



701½ West First Street
Defiance, OH 43512
Phone 419-782-6211
architects@beilharzinc.com

July 23, 2020

DON NORTH MUNICIPAL BUILDING
North Vestibule Addition
Bryan, Ohio

B9-4645

ADDENDUM NO. 2

This Addendum becomes a part of the Contract Documents and modifies them only to the extent herein set forth. Each bidder is responsible for distribution of information conveyed by this Addendum to its subbidders and suppliers.

Attachments: Section 28 4600
Sheet A-4 (revised)
Bid Question Log #2

ITEM NO. 1: Section 28 4600 – Fire Detection and Alarm

Add attached Section.

ITEM NO. 2: Sheet A-4 – Electrical Plan and HVAC Plan

Refer to attached revised Drawing for fire alarm devices.

END OF ADDENDUM

SECTION 28 4600 – FIRE DETECTION AND ALARM

PART 1 GENERAL

1.01 SUMMARY:

- A. Section Includes: Extension of existing fire alarm system.
- B. Related Sections:
 - 1. Section 26 0500 – Common Work Results for Electrical.
 - 2. Section 26 0519 – Conductors.
 - 3. Section 26 0533 – Raceway and Boxes.

1.02 SYSTEM DESCRIPTION:

- A. Provide all items required to obtain approval from authorities having jurisdiction.
- B. Prior to award of contract, inspect existing system and determine the extent of system component replacement and upgrades necessary to provide required capacity, interoperate with new system components, and meet requirements of authorities having jurisdiction.

1.03 SUBMITTALS: In accordance with Section 01 3300 and NFPA 72.

- A. Submittals for Review: Submit the number of sets required for plan approval. Submittals shall be prepared by and bear the signature and seal of a design professional or certified fire alarm designer, as required by authorities having jurisdiction.
 - 1. Product Data: Indicate catalog cut sheets, manufacturer's installation instructions, wiring diagrams, electrical characteristics and connection requirements.
 - 2. Shop Drawings: Indicate component locations, strobe candela values, horn dB values, speaker dB/wattage tap values and notification circuit loads, and interconnecting wiring to each device.
- B. Submittals for Information:
 - 1. Test Reports: Indicate satisfactory completion of required tests and inspections, certified by manufacturer's representative.
 - 2. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of Products.

1.04 CLOSEOUT SUBMITTALS: In accordance with Section 01 7700 and NFPA 72.

- A. Record Documents: Indicate actual locations of system equipment, components, wiring, and interfaced equipment.

1.05 QUALITY ASSURANCE:

- A. Conform to ADA, UL Fire Resistance Directory and Fire Protection Equipment List, FM Approval Guide, NFPA 70, NFPA 72, and NFPA 101; state and local codes, local fire department requirements, and requirements of Owner's insurance underwriter.
- B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience, and with service facilities within 100 miles of the Project.
- C. Installer Qualifications: Company specializing in installing the Products specified in this section with minimum three years documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS: In accordance with Section 01 6000.

- A. Extend existing system; match existing Simplex components or provide compatible components by one of the following:
 - 1. Johnson Controls; Simplex.
 - 2. Edwards Systems Technology.
 - 3. Secutron Fire Alarm Systems.
 - 4. Siemens Building Technologies, Inc.
 - 5. System Sensor.
- B. Utilize the products of a single manufacturer to the maximum practical extent.

2.02 COMPONENTS:

- A. Manual Pull Stations: Surface or semi-flush mounted, double action; red finish. Pull stations shall communicate the station's status (alarm or normal) to the fire alarm control panel over two wires which also provide power to the pull station. The station shall mechanically latch upon operation and remain latched until manually reset. Reset keys shall be keyed alike and shall match locks on control panel.
- B. Ceiling Mounted Speaker and Strobe: UL 1638; flush mounted; dual tap 25/70 volt; minimum 8 oz. magnet; minimum 30 Hz to 12 kHz frequency response; synchronized strobe light, adjustable to 15, 30, 75, or 110Cd; with back box and white finish grille.
- C. Wiring: In accordance with Division 26; UL listed for power limited or non-power limited fire protective circuit conductors, as required; approved by system manufacturer.
 - 1. Conductor Insulation Color Coding: In accordance with local requirements where applicable.
 - a. Power Branch Circuits: Black, red, white.
 - b. Initiating Device Circuit: Blue, yellow.
 - c. Signal Device Circuit: Red, black.

- D. Conduit: In accordance with Division 26.
 - 1. Junction Boxes and Covers: Red factory painted finish.
- E. Power Booster Unit: Provide when visual circuits exceed 60% of main control panel capacity.
- F. Provide other materials, components and accessories, not specifically described but required for complete and proper installation, as selected by Contractor subject to Architect's approval.

PART 3 EXECUTION

3.01 EXAMINATION:

- A. Where existing systems are modified or extended, field verify existing conditions before beginning work.

3.02 INSTALLATION:

- A. Install the work of this section in accordance with NFPA 72, requirements of governmental agencies having jurisdiction, and manufacturer's recommendations.
- B. Install 14 AWG minimum size conductors for fire alarm detection and signal circuit conductors in conduit. At locations above accessible ceilings, conductors may be installed as open wiring without conduit, in accordance with Section 260519. Utilize cable tray where present.
- C. Install conductors parallel with, or at right angles, to the sides and back of the enclosure. Connect conductors that are terminated, spliced or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the wiring diagrams of the system. Make connections with approved crimp-on terminal spade lugs, or pressure-type terminal blocks.
- D. Synchronize multiple strobe lights visible from a single location.
- E. Where end-of-line devices are required, mount with last device or in separate box adjacent to last device in circuit.
- F. Mounting Heights: In accordance with ADA.
 - 1. Manual Pull Stations: Minimum 42 inches, maximum 54 inches to center of pull handle.

3.03 TESTING:

- A. Test all components through at least 5 complete cycles of operation, adjust as required, and verify that complete system functions at optimum operating level. Perform testing in the presence of the manufacturer's authorized representative, Owner's representative, and local fire department personnel.
- B. Test in accordance with NFPA 72 and local fire department requirements.

3.04 ADJUSTING:

- A. Set sound level of speakers and candela output of strobes to meet ADA and NFPA 72 requirements for each location.

END OF SECTION

WIRE SIZING TABLE

120V-20A BRANCH CIRCUITS DISTANCE A+B IN FEET	AWG SIZE FOR ENTIRE CIRCUIT (USE COPPER WIRE IN METALLIC CONDUIT, SIZE CONDUIT ACCORDINGLY)	
0' TO 100'	# 12 (MIN.)	
100' TO 175'	# 10	
175' TO 300'	# 8	
300' TO 450'	# 6 (MAX.)	

THIS TABLE IS BASED ON AN EVENLY DISTRIBUTED LOAD ALLOWING A 3% VOLTAGE DROP AT LAST OUTLET; APPLY ACCORDINGLY.

ELECTRICAL PANELS

THE FOLLOWING INFORMATION WAS TAKEN FROM THE EXISTING BUILDING DOCUMENTS FOR DETERMINING AVAILABLE SPACES AND CAPACITY OF ELECTRICAL PANELS.

PANEL RP-A:
SURFACE MOUNTED
225A MAIN LUGS
120/208 VOLT
3 PHASE, 4 WIRE
42 SPACES, 36 SPACES USED, 6 20A SPARE BREAKERS
CURRENT LOAD: 100 AMPS
AVAILABLE CAPACITY: 80 AMPS
NEW LOAD: 20 AMPS (NEW 30A, 2P BREAKER)

PANEL RP-C:
SURFACE MOUNTED
100A MAIN LUGS
120/208 VOLT
3 PHASE, 4 WIRE
42 SPACES, 31 SPACES USED, 11 20A SPARE BREAKERS
CURRENT LOAD: 59 AMPS
AVAILABLE CAPACITY: 21 AMPS
NEW LOAD: 8 AMPS

PANEL LP-BB:
SURFACE MOUNTED
100A MAIN LUGS
277/480 VOLT
3 PHASE, 4 WIRE
42 SPACES, 21 SPACES USED, 9 20A SPARE BREAKERS
CURRENT LOAD: 54 AMPS
AVAILABLE CAPACITY: 26 AMPS
NEW LOAD: 1 AMPS

LIGHTING FIXTURES

FIXTURE A: LED-30W, 3,400 LUMENS, 4000K COLOR TEMPERATURE, LAY-IN LUMINAIRE, 24"x24", STEEL CONSTRUCTION, WHITE LENS, END PLATES, 120/277V LITHONIA EPANEL 2x2 3400LM 80CRI 40K MIN10 277

FIXTURE E1: LED-EXIT SIGN, 11"W x 8"H, DIFFUSE, THERMOPLASTIC HOUSING, STENCIL FACE, WALL MOUNTED, WHITE HOUSING FINISH, WHITE FACE, RED LETTERS, SEALED BATTERY, 277V LITHONIA LQM S W 3 R 120/277 EL N

FIXTURE E2: BATTERY OPERATED EMERGENCY LIGHT, WALL MOUNTED, 11"W x 5"H, SEALED BATTERY, TWO 1.5/3.6V ADJUSTABLE LED LAMP HEADS, 1-1/2 HOUR OPERATION, WHITE FINISH, 277V LITHONIA ELM6 W LP03VS

WALL HEATERS

WH-1: QMARK SSH04008, 208 VOLTS, 1 ø, 1800-4000W, 8.7-19.2A, 13,650 BTUHR

GENERAL FIRE PROTECTION NOTES

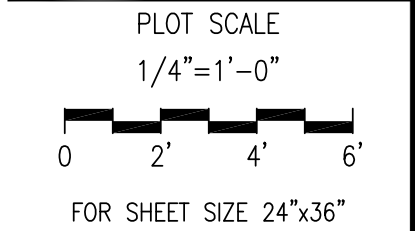
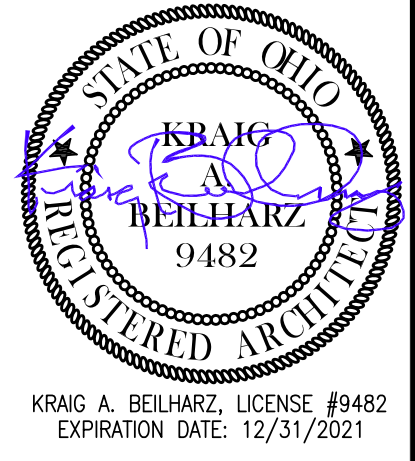
- THE EXISTING BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM. UNDER THE SCOPE OF THIS PROJECT, EXTEND CURRENT SYSTEM FOR FULL COVERAGE OF ADDITION.
- FIRE SUPPRESSION CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS FOR USE IN OBTAINING REQUIRED APPROVALS, FOR COORDINATION WITH OTHER TRADES, AND FOR FABRICATION AND INSTALLATION OF MATERIALS AND EQUIPMENT.
- EXCEPT WHERE NOTED OTHERWISE, THE SYSTEM SHALL BE HYDRAULICALLY CALCULATED BASED ON THE FOLLOWING CRITERIA: LIGHT HAZARD OCCUPANCY WITH A DENSITY OF 0.10 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1500 SQUARE FOOT AREA. ALLOW 100 GPM FOR FIRE HOSE DEMAND. MAXIMUM SPRINKLER SPACING 225 SQUARE FEET.
- ALL OCCUPANCIES SHALL BE CONFIRMED WITH THE OWNER'S INSURANCE COMPANY.
- THE ENTIRE FIRE SUPPRESSION SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13.

GENERAL ELECTRICAL DEMOLITION NOTES

- EXISTING BUILDING INFORMATION IS COMPILED FROM SOURCES DEEMED RELIABLE, HOWEVER, INFORMATION SHOWN ON THE DRAWINGS REPRESENT AN APPROXIMATE EXISTING CONDITION. ALL DEVICES, EQUIPMENT, FIXTURES, ETC. MAY NOT NECESSARILY BE IDENTIFIED. FIELD VERIFY ALL CONDITIONS AND LOCATIONS PRIOR TO BIDDING FOR FINAL DETERMINATION AND SCOPE OF WORK.
- FOR THE PURPOSES OF DEMOLITION, "DEVICES" SHALL BE INTERPRETED TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO RECEPTACLES, SWITCHES, JUNCTION BOXES, COMMUNICATIONS (DATA, VOICE, AUDIO-VIDEO, CLOCK, ETC.), ELECTRONIC SAFETY AND SECURITY SYSTEMS (ACCESS CONTROL, INTRUSION DETECTION, FIRE DETECTION, FIRE ALARM, ETC.)
- FOR THE PURPOSES OF DEMOLITION, "FIXTURES" SHALL BE INTERPRETED TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO LIGHTS, CEILING FANS, SPEAKERS, EMERGENCY EGRESS, EXIT, ETC.
- ALL DEVICES AND FIXTURES SHOWN WITH LIGHT DASHED LINE WEIGHT SHALL BE REMOVED. REMOVAL SHALL INCLUDE, BUT NOT BE LIMITED TO, PLATE, BOX, DEVICE, WIRE, CONDUIT, FASTENING DEVICES, SURFACE RACEWAYS, ETC.
- WHERE BOX OR CONDUIT IS LOCATED CONCEALED IN A WALL OR ABOVE A NON-ACCESSIBLE CEILING, A STEEL COVER PLATE SHALL BE INSTALLED OVER THE BOX AND CONDUIT CAPPED.
- WHEN GENERAL DEMOLITION WORK (WALL REMOVAL, NEW OR RELOCATED WALL OPENINGS, ETC.) RESULTS IN THE REMOVAL, RELOCATION, OR REFEEDING OF ELECTRICAL DEVICES OR LIGHTING FIXTURES, DISCONNECT OR RECONNECT, AS NECESSARY.
- OWNER SHALL RETAIN RIGHTS OF OWNERSHIP FOR ALL SALVAGEABLE MATERIALS AND/OR EQUIPMENT REMOVED DURING DEMOLITION. THIS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF REMOVING MATERIALS AND/OR EQUIPMENT AS REQUIRED FOR NEW CONSTRUCTION. COORDINATE LOCATION OF SALVAGED MATERIAL STORAGE DIRECTLY WITH THE OWNER.
- REMOVE ALL ABANDONED OR DE-ENERGIZED DEVICES, WIRE, BOXES AND CONDUIT

GENERAL ELECTRICAL NOTES

- ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 27 OBC, THE NATIONAL ELECTRIC CODE (NEC), NFPA STANDARD 70, OBC APPROVED EDITION
- ELECTRICAL CONDUCTORS SHALL BE SIZED BY THE CONTRACTOR IN ACCORDANCE WITH NEC TO PREVENT SUBSTANTIAL VOLTAGE DROP. REFER TO NEC ARTICLE 210.19, FOR MIN. AMPACITY AND SIZE; VOLTAGE DROP SHALL NOT EXCEED 3%, E.C. SHALL VERIFY
- REFER TO NEC ARTICLE 310.15 FOR AMPACITY ADJUSTMENT FACTORS
- GROUND ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 250 OF THE NEC
- VERIFY ELECTRICAL REQUIREMENTS FOR EQUIPMENT WITH OTHER TRADES PRIOR TO ORDERING MATERIALS. EXACT MANUFACTURERS AND MODELS MAY DIFFER FROM THOSE SCHEDULED AS BASIS OF DESIGN; COORDINATE ALL WORK
- RACEWAYS AND BOXES SHALL BE INSTALLED CONCEALED IN WALLS, FLOORS AND CEILINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
- MAKE FINAL POWER CONNECTIONS FOR EQUIPMENT; COORDINATE ALL WORK
- BALANCE PANELS IN ACCORDANCE WITH NEC
- MOUNTING HEIGHTS INDICATED FOR RECEPTACLES AND DEVICES ARE TO BOTTOM OF BOX, UNLESS NOTED OTHERWISE
- PROVIDE OPENINGS, HOLES, CONNECTORS, ETC. AS NECESSARY TO CONNECT AND PROVIDE ACCESS FOR ELECTRICAL WORK IN PANELS, CONTROL PANELS, BOXES, RACKS, TRAYS, ETC.
- BATTERY PACK EXIT AND EGRESS LIGHTS SHALL BE ON THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREAS WHERE EACH LIGHT IS LOCATED AND SHALL BE CONNECTED AHEAD OF LOCAL SWITCHES, IN ACCORDANCE WITH OBC AND NEC



ISSUE DATE
1 06-23-20 OWNER REVIEW
2 07-08-20 FOR PERMITS/BIOS

© 2020 BEILHARZ ARCHITECTS, INC.
THE CONTENT OF THIS DRAWING IS NOT INTENDED TO BE SUITABLE FOR USE OR REUSE BY INDIVIDUALS, COMPANIES, CORPORATIONS, OR OTHER ENTITIES FOR ANY PURPOSE OTHER THAN THE INTENDED PURPOSE OF THIS DOCUMENT, NOR FOR USE ON ANY OTHER PROJECT. ANY REUSE OR REPRODUCTION WITHOUT WRITTEN VERIFICATION AND ADAPTION BY THE ARCHITECT FOR THE SPECIFIC PURPOSE INTENDED SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE ARCHITECT.

DON NORTH MUNICIPAL BLDG.
NORTH VESTIBULE ADDITION
1399 EAST HIGH STREET
BRYAN, OHIO 43506

ELECTRICAL PLAN
HVAC PLAN

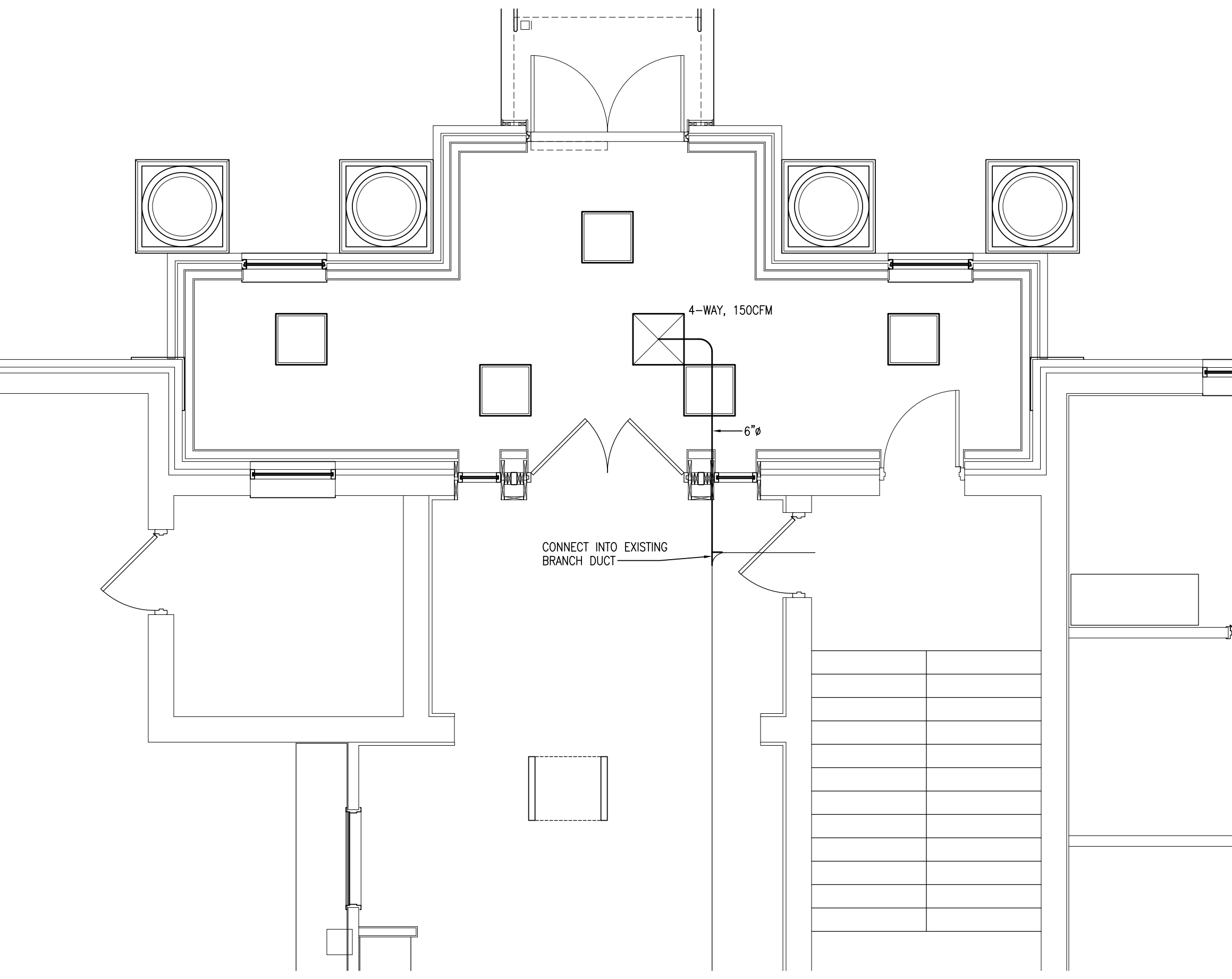
PROJECT: B9-4645

DRAWN BY: KEP

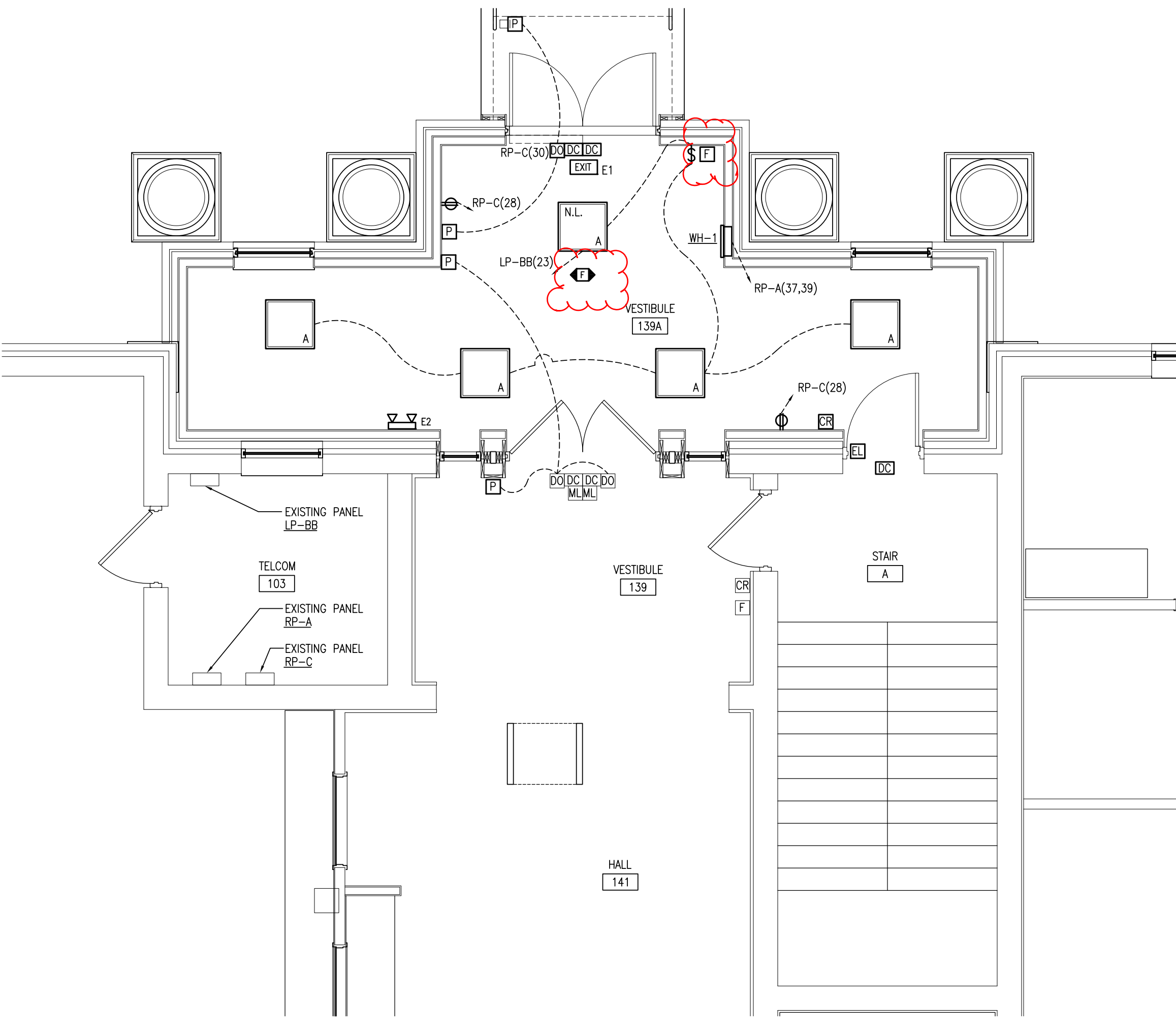
CHECKED BY: KAB

SHEET

A-4



HVAC PLAN
SCALE: 1/4"=1'-0"



ELECTRICAL PLAN
SCALE: 1/4"=1'-0"

SYMBOLS LEGEND

- EXISTING RECEPTACLE; BOX AND WALL RACEWAY TO REMAIN
- EXISTING SWITCH; BOX AND WALL RACEWAY TO REMAIN
- EXISTING FIRE ALARM PULL STATION
- EXISTING ACCESS CONTROL CARD READER
- EXISTING DOOR CONTACT
- EXISTING MAGNETIC LOCK
- EXISTING DOOR OPERATOR
- PUSH BUTTON DOOR OPERATOR
- POWER CIRCUIT (#) FED FROM PANEL P1
- DUPLEX RECEPTACLE
- WALL SWITCH, SINGLE POLE
- FIRE ALARM PULL STATION
- CEILING MTD. FIRE ALARM HORN/STROBE
- ACCESS CONTROL CARD READER
- DOOR CONTACT
- DOOR OPERATOR
- BUTTON DOOR OPERATOR
- 2x2 LAY-IN LED LIGHT FIXTURE
- NIGHT LIGHT FIXTURE, WIRED (HOT) UNSWITCHED FOR NIGHT LIGHT OPERATION
- EXIT/UNIT COMBO: WALL-MOUNTED; ARROW AS SHOWN
- EMERGENCY EGRESS LIGHT: WALL-MOUNTED



701½ West First Street
Defiance, OH 43512
Phone 419-782-6211
architects@beilharzinc.com

July 23, 2020

DON NORTH MUNICIPAL BUILDING
North Vestibule Addition
Bryan, Ohio

B9-4645

BID QUESTION LOG #2

The following questions and answers are distributed for supplemental information and clarification, and are not part of the Contract Documents. Questions answered by Addendum items are not necessarily repeated in this document.

- Q7. What is the current security system? Need to know to match existing.
- A. It is a Simplex system that Johnson Controls services.
- Q8. If you can get soil information or an standard bid depth from the architect that will help me refine my proposal. If not I will bid a base depth of 21 feet with a triple lead.
- A. No soil borings have been performed, but existing drawings and local experience suggest the presence of backfill to around 11' below finish floor, and heavy clay below that.

END OF BID QUESTION LOG #2