and Electrical Engineers
1415 Holland Road
Maumee, Ohio 43537
Phone: (419) 893-3141
Fax: (419) 893-0687
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