27 January 2025

Addendum 2

Columbus County
Sheriff's Department
Whiteville, NC

The following addendum shall supersede previous information and does hereby become part of the contract documents.

- Clarification: The G.C. will be responsible for all building permits, as well as water and sewer fees.
- Clarification, Drawings E-2: Fixture V $300.00/each allowance (materials only) and media light support truss $5000.00 allowance (materials only) shall be considered part of the allowances. The G.C. and E.C. shall coordinate with each other to verify that these items are covered.
- The antenna and shed to be bid as Alternate No. 1 is incorrectly shown on A-1. Actual location will put the antenna and shed is approximately 21' from existing building and within the footprint of the new addition. Antenna, shed, and foundations to be removed within Alternate No. 1.
- Clarification: The fiber line that is running under the new addition is approximately 12'-0" below grade.
- See attached revised SK-1.1 showing
    - Added foundation at column line 3J
    - Revised footing schedule deleting F85
- See BD-2 attached for connecting corridor to existing building detail.
- Clarification, C-1: The owner will coordinate the relocation of the existing electrical line with local utility company.
- Door 101B weighs approximately 1800lbs PEMB to supply support that will be approximately 10'-0" ± from finish floor.
- Clarification, Electrical Drawings:
    - (M) is a junction box for a microphone. Mount at 48" AFF and run a 1 ¼" conduit to above ceiling and provide a pull string and bushing at the end of the conduit.
    - (C) is a junction box for a camera. Mount at 12" below the ceiling and run a 1" conduit to above the ceiling and provide a pull string and bushing at the end of the conduit.
    - (CR) is for a card reader. See detail 3/E3.

- Clarification, Specifications 16195-3.1c, page 2: The intent is not to paint the box the specific color. The labels shall have the circuit numbers in the color code.
- See attached P-7.
- General comment, Sheet E3: Add circuit for coiling door operator in Storage 133. Utilize spare breaker B-26. Provide local disconnecting means as required by code. Coordinate location with door provided.
- Sheet E-4.1: The electrical contractor may intercept the existing underground service from the transformer to the MDP and use the existing feeders.
- Clarification, Sheet P-2: (depressed or sloped slab for the shower drains) The plumbing fixture spec on sheet P-1 indicates a prefab fiberglass unit which doesn't require either.
- Clarification, Details 1 and 2/A5.1: Call for "ice and water shield" which is a self-adhered underlayment by GCP-GRACE. Equal products will be acceptable.
- See attached Specification Section 15973 – Direct Digital Controls for this project which is the same type system as in the existing building. This will be part of the base bid.
- Clarification, A5.1: Details show flashing at PEMB siding to brick. Exact configuration to be coordinated with PEMB.
- No architectural model is available.
- Clarification: No window treatments/blinds are part of this contract.
- Clarification: Any minor interruptions of utilities to the existing building can be coordinated with owner, but any interruptions more than a few minutes shall be preformed after normal business hours.

End of Addendum 2

GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUYS OR TIEDOWNS.

DESIGN CODES:

2018 NORTH CAROLINA STATE BUILDING CODE.

ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.

DESIGN LOADS:

THE FOUNDATION SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS:

COLUMN REACTIONS PROVIDED BY PEMB MANUFACTURER (PRELIMINARY PENDING)

WIND:

BASIC WIND SPEED (3 SEC GUST)	148 mph
EXPOSURE CATEGORY	C
RISK CATEGORY	IV

COMPONENT & CLADDING:
ALL BUILDING COMPONENTS AND CLADDING ENGINEERED BY THE COMPONENT MANUFACTURER ARE TO BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR WIND LOADS DETERMINED PER THE NORTH CAROLINA STATE BUILDING CODE FOR THE BASIC DESIGN WIND VELOCITY, IMPORTANCE FACTOR AND EXPOSURE LISTED ABOVE.

FOUNDATIONS:

FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 psf. ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

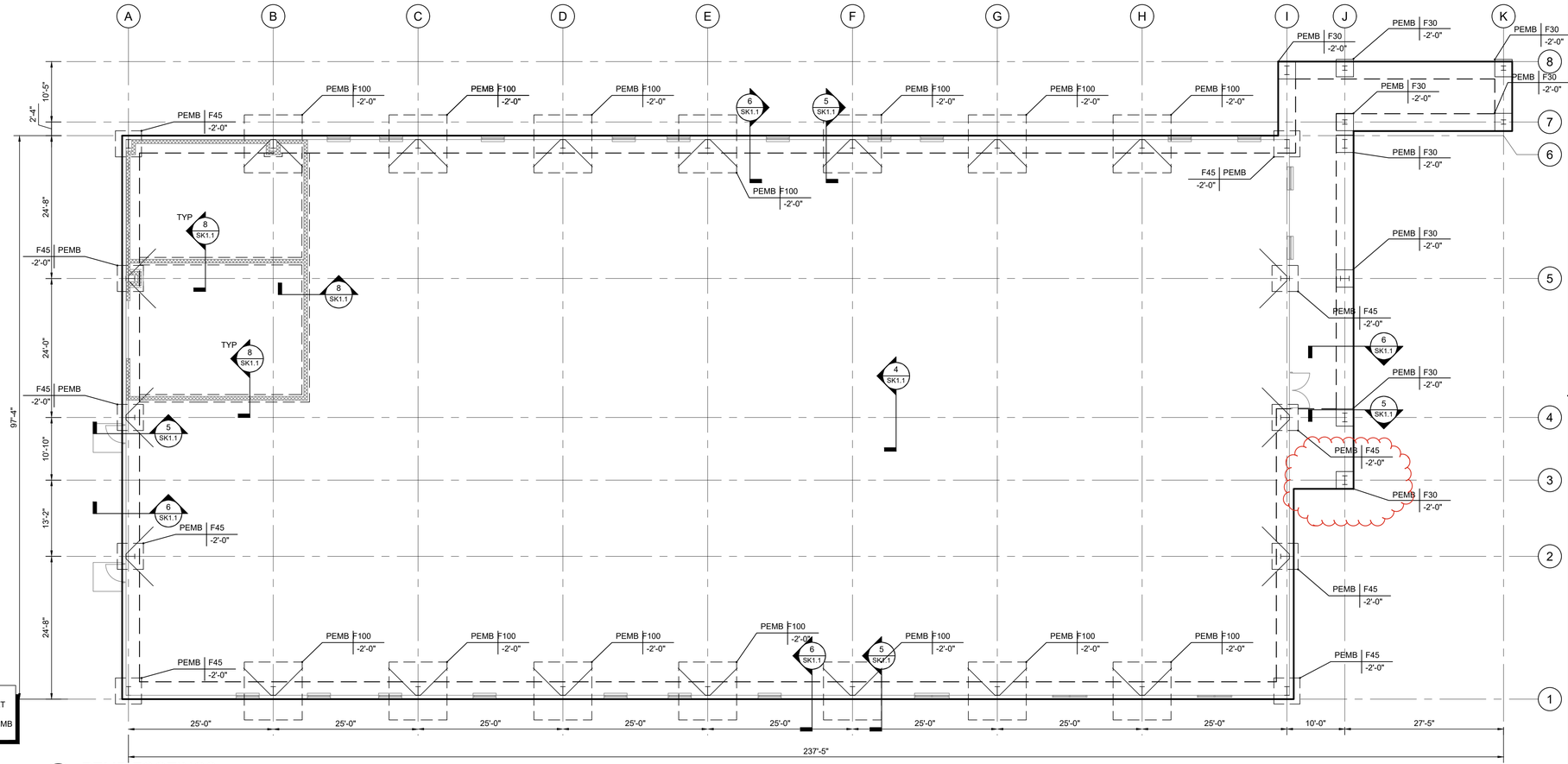
CONCRETE MATERIAL SPECIFICATIONS:

CONCRETE COMPRESSIVE STRENGTH: 4000 psi (28 DAY STRENGTH)
CEMENT: TYPE I/II
AIR ENTRAINMENT: 5% - 7% IF EXPOSED TO WEATHER OR EARTH
REINFORCING STEEL: ASTM A615, GRADE 60
WELDED WIRE FABRIC: ASTM A185
ANCHOR BOLTS: GRADE A36
CLASS B SPLICE LENGTH: GREATER OF 48 BAR DIAMETERS OR 24 INCHES

KEYED NOTES & LEGEND

- WALL & COLUMN FOOTING EXTENTS
- TURNED DOWN SLAB BASE
- EDGE OF SLAB
- STRUCTURE BY OTHERS

NOTE:
FINAL FOOTING AND ANCHOR BOLT DESIGN TO BE CONFIRMED UPON RECEIPT OF REACTIONS FROM PEMB MANUFACTURER



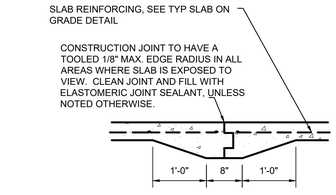
1 PEMB FOOTINGS

ARCH REF: 1/A-1 Scale: 3/32" = 1'-0"

FOOTING MARK	SIZE	REINFORCING
F30	3'-0"x3'-0"x12"	(4)-#4 E.W. TOP & BOT
F45	4'-6"x4'-6"x12"	(6)-#4 E.W. TOP & BOT
F100	10'-0"x10'-0"x12"	(11)-#4 E.W. TOP & BOT

FOOTING MARK — F40 | W12x14 — COLUMN SIZE
-1'-4" | BP1
TOP OF FOOTING ELEV. BELOW FINISHED FLOOR — BASEPLATE MARK

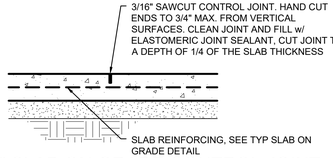
SPREAD FOOTING SCHEDULE



2 4" SLAB ON GRADE CONST. JOINT

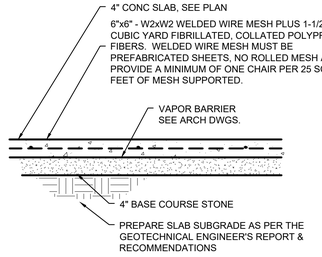
SCALE: 3/4" = 1'-0"

NOTES:
1. CONTRACTORS OPTION - USE REMOVABLE CONTROL JOINT MATERIAL SUCH AS "ZIP STRIP", "STRESSLOCK", OR APPROVED EQUAL.
2. SLAB ON GRADE CONTROL JOINTS SHALL BE TOOLED OR SAWCUT. THE JOINT PATTERN SHALL BE APPROXIMATELY SQUARE AND LIMITED TO AN AREA NOT TO EXCEED 225 S.F. JOINTS SHALL BE CUT WITHIN 12 HOURS OF POURING SLAB. SEE PLAN FOR PROPOSED JOINT LAYOUT. FINAL JOINT LAYOUT TO BE DETERMINED BY THE GENERAL CONTRACTOR.



3 4" SLAB ON GRADE CONTROL JOINT

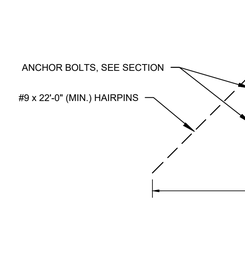
SCALE: 3/4" = 1'-0"



NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DROPS, AND DRAIN LOCATIONS IN FLOOR SLABS.

4 4" SLAB ON GRADE DETAIL

SCALE: 3/4" = 1'-0"

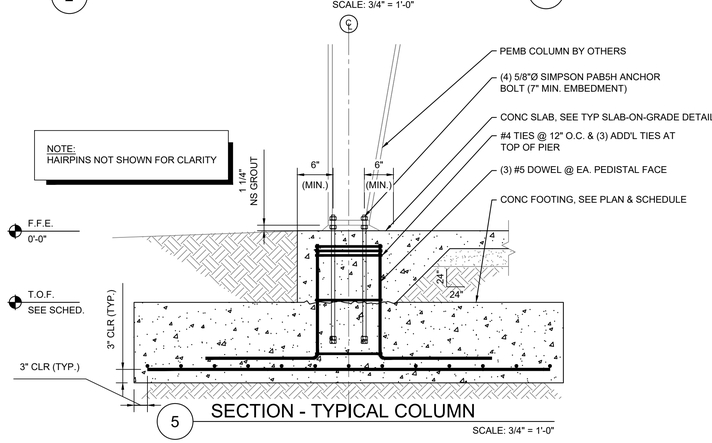


HAIRPIN CONDITION

7 TYP. HAIRPIN DETAILS

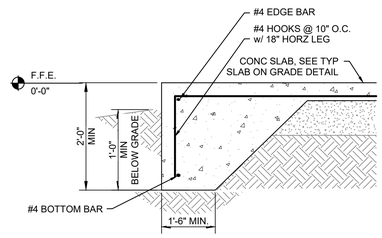
SCALE: 1" = 1'-0"

NOTE:
HAIRPINS NOT SHOWN FOR CLARITY



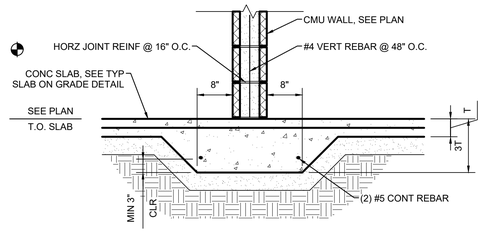
5 SECTION - TYPICAL COLUMN

SCALE: 3/4" = 1'-0"



6 PERIMETER FOUNDATION

SCALE: 3/4" = 1'-0"



8 THICKENED SLAB AT INTERIOR CMU PARTITION WALL

SCALE 3/4" = 1'-0"

FOR PERMIT

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13200 STRICKLAND ROAD
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NORTH CAROLINA PROFESSIONAL SEAL 035655 ENGINEER JUSTIN M. HENDRIX

NORTH CAROLINA PROFESSIONAL P-1418 CORPORATION OF ENGINEERS

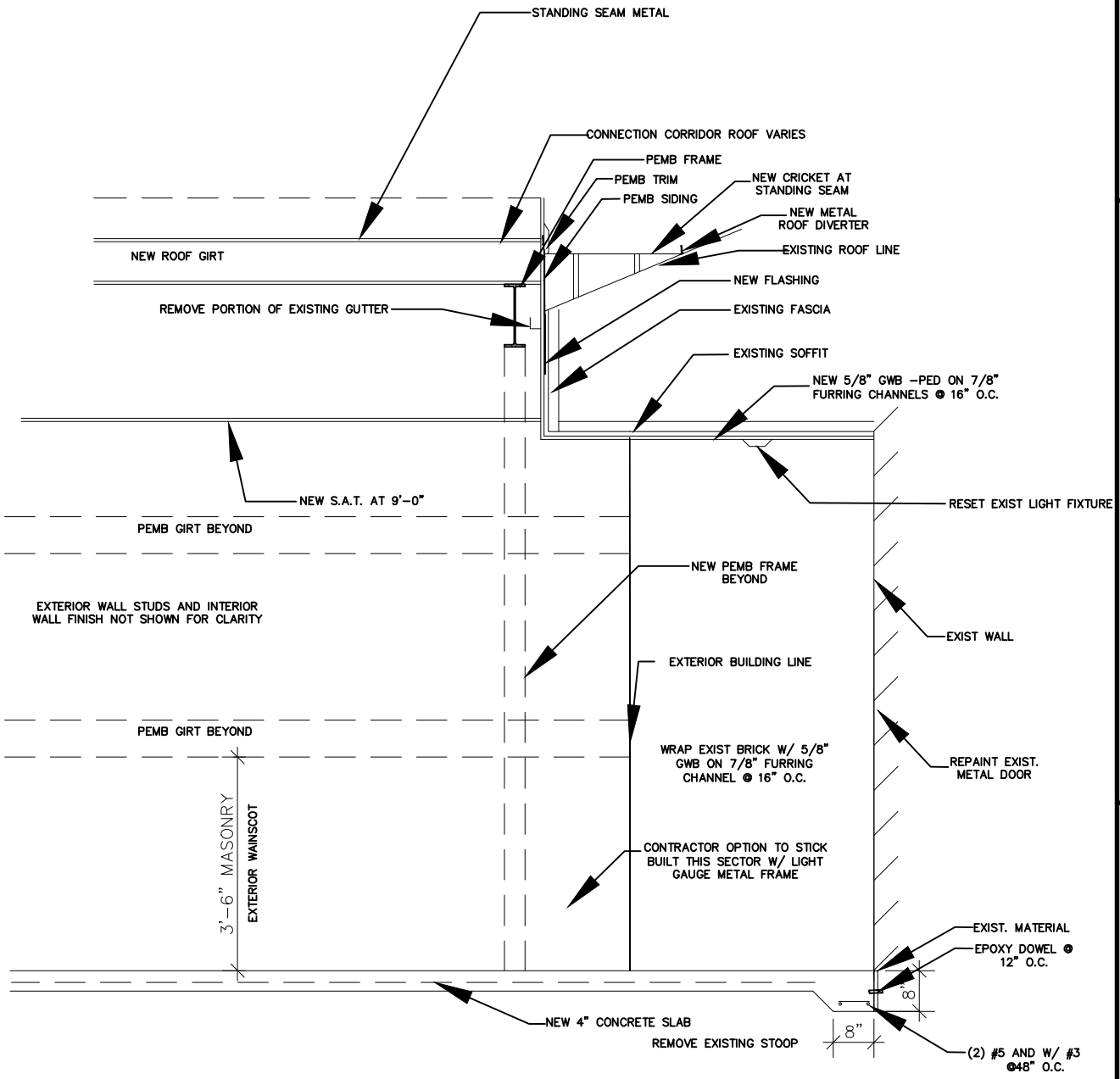
Project Name
COLUMBUS COUNTY SHERRIFF'S DEPT
PEMB FOUNDATION DESIGN
WHITESVILLE, NC

Sheet Title
PEMB FOOTINGS

DESIGNED BY:	AJI
DRAWN BY:	AJI
APPROVED BY:	HMH
PROJECT #:	24-308
DATE:	11/01/2024

No.	Revision	Date
1	FOOTING ADD	01/16/2025

Sheet
SK1.1



DETAIL AT CONNECTING CORRIDOR TO EXIST. BLDG

1
BD-2

SCALE: 3/8"=1'-0"

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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

23029

ISSUED:	01/20/2025
DWG BY:	CRF
CKD BY:	LDD
REVISIONS	

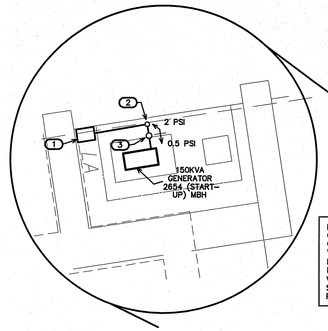
SHEET NO.
BD-2
OF 1

NOTE:
NATURAL GAS PRESSURE TO BE AT 2 PSI. PROVIDE PROPER LABELING ON ALL GAS PIPING. PROVIDE PROPER REGULATORS AT ALL EQUIPMENT CONNECTIONS. PAINT ANY INTERIOR OR EXTERIOR EXPOSED GAS LINES PER CODE AND THE BUILDING STANDARD.

KEY NOTES FOR SHEET P-7

1. PROVIDE 2 PSI NATURAL GAS SERVICE/METER. VERIFY LOCATION. COORDINATE WITH LOCAL GAS COMPANY, BUILDING OWNER.
2. DROP TO RUN ABOVE EXT. GRADE TO GENERATOR. VERIFY LOCATION/ROUTING.
3. PROVIDE PROPER GAS LINE REGULATOR FOR LOW PRESSURE SERVICE (0.5 PSI/LESS THAN 2 PSI) TO GENERATOR– LOW PRESSURE BRANCH LINE SHALL BE 6 FT MIN/10 FT MAX LENGTH TO THE EQUIPMENT CONNECTION, VERIFY SERVICE PRESSURE/COORDINATE ALL REQUIREMENTS WITH UNIT/MFR/SUPPLIER.

NOTE:
VERIFY ALL GAS EQUIPMENT LOAD TOTALS, VERIFY GAS METER LOCATION PRIOR TO BID. VERIFY LINE SIZES, TOTAL DEVELOPED LINE LENGTHS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR REQUIRED REVIEW AND/OR RESIZING OF GAS LINES.



NOTE:
COORDINATE GENERATOR GAS LINE REQUIREMENTS WITH MFR/SUPPLIER. PROVIDE PROPER LABELING FOR GENERATOR GAS LINE. VERIFY UNIT LOCATION WITH SITE PLAN AND ARCHITECT PRIOR TO BID.

2/P-1 EXISTING BLDG.– NATURAL GAS PLAN
SCALE: NOT TO SCALE

2018 NCSBC, FUEL GAS CODE– TABLE 402.4(5)

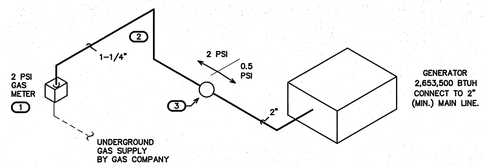
NOTE:
GAS PIPE SIZES BASED UPON AN INITIAL PRESSURE OF 2 PSI AND A PRESSURE DROP OF 1 PSI AT 100 FEET IN DEVELOPED LENGTH. PIPE SIZES SHOWN ARE MINIMUM NOMINAL INSIDE DIAMETER. TOTAL CONNECTED LOAD (OVERALL) = 2,653,500 BTUH

2018 NCSBC, FUEL GAS CODE– TABLE 402.4(2)

GENERATOR LOW PRESSURE LINE NOTE:
GAS PIPE SIZES BASED UPON AN INITIAL PRESSURE OF LESS THAN 2 PSI AND A PRESSURE DROP OF 1/2" WC AT 10 FEET IN DEVELOPED LENGTH. PIPE SIZES SHOWN ARE MINIMUM NOMINAL INSIDE DIAMETER. TOTAL CONNECTED LOAD (GENERATOR ONLY) = 2,653,500 BTUH

NOTE:
GAS PIPING SHALL BE BLACK STEEL, SCHEDULE 40 WITH SCREWED (LESS THAN 2–1/2" DIA. PIPING) OR WELDED (GREATER THAN OR EQUAL TO 2–1/2" DIA. PIPING) FITTINGS. TEST, LABEL AND INSTALL ALL PIPING PER THE NCSBC.

NOTE:
NATURAL GAS PRESSURE FOR THE BLDG. GAS MAIN IS TO BE 2 PSI. PROVIDE PROPER REGULATORS ON GENERATOR LINE, GPU'S. VENT ALL REGULATORS TO EXTERIOR IF/AS REQUIRED. PROVIDE PROPER LABELING ON 2 PSI PIPING. PROVIDE REGULATOR/CONNECTION PER NCSBC– FUEL GAS SECT. 410.2 AND ALL OTHER APPLICABLE SECTIONS. GPU EQUIPMENT CONNECTIONS/REGULATORS NOT SHOWN ON RISER– SEE CONNECTION DETAIL THIS SHEET.

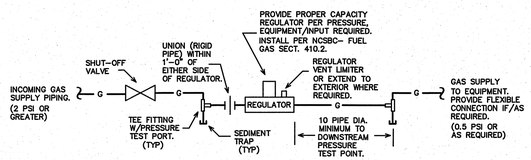


NOTE:
COORDINATE NEW 2 PSI SERVICE WITH GAS COMPANY. FIELD VERIFY LOCATION PRIOR TO BID.

GENERATOR CONNECTION NOTE:
PROVIDE SHUT–OFF VALVE, DIRTLEG, UNION, AND FLEXIBLE CONNECTION OR AS REQUIRED. VERIFY CONNECTION TYPE/SIZE WITH EQUIPMENT.

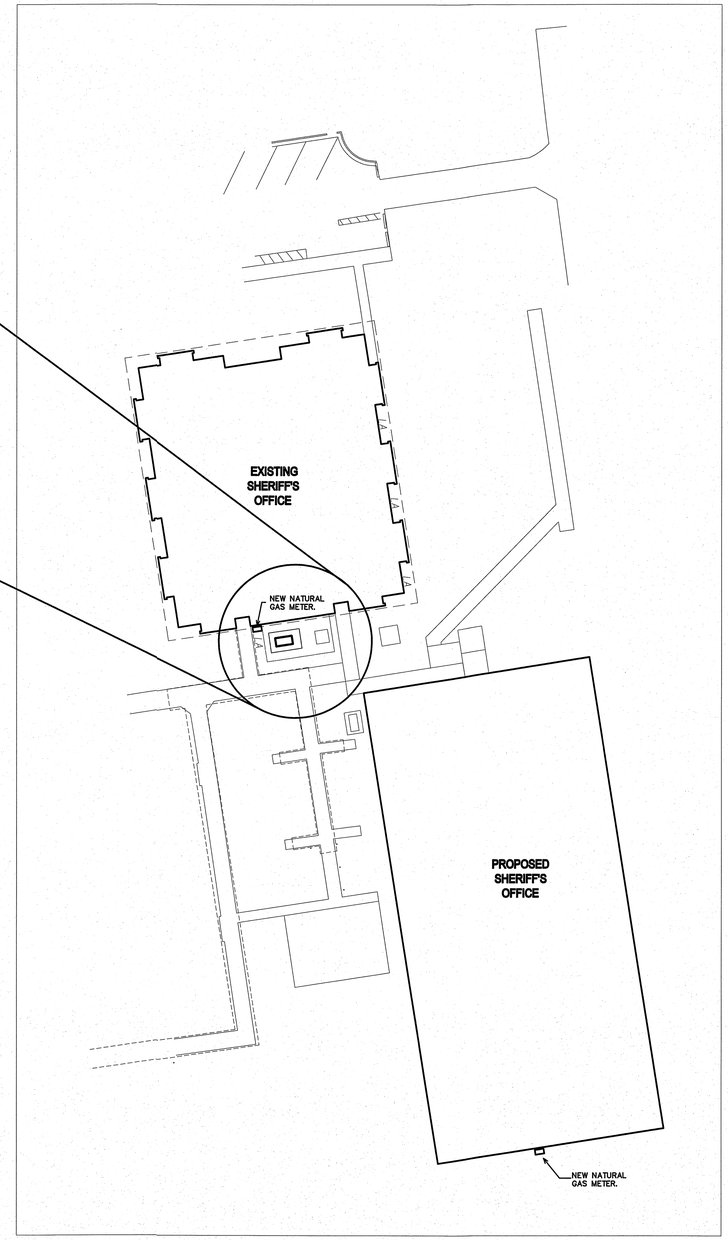
3/P-1 EXISTING BLDG.– NATURAL GAS RISER
SCALE: NOT TO SCALE

GENERAL FUEL GAS EQUIPMENT AND/OR LINE CONNECTION W/REGULATOR. VERIFY REQUIREMENTS, COORDINATE WITH ANY/ ALL EQUIPMENT. INSTALL CONNECTION PER 2018 NCSBC– FUEL GAS CODE.



PROVIDE PROPER TEE FITTING POSITIONING TO ALLOW FOR CONNECTION OF PRESSURE MEASURING INSTRUMENT. (TYP)

4/P-1 REDUCED LINE PRESSURE CONNECTION DETAIL
SCALE: NOT TO SCALE



1/P-1 KEYPLAN – EXISTING BLDG.
SCALE: NOT TO SCALE

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Design
Planning
Interiors

Member of the American Institute of Architects

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COLUMBUS COUNTY
SHERIFF'S DEPARTMENT
WHITEVILLE, NORTH CAROLINA

1/24/25

NORTH CAROLINA PROFESSIONAL SEAL 22038 ENGINEER BENJAMIN E. BURKE

EXISTING BLDG. – NATURAL GAS PLAN

23029

ISSUED:	01/24/2025
DWG BY:	MH
CKD BY:	BEB

REVISIONS

SHEET NO.
P-7

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email: ben@bdg–nc.com
Corp. License # C–2552

SECTION 15973 – Direct Digital Controls

1.01 MANUFACTURERS

A. Delta Controls by Champion Systems, Inc (336-885-2441)
   1. The system shall match and expand the existing Delta Controls System. All new panels and software must communicate seamlessly as part of the existing Delta Controls network and use the existing programming, setup and graphical interfacing tools. The new panels will exchange data and accept all editing commands from the existing Delta Controls Operator Workstation as well as enteliWEB™ dashboard interface.

1.02 SYSTEM DESCRIPTION

A. Automatic temperature control field monitoring and control system using field programmable microprocessor-based units.

B. Base system on distributed system of fully intelligent, stand-alone controllers, operating in a multi-tasking, multi-user environment, with central and remote hardware, software, and interconnecting wire and conduit.

C. Include computer software and hardware, operator input/output devices, control units, local area networks (LAN), sensors, control devices, actuators.

D. Controls for variable air volume terminals, radiation, reheat coils, unit heaters, fan coils, and the like when directly connected to the control units

E. Provide control systems consisting of communicating thermostats, control valves, dampers and operators, indicating devices, interface equipment and other apparatus and accessories required to operate mechanical systems, and to perform functions specified.

F. Include installation and calibration, supervision, adjustments, and fine tuning necessary for complete and fully operational system.

1.03 OPERATOR INTERFACE

A. PC Based Workstation: Operator Workstation. Existing servers and workstations shall be utilized and remain active on the system. Each of these servers shall be able to access all information in the system. These workstations shall reside on the same Ethernet protocol network as the Building Controllers.

B. PC server to be current level required for proper security features.

C. Workstation information access shall use the BACnet protocol. Communication shall use the ISO 8802-3 (Ethernet) Data Link/ Physical layer protocol.

D. Workstation, controllers, and control backbone to communicate using BACnet protocol and addressing.

E. BACnet protocol to comply with ASHRAE Std 135.

1.04 ADVANCED APPLICATION CONTROLLERS

A. General.
   1. Provide BACnet® Application Controllers (AACs) as required to execute the sequence of operations. ASC's are microprocessor-based DDC controllers which through hardware or firmware design are able to control a wide variety of equipment. They shall be fully user-configurable and internal programming capability to override internal sequences.
   2. Each ASC shall be capable of standalone operation and shall continue to provide control functions without being connected to the network.
   3. Each ASC will contain sufficient I/O capacity to control the target system.
   4. Both firmware and controller database shall be loadable over the network
   5. Advanced Application Controllers shall support all BACnet Interoperability Building Blocks (BIBBs) indicated.

B. Communication
   1. The controller shall reside on a BACnet network using the Ethernet Data Link/ Physical layer protocol.
   2. Each controller shall have a BACnet Data Link/ Physical layer compatible connection for a laptop computer or a portable operator's tool. This connection shall be extended to a space temperature sensor port where shown and allow access to the entire network.

C. Environment. The hardware shall be suitable for the anticipated ambient conditions.
   1. Controllers used outdoors and/or in wet ambient conditions shall be mounted within waterproof enclosures, and shall be rated for operation at -40°C to 65°C [40°F to 150°F] and/or suitably installed in a heated or fan cooled enclosure
   2. Controllers used in conditioned space shall be mounted in dust proof enclosures, and shall be rated for operation at 0°C to 50°C [32°F to 120°F].

D. Serviceability. Provide diagnostic LEDs for power, communication, and processor. All wiring connections shall be made to field-removable, modular terminal strips.

E. Memory. The Application Specific Controller shall use non-volatile memory and maintain all BIOS and programming information in the event of a power loss.

F. Immunity to power and noise. ASC shall be able to operate at 90% to 110% of nominal voltage rating and shall perform an orderly shutdown below 80%. Operation shall be protected against electrical noise of 5-120 Hz and from keyed radios up to 5 W at 1 m [3 ft].

G. Transformer. Power supply for the ASC must be rated at minimum of 125% of ASC power consumption and shall be fused or current limiting type.

H. Input/Output. ASC shall support as a minimum, directly connected, a combination of analog outputs and binary outputs and universal software selectable analog or digital inputs. ASC inputs shall support 0-5 VDC-voltage, 4-20mA-current, thermistor-resistance and dry contacts. ASC outputs shall support 0-10 VDC-voltage, digital triac rated at 0.5 amps at 24 VAC.

1.05 TRAINING

A. General
   1. Provide 4 hours in length during the construction period for personnel designated by the owner.
   2. Provide additional training session at 12 months following building’s turnover. Each session shall be 4 hrs in length and must be coordinated with the building Owner.

1.06 SEQUENCE

A. Roof Top Package Units - RTU
   1. Provide Delta programable, communicating controllers to meet the sequence of operations as detailed.
   2. Each RTU shall be operated to maintain the space conditions by cycling heating, cooling and dehumidification.
   3. RTUs shall be provided to accept typical Y1Y2W1W2GO thermostat wiring and follow the instructions of the Delta controller signals.
   4. Provide for high-limit and low-limit operation, during after hours scheduling.
   5. Provide Optimum start programming for early start during heating and cooling seasons.
   6. Provide trending, 5 years for all physical input and output points and all set points.
   7. Provide a graphic for each piece of equipment the BAS is controlling. Insert trend links and physical points layout to provide visual indication of the real time operation.
   8. Provide a floor plan graphic indicating the zone for each RTU and create a clickable link to go directly to the units pictorial graphic.

END OF SECTION 15973