University of Kentucky
Procurement Services

INVITATION FOR BIDS

CCK-1256X-1-25
UK Healthcare Richmond Improvements
Projects # 12566, 12567, 12568, 12569
ADDENDUM # 3
03/21/2025

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY 04/02/2025 @ 3:00 P.M. LEXINGTON, KY TIME

Bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

ITEM #1: CLARIFICATIONS AND MODIFICATIONS TO THE CONTRACT DOCUMENTS:

- Bidders are directed to review and incorporate the attached Addendum #3 from Champlin Architects.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

Corey W. Leslie

SIGNATURE

_____

_____
Typed or Printed Name

University of Kentucky
Procurement Services
322 Peterson Service Building
Lexington, KY 40506-0005

CHAMPLIN
ARCHITECTURE

Addendum #03

Client	University of Kentucky Healthcare	Date	2025-03-21
Project	UK Richmon MOB	UK Project #	12566, 12567, 12568, 12569
	UK - CCK-1256x-1-25	Champlin Project #	514-7484

This addendum provides information to clarify or adjust construction items which may affect any or all trade contractors. The original documents for the referenced project are amended as noted in this addendum and made part of said documents and shall govern the work covered by the Form of Proposal. All work to be in strict accordance with the terms, stipulations and conditions of contract documents.

SUMMARY OF ATTACHMENTS:

1. Response to bidder questions
2. Existing roof warranty
3. Revised drawings with revision clouds as described below.

BIDDER QUESTIONS:

1. **Question**: *There is a significant pricing difference between PL-1 & PL-2, and still trying to determine where PL-3 tops are at.*
    a. **Response**:
        i. PL-2 is ONLY at the divider walls in the Check-In / Out desk at Registration 101 and the open shelf ONLY at detail 6/A802. This is the only location for PL-2 and is clarified on elevations 3 & 5/A401, & noted in detail 4/A802. Sheet A401 has been reissued with this addendum.
        ii. PL-3 is the countertops for the clinical workrooms without sinks and is identified on interior elevations for enlarged floor plans 1 & 5/A407:
            1. MA/RN Workroom 331
            2. MD Workroom 332
        iii. All other laminate is PL-1.

2. **Question**: *The Pony walls as shown on 4/A802 is by others, but we need to cover in PL-2 colorcore with the stickman corners. Would you consider letting the casework company make these walls framed in house in order to have the best possible final finished product? Other suggestion would be to be sure that the supplier of the pony wall coordinates with us so we can fabricate to the greatest extent possible for installation of the panels.*
    a. **Response**: The divider walls shown in detail 4/A802 are not intended to be casework scope.

3. **Question**: *Same pony wall issues as above but at 3/A802 for registration desk & solid surface.*
    a. **Response**: The wall shown in this detail is casework scope. Note that the 'rigid pony wall heavy' items is still required.

4. **Question**: *My previous email for color questions, I believe is now figured out. All casework gets PL-1/SS1 Tops, except at 331/332 – they get PL3 tops. The Exam rooms are SS1 tops w/SS2*

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integral sinks. PL-2 is also used at the pony walls and the open shelf under the in/out desks. SS3 is used at the desk tops/walls as indicated on details.

a. **Response**: See response to Question 1.

5. **Question**: *At 14/A408 PT Gym base cabinet notes 4 dividers in base cabinet. Does this mean 4 shelves? One vertical divider to make 4 cubbie openings? Or something else?*
   a. **Response**: The cabinet needs a single fixed shelf at the halfway height point as shown. The top of this shelf needs to be divided into (5) equal compartments.

6. **Question**: *At 7/A405 there are TC-002 patient lockers noted, I'm assuming this is part of the rest of the casework – what type of lock is required for the lockers? Do you need name plate on door face?*
   a. **Response**: A name plate is required along with a digi-lock for these lockers.

7. **Question**: *Is the mock up required only for the glove cabinet? Or the whole exam room?*
   a. **Response**: Mock-up is only required for the glove cabinet.

8. **Question**: *Will we be allowed to use Salice soft close hinges in lieu of Blum? Salice is our shop standard, their soft close hinge comes 105 or 155 degree opening.*
   a. **Response**: This is acceptable.

9. **Question**: *Will magnetic catches be enforced? They are really not needed with soft close hardware.*
   a. **Response**: Magnetic catches are not required where the doors have soft-close hardware.

10. **Question**: *The specs indicate shelf rests ANSI/BHMA A156.9 B04013 – this is a metal rest with pilaster; however the drawings indicate line bore. Which is to be used? If pilasters do you surface mount or recessed? If recessed typical construction is that the particle board is exposed.*
    a. **Response**: The specifications prevail. Please provide the recessed metal pilaster.

11. **Question**: *The drawer slides that are called out as basis of design are Accuride easy/soft close 3634EC – note that this is an expensive slide at a raw cost of $81 each, will you accept a DSPro as substitute?*
    a. **Response**: This substitution is not acceptable.

12. **Question**: *The door and drawer locks call out ANSI/BHMA A156.11 E07121 & E07041 Grade 1 – they are non-stock special order locks and expensive (document attached). Will you allow our shop standard Timberline Deadbolt CB250, CB255, CB280? There are very few areas noted to get cabinet locks.*
    a. **Response**: This is acceptable

13. **Question**: *Work surface supports called out to be Mockett, will A&M support brackets be allowed (more cost effective) testing info attached.*
    a. **Response**: This is acceptable.

14. **Question**: *Specs call for Air Vent Grille, I do not see where these are called out on the casework.*
    a. **Response**: These are for the i-pad charging stations. Provide (2) air vent grilles, one in each door at the tall cabinet on elevation 10/4A408.

15. **Question**: *Specs calling for both door restraints and restriction clips – which are to be used?*
    a. **Response**: Please use the restriction clips wherever possible.

16. **Question**: *Please clarify scope of work for Alternate 1?*
    a. **Response**: Floor drains in the toilet rooms are not required per the 2022 Kentucky Plumbing Code, section 20:191 Minimum Fixture Requirements, Section 2. Alternate scope is defined in the specifications section 012300 ALTERNATES.IC002

PART A - DRAWINGS:

A001 – ARCHITECTURAL SITE & ROOF PLAN
1. *Coordinate removable bollards with civil drawings.*
2. *Coordinate accessible parking spaces with civil drawings*
3. *Add basis of design for the Conex Box.*

A401 – ENLARGED PLANS & INTERIOR ELEVATIONS
1. *Clarify location of PL-2 on interior elevations 3 & 5.*

P201 – FIRST FLOOR – PLUMBING DISTRIBUTION PIPING PLAN
1. *Added Notes 7 & 8*
2. *Added 0.75" Backflow Preventer and associated cold water (NPW) to serve humidifiers.*

IC002 – CONTROLS
1. *Change relief air damper from motorized to barometric on controls diagram.*
2. *Remove freeze-stat from controls diagram and associated control point on schedule.*
3. *Remove final filter from controls diagram and associated control point on schedule.*
4. *Remove UVGI light from controls diagram and associated control point on schedule.*
5. *Remove unused control points from schedule. Renumber control points to account for these removals.*

M002 – HVAC SCHEDULES
1. *Add return fan data to schedule for all RTUs.*
2. *Add integral 100% barometric relief and service receptacle to schedule for all RTUs.*
3. *Add makeup water connection and drain connection sizes to electric humidifiers.*

M003 – HVAC SCHEDULES
1. *Add note to steam condensate pump schedule to provide pump for each grid and dispersion device.*

M201 – FIRST FLOOR – MECHANICAL NEW WORK PLAN
1. *Relocate steam generators. Reroute steam piping to dispersion grids to account for new location.*
2. *Relocate condensate pipe routing for steam generators/dispersion grids. Drain is to be located in CT EQUIP closet.*

E001 – ELECTRICAL LEGEND, SCHEDULES AND SHEET INDEX
1. *Revise light fixture descriptions and add manufacturers*

E002 – SINGLE LINE
1. *The generator voltage clarified and stepdown transformer added.*

E003 – PANELBOARD SCHEDULES

1. *Add circuits.*

E201 – FIRST FLOOR – NEW WORK LIGHTING PLAN

1. *Exterior lighting control clarified.*

E301 – FIRST FLOOR – NEW WORK POWER PLAN

1. *CT room revised and circuit clarified in data room.*

E-501 – FIRST FLOOR – ELECTRICAL NEW WORK PLAN

1. *Change conduit size from 1" to 2" in Note 9. Drawing not reissued.*

End of Addendum

CARLISLE

GOLDEN SEAL TOTAL ROOFING SYSTEM WARRANTY

SERIAL NO. 10030320 111 **DATE OF ISSUE: June 15, 2008**

BUILDING OWNER: RICHMOND CENTRE, LLC
NAME OF BUILDING: RICHMOND CENTRE - RETAIL BUILDING X
BUILDING ADDRESS: 2091 LANTERN RIDGE DRIVE, RICHMOND, KY
DATE OF COMPLETION OF THE CARLISLE TOTAL ROOFING SYSTEM: 06/15/2008
DATE OF ACCEPTANCE BY CARLISLE: 06/15/2008 **(EB Warranty)** **CMD1029752**

Carlisle Roofing Systems, Inc., warrants to the Building Owner (Owner) of the above described building, that; subject to the terms, conditions, and limitations stated in this warranty, Carlisle will repair any leak in the Carlisle Golden Seal™Total Roofing System (Carlisle Total Roofing System) installed by a Carlisle Authorized Roofing applicator for a period of 20 years commencing with the date of Carlisle's acceptance of the Carlisle Total Roofing System installation. However, in no event shall Carlisle's obligations extend beyond 20.5 years subsequent to the date of substantial completion of the Carlisle Total Roofing System. See below for exact date of warranty expiration.

The Carlisle Total Roofing System is defined as the following Carlisle brand materials: Membrane, Flashings, Counterflashings, Adhesives and Sealants, Insulation, Recovery Board, Fasteners, Fastener Plates, Fastening Bars, Metal Edging, Metal Termination Bars, and any other Carlisle brand products utilized in this installation.

TERMS, CONDITIONS, LIMITATIONS

1. Owner shall provide Carlisle with written notice within thirty (30) days of the discovery of any leak in the Carlisle Total Roofing System. Owner should send written notice of a leak to Carlisle's Warranty Services Department at the address set forth at the bottom of this warranty. By so notifying Carlisle, the Owner authorizes Carlisle or its designee to investigate the cause of the leak. Should the investigation reveal the cause of the leak to be outside the scope of this Warranty, investigation and repair costs for this service shall be paid by the Owner.
2. If, upon inspection, Carlisle determines that the leak is caused by a defect in the Carlisle Total Roofing System's materials, or workmanship of the Carlisle Authorized Roofing Applicator in installing the same, Owner's remedies and Carlisle's liability shall be limited to Carlisle's repair of the leak.
3. This warranty shall not be applicable if, upon Carlisle's inspection, Carlisle determines that any of the following has occurred:
   (a) The Carlisle Total Roofing System is damaged by natural disasters, including, but not limited to, lightning, fire, insect infestations, earthquake, tornado, hail, hurricanes, and winds of peak gust speeds of 55 mph or higher measured at 10 meters above ground; or
   (b) The Carlisle Total Roofing System is damaged by any intentional or negligent acts, accidents, misuse, abuse, vandalism, civil disobedience, or the like.
   (c) Deterioration or failure of building components, including, but not limited to, the roof substrate, walls, mortar, HVAC units, non-Carlisle brand metal work, etc., occurs and causes a leak, or otherwise damages the Carlisle Total Roofing System; or
   (d) Acids, oils, harmful chemicals and the like come in contact with the Carlisle Total Roofing System and cause a leak, or otherwise damage the Carlisle Total Roofing System.
4. This Warranty shall be null and void if any of the following shall occur:
   (a) If, after installation of the Carlisle Total Roofing System by a Carlisle Authorized Roofing Applicator there are any alterations or repairs made on or through the roof or objects such as, but not limited to, structures, fixtures, or utilities are placed upon or attached to the roof without first obtaining written authorization from Carlisle; or
   (b) Failure by the Owner to use reasonable care in maintaining the roof, said maintenance to include, but not be limited to, those items listed on Carlisle's Care & Maintenance Information sheet which accompanies this Warranty.
5. Only Carlisle brand insulation products are covered by this warranty. Carlisle specifically disclaims liability, under any theory of law, for damages sustained by or caused by non-Carlisle brand insulation products.
6. During the term of this Warranty, Carlisle shall have free access to the roof during regular business hours.
7. Carlisle shall have no obligation under this Warranty while any bills for installation, supplies, service, and warranty charges have not been paid in full to the Carlisle Authorized Roofing Applicator, Carlisle, or material suppliers.
8. Carlisle's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
9. Carlisle shall not be responsible for the cleanliness or discoloration of the Carlisle Total Roofing System caused by environmental conditions including, but not limited to, dirt, pollutants, or biological agents.
10. Carlisle shall have no liability under any theory of law for any claims, repairs, restoration, or other damages including, but not limited to, consequential or incidental damages relating, directly or indirectly, to the presence of any irritants, contaminants, vapors, fumes, molds, fungi, bacteria, spores, mycotoxins, or the like in the building or in the air, land, or water serving the building.
11. This warranty is not assignable by operation of law or otherwise. Application may be made by a new building owner for reissuance of the warranty during the original warranty period. Certain procedures including, but not limited to, an inspection of the Roofing System by a Carlisle representative and fees will apply to any reissuance. Carlisle reserves the right, in its sole discretion, to refuse to reissue this warrranty.

CARLISLE DOES NOT WARRANT PRODUCTS UTILIZED IN THIS INSTALLATION WHICH IT HAS NOT FURNISHED; AND SPECIFICALLY DISCLAIMS LIABILITY, UNDER ANY THEORY OF LAW, ARISING OUT OF THE INSTALLATION AND PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY CARLISLE.

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF THE CARLISLE TOTAL ROOFING SYSTEM OR ITS COMPONENTS. THERE ARE NO WARRANTIES EITHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, WHICH EXTEND BEYOND THE FACE HEREOF. CARLISLE SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGE TO THE BUILDING OR ITS CONTENTS UNDER ANY THEORY OF LAW.

BY: Robert H. McNeill
AUTHORIZED SIGNATURE
TITLE: Director, Technical and Warranty Services

This Warranty Expires: June 14, 2028

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1 A001 ARCHITECTURAL SITE PLAN
1" = 10'-0"

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HealthCare

UK HealthCare Richmond

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Richmond, KY 40475

UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	OWNER REVIEW SET	01/06/2024
2	BID & PERMIT	02/07/2025
3	ADDENDUM 01	03/14/2025
4	ADDENDUM 02	03/21/2025

Drawn By
Author

Checked By
Checker

Client No.
514

Project No.
7484

KRUTARTH JAIN
REGISTERED
No. 8538
COMMONWEALTH OF KENTUCKY
ARCHITECT

KRUTARTH JAIN
LICENSE #8538
EXPIRATION: 06/30/2025

PROJECT TRUE

ARCHITECTURAL SITE & ROOF PLAN

A001

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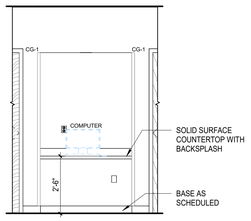

14 A401 INTERIOR ELEVATION - MA STATION CORRIDOR
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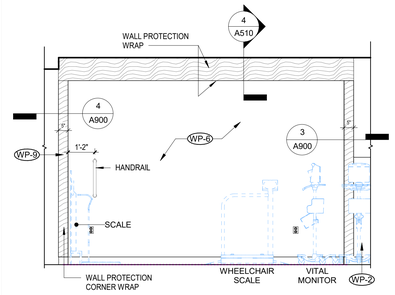

11 A401 INTERIOR ELEVATION - SCALE 309 - EAST
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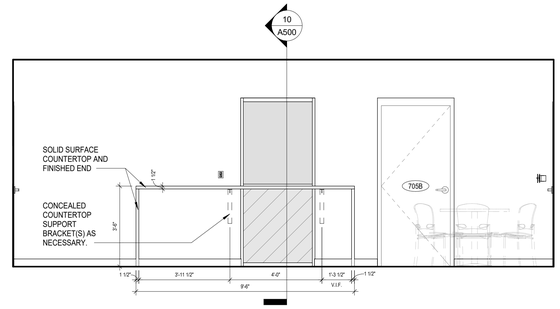

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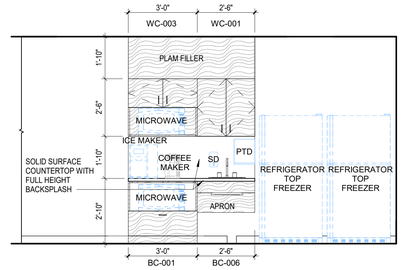

9 A401 INTERIOR ELEVATION - STAFF BREAKROOM 705 - NORTH
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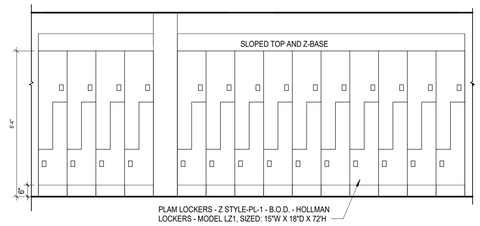

8 A401 INTERIOR ELEVATION - CORRIDOR 710 - EAST
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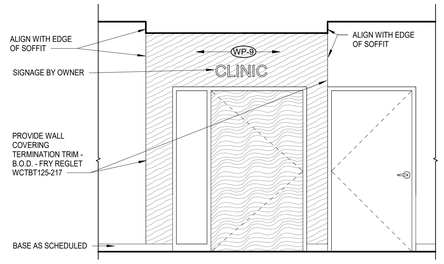

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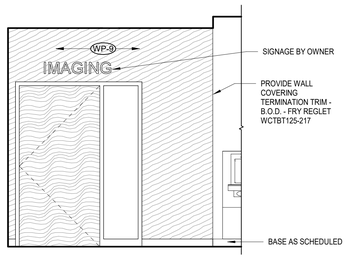

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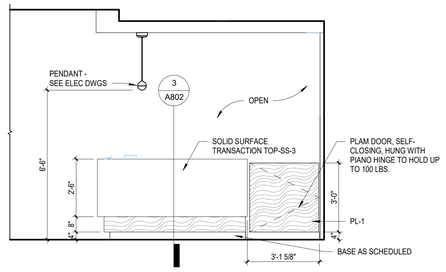

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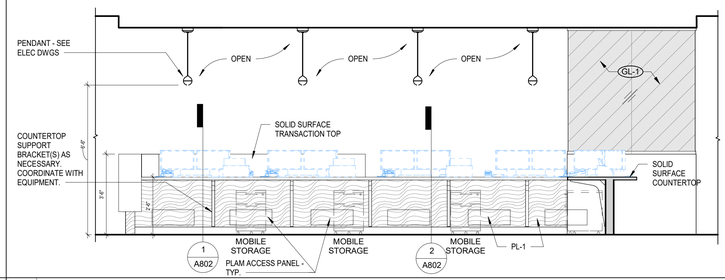

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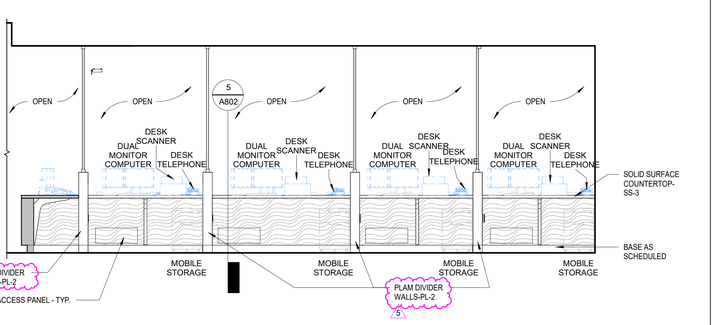

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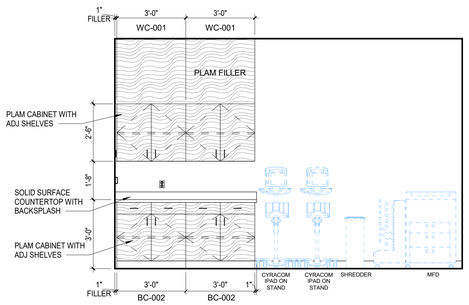

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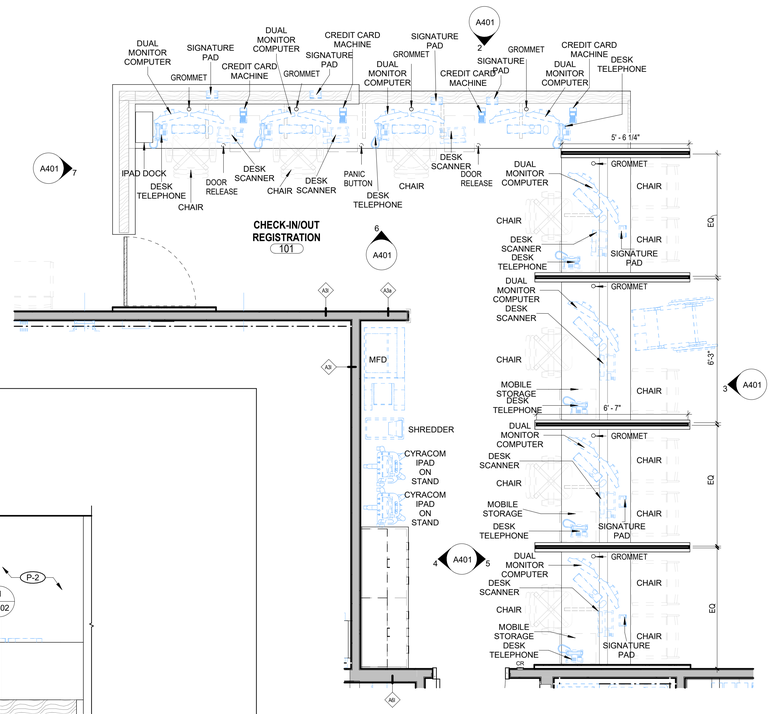

1 A401 ENLARGED FLOOR PLAN - CHECK-IN/OUT REGISTRATION 101
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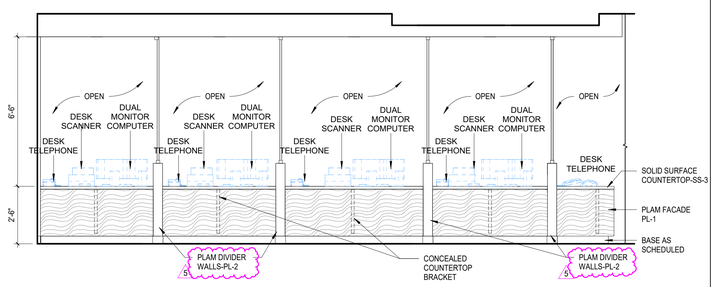

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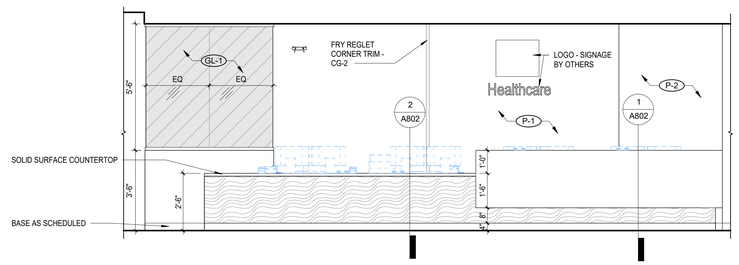

2 A401 INTERIOR ELEVATION - CHECK-IN/OUT REGISTRATION 101 - SOUTH
3/8" = 1'-0"

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UK HealthCare

UK HealthCare Richmond

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Richmond, KY 40475

UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	DD SIGN-OFF	12/09/2024
2	OWNER REVIEW SET	01/06/2024
3	BID & PERMIT	02/07/2025
4	ADDENDUM 01	03/14/2025
5	ADDENDUM 02	03/21/2025

Drawn By: Author
Checked By: Checker
Client No.: 514
Project No.: 7484

KRUTARTH JAIN LICENSED ARCHITECT No. 8538 COMMONWEALTH OF KENTUCKY
KRUTARTH JAIN
LICENSE #8538
EXPIRATION: 06/30/2025

ENLARGED PLANS & INTERIOR ELEVATIONS

A401

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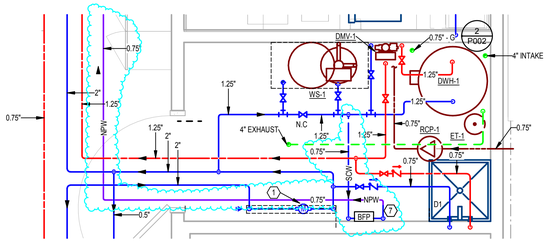
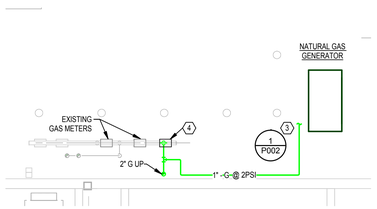


2 ENLARGED EVS ROOM
SCALE: 1/2" = 1'-0"



3 GENERATOR
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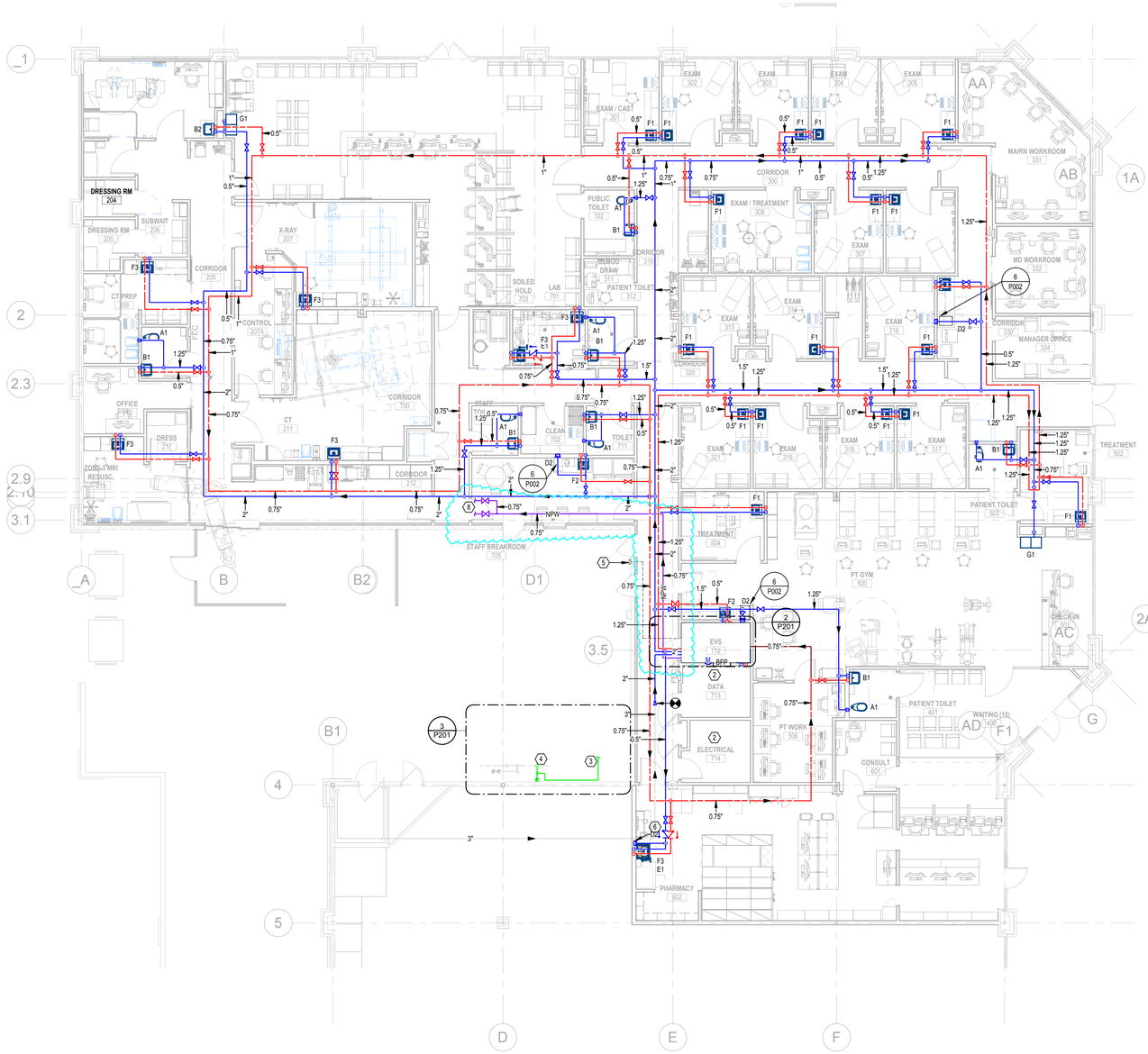

1 FIRST FLOOR - PLUMBING NEW WORK PLAN
SCALE: 1/8" = 1'-0"

0 4 8 16 24

PLAN NOTES

1. PROVIDE 1.5" TENANT WATER METER AT 8'-0" AFF. BASIS OF DESIGN SHALL BE NEPTUNE MODEL # T-10 OR EQUAL BY BADGER.
2. NO PIPING SHALL BE ROUTED OVER THIS SPACE OTHER THAN WHAT SERVES IT.
3. EXTEND NATURAL GAS PIPING TO GENERATOR. COORDINATE EXACT LOCATION PRIOR TO INSTALLATION.
4. GAS METER PROVIDED BY GAS COMPANY. GAS METER SHALL BE SIZED FOR 1,793 CFH W/ A DELIVERY PRESSURE OF 2 PSI TO THE BUILDING.
5. PROVIDE REMOTE READER FOR DOMESTIC WATER METER. LOW VOLTAGE WIRING SHALL BE ROUTED IN CONDUIT. BASIS OF DESIGN SHALL BE VISU-LINK VLS-S OR EQUAL
6. LOCATE FIXTURE "D2" IN CASE WORK BELOW IN ACCESSIBLE LOCATION TO SERVE MILLAPORE UNIT.
7. PROVIDE 0.75" BACKFLOW PREVENTER. BASIS OF DESIGN WATTS LF009 OR EQUAL. PROVIDE AIR GAP FITTING AND ROUTE DRAIN LINE TO ADJACENT MOP SINK.
8. EXTEND 0.75" NPW TO MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

CHAMPLIN ARCHITECTURE

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PROJECT NO. 2024-05109 STATE COA FIRM NO. 01528

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ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By SVH
Checked By TDB
Client No. 514
Project No. 7484

2024-05109

STATE OF KENTUCKY
MICHAEL RYAN McCOLLUM
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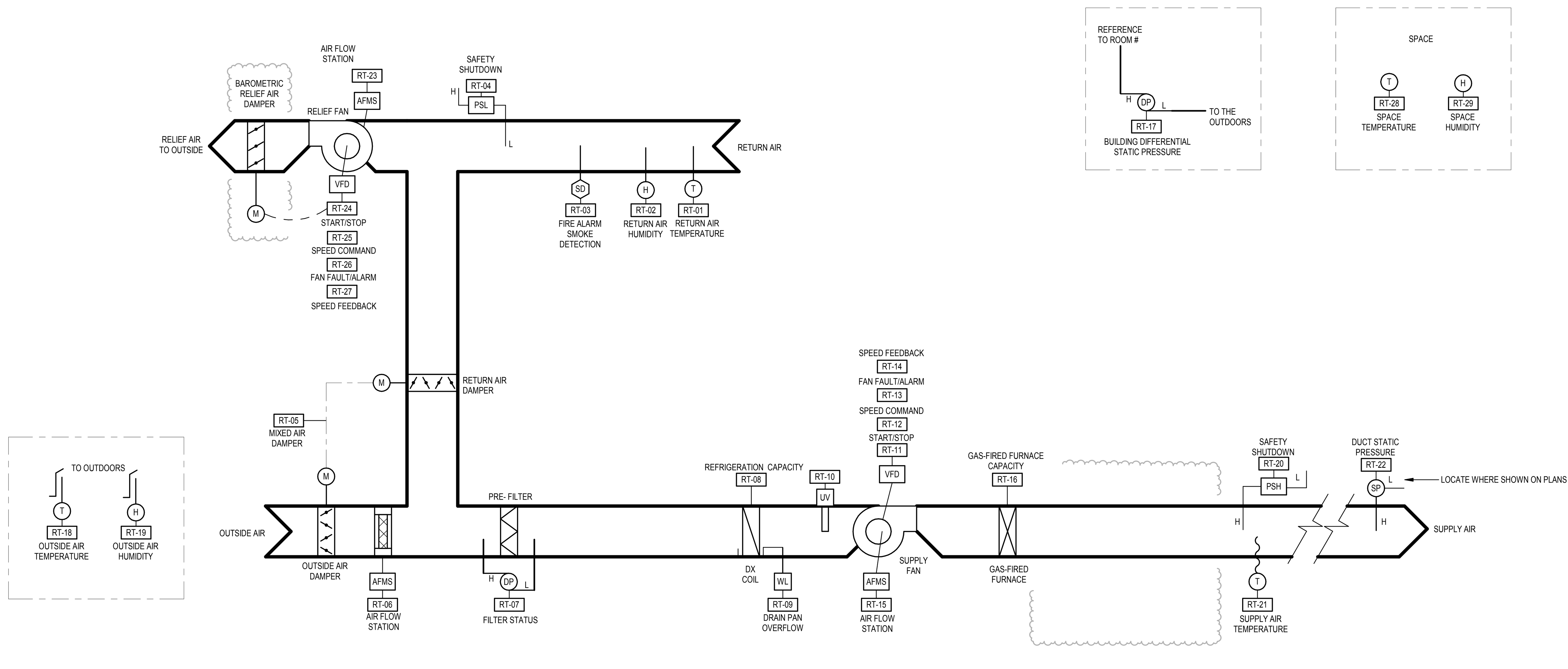
LICENSED PROFESSIONAL ENGINEER

02/07/25

FIRST FLOOR - PLUMBING DISTRIBUTION PIPING PLAN

P201

3/21/2025 11:12:56 AM



ROOFTOP UNIT RTU CONTROLS DIAGRAM

SCALE: NONE

RTU - 3 SEQUENCES

A. RTU CONTROLLER(S) SEQUENCES OF OPERATION
1. ALL SEQUENCES SHALL COMPLY WITH ASHRAE STANDARD 90.1 – 2010 / 2013 / 2016 / 2019.
2. THE RTU VENDOR SHALL WORK WITH AND COORDINATE WITH THE BAS VENDOR TO PROVIDE A WELL COORDINATED CONTROL SYSTEM.
3. THE RTU OCCUPANCY SCHEDULE SHALL RESIDE WITH-IN THE RTU CONTROLLER, EDITABLE VIA THE BAS.
   a. ALTERNATIVE SCHEDULING OPTION: IF THE SCHEDULE RESIDING IN THE RTU CONTROLLER IS NOT EDITABLE BY THE BAS, THE SCHEDULE MAY RESIDE IN THE BAS, WITH THE BAS SENDING A "NEXT STATE" OCCUPIED / UNOCCUPIED DATE/TIME SIGNAL TO THE RTU CONTROLLER SO THE RTU CONTROLLER CAN MANAGE OPTIMAL START (MORNING WARM-UP / COOL-DOWN), NIGHT SETBACK, NIGHT SET-UP FUNCTIONS, AND OCCUPIED FUNCTIONS. IF NETWORK COMMUNICATION IS LOST, THE RTU CONTROLLER SHALL DETERMINE MODES BASED ON HISTORICAL DATA. EXACT DETAILS SHALL BE COORDINATED WITH THE BAS.
4. NIGHT SETBACK HEATING MODE SHALL BE INITIATED WHILE THE RTU IS IN UNOCCUPIED MODE TO KEEP THE REPRESENTATIVE SPACE TEMPERATURE ABOVE THE NIGHT SETBACK TEMPERATURE SETPOINT (60 DEGF DEFAULT, ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
5. NIGHT SET-UP COOLING MODE SHALL BE INITIATED WHILE THE RTU IS IN UNOCCUPIED MODE TO KEEP THE REPRESENTATIVE SPACE TEMPERATURE AND HUMIDITY BELOW THE NIGHT SET-UP TEMPERATURE SETPOINT (80 DEGF DEFAULT, ADJUSTABLE VIA THE BAS) AND RH BELOW 60% (ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE AND RH WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
6. AN ADAPTIVE OPTIMAL START PROGRAM SHALL START THE UNIT IN MORNING WARM-UP OR COOLDOWN IN ADVANCE OF THE SCHEDULED "OCCUPIED" TIME TO ENSURE PROPER SPACE TEMPERATURE AT OCCUPANCY TIME. MORNING WARM-UP SHALL END WHEN THE REPRESENTATIVE SPACE TEMPERATURE IS ABOVE 68 DEGF (ADJUSTABLE VIA THE BAS). MORNING COOLDOWN SHALL END WHEN THE REPRESENTATIVE SPACE TEMPERATURE IS BELOW 75 DEGF (ADJUSTABLE VIA THE BAS). THE REPRESENTATIVE SPACE TEMPERATURE WILL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
7. SAFETIES SHALL SHUT DOWN THE UNIT IN AN ORDERLY FASHION AND ALARM THE BAS.
8. THE AIR HANDLING UNIT COMPONENTS (DX COIL, GAS HEATER, ECONOMIZER, FAN SPEED, ETC.) SHALL BE SEQUENCED TO SATISFY THE "OCCUPIED" DISCHARGE AIR TEMPERATURE SETPOINT SET BY THE BAS. SUPPLY AIR TEMPERATURE SETPOINT FOR "WARM-UP" CYCLES SHALL BE 90 DEGF (ADJUSTABLE VIA THE BAS), AND 54 DEGF DURING "COOL-DOWN" CYCLES (ADJUSTABLE VIA THE BAS).
9. MINIMUM OUTSIDE AIR CONTROL SHALL CONTROL TO THE MINIMUM OUTSIDE AIR CFM SETPOINT VIA THE AIRFLOW MEASURING STATION IN THE OUTSIDE AIR INTAKE. CFM SETPOINT SHALL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER.
10. ECONOMIZER CONTROL SHALL BE A DIFFERENTIAL ENTHALPY SEQUENCE WITH AN "OFF" SETPOINT OF 75 DEGF DB OUTSIDE AIR TEMPERATURE. ECONOMIZER SHALL BE DISABLED WHEN OUTSIDE AIR TEMPERATURE FALLS BELOW 35 DEGF DB. MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE.
11. SUPPLY FAN SYSTEM SPEED SHALL MODULATE TO MAINTAIN THE DUCT STATIC PRESSURE SETPOINT SET BY THE BAS (ADJUSTABLE VIA THE BAS).
12. RELIEF AIR FAN SHALL BE MODULATED BY A WALL-MOUNTED DP SENSOR-TRANSMITTER TO MAINTAIN A BUILDING PRESSURE OF +0.05" W.C.(ADJUSTABLE), REFERENCED TO OUTDOORS. RELIEF AIR FAN SHALL HAVE A SOFTWARE INTER-LOCK WITH THE RTU SUPPLY FAN. HARD-WIRE THE ASSOCIATED ISOLATION DAMPER WITH THE RELIEF FAN OPERATION. THE SPACE PRESSURE DP READING SHALL BE COMMUNICATED TO THE RTU CONTROLLER FROM THE BAS.
13. DX COIL – IF THE RTU FAN SYSTEM IS "ON" AND THE ECONOMIZER IS ACTIVE AND AT 100 PERCENT (OUTSIDE AIR DAMPERS FULL OPEN) AND RTU SUPPLY AIR TEMPERATURE IS ABOVE SETPOINT, THE SOLENOID VALVES AND COMPRESSOR STEPPING /SPEED SHALL BE SEQUENCED TO SATISFY THE SETPOINT. IF THE RTU FAN SYSTEM IS "ON" AND THE ECONOMIZER IS NOT ACTIVE AND THE RTU SUPPLY AIR TEMPERATURE IS ABOVE SETPOINT, THE SOLENOID VALVES AND COMPRESSOR STEPPING / SPEED SHALL BE SEQUENCED TO SATISFY THE SETPOINT. PROVIDE ON AND OFF TIME DELAYS BETWEEN STEPS. USE SUPPLY FAN DRIVE SPEED INTERLOCK ALARM STATE, AS SPECIFIED IN POINTS LIST SCHEDULE, FOR INTERLOCK THRU SOFTWARE TO KEEP COOLING OFF UNLESS THE SUPPLY FAN SYSTEM IS OPERATING.
14. GAS HEATER – MODULATE TO MAINTAIN DISCHARGE AIR SETPOINT.
15. UV SYSTEM – UV SYSTEM SHALL BE ON WHENEVER THE UNIT IS RUNNING.

B. BAS SEQUENCES OF OPERATION
1. ALL SEQUENCES SHALL COMPLY WITH ASHRAE STANDARD 90.1 – 2010 / 2013 / 2016 / 2019.
2. THE BAS VENDOR SHALL WORK WITH AND COORDINATE WITH THE RTU VENDOR TO PROVIDE A WELL COORDINATED CONTROL SYSTEM.
3. OCCUPIED / UNOCCUPIED SCHEDULE SHALL BE DETERMINED BY THE OWNER, RESIDE IN THE BAS, AND PASSED TO THE RTU CONTROLLER.
   a. REFER TO RTU SEQUENCES ABOVE FOR ALTERNATIVE SCHEDULING OPTION AS DETERMINED BY THE RTU VENDOR.
4. SPACE PRESSURE DP SENSOR-TRANSMITTER SHALL BE BY THE BAS AND SIGNAL COMMUNICATED TO THE RTU CONTROLLER FOR RELIEF FAN CONTROL AS SPECIFIED IN THE RTU SEQUENCES.
5. THE OUTDOOR AIR TEMPERATURE AND HUMIDITY FOR THE NETWORK SHALL BE PASSED TO THE RTU CONTROLLER FOR ECONOMIZER CALCULATION PURPOSES AS SPECIFIED IN THE RTU SEQUENCES.
6. "REPRESENTATIVE SPACE TEMPERATURE" SHALL BE CALCULATED BY TAKING THE AVERAGE OF ALL EXTERIOR-ZONED ZONE TEMPERATURES AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
7. "REPRESENTATIVE SPACE HUMIDITY" SHALL BE DETERMINED BY AN RH SENSOR MOUNTED IN A REPRESENTATIVE COMMON AREA AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
8. UNOCCUPIED SPACE TEMPERATURE SETPOINTS AND SUPPLY AIR TEMPERATURE SETPOINTS SHALL BE COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES AS SPECIFIED IN THE RTU SEQUENCES.
9. MINIMUM OUTSIDE AIR CFM FOR OCCUPIED MODE SHALL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
10. SUPPLY DUCT STATIC PRESSURE SET POINT SHALL BE DETERMINED BY THE BAS AND COMMUNICATED TO THE RTU CONTROLLER AS SPECIFIED IN THE RTU SEQUENCES.
11. GENERAL BUILDING EXHAUST FANS SHALL ONLY OPERATE DURING OCCUPIED HOURS BUT SHALL BE SEPARATE START/STOP POINTS OF THE BAS.

ROOFTOP UNIT RTU POINTS LIST SCHEDULE

GENERAL NOTES:
A. POINT "TYPE" IS IN REFERENCE TO "POINT BY".
B. MANUFACTURER SHALL PROVIDE SUPPLEMENTAL CONTROLLERS / DEVICES AS REQUIRED TO PROVIDE THE SPECIFIED SEQUENCES, POINTS, AND BAS INTEGRATION AS INDICATED BELOW.
C. POINTS COMMUNICATED TO RTU CONTROLLER FROM BAS ARE TO BE BY THE BAS.
D. VFD POINTS SHALL BE DONE THROUGH HARDWIRE CONNECTION WHEN POSSIBLE. WHEN NOT POSSIBLE POINTS THROUGH INTEGRATION ARE ACCEPTABLE.

NOTES:
1. COORDINATE SMOKE DETECTION ALARM SIGNAL FROM FIRE ALARM SYSTEM SMOKE DETECTOR BY DIV 26/28.
2. IN ADDITION TO BEING A (BI) SAFETIES SHALL BE WIRED INTO THE FAN STARTERS/VFD(S) STARTER CIRCUIT SUCH THAT THE SAFETY SHALL FUNCTION WHETHER THE SELECTOR SWITCH IS IN THE "HAND" OR "AUTOMATIC" POSITION.
3. RTU FAULT SHALL INDICATE WHEN THE RTU HAS SHUT-DOWN IN ALARM FOR ANY REASON.
4. SHALL BE MULTI-STATE POINT CONTAINING AT A MINIMUM: OCCUPIED, UNOCCUPIED, MORNING WARM-UP
5. BAS SHALL MONITOR AND INITIATE AN ALARM ON COMMUNICATION FAILURE.
6. POINT SHALL BE BY THE BAS FOR BAS USE ONLY (NO COMMUNICATION TO THE RTU CONTROLLER UNLESS REQUIRED FOR SEQUENCE OF OPERATION).
7. SAFETY SHALL BE PROVIDED BY THE BAS, HARD-WIRED TO THE FAN SAFETY CIRCUIT PER NOTE 2, AND ALARMED VIA THE BAS.
8. LOCATE WHERE SHOWN ON PLANS, EXTEND CONTROL WIRING ACCORDINGLY.
9. MAY BE PROVIDED BY THE RTU IF AVAILABLE.
10. "REPRESENTATIVE TEMPERATURE" SHALL BE CALCULATED BY THE BAS TO COMMUNICATE TO THE RTU FOR USE DURING NIGHT SETBACK, NIGHT SETUP, MORNING WARM-UP, MORNING COOL-DOWN, AND OPTIMAL START/STOP.
11. "REPRESENTATIVE" HUMIDITY SHALL BE USED BY THE RTU FOR NIGHT SETBACK DEHUMIDIFICATION MODE.
12. INTER-LOCKED WITH UNIT OPERATION.

POINT NO.	RT-01	RT-02	RT-03	RT-04	RT-05	RT-06	RT-07	RT-8	RT-9	RT-10	RT-11	RT-12	RT-13	RT-14	RT-15
POINT NAME	RETURN AIR TEMPERATURE	RETURN AIR HUMIDITY	RETURN AIR SMOKE DETECTION	RETURN DUCT PRESSURE SAFETY SHUT-DOWN	MIXED AIR DAMPERS	OUTSIDE AIR - AIRFLOW MEASURING STATION	PRE FILTER STATUS	DX REFRIGERATION CAPACITY	DRAIN PAN OVERFLOW	UV SYSTEM - CC	SUPPLY FAN START/STOP	SUPPLY FAN SPEED COMMAND	SUPPLY FAN FAULT/ALARM	SUPPLY FAN SPEED FEEDBACK	SUPPLY AIR - AIRFLOW MEASURING STATION
TYPE	AI	AI	BI	BI	AO	AI	BI	AO	BI	BO	BO	AO	BI	AI	AI
POINT BY RTU CONTROLLER	•	•	•		•	•	•	•	•		•	•	•	•	•
POINT COMMUNICATED TO BAS BY RTU CONTROLLER	•	•	•			•	•	•	•				•	•	•
POINT COMMUNICATED TO RTU CONTROLLER FROM BAS															
ALARM	HIGH/LOW	HIGH/LOW	ON TRIP	ON TRIP		LOW	ON TRIP		ON TIRP				ON TIRP	S/S = ON FBK<MIN SPD	
NOTES			1,2	6,7,9					2	6,9,12					

POINT NO.	RT-16	RT-17	RT-18	RT-19	RT-20	RT-21	RT-22	RT-23	RT-24	RT-25	RT-26	RT-27	RT-28	RT-29
POINT NAME	GAS FIRED FURNACE CAPACITY	BUILDING DIFFERENTIAL STATIC PRESSURE	OUTSIDE AIR TEMPERATURE	OUTSIDE AIR HUMIDITY	SUPPLY HIGH DUCT PRESSURE SAFETY SHUT-DOWN	SUPPLY AIR TEMPERATURE	SUPPLY DUCT STATIC PRESSURE	RELIEF AIR - AIRFLOW MEASURING STATION	RELIEF FAN START/STOP	RELIEF FAN SPEED COMMAND	RELIEF FAN FAULT/ALARM	RELIEF FAN SPEED FEEDBACK	REPRESENTATIVE SPACE TEMPERATURE	REPRESENTATIVE SPACE HUMIDITY
TYPE	AO	AI	AO	AO	BI	AI	AI	AI	BO	AO	BI	AI	AO	AO
POINT BY RTU CONTROLLER	•				•	•	•	•	•	•	•	•		
POINT COMMUNICATED TO BAS BY RTU CONTROLLER	•				•	•	•	•	•		•	•		
POINT COMMUNICATED TO RTU CONTROLLER FROM BAS		•	•	•									•	•
ALARM		HIGH/LOW			ON TRIP	HIGH/LOW	HIGH/LOW				ON TRIP	S/S = ON FBK<MIN SPD		
NOTES					2		8						10	11

1 **ROOFTOP UNIT CONTROLS DIAGRAM**

SCALE: NONE

CHAMPLIN ARCHITECTURE

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ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
4	ADDENDUM #2	03/21/2025

Drawn By CES
Checked By BWS
Client No. 514
Project No. 7484

2024-05109
STATE OF KENTUCKY
MICHAEL RYAN McCOLLUM 29834
LICENSED PROFESSIONAL ENGINEER
03/21/25

CONTROLS

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ROOFTOP HEATING & COOLING UNITS - AIR-COOLED DX/GAS-FIRED

GENERAL NOTES:
A. COOLING CAPACITIES BASED ON 95°F AMBIENT AIR TEMPERATURE.
B. NATURAL GAS DELIVERY PRESSURE TO UNIT IS 14" W.C. PROVIDE SECONDARY REGULATOR IF REQ'D FOR UNIT OPERATION.
C. ELECTRIC SERVICE - SINGLE POINT POWER SERVICE CONNECTION TO UNIT. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C. THIS SHALL INCLUDE LUG SIZE AND QUANTITY REQUIREMENTS.
D. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR SEISMIC RESTRAINT REQUIREMENTS.
E. UNIT CONFIGURATIONS (SUPPLY FAN POSITION RELATIVE TO COOLING COIL) - "HDT" - HORIZONTAL DRAW THRU; "VDT" - VERTICAL DRAW THRU; "HBT" - HORIZONTAL BLOW THRU; "VBT" - VERTICAL BLOW THRU. REFER TO DRAWINGS FOR LAYOUT.
F. HEATING L.A.T. IS BASED ON FULL UNIT CFM AT LISTED E.A.T. AND MBH OUTPUT.
G. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.
H. THE LISTED MAX UNIT HEIGHT INCLUDES THE INTEGRAL UNIT BASE RAIL BUT DOES NOT INCLUDE THE SPECIFIED CURB (HEIGHT). IF THE HEIGHT OF THE SPECIFIED CURB IS REQUIRED TO BE INCREASED, SUCH AS TO ACCOMMODATE CONDENSATE TRAP HEIGHT, THEN THE LISTED MAX UNIT HEIGHT SHALL BE DECREASED BY THAT SAME AMOUNT.

NOTES:
1.

				SUPPLY FAN				SPEED CONTROL				RETURN FAN				SPEED CONTROL			
UNIT NUMBER	NOMINAL TONS	UNIT CONFIGURATION	AREA SERVED	CFM (TOTAL)	EXTERNAL / TOTAL STATIC PRESSURE (IN. W.C.)	FAN QTY	MOTOR (HP EACH)	ELECTRONICALLY COMMUTATED MOTORS	VARIABLE FREQUENCY DRIVE	VARIABLE FREQUENCY DRIVE (QTY)	INTEGRAL PIEZO RING AIRFLOW STATION (EACH)	CFM (TOTAL)	TOTAL STATIC PRESSURE (IN. W.C.)	FAN QTY	MOTOR (HP EACH)	ELECTRONICALLY COMMUTATED MOTORS	VARIABLE FREQUENCY DRIVE	VARIABLE FREQUENCY DRIVE (QTY)	INTEGRAL PIEZO RING AIRFLOW STATION (EACH)
RTU-1	7.5		IMAGING	2,600	2.0 / 2.7	1	2.4	●	-			2,600	0.5	1	1.7	●	-		
RTU-2	12		WAITING, SUPPORT	3,500	1.5 / 2.3	1	2.4	●	-			3,500	0.5	1	1.5	●	-		
RTU-3	25		EXAMS AND OFFICES	6,800	2.0 / 3.2	1	7.5	●	-			6,800	0.5	1	2.3	●	-		
RTU-4	18		PT GYM	4,800	2.0 / 2.9	1	5.0	●	-			4,800	0.5	1	2.4	●	-		
RTU-5	7.5		PHARMACY	2,600	1.5 / 2.2	1	2.4	●	-			2,600	0.5	1	1.7	●	-		
RTU-6	7.5		X-RAY	1,800	1.5 / 2.2	1	1.7	●	-			1,800	0.5	1	1.2	●	-		
RTU-7	5		CT	1,300	1.5 / 2.3	1	1.7	●	-			1,300	0.5	1	0.5	●	-		

	COOLING SECTION - DX-COOLING COIL							COOLING SECTION - CONDENSING SECTION					HOT GAS REHEAT		HEATING SECTION					
UNIT NUMBER	MAXIMUM FACE VELOCITY (FPM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMPERATURE DB/WB (°F)	LEAVING AIR TEMPERATURE DB/WB (°F)	MAXIMUM AIR PRESSURE DROP (IN. W.C.)	REFRIGERANT TYPE	MINIMUM QUANTITY OF COMPRESSORS	MINIMUM STAGES OF COOLING (NOT INCLUDING "OFF")	HOT GAS BYPASS	LOW AMBIENT OPERATION	LOW AMBIENT MIN OPERATING TEMP (°F)	HOT GAS REHEAT	HOT GAS REHEAT CAPACITY (MBH)	HEATING CAPACITY (MBH OUTPUT)	ENTERING AIR TEMPERATURE DB (°F)	LEAVING AIR TEMPERATURE DB (°F) (NOTE F)	GAS INPUT MAX. (CFH)	MINIMUM STAGES OF HEATING (NOT INCLUDING "OFF")	FULL MODULATION
RTU-1	170	95.4	69.0	79.0/66.2	53.5/53.5	0.10	R32	1					-	-	162.0	37.4	130.7	200		
RTU-2	230	141.4	97.4	79.0/66.2	52.3/52.2	0.15	R32	1					-	-	162.0	33.8	112.4	200		
RTU-3	320	275.1	188.7	79.0/66.2	52.4/52.2	0.23	R32	2					-	-	243.0	36.9	92.9	300		
RTU-4	230	202.8	133.7	79.0/66.2	52.3/51.5	0.17	R32	1					-	-	243.0	40.4	110.4	300		
RTU-5	170	95.4	69.0	79.0/66.2	53.5/53.5	0.10	R32	1					-	-	162.0	37.4	137.4	200		
RTU-6	120	86.0	55.2	79.0/66.2	49.6/49.2	0.06	R32	1					-	-	162.0	30.9	130.9	200		
RTU-7	220	52.6	35.6	79.0/66.2	52.7/52.2	0.13	R32	1					-	-	64.8	30.9	116.2	80		

	PRE-FILTERS			FINAL FILTERS			OUTSIDE AIR			DIMENSIONS		
UNIT NUMBER	THICKNESS / MERV	MAXIMUM FACE VELOCITY (FPM)	MAX. CLEAN AIR PRESSURE DROP (IN. W.C.)	THICKNESS / MERV	MAXIMUM FACE VELOCITY (FPM)	MAX CLEAN AIR PRESSURE DROP (IN. W.C.)	MINIMUM MINIMUM CFM / MAXIMUM MINIMUM CFM	ECONOMIZER	INTEGRAL AIRFLOW STATION	MAX UNIT LENGTH (INCHES)	MAX UNIT WIDTH (INCHES)	MAX UNIT HEIGHT (INCHES) (NOTE I)
RTU-1				2" / MERV13	150	0.07		●		101.6"	73.4"	85.9"
RTU-2				2" / MERV13	200	0.10		●		73.5"	102"	86"
RTU-3				2" / MERV13	260	0.13		●		202.5"	76.5"	72.1"
RTU-4				2" / MERV13	250	0.09		●		202.5"	76.5"	72.1"
RTU-5				2" / MERV13	150	0.07		●		73.5"	102"	86"
RTU-6				2" / MERV13	100	0.04		●		73.5"	102"	86"
RTU-7				2" / MERV13	190	0.09		●		84.5"	53.5"	69.5"

	MISCELLANEOUS								ELECTRICAL SERVICE						SEISMIC RESTRAINTS		BASIS OF DESIGN		
UNIT NUMBER	APPROXIMATE UNIT WEIGHT INCLUDING CURB (LBS)	ENERGY RECOV. SECTION (REFER TO SEPARATE SCHED.)	INTEGRAL 100% BAROMETRIC RELIEF	AIR BLENDER (REFER TO SEPARATE SCHED.)	INTERNAL LIGHTS	SERVICE RECEPTACLE	UVGI (NOTE G)	MINIMUM CURB HEIGHT	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	FUSED DISCONNECT	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	SEE NOTE
RTU-1	2277		●			●			208-3	50.1	56.6	80	10000			-	DAIKIN	DPSC07B	
RTU-2	2400		●			●			208-3	70.0	81.6	125	10000			-	DAIKIN	DPSC12B	
RTU-3	4262		●			●			208-3	127.5	139.3	175	10000			-	DAIKIN	DPSC25B	
RTU-4	3979		●			●			208-3	85.7	99.0	150	10000			-	DAIKIN	DPSC18B	
RTU-5	2500		●			●			208-3	50.1	56.6	80	10000			-	DAIKIN	DPSC07B	
RTU-6	2250		●			●			208-3	47.4	53.9	70	10000			-	DAIKIN	DPSC07B	
RTU-7	1110		●			●			208-3	32.9	37.5	50	10000			-	DAIKIN	DPSC05B	

SPLIT SYSTEM AC UNITS

GENERAL NOTES:
A. UNLESS NOTED OTHERWISE, CAPACITIES SHALL BE BASED ON INTERIOR DESIGN CONDITIONS OF ___DB / ___WB COOLING; ___DB HEATING.
B. CONDENSING UNIT COOLING CAPACITY SHALL BE BASED ON 95°F AMBIENT CONDITIONS.
C. CONDENSING UNITS SHALL INCLUDE LOW AMBIENT CONTROLS AND ACCESSORIES, OPERATIONAL TO ____°F.
D. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES AND SEISMIC RESTRAINT REQUIREMENTS.
E. REFRIGERANT PIPING - SIZES LISTED ARE APPROX. CIRCUITING, SIZING, NUMBER OF PIPES AND CIRCUITS, ARRANGEMENT, ETC. SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
F. ELECTRIC SERVICES FOR OUTDOOR UNIT AND INDOOR UNIT - SINGLE POINT POWER SERVICE CONNECTIONS TO EACH UNIT. UNLESS NOTED OTHERWISE, ADEQUACY OF LISTED CIRCUIT SIZES MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C.
G. COOLING COIL CONDENSATE PUMPS SHALL BE FACTORY-FURNISHED, COMPATIBLE WITH INDOOR FAN COIL UNIT VOLTAGE AND POWERED FROM THE INDOOR FAN COIL UNIT SINGLE POINT POWER CONNECTION.
H. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.

NOTES:
1. POWER FOR INDOOR UNIT IS TO BE FED THRU THE OUTDOOR UNIT POWER SUPPLY.
2. UNIT SHALL BE CONTROLLED BY BAS ONLY WITH NO LOCAL THERMOSTAT CONTROL.

INDOOR UNIT

		TYPE				LOCATION		FAN				DX COOLING				FILTERS		ELECTRIC HEAT / REHEAT			ELECTRICAL SERVICE						APPROX. DIMENSIONS					SEISMIC RESTRAINTS		BASIS OF DESIGN	
MARK	DESCRIPTION	WALL-MOUNTED	CEILING-MOUNTED	CEILING RECESSED	DUCTED	ROOM NAME	ROOM NUMBER	CFM	EXTERNAL STATIC PRESSURE (IN. W.C.)	MOTOR (HP)	ELECTRONICALLY COMMUTATED MOTOR	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENTERING AIR TEMPERATURE DB/WB (°F)	LEAVING AIR TEMPERATURE DB (°F)	MERV RATING	MAXIMUM FACE VELOCITY (FPM)	KW	MINIMUM NO. STAGES (NOT INCLUDING "OFF")	SCR CONTROL	SERVED THRU OUTDOOR UNIT (NOTE 1)	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	LENGTH	WIDTH	HEIGHT	COOLING COIL CONDENSATE DRAIN PUMP (NOTE G)	VIBRATION ISOLATOR TYPE	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL
AC-1	WALL MOUNTED AIR CONDITIONING UNIT	●	-	-	-	DATA	713	700		56	-	36	25	90.0/73.0	66.0/59.0					-	-	208-1	0.57	1.0		10000	46"	12"	14"	-		-	-	MITSUBISHI	PKA-A36KA7
AC-2	WALL MOUNTED AIR CONDITIONING UNIT	●	-	-	-	ELECTRICAL	714	700		56	-	36	25	90.0/73.0	66.0/59.0					-	-	208-1	0.57	1.0		10000	46"	12"	14"	-		-	-	MITSUBISHI	PKA-A36KA7

OUTDOOR CONDENSING UNIT - AIR COOLED

			ELECTRICAL SERVICE						SEISMIC RESTRAINTS		BASIS OF DESIGN			
MARK	NOMINAL TONS (SIZED TO MATCH COIL)	VARIABLE SPEED COMPRESSOR(S)	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	VIBRATION ISOLATOR TYPE	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	HOT GAS BYPASS	SEE NOTE
CU-1	3	●	208-1	1.0	25	31	10000		-	-	MITSUBISHI	PUY-A36NKA7	-	1,2
CU-2	3	●	208-1	1.0	25	31	10000		-	-	MITSUBISHI	PUY-A36NKA7	-	1,2

ELECTRIC HUMIDIFIERS

GENERAL NOTES:
A. ELECTRIC SERVICE - SINGLE POINT POWER CONNECTION WITH INTEGRAL CONTROLS TRANSFORMER. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C.
B. PROVIDE MODULATING OR STAGED CONTROL AS SPECIFIED, AIR PROVING SWITCH, HIGH RH LIMIT, SPACE HUMIDITY SENSOR / STAT, AND OTHER ACCESSORIES PER THE SPECIFICATIONS.
C. STEAM JACKET HUMIDIFIERS SHALL INCLUDE AUTO ISOLATION VALVE FUNCTION TO STOP STEAM TO JACKET WHEN THERE IS NO CALL FOR HUMIDITY.
D. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1. ULTRA-SORB MODEL LV HUMIDIFIER GRID

		TYPE				PERFORMANCE								DISPERSION DEVICE						
MARK	DESCRIPTION	ELECTRODE	ELECTRIC RESISTANCE IMMERSION	SERVICE	SPACE CONDITIONS (DB / %RH)	ENTERING AIR TEMPERATURE (DB / %RH)	LEAVING AIR TEMPERATURE (DB / %RH)	MINIMUM CFM	MAXIMUM CFM	LBS / HR OUTPUT (AT MAX. CFM)	TOTAL KW	MIN STAGES	STEAM OUTLET (QTY / SIZE)	VERTICAL TUBES	HORIZONTAL TUBES	STEAM JACKETED	INSULATED	MIN NUMBER OF DISTRIBUTION TUBES	MAX DISPERSION DISTANCE	MAX AIR PRESSURE DROP (IN. W.C.)
EH-1		-	●	XRAY	72.0/35%	54.0/14%	56.0/61%	0	1,220	30	10	1	1 / 1.5	●	-	-	-	2	0"	0.01
EH-2		-	●	CT	72.0/35%	54.0/14%	56.0/57%	0	1,020	24	8	1	1 / 1.5	●	-	-	-	2	0"	0.01

	MAKE-UP WATER						ELECTRICAL SERVICE					MISC.					SEISMIC RESTRAINTS		BASIS OF DESIGN		
MARK	MAKE-UP WATER CONNECTION SIZE	DRAIN CONNECTION SIZE	UNSOFTENED TAP WATER (50°F)	SOFTENED TAP WATER (50°F)	REVERSE OSMOSIS WATER (50°F)	DEIONIZED WATER (50°F)	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	DUCT / CASING WIDTH (NOTE 1)	DUCT / CASING HEIGHT (NOTE 1)	APPROX. OPERATING WEIGHT (LBS)	HUMIDIFIER GRID DRAIN COOLER	TANK DRAIN COOLER	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	SEE NOTE
EH-1	0.75"	1"	●	-	-	-	208-3	33.3	-	-	10000	18"	14"	140	●	-	-	-	DRISTEEM	RTS-30-1	1
EH-2	0.75"	1"	●	-	-	-	208-3	25	-	-	10000	18"	14"	140	●	-	-	-	DRISTEEM	RTS-24-1	1

AIR DISTRIBUTION DEVICES

GENERAL NOTES:
A. ALL LAY-IN AIR DEVICES SHALL FIT IN 24"X24" LAY-IN CLG SYSTEM. VERIFY GRID TYPE AND COORDINATE AIR DEVICE COMPATIBILITY.
B. FINISH KEY: "W.B.E." - WHITE BAKED ENAMEL; "E.C.L." - ETCHED CLEAR LACQUER OR ANODIZED; "C.C.B.A." - CUSTOM COLOR SELECTED BY ARCHITECT.
C. SUPPLY AIR DIFFUSERS SHALL BE 4-WAY BLOW, UNLESS INDICATED OTHERWISE ON DRAWINGS.
D. PROVIDE AUX. FRAMES FOR AIR DEVICES IN PLASTER, GYPSUM BOARD, TILE OR OTHER HARD SURFACES.

NOTES:
1.

		MOUNTING TYPE					MATERIAL			FINISH					BASIS OF DESIGN		
MARK	DESCRIPTION	LAY-IN	SURFACE	DUCT	SPLINE	SNAP-IN	STEEL	ALUMINUM	STAINLESS STEEL	W.B.E.	E.C.L.	C.C.B.A.	OPPOSED BLADE DAMPER	SQ-TO-RD NECK ADAPTOR	MANUFACTURER	MODEL	SEE NOTE
A10	STANDARD SQ. PLAQUE CEILING DIFFUSER - ROUND NECK - 24 X 24	●						●		●					TITUS	OMNI	
F10	SIDEWALL GRILLE - SUPPLY		●					●		●					TITUS	300FL	
J10	PERFORATED CEILING GRILLE	●						●		●					TITUS	PAR-AA	
K10	PERFORATED CEILING GRILLE, EXHAUST	●						●		●					TITUS	PAR-AA	
K11	PERFORATED CEILING GRILLE, EXHAUST		●					●		●					TITUS	PAR-AA	
K12	SIDEWALL GRILLE, EXHAUST		●					●		●					TITUS	350FL	
S10	LINEAR PLENUM SLOT - ADJUSTABLE BLADE DIFFUSER	●						●		●			●		TITUS	FL-20 (1) 2" SLOT	
S20	LINEAR PLENUM SLOT - ADJUSTABLE BLADE DIFFUSER		●					●		●			●		TITUS	FL-20 (1) 2" SLOT	

FAN FILTER CEILING MODULES

GENERAL NOTES:
A. ELECTRIC SERVICE - SINGLE POINT POWER SERVICE CONNECTION TO UNIT BY ELECTRICAL CONTRACTOR. COORDINATE WITH DIV 26 AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRICAL SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY HVAC CONTRACTOR.
B. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.
C. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1. FAN SHALL BE CAPABLE OF SPECIFIED AIRFLOW THRU MODULE AND FILTERS FOR LIFE OF FILTER(S).
2. PROVIDE WITH BACNET FLOW CONTROLLER.
3. 12" DIA. DUCT CONNECTION

	MODULE SIZE			MTG		FAN	MOTOR		FILTER		ELECTRICAL SERVICE					BASIS OF DESIGN		SEISMIC RESTRAINTS		
MARK	2 FT X 2 FT	2 FT X 4 FT	4 FT X 4 FT	LAY-IN	RECESSED (HARD CEILING)	CFM	WATTS	ELECTRONICALLY COMMUTATED	THICKNESS / MERV	MAX CLEAN AIR PRESSURE DROP (IN. W.C.)	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	MANUFACTURER	MODEL	REQUIRED	IMPORTANCE FACTOR	SEE NOTE
FFU-1	-	●	-	●	-	485	185	●	HEPA	-	208-1	3.0			5000	PRICE	PURAFLO	-	-	1,2,3

CHAMPLIN
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ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By: CES
Checked By: BWS
Client No.: 514
Project No.: 7484

2024-05109
STATE OF KENTUCKY
MICHAEL RYAN McCOLLUM 29834
LICENSED PROFESSIONAL ENGINEER
03/21/25

HVAC SCHEDULES

M002

3/21/2025 1:15:44 PM

HVAC DESIGN DATA

GENERAL NOTES:
A. OUTDOOR DESIGN CONDITIONS:
92°F DB SUMMER
74°F WB SUMMER
1°F DB WINTER
B. DESIGN ALTITUDE: 850 FT.

NOTES:
1. LISTED RH IS MAXIMUM ANTICIPATED AT LISTED DB TEMPERATURE.
2. REFER TO ATC SEQUENCES FOR ACTUAL ROOM SETPOINTS.
3. "FLOATING" MEANS THERE IS NO ACTIVE CONTROL.
4. OUTDOOR AIR VENTILATION ONLY.

	INTERIOR DESIGN DATA				
	SUMMER		WINTER		
SPACE NAME / TYPE	°F DB	% RH (NOTE 1)	°F DB	% RH	SEE NOTE
OFFICES	74	55	72	FLOATING	2,3
CT, X-RAY	72	50	72	20	-
MAMMOGRAPHY	72	50	72	FLOATING	3
DATA CLOSETS	78	FLOATING	68	FLOATING	3
ALL OTHER SPACES	74	55	72	FLOATING	3

AIR CURTAIN UNITS

GENERAL NOTES:
A. SINGLE POINT POWER CONNECTION. COORDINATE POWER REQUIREMENTS AND ELECTRICAL CONNECTIONS.
B. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.
C. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES AND SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1. UNIT REQUIRES TWO POWER CIRCUITS, AMPERAGES LISTED ARE FOR EACH POWER CIRCUIT.

		LOCATION		TYPE				CAPACITY				NOZZLE		SUPPLY FAN(S)				DIMENSIONS				ELECTRICAL SERVICE					MISCELLANEOUS				SEISMIC RESTRAINTS		BASIS OF DESIGN			
											ELEC.																CONTROLS								
MARK	DESCRIPTION	ROOM NAME	ROOM NUMBER	NO HEAT	HOT WATER	STEAM	ELECTRIC	CFM	MBH	KW		CEILING RECESSED	EXPOSED	MAXIMUM VELOCITY (FPM)	TOTAL CFM	MOTOR QUANTITY	MOTOR (HP / KW) EACH	ELECTRONICALLY COMMUTATED MOTORS	UNIT LENGTH	UNIT HEIGHT	UNIT DEPTH	APPROXIMATE WEIGHT (LBS)	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	MAX SOUND LEVEL (dB)	DOOR SWITCH	REMOTE SIGNAL	STARTER / CONTROL PANEL	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	SEE NOTE
AD-1	ARCHITECTURAL RECESSED AMBIENT AIR CURTAIN	100-WAITING	-	-	-	-	•	3174	95.6	28.0		•	-	6500	3100	2	1/2	-	77"	15"	26"	200	208-3	47.5/38.9	60/50		10000	65	-	-	-	-	-	BERNER	ARD12	1
AD-2	ARCHITECTURAL RECESSED AMBIENT AIR CURTAIN	400-WAITING	-	-	-	-	•	3174	95.6	28.0		•	-	6500	3100	2	1/2	-	77"	15"	26"	200	208-3	47.5/38.9	60/50		10000	65	-	-	-	-	-	BERNER	ARD12	1

HVAC DUCT CONSTRUCTION

GENERAL NOTES:
A. REFER TO SPECIFICATIONS FOR DUCT CONSTRUCTION: SHEET METAL DUCT; INTERIOR LINING; EXTERIOR INSULATION; FIBERGLASS DUCTBOARD; ETC.
B. DUCT CONSTRUCTION AND SEALING SHALL BE PER LATEST S.M.A.C.N.A. STANDARDS.

NOTES:
1. ROUND SHEET METAL RUN-OUTS TO AIR DEVICES DOWNSTREAM OF VAV BOXES SHALL BE EXTERNALLY INSULATED.
2. RETURN DUCTWORK WITHIN 15' OF AIR HANDLING UNIT SHALL BE INTERNALLY LINED.
3. AIR DEVICES ARE DIRECTLY CONNECTED TO SUPPLY DUCT.
4. WATERTIGHT SEAL.
5. FIRE WRAPPED, PER CODE REQUIREMENTS.
6. ALUMINUM DUCTWORK.
7. STAINLESS STEEL DUCTWORK.
8. REFER TO DETAIL 9 ON SHEET M501.
9. INSULATE FROM 24" UPSTREAM OF BACKDRAFT / ISOLATION DAMPER TO PENETRATION OF WALL / ROOF.
10. CONCEALED ROUND RUNOUT DUCTS TO AIR DEVICES MAY BE 1" S.P. CLASS.

	S.M.A.C.N.A. CLASS.								
			LEAKAGE CLASS						
DUCT SYSTEM	S.P. CONSTRUCT.	SEAL CLASS	RECT	RND	INTERNALLY LINED	EXTERNAL INSULATION	DOUBLE WALL INSULATED	NOT INSULATED	SEE NOTE
SUPPLY DUCTWORK UPSTREAM OF VAV BOXES	+2"	A	8	4	-	•	-	-	-
SUPPLY DUCTWORK DOWNSTREAM OF VAV BOXES	+1"	A	16	8	•	-	-	-	1
RETURN DUCTWORK	-2"	A	16	8	-	-	-	•	2,10
TRANSFER/RETURN AIR SOUND BOOT	-1"	A	16	-	•	-	-	-	8
TOILET OR GENERAL EXHAUST DUCTWORK	-1"	A	16	8	-	NOTE 9	-	-	-

STEAM CONDENSATE PUMPS - ELECTRIC

GENERAL NOTES:
A. ELECTRIC SERVICE - SINGLE POINT POWER CONNECTION TO UNIT. FACTORY WIRED TRANSFORMER FOR CONTROLS.
B. PUMPS SHALL BE FACTORY WIRED TO ASSOCIATED STARTER/DISCONNECT.
C. EACH PUMP ASSEMBLY SHALL INCLUDE ISOLATION VALVE ON INLET; GLOBE VALVE, CHECK VALVE, P/T TEST PLUG, AND ISOLATION VALVE ON DISCHARGE.
D. PUMPS SHALL BE SELECTED WITH ADEQUATE NPSH FOR INSTALLED TANK ELEVATION.
E. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1. EACH DISPERSION GRID AND STEAM GENERATOR IS TO BE PROVIDED WITH STEAM CONDENSATE PUMP BY THE HUMIDIFIER MANUFACTURER.

				PUMPS						RECEIVER TANK				OVERALL DIMENSIONS			ELECTRICAL SERVICE		MISC.	SEISMIC RESTRAINTS		BASIS OF DESIGN		
				TYPE																				
MARK	DESCRIPTION	SERVICE	CAPACITY (EDR)	SIMPLEX	DUPLEX	GPM (EACH)	DUTY (PSIG)	MOTOR (HP, EACH)	MOTOR RPM	VOLTAGE - PHASE	CAPACITY (GAL)	RETURN CONNECTION SIZE	VENT SIZE	OVERFLOW SIZE	DRAIN SIZE	LENGTH	WIDTH	HEIGHT	VOLTAGE - PHASE	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	CONCRETE PAD	CONTROL PANEL	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	SEE NOTE
CP-1	PLENUM RATED ELECTRIC CONDENSATE PUMP	STEAM GENERATORS AND DISPERSION GRIDS		•	-	0					1					1¼"	6"	10.5"			10000	-	-	-	-	HARTELL	A5	1

AIR TERMINAL UNITS - ELECTRIC HEAT

GENERAL NOTES:
A. TYPES - "V.V.", VARIABLE VOLUME; "V.V.R.", VARIABLE VOLUME REHEAT; "C.V.R.", CONSTANT VOLUME REHEAT.
B. ____" MAXIMUM STATIC PRESSURE DROP THRU UNIT AND COIL AT MAXIMUM CFM.
C. REHEAT COIL CAPACITIES BASED ON HEATING MAXIMUM CFM AND 55.0°F ENT. AIR.
D. ELECTRIC SERVICE TO 3-PHASE UNITS SHALL BE 3-WIRE UNLESS NOTED OTHERWISE.
E. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR SEISMIC RESTRAINT REQUIREMENTS.
F. IF REHEAT COIL IS FURNISHED SEPARATELY FROM TERMINAL UNIT, PROVIDE DUCT TRANSITION AS REQUIRED BETWEEN TERMINAL UNIT AND COIL.

NOTES:
1.

		MINIMUM INLET SIZE			CFM				REHEAT COIL							SEISMIC RESTRAINTS		
												ELECTRICAL SERVICE						
MARK	TYPE	DIAMETER	WIDTH	HEIGHT	COOLING MAXIMUM	DEAD BAND MINIMUM	REHEAT MAXIMUM	HEATING MAXIMUM	KW	STAGES	SCR CONTROL	VOLTAGE - PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	REQUIRED	IMPORTANCE FACTOR	SEE NOTE
1-1	V.V.R.	10"			800	235	400	400	4.5	-	•	208-3	17.0	20.0	10000	-	-	
1-2	V.V.R.	8"			375	190	190	190	2.1	-	•	208-3	7.9	15.0	10000	-	-	
1-3	V.V.R.	6"			150	100	100	100	1.1	-	•	120-1	12.5	15.0	10000	-	-	
1-4	V.V.R.	6"			150	30	75	75	0.9	-	•	120-1	10.2	15.0	10000	-	-	
1-5	V.V.R.	10"			735	665	665	665	7.4	-	•	208-3	28.0	30.0	10000	-	-	
2-1	V.V.R.	14"			1,700	340	850	850	9.5	-	•	208-3	35.9	40.0	10000	-	-	
2-2	V.V.R.	8"			400	90	200	200	1.7	-	•	208-3	6.4	15.0	10000	-	-	
2-3	V.V.R.	6"			350	300	300	300	2.7	-	•	208-3	10.2	15.0	10000	-	-	
2-4	V.V.R.	8"			450	100	225	225	2.5	-	•	208-3	9.5	15.0	10000	-	-	
3-1	V.V.R.	10"			675	200	340	340	3.8	-	•	208-3	14.4	15.0	10000	-	-	
3-2	V.V.R.	12"			1,025	330	515	515	5.8	-	•	208-3	21.9	25.0	10000	-	-	
3-3	V.V.R.	12"			935	925	925	925	7.4	-	•	208-3	28.0	30.0	10000	-	-	
3-4	V.V.R.	14"			1,250	250	625	625	7.0	-	•	208-3	26.5	30.0	10000	-	-	
3-5	V.V.R.	10"			825	165	415	415	4.7	-	•	208-3	17.8	20.0	10000	-	-	
3-6	V.V.R.	10"			700	630	630	630	5.4	-	•	208-3	20.4	25.0	10000	-	-	
3-7	V.V.R.	8"			500	320	320	320	2.6	-	•	208-3	9.8	15.0	10000	-	-	
3-8	V.V.R.	8"			500	320	320	320	2.6	-	•	208-3	9.8	15.0	10000	-	-	
4-1	V.V.R.	6"			350	210	210	210	2.4	-	•	208-3	9.1	15.0	10000	-	-	
4-2	V.V.R.		24"	16"	2,400	1,095	1,200	1,200	9.9	-	•	208-3	37.4	40.0	10000	-	-	
4-3	V.V.R.	8"			575	115	290	290	3.3	-	•	208-3	12.5	15.0	10000	-	-	
4-4	V.V.R.	10"			675	135	340	340	3.8	-	•	208-3	14.4	15.0	10000	-	-	
4-5	V.V.R.	6"			325	65	165	165	1.4	-	•	120-1	15.9	20.0	10000	-	-	
5-1	V.V.R.	14"			1,500	675	750	750	8.4	-	•	208-3	31.8	35.0	10000	-	-	
5-2	V.V.R.	8"			550	110	275	275	3.1	-	•	208-3	11.7	15.0	10000	-	-	
5-3	V.V.R.	6"			225	45	115	115	0.9	-	•	120-1	10.2	15.0	10000	-	-	
6-1	V.V.R.	12"			1,020	320	510	510	4.9	-	•	208-3	18.5	20.0	10000	-	-	
6-2	V.V.R.	6"			200	40	100	100	0.9	-	•	120-1	10.2	15.0	10000	-	-	

FANS

GENERAL NOTES:
A. ALL FANS SHALL BE A.M.C.A. 211 AND 311 PERFORMANCE CERTIFIED AND SHALL BEAR THE A.M.C.A. LABEL.
B. SONES VALUES BASED ON A.M.C.A. 301 MEASURED AT 5 FT.
C. MOTOR HORSEPOWERS LISTED SHALL BE CONSIDERED MINIMUM.
D. ROOF & WALL OPENINGS ARE APPROX. VERIFY SIZE & COORDINATE.
E. COORDINATE STEEL FRAMING AROUND ROOF OPENING WHERE REQUIRED FOR DECK SUPPORT, AND WALL LINTELS FOR WALL OPENINGS.
F. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES AND SEISMIC RESTRAINT REQUIREMENTS.
G. VFD'S SHALL BE CONSTRUCTED AND LABELED FOR REQUIRED SCCR (SHORT CIRCUIT CURRENT RATING). COORDINATE WITH DIVISION 26.
H. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.

NOTES:
1.

									MOTOR								SEISMIC RESTRAINTS		BASIS OF DESIGN		
MARK	TYPE (REFER TO SPECS)	DESCRIPTION	SERVICE	CONNECTED CFM	FAN CFM	STATIC PRESSURE (IN. W.C.)	APPROX. WHEEL DIAMETER	MAXIMUM SONES	HORSEPOWER (HP)	VOLTAGE - PHASE	ELECTRONICALLY COMMUTATED	ECM MCA (AMPS, TOTAL)	ECM MOCP (AMPS, TOTAL)	VARIABLE FREQUENCY DRIVE	MINIMUM SCCR (AMPS)	APPROX. ROOF/WALL OPENING	APPROX. WEIGHT (LBS.)	VIBRATION ISOLATOR TYPE	REQUIRED	IMPORTANCE FACTOR	MANUFACTURER	MODEL	SEE NOTE
EF-1		DIRECT DRIVE DOWNBLAST CENTRIFUGAL	GENERAL EXHAUST	910	1200	0.7	13	11.5	1/2	115-1	-	8.2	15	-	10000	14.5x14.5	80		-	-	GREENHECK	G-120-VG	

ELECTRIC UNIT HEATERS

GENERAL NOTES:
A. HEATING CAPACITY BASED ON ____°F ENT. AIR.
B. ELECTRIC SERVICE - SINGLE POINT POWER CONNECTION WITH INTEGRAL CONTROLS TRANSFORMER. ADEQUACY OF LISTED CIRCUIT SIZE MUST BE VERIFIED BY H.C. AND UNIT SUPPLIER. COST FOR INCREASE OR CHANGE OF ELECTRIC SERVICE FOR EQUIPMENT SELECTED SHALL BE BORNE BY H.C.
C. ELECTRICAL SERVICE TO 3-PHASE UNITS SHALL BE 3-WIRE UNLESS NOTED OTHERWISE.
D. 3-PHASE COIL LOADS SHALL BE DIVIDED EVENLY ACROSS EACH PHASE.
E. VERIFY / COORDINATE CABINET DIMENSIONS, MOUNTING & RECESS REQUIREMENTS PRIOR TO ORDERING.
F. RECESSED UNITS SHALL HAVE FOUR(4) SIDE OVERLAP UNLESS NOTED OTHERWISE.
G. COORDINATE LINTELS IN MASONRY WALLS FOR FULL & SEMI-RECESSED UNIT WALL OPENINGS.
H. IF EC MOTORS ARE INDICATED OR SPECIFIED, EACH MOTOR SHALL BE PROVIDED WITH FACTORY DISCONNECTING MEANS, INTERNAL OVERLOAD PROTECTION, FIELD ADJUSTABLE SPEED CONTROL, AND REMOTE ANALOG SPEED CONTROL INPUT WHEN REMOTE CONTROL IS SPECIFIED, COORDINATED WITH THE BUILDING AUTOMATION SYSTEM.
I. WHEN APPLICABLE, REFER TO SPECIFICATIONS FOR VIBRATION ISOLATOR TYPES AND SEISMIC RESTRAINT REQUIREMENTS.

NOTES:
1.

			FAN			HEATING			ELECTRICAL SERVICE					APPROX. CABINET DIMENSIONS					SEISMIC RESTRAINTS		THERMOSTAT		
				MOTOR																			
MARK	DESCRIPTION	MOUNTING	CFM	MOTOR (HP)	ELECTRONICALLY COMMUTATED	CAPACITY(MBH)	KW (MIN)	KW (MAX)	STAGES	VOLTAGE - PHASE	FULL LOAD AMPS (FLA)	MIN CIRCUIT AMPS (MCA)	MAX OVER CURRENT PROTECTION (MOCP)	MINIMUM SCCR (AMPS)	INTEGRAL DISCONNECT	WIDTH	DEPTH	HEIGHT	RECESS	VIBRATION ISOLATOR TYPE	REQUIRED	IMPORTANCE FACTOR	UNIT MOUNTED	WALL MOUNTED	SEE NOTE
UH-1	HORIZONTAL DUCTED UNIT HEATER	ABOVE CEILING	650	1/6	-	17.1	-	5	1	208-3	15	20	20	10000	-	18"	36"	14"	0"		-	-	-	-	
UH-2	HORIZONTAL DUCTED UNIT HEATER	ABOVE CEILING	650	1/6	-	17.1	-	5	1	208-3	15	20	20	10000	-	18"	36"	14"	0"		-	-	-	-	
UH-3	PROPELLER UNIT HEATER	HORIZONTAL SUSPENDED	350	1/100	-	17.0	-	5	1	208-3	24			10000	-	14"	7.5"	16"	14"		-	-	-	-	

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UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
4	ADDENDUM #2	03/21/2025

Drawn By: CES
Checked By: BWS
Client No.: 514
Project No.: 7484

2024-05109
STATE OF KENTUCKY
MICHAEL RYAN McCOLLUM 29834
LICENSED PROFESSIONAL ENGINEER
03/21/25

HVAC SCHEDULES

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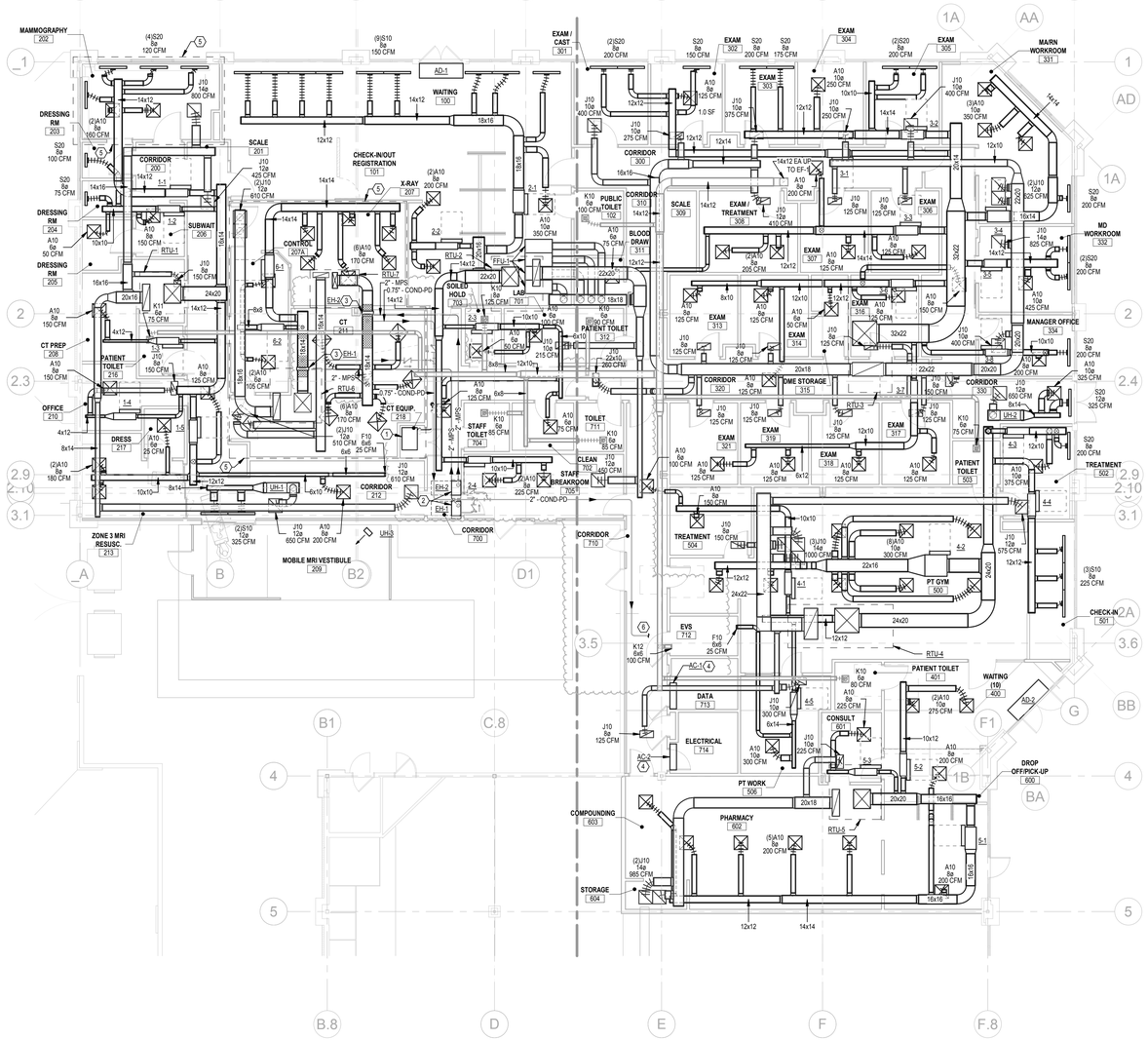

1 **FIRST FLOOR - MECHANICAL NEW WORK PLAN**
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. REFER TO ZONING PLAN SHEET M004 FOR THERMOSTAT LOCATIONS - NOT SHOWN HERE FOR CLARITY.

NOTES

1. CHILLED WATER SUPPLY AND RETURN FROM CT CHILLER ON ROOF SHALL BE CONNECTED TO CT HEAT EXCHANGER. SEE SITE SPECIFIC IMAGING EQUIPMENT DRAWINGS.
2. ELECTRIC STEAM GENERATOR MOUNTED ABOVE CEILING EQUAL TO DRISTEEM RTS. STEAM AND CONDENSATE SHALL BE PIPED FROM GENERATOR TO DUCT MOUNTED HUMIDIFIER GRID PER MANUFACTURER'S SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES.
3. DUCT MOUNTED HUMIDIFIER. REFER TO SCHEDULE. DUCTWORK 1'-0" UPSTREAM AND 5'-0" DOWNSTREAM OF HUMIDIFIER SHALL BE CONSTRUCTED OF STAINLESS STEEL AS INDICATED BY HATCHING. CONNECT 0.75" DRAIN PIPE TO BOTTOM OF DUCT DOWNSTREAM OF HUMIDIFIER. SLOPE BOTTOM OF DUCTWORK TOWARDS DRAIN CONNECTION. BRING HUMIDIFIER RETURN AND DUCT DRAIN LINE TO CONDENSATE PUMP CP-1 EQUAL TO HARTEL AS-120V.
4. CONNECT REFRIGERANT SUCTION AND LIQUID PIPING TO CORRESPONDING CONDENSING UNIT ON ROOF. PROVIDE CONDENSATE PIPE TO NEAREST DRAIN LOCATION.
5. COORDINATE ALL CEILING DEVICES AND PENETRATIONS WITH SITE SPECIFIC IMAGING EQUIPMENT DRAWINGS.
6. PUMPED CONDENSATE FROM HUMIDIFIER GRID AND DUCT DRAIN SHALL BE BROUGHT TO DRISTEEM DRANE-KOOLER IN EVS CLOSET. EXTEND TO TRENCH DRAIN IN THIS CLOSET. PROVIDE CLEAN-OUTS AT EACH CHANGE IN DIRECTION.

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1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By	2024-05109
CES	
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Project No.	
7484	

STATE OF KENTUCKY · MICHAEL RYAN McCOLLUM 29834 · LICENSED PROFESSIONAL ENGINEER
03/21/25

FIRST FLOOR - MECHANICAL NEW WORK PLAN

M201

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SECURITY SYMBOLS WITH ELECTRICAL REQUIREMENTS

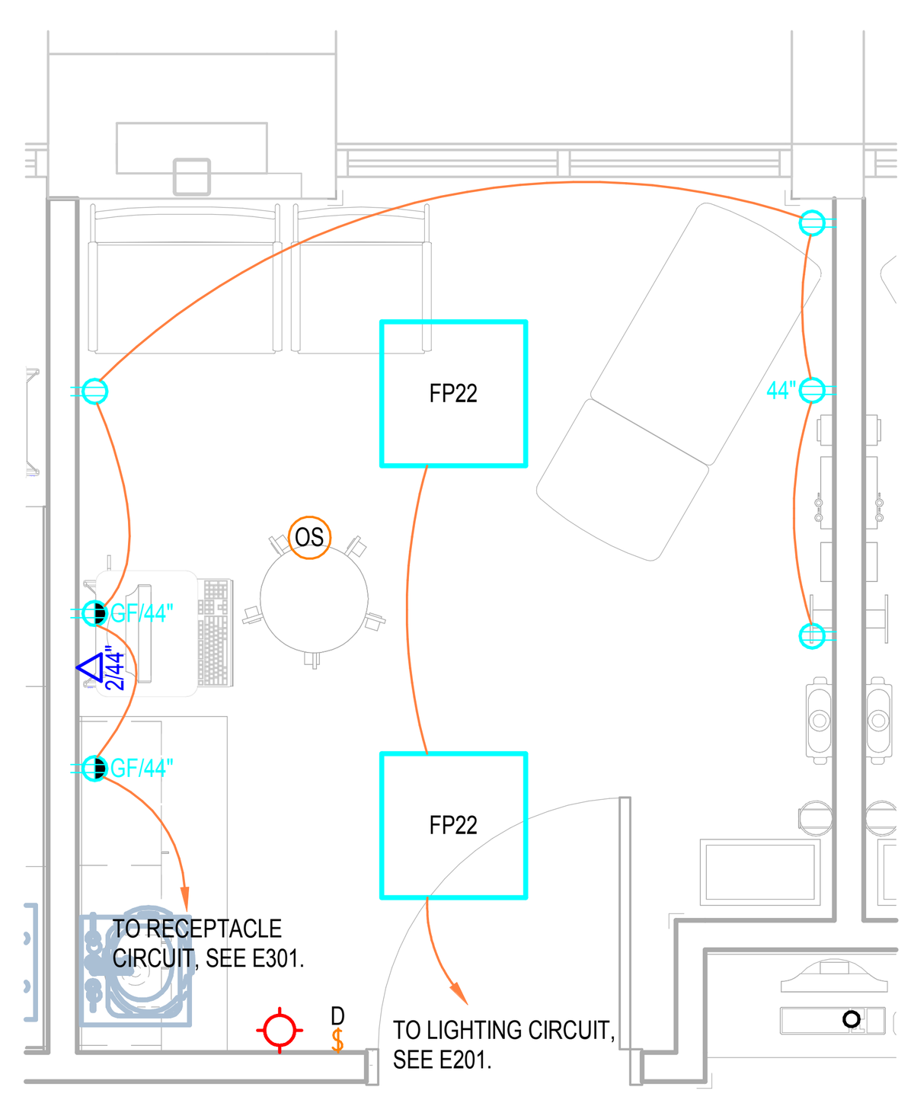
ALL ROUGH-IN REQUIREMENTS SHALL BE COORDINATED WITH VENDOR PRIOR TO ROUGH-IN

CC	CCTV SYSTEM CEILING MOUNTED CAMERA. ROUGH-IN PER DIV 26. CAMERA AND CABLING BY DIV 28.
CC	CCTV SYSTEM WALL MOUNTED CAMERA. ROUGH-IN PER DIV 26. CAMERA AND CABLING BY DIV 28.
CR	WALL MOUNTED PROXIMITY CARD READER (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. CARD READER AND CABLING BY DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
CR EL	ELEVATOR CAB MOUNTED CARD READER. READER TO BE INSTALLED IN ELEVATOR CAB AS COORDINATED WITH ELEVATOR CONTRACTOR. WIRING FROM CAB THRU TRAVELING CABLE TO ELEVATOR CONTROLLER IN ELEVATOR MACHINE ROOM AND INTERFACE WITH ELEVATOR CONTROLLER AND SMS PER OTHERS, COORDINATE WITH ELEVATOR CONTRACTOR.
EL	ELECTRONIC DOOR LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER OTHERS. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
EM	ELECTRONIC MAG LOCK AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER OTHERS. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
ES	ELECTRONIC STRIKE AND INSTALLATION BY OTHERS. LOW VOLTAGE WIRING PER OTHERS. CONDUIT PATHWAYS FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. REFER TO SECURITY ROUGH-IN DETAILS.
HA	WALL/PEDESTAL MOUNT HANDICAP DOOR ACTUATOR BUTTON, FURNISHED BY OTHERS. BOX AS REQUIRED BY SYSTEM MANUFACTURER WITH INSTALLATION AND CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. ALL LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR MOTOR BY DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
HD	HANDICAP DOOR OPERATOR MOTOR ASSEMBLY BY OTHERS. 120V POWER CONNECTION AND CONDUIT FROM DOOR FRAME TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. LOW VOLTAGE WIRING AND INTERFACE WITH SMS AND DOOR ACTUATOR BUTTONS BY DIV 28. REFER TO SECURITY ROUGH-IN DETAILS.
IC	WALL MOUNTED INTERCOM DOOR STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. INTERCOM AND CABLING BY DIV 28.
IM	DESK MOUNTED INTERCOM MASTER STATION. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. INTERCOM AND CABLING BY DIV 28.
K	WALL MOUNTED SECURITY KEYPAD ENTRY STATION (46" MH UNLESS NOTED OTHERWISE). 1-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. KEYPAD AND CABLING DIV 28.
KC	WALL MOUNTED COMBINATION KEYPAD/CARD READER (46" MH UNLESS NOTED OTHERWISE). 2-GANG BOX WITH 0.75" CONDUIT TO COMMON SMS JUNCTION BOX ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING DIV 28.
PB	PUSH BUTTON FOR LOCAL DOOR RELEASE. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. BUTTON AND CABLING BY DIV 28.
PP	PANIC/DURESS BUTTON. 1-GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. BUTTON AND CABLING DIV 28.

TECHNOLOGY SYMBOLS WITH ELEC. REQUIREMENTS

ALL ROUGH-IN REQUIREMENTS SHALL BE COORDINATED WITH VENDOR PRIOR TO ROUGH-IN

	CONDUIT SLEEVE / FIRE RATED SLEEVE ASSEMBLY THRU WALL (1-2" SLEEVE UNLESS NOTED OTHERWISE) PER DIV 26.
	WALL MOUNTED DATA OUTLET (18" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT(S) TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING BY DIV 27.
W	WALL MOUNTED PHONE OUTLET (46" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. JACKS, FACEPLATE AND CABLING BY DIV 27. SUBSCRIPT "W" INDICATES WALL PHONE MOUNTING PLATE.
X	DATA OUTLET LOCATED ABOVE ACCESSIBLE CEILING. JACKS, PLENUM RATED SURFACE MOUNT BOX AND CABLING BY DIV 27. SUBSCRIPT "X" DESIGNATES QUANTITY OF DATA CABLES. REFER TO FACEPLATE DETAILS.
AP	CEILING MOUNTED WIRELESS ACCESS POINT. BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV. 26. WAP AND CABLING DIV 27.
AP	WALL MOUNTED WIRELESS ACCESS POINT (96" MH UNLESS NOTED OTHERWISE). BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. WAP AND CABLING BY DIV 27. REFER TO FACEPLATE DETAILS.
#	OUTLET LOCATED ABOVE ACCESSIBLE CEILING. JACKS, PLENUM RATED SURFACE MOUNT BOX AND CABLING BY DIV 27.
#	FLOOR BOX WITH CONDUIT(S) TO ABOVE ACCESSIBLE CEILING PER DIV 26. # INDICATES TYPE, REFER TO NOTES ON DRAWING.
#	POKE-THRU PER DIV 26. # INDICATES TYPE, REFER TO NOTES ON DRAWING.



2 **TYPICAL EXAM ROOM**

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

ELECTRICAL SYMBOLS

	DASH SYMBOL INDICATES PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
	EXISTING OUTLET OR DEVICE TO REMAIN. MAINTAIN EXISTING CIRCUITING.
	SQUARE DEVICE INDICATES A CONNECTION TO CRITICAL POWER. SPECIFICATION IS SAME AS RESPECTIVE ROUND DEVICE.
	ELECTRICAL CONNECTION.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE). WHEN ⏻ SHOWN, RECEPTACLE TO HAVE "CONTROLLED" MARKINGS.
	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" MH UNLESS NOTED OTHERWISE).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN.
	20A-125V DOUBLE DUPLEX RECEPTACLE. NEMA 5-20R, (18" MH UNLESS NOTED OTHERWISE) TWO GANG ASSEMBLY.
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH BOTTOM OUTLET CONTROLLED BY WALL SWITCH. (18" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (44" MH UNLESS NOTED OTHERWISE).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R WITH 2 INTEGRAL USB CHARGERS (18" MH UNLESS NOTED OTHERWISE).
GF	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE).
WP/GF	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R WITH GROUND FAULT CIRCUIT INTERRUPTER (18" MH UNLESS NOTED OTHERWISE), WITH TAYMAC #MM420G EXTRA DUTY GRAY COVER, VERTICAL MOUNT.
J	JUNCTION BOX. SQUARE DEVICE INDICATES A CONNECTION TO CRITICAL POWER.
	MULTI-OUTLET RECEPTACLES ASSEMBLY, NEMA 5-15R (SINGLE OUTLETS ON 18" CENTERS) (46" MH UNLESS NOTED OTHERWISE).
	SURFACE MOUNTED RACEWAY, REFER TO NOTE ON PLANS.
C	CLOCK HANGER OUTLET, SINGLE NEMA 5-15R RECESSED IN COVER PLATE (84" MH UNLESS NOTED OTHERWISE).
$	SINGLE POLE SWITCH (46" MH UNLESS NOTED OTHERWISE).
OS $	DUAL-TECHNOLOGY OCCUPANCY SENSOR WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
# $	MULTI-WAY WALL SWITCH, # INDICATES NUMBER OF WAYS (46" MH UNLESS NOTED OTHERWISE).
P $	SWITCH WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
K $	KEY OPERATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
L $	LOW-VOLTAGE MOMENTARY WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
D $	LOW-VOLTAGE DIMMER SWITCH (46" MH UNLESS NOTED OTHERWISE).
R $	SWITCH WITH RECEPTACLE (46" MH UNLESS NOTED OTHERWISE) STANDARD TWO-GANG ASSEMBLY OF SWITCH AND RECEPTACLE.
M $	FLUSH FRACTIONAL HORSEPOWER MOTOR STARTER WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" MH UNLESS NOTED OTHERWISE).
H $	HP RATED WALL SWITCH (46" MH UNLESS NOTED OTHERWISE).
	ELECTRICAL PANEL OR SWITCHBOARD PER DRAWINGS.
P/B	PULL BOX.
	DISCONNECT SWITCH.
	MOTOR STARTER.
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH.
	ELECTRIC MOTOR.
CR	CORD REEL.
PP	POWER POLE.
T	LINE VOLTAGE THERMOSTAT.
H DH	DUCT HEATER.
H EB	ELECTRIC BASEBOARD HEATER.
	PUSHBUTTON (46" MH UNLESS NOTED OTHERWISE) EDWARDS 852 (120 VOLT).
	BUZZER (90" MH UNLESS NOTED OTHERWISE) EDWARDS 340-A (120 VOLT).
	ELAPSED TIME REFER TO TECHNOLOGY DRAWING FOR ADDITIONAL INFORMATION (90" MH UNLESS NOTED OTHERWISE) WITH RESET SWITCH (46" MH UNLESS NOTED OTHERWISE).
PC	PHOTOELECTRIC SENSOR.
LC	LIGHTING CONTACTOR.
OS	DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR.
OS	DUAL TECHNOLOGY WALL MOUNTED OCCUPANCY SENSOR.
DS	CEILING MOUNTED DAYLIGHT SENSOR.
A	AUTOMATIC DOOR OPERATOR. REFER TO TECHNOLOGY DETAILS FOR ADDITIONAL ROUGH-IN REQUIREMENTS.

LUMINAIRE SYMBOLS

A a	LUMINAIRE ON NORMAL POWER. CAPITAL LETTER DENOTES FIXTURE TYPE, LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
	LUMINAIRE WITH INTEGRAL BATTERY. LUMINAIRES WITH TAG "NL" SHALL REMAIN ON 24/7 (NIGHT LIGHT).
	EXIT LIGHTING FIXTURE WITH INTEGRAL BATTERY, ARROWS AS INDICATED.

FIRE ALARM SYMBOLS

FACP	FIRE ALARM CONTROL PANEL.
RAP	REMOTE ANNUNCIATOR PANEL.
NAC	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL.
ASSD	AIR SAMPLING SMOKE DETECTOR BASE UNIT.
15 F	FIRE ALARM SPEAKER & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	FIRE ALARM BELL & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	FIRE ALARM CHIME & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15 F	FIRE ALARM HORN & SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
F W	FIRE ALARM BELL (88" AFF UNLESS NOTED OTHERWISE). SUBSCRIPT "W" INDICATES EXTERIOR WEATHERPROOF UNIT.
15 F	FIRE ALARM SIGNAL LIGHT (88" AFF). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
S 15	CEILING MOUNTED FIRE ALARM SPEAKER & SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15	CEILING MOUNTED FIRE ALARM HORN & SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
15	CEILING MOUNTED FIRE ALARM SIGNAL LIGHT. # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 15 CANDELA IN CORRIDORS AND 30 CANDELA FOR ALL OTHER LOCATIONS.
S	CEILING MOUNTED FIRE ALARM SPEAKER.
S R	SURFACE MOUNTED FIRE ALARM SPEAKER (88" AFF). SUBSCRIPT "R" INDICATES RECESSED MOUNTING.
F K	FIRE ALARM MANUAL STATION (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "K" INDICATES KEY OPERATED.
S	CEILING MOUNTED SMOKE DETECTOR.
H	CEILING MOUNTED HEAT DETECTOR.
S S/R	DUCT MOUNTED SMOKE DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
H S/R	DUCT MOUNTED HEAT DETECTOR. SUBSCRIPT "S" INDICATES SUPPLY. SUBSCRIPT "R" INDICATES RETURN.
B T/R	BEAM DETECTOR. SUBSCRIPT "T" INDICATES TRANSMITTER FUNCTION. SUBSCRIPT "R" INDICATES RECEIVER FUNCTION.
C	ELECTRIC RELEASE DOOR CLOSER.
D	ELECTRO-MAGNETIC DOOR HOLDER.
FS	WATER FLOW SWITCH.
V	VALVE SUPERVISORY SWITCH.
R W	CEILING MOUNTED REMOTE TEST STATION AND ALARM INDICATOR LIGHT FOR DUCT DETECTOR. SUBSCRIPT "W" INDICATES WALL MOUNTED.
SD	SMOKE DAMPER.
FT	FIRE FIGHTER'S TELEPHONE (60" MH UNLESS NOTED OTHERWISE).
PS	PRESSURE SWITCH.
AM C/I	ADDRESSABLE MODULE. SUBSCRIPT "I" INDICATES INPUT. SUBSCRIPT "C" INDICATES CONTROL.
PIV	POST INDICATOR VALVE.
K S	KNOX BOX (46" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "S" INDICATES SUPERVISED UNIT.
A	AIR SAMPLING SMOKE DETECTOR SAMPLING PORT.

NURSE CALL SYMBOLS

ALL ROUGH-IN REQUIREMENTS SHALL BE COORDINATED WITH VENDOR PRIOR TO ROUGH-IN

NCCP	NURSE CALL CONTROL PANEL.
NM W	NURSE CALL DESK MOUNTED MASTER CONTROL STATION (OUTLET AT 18" MH UNLESS NOTED OTHERWISE). SUBSCRIPT "W" INDICATES WALL MOUNT (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
NS	NURSE CALL STAFF STATION (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
NS C	NURSE CALL MULTI-PIN CATV JACK (84" AFF UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
NS P	NURSE CALL STAFF PRESENCE STATION (60" AFF UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
ND	NURSE CALL DUTY STATION (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
N T	EMERGENCY NURSE CALL STATION WITH PULL CORD FOR PATIENT USE (46" MH AND TO SIDE AND WITHIN 12" FROM FRONT OF TOILET BOWL IN TOILET ROOMS, 66" MH IN SHOWERS AND WET AREAS, 46" MH UNLESS NOTED OTHERWISE IN ALL OTHER AREAS). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
NC	PATIENT NURSE CALL UTILITY CONSOLE (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
N	PATIENT NURSE CALL STATION (ONE OR TWO CORDS AS INDICATED, 46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.
N	CEILING MOUNTED NURSE CALL DOME LIGHT.
N	WALL MOUNTED NURSE CALL DOME LIGHT (90" MH UNLESS NOTED OTHERWISE).
N B	CEILING MOUNTED COMBINATION DOME LIGHT AND BUZZER.
N Z	CEILING MOUNTED NURSE CALL ZONE LIGHT.
N E	NURSE CALL EMERGENCY BUTTON (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27..
N B	EMERGENCY CODE BLUE BUTTON (46" MH UNLESS NOTED OTHERWISE). BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING PER DIV 26. DEVICE AND CABLING BY DIV 27.

ABBREVIATIONS

AAP	- AREA ALARM PANEL - MEDICAL GAS	KEC	- KITCHEN EQUIPMENT CONTRACTOR
AF	- ARC FAULT CIRCUIT INTERRUPTER	L	- LENGTH
AFF	- ABOVE FINISHED FLOOR TO BOTTOM OF ITEM	LBS	- POUNDS
AFG	- ABOVE FINISHED GRADE TO BOTTOM OF ITEM	MAP	- MASTER ALARM PANEL (MEDICAL GAS)
ALT	- ALTERNATE	MAX	- MAXIMUM
AP	- ACCESS PANEL	MEZZ	- MEZZANINE
APPROX	- APPROXIMATE	MFR	- MANUFACTURER
ARCH	- ARCHITECT OR ARCHITECTURAL	MH	- MANHOLE OR MOUNTING HEIGHT TO CENTER LINE OF ITEM
ATS	- AUTOMATIC TRANSFER SWITCH	MIN	- MINIMUM OR MINUTE
BAS	- BUILDING AUTOMATION SYSTEM	MISC	- MISCELLANEOUS
BLDG	- BUILDING	MREF	- MEDICAL REFRIGERATOR
CFCI	- CONTRACTOR FURNISHED CONTRACTOR INSTALLED	MTD	- MOUNTED
CKT	- CIRCUIT	MTG	- MOUNTING
CLG	- CEILING	MW	- MIRCOWAVE
CM	- COFFEE MAKER	NC	- NURSE CALL
CMU	- CONCRETE MASONRY UNIT	NIC	- NOT IN CONTRACT
CO	- COPIER	NL	- NIGHT LIGHT
CORR	- CORRIDOR	NOM	- NOMINAL
D	- DEPTH	NTS	- NOT TO SCALE
DIA	- DIAMETER	OFCI	- OWNER FURNISHED CONTRACTOR INSTALLED
DIM	- DIMENSION	OFOI	- OWNER FURNISHED OWNER INSTALLED
DIV	- DIVISION	PC	- PLUMBING CONTRACTOR (DIVISION 22)
DWG	- DRAWING	PLBG	- PLUMBING
EA	- EACH	PR	- PRINTER
EC	- ELECTRICAL CONTRACTOR (DIVISION 26)	PY	- PYXIS
ELEC	- ELECTRICAL	RAD	- RADIUS
ELEV	- ELEVATION OR ELEVATOR	REC	- RECESSED
EM	- EMERGENCY	RF	- REFRIGERATOR
EPO	- EMERGENCY POWER OFF	REQD	- REQUIRED
EQ	- EQUAL	R	- RECEPTACLE
EQUIP	- EQUIPMENT	RM	- ROOM
E/R	- EXISTING TO BE RELOCATED	S	- SURFACE MOUNTED
EX	- EXISTING TO REMAIN	SC	- SECURITY CONTRACTOR
EXT	- EXTERIOR	SCH	- SCHEDULE
FCE	- FIRE CONTROL EQUIPMENT	SPEC	- SPECIFICATIONS
FF	- FINISHED FLOOR ELEVATION	SQ	- SQUARE
FLR	- FLOOR	SS	- STAINLESS STEEL
FSC	- FIRE SUPPRESSION CONTRACTOR (DIVISION 21)	STD	- STANDARD
FT	- FEET	STRUC	- STRUCTURAL OR STRUCTURE
FZ	- FREEZER	TC	-TIME CLOCK
GA	- GENERATOR ANNUNCIATOR	TEMP	- TEMPERATURE
GC	- GENERAL CONTRACTOR	TYP	- TYPICAL
GF	- GROUND FAULT CIRCUIT INTERRUPTER	UNO	- UNLESS NOTED OTHERWISE
GFB	- GROUND FAULT CIRCUIT BREAKER	UC	-UNDERCOUNTER
HC	- HVAC CONTRACTOR (DIVISION 23)	VFD	- VARIABLE FREQUENCY DRIVE
HP	- HORSE POWER	W/	- WITH
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING	W/O	- WITHOUT
IN	- INCHES	WP	- WEATHERPROOF

GENERAL FLOOR PLAN NOTES

B / E2	DETAIL: B = DETAIL DESIGNATION E2 = SHEET WHERE DETAIL IS LOCATED
1 / E2	SECTION: 1 = SECTION DESIGNATION E2 = SHEET WHERE SECTION IS LOCATED
T2 1	ELEVATION: 1 = ELEVATION DESIGNATION T2 = SHEET WHERE ELEVATION IS LOCATED
3	PLAN NOTE. APPLIES ONLY TO THE SHEET WHICH IT IS SHOWN.
3	DETAIL NOTE. APPLIES ONLY TO THE ASSOCIATED DETAIL.
3	LIGHTING CONTROL DETAIL NOTE. APPLIES TO THE LIGHTING CONTROL SEQUENCE OF OPERATIONS SCHEDULE FOR ROOM CONTROL.
3 E	DEVICE QUANTITY - POWER NOTE. REFER TO DEVICE QUANTITIES - POWER SCHEDULE.
	LADDER TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
	CABLE TRAY, 12" x 4" DEEP UNLESS NOTED OTHERWISE.
4"	WIRE & CONDUIT IN WALL OR ABOVE CEILING.
4"	WIRE & CONDUIT IN OR BELOW SLAB OR GRADE.
4"	CONDUIT TO BE REMOVED.
EX	EXISTING WIRE & CONDUIT TO REMAIN.
X - 1,2	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT; "X" DENOTES PANEL NAME; NUMBER(S) DENOTES CIRCUIT(S).

SHEET LIST

SHEET NUMBER	SHEET NAME
E001	ELECTRICAL LEGEND, SCHEDULES AND SHEET INDEX
E002	SINGLE LINE
E003	PANELBOARD SCHEDULES
E101	FIRST FLOOR - ELECTRICAL DEMOLITION PLAN
E102	ROOF - ELECTRICAL DEMOLITION PLAN
E201	FIRST FLOOR - NEW WORK LIGHTING PLAN
E301	FIRST FLOOR - NEW WORK POWER PLAN
E401	FIRST FLOOR - NEW WORK SYSTEMS PLAN
E501	FIRST FLOOR - ELECTRICAL NEW WORK PLAN
E502	ROOF - ELECTRICAL NEW WORK PLAN
Total Count: 10	

MOTORS, STARTERS, DISCONNECTS & CONTROLS

NOTES:
1. UNIT POWERED INTEGRAL GFI OUTLET INCLUDED.

MARK	NAMEPLATE	MOTOR – CHARACTERISTICS: HORSEPOWER (HP)	LOAD (kVA)	120V-1PH	208V-1PH	208V-3PH	240V-1PH	240V-3PH	277V-1PH	480V-1PH	480V-3PH	MOTOR – LOCATION: ROOM NAME	ROOM NUMBER	STARTER: NEMA SIZE	STARTER TYPE: MANUAL	MAGNETIC	ECM	VFD	STARTER LOCATION: NEAR MOTOR	MOTOR CONT CENTER	INTEGRAL W/ EQUIP.	ROOM NUMBER	FURNISHED BY	DISCONNECT MEANS TYPE: DISC SWITCH	TOGGLE SWITCH	RECEPTACLE	FEEDER SW OR BREAKER	NEMA TYPE	DISC SIZE	FUSE SIZE	DISCONNECT LOCATION: NEAR MOTOR	MOTOR CONT CENTER	INTEGRAL W/ EQUIP.	PANELBOARD	FURNISHED BY	FEEDER: NUMBER OF CONDUCTORS	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	SEE NOTE
CP-1	CONDENSATE PUMP	0.5 HP	1.18	●								STAFF BREAKROOM	705		●				●				EC	●				1	30	NF	●				EC	3	12	12	.75	
EF-1	EXHAUST FAN	0.5 HP	1.18	●								ROOF	-		●				●				EC	●				3R	30	NF	●				EC	3	12	12	.75	
RTU-1	ROOF TOP UNIT 1	50.1 FLA	18.05			●						ROOF	-				●				●		MFR	●									●		MFR	4	4	8	1.25	1
RTU-2	ROOF TOP UNIT 1	70.0 FLA	25.22			●						ROOF	-				●				●		MFR	●									●		MFR	4	1	6	1.5	1
RTU-3	ROOF TOP UNIT 1	127.5 FLA	45.93			●						ROOF	-				●				●		MFR	●									●		MFR	4	2/0	6	2	1
RTU-4	ROOF TOP UNIT 1	85.7 FLA	30.98			●						ROOF	-				●				●		MFR	●									●		MFR	4	1/0	6	1.5	1
RTU-5	ROOF TOP UNIT 1	50.1 FLA	18.05			●						ROOF	-				●				●		MFR	●									●		MFR	4	4	8	1.25	1
RTU-6	ROOF TOP UNIT 1	47.4 FLA	11.85			●						ROOF	-				●				●		MFR	●									●		MFR	4	4	8	1.25	1
RTU-7	ROOF TOP UNIT 1	32.9 FLA	17.08			●						ROOF	-				●				●		MFR	●									●		MFR	4	8	10	.75	1

LUMINAIRES

NOTES:
1.

MARK	FIXTURE VOLTAGE	LOAD (VA)	VA / LINEAR FOOT	MANUFACTURER	CATALOG NO.	DESCRIPTION	OTHER ACCEPTABLE MANUFACTURERS (4)	MOUNTING: S-SURFACE, R-RECESSED, SM-STEM MTD, WM-WALL MTD, C-CHAIN MTD, UC-UNDER CAB, CS-CEIL SURFACE, P-PENDANT	SEE NOTE
C4	120	41		LITHONIA	ZL1D-L48-SMR-3000LM-FST-MVOLT-35K-80CRI-WH-HC36M12	4' LONG LED HUNG LUMINAIRE	COLUMBIA, METALUX SNLED	S	
D4	120	18		PORTFOLIO	LD4C-15-90-35-D010-W-1	4" LED DOWN LIGHT, FLANGED TRIM WIDE BEAM ANGLE. 3K +901500LM 0-10V DIM TO 1% 17W UNV	LIGHTOLIER 4RN	R	
D4B	120	18		PORTFOLIO	LD4C-15-90-35-D010-W-1-EMBOD	4" LED DOWN LIGHT, FLANGED TRIM WIDE BEAM ANGLE. 3K +901500LM 0-10V DIM TO 1% 17W UNV BATTERY PACK	LIGHTOLIER 4RN	R	
D4CT	120	11		PORTFOLIO	LD4C-30-90-35-D010-W-1	4" LED DOWN LIGHT, FLANGED TRIM WIDE BEAM ANGLE. 3K +90 3000LM 0-10V DIM TO 1% 17W UNV	LIGHTOLIER 4RN	R	
D4X	120	11		PORTFOLIO	LD4C-30-90-35-D010-W-1	4" LED DOWN LIGHT, FLANGED TRIM WIDE BEAM ANGLE. 3K +90 3000LM 0-10V DIM TO 1% 17W UNV	LIGHTOLIER 4RN	R	
EM2B	120			LITHONIA	EU2C-HO	DUAL HEAD EMERGENCY LIGHT, THERMOPLASTIC WHITE HOUSING, 600 LUMENS	SURELITES SEL, (4)	S	
FP22	120	31		RAB	SWISHFA2X2/D10	2'x2' LED CURVED LENS LUMINARIE	COOPER, LEDALITE	R	
FP22B	120	31		RAB	SWISHFA2X2/D10/E	2'x2' LED CURVED LENS LUMINARIE, MVOLT, 3600LM, 80CRI, 0-10V TO 1% DIMMING, BATTERY PACK	COOPER, LEDALITE	R	
P1	120	8		GISELE	S-LB-C1-ROD	6" GLOWBALL PENDANT, 4" ROUND X 1.5"H SURFACE MOUNTED CANOPY,WHITE COLORS	PRE APPROVED EQUAL. CAMMAN 6"	P	
RS4	120	<VARIES>	8	MARK ARCH LIGHTING	SL4L-LOP-xFT-FLP-xx-80CRI-35K-800LMF-MIN1-___-ZT	RECESSED SLOT - 4" WIDE	PINNACLE, NEORAY DEFINE 4	R	
W2	120	25		ALIGHT	03-2'-LS-35K-90+CRI-U-DL2-R-XX-D	LINEAR SURFACE 2' EXTRUDED ALUMINUM 2" WIDE SQUARE OPAL DIFFUSER 1' ABOVE MIRROR 35K 1000LM 0-10V DIM, COLOR SELECTED BY ARCHITECT	PRUDENTIAL, LUMENWORK QUANW	S	
WP1B	120	10		LITHONIA	WDGE2 LED P1 35K 80CRI VF MVOLT SRM E4WH DS DDBXD	LED WALL PACK, DARK BRONZE FINISH, REMOTE EMERGENCY BATTERY, DUAL SWITCHING	BEACON, RAYON T632LED	S	
WP1C	120	10		LITHONIA	WDGE2 LED P1 35K 80CRI VF MVOLT SRM E4WH DS PE DDBXD	LED WALL PACK, DARK BRONZE FINISH, REMOTE EMERGENCY BATTERY, DUAL SWITCHING.	BEACON, RAYON T632LED	S	
X1B	120	2		RAB	EXIT34 RG/E	GREEN SINGLE FACE EXIT SIGN, WHITE THERMOPLASTIC HOUSING, W/ BATTERY, SELF DIAGNOSTIC	CHLORIDE, SURELITES, LITHONIA	S	
X1C	120			RAB	EXIT34 RG/E	GREEN SINGLE FACE EXIT SIGN, WHITE THERMOPLASTIC HOUSING, W/ BATTERY, SELF DIAGNOSTIC.	CHLORIDE, SURELITES, LITHONIA		
X2	120	2		RAB	EXIT34 RG/E	GREEN DOUBLE FACE EXIT SIGN, WHITE THERMOPLASTIC HOUSING, W/ BATTERY, SELF DIAGNOSTIC	CHLORIDE, SURELITES, LITHONIA	S	
X3	120			LITHONIA	WLTC1GSDCW	EXTERIOR GREEN SINGLE FACE EMERGENCY LIGHT/EXIT COMBO SIGN, WHITE THERMOPLASTIC HOUSING, RUGGED, HEAVY-DUTY, POLYCARBONATE CLEAR HOUSING LENS, W/COLD WEATHER BATTERY, SELF DIAGNOSTIC.	CHLORIDE, SURELITES, RAB	S	
X4	120			LITHONIA	WLTC2GSDCW	EXTERIOR GREEN DOUBLE FACE EMERGENCY LIGHT/EXIT COMBO SIGN, WHITE THERMOPLASTIC HOUSING, RUGGED, HEAVY-DUTY, POLYCARBONATE CLEAR HOUSING LENS, W/COLD WEATHER BATTERY, SELF DIAGNOSTIC.	CHLORIDE, SURELITES, RAB	S	

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UK HealthCare

UK HealthCare Richmond

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Richmond, KY 40475

UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By: APO,KDS
Checked By: DED
Client No.: 514
Project No.: 7484

STATE OF KENTUCKY — DANIEL E. DOWLER 26940 — LICENSED PROFESSIONAL ENGINEER — 03/21/2025

ELECTRICAL LEGEND, SCHEDULES AND SHEET INDEX

E001

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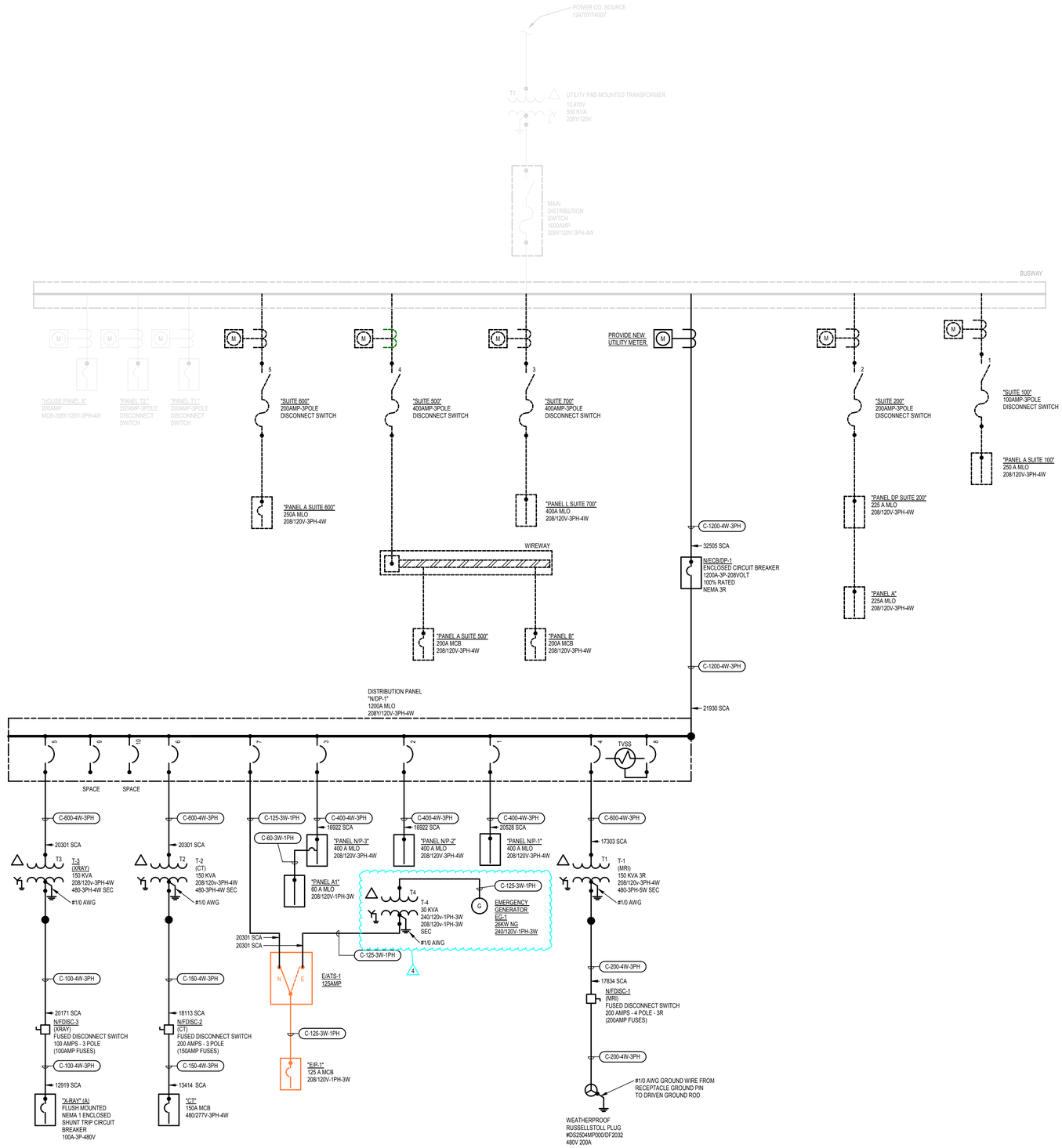

1 **ELECTRICAL SINGLE LINE**
SCALE: NONE

———	CONDUIT & WIRE
- - - - - -	CONDUIT & WIRE TO BE REMOVED
———	EXISTING CONDUIT & WIRE TO REMAIN
— — — — —	INTEGRATED EQUIPMENT ENCLOSURE
— — — — —	SWITCHBOARD ENCLOSURE
———	BUSSING
#	FAULT CURRENT REFERENCE POINT
_-____-_W-_PH-_	FEEDER WIRE SIZE SYMBOL SPECIAL CONFIGURATION: 2P=TWO POLE NO NEUTRAL, S=SECONDARY, SE=SERVICE ENTRANCE, V=VOLTAGE DROP # OF PHASES # OF CONDUCTORS FEEDER AMPERAGE MATERIAL, A=ALUMINUM, C=COPPER
N E	AUTOMATIC TRANSFER SWITCH
	DELTA SYMBOL
	DISCONNECT
M	ELECTRIC METER
	EQUIPMENT CURRENT TRANSFORMER
	EQUIPMENT GROUND
M	EQUIPMENT MULTIMETER
	EQUIPMENT POTENTIAL TRANSFORMER
	EQUIPMENT WYE SIDE OF TRANSFORMER WITH GROUND
	FUSED SWITCH - SECONDARY
G	GENERATOR
	PANELBOARD - MAIN LUG ONLY
	PANELBOARD - MAIN BREAKER
	PANELBOARD BREAKER
	SINGLE POLE SWITCH
	TRANSFORMER
● OR •	VOLTAGE TERMINATION - SECONDARY

FEEDER WIRE SIZES

FEEDER TAG	# OF SETS	# OF CONDUCTORS	CONDUCTOR SIZE	GROUND SIZE	CONDUIT SIZE
C 60 3W 1PH	1	3	6	10	1"
C 100 4W 3PH	1	4	2	8	1.5"
C 125 3W 1PH	1	3	1	6	1.5"
C 150 4W 3PH	1	4	1/0	6	2"
C 200 4W 3PH	1	4	3/0	6	2"
C 400 4W 3PH	1	4	500	3	3.5"
C 600 4W 3PH	2	4	350	1	3"
C 1200 4W 3PH	3	4	600	3/0	4"

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UK Project#: 12566, 12567, 12568, 12569

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No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By
APO,KDS

Checked By
DED

Client No.
514

Project No.
7484

STATE OF KENTUCKY
DANIEL E. DOWLER
26940
LICENSED PROFESSIONAL ENGINEER
03/21/2025

SINGLE LINE

E002

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DISTRIBUTION PANEL: N/DP-1

Location: ELECTRICAL 714 **Mounting:** Surface **A.I.C. Rating:** 65K
Supply From: N/ECB/DP-1 **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 208Y/120V-3PH-4W **Mains Rating:** 1200 A

CKT	CIRCUIT DESCRIPTION	APPROX. CONNECTED LOAD	FRAME SIZE	POLES	TRIP SETTING	BREAKER TYPE	NUMBER OF CONDUCTORS	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	SEE NOTE
1	N/P-1	141.45 kVA	400 A	3	400 A						
2	N/P-2	139.05 kVA	400 A	3	400 A						
3	N/P-3	150.40 kVA	400 A	3	400 A						
4	T1-MOBILE MRI	125.00 kVA	600 A	3	600 A						1
5	T3-XRAY	150.00 kVA	600 A	3	600 A						
6	T2-CT	150.00 kVA	600 A	3	600 A						
7	E/ATS-1	30.84 kVA	200 A	2	125 A						
8	TVSS	0.00 kVA	100 A	3	60 A	--	--	--	--	--	--
9	Space	--	--	3	--	--	--	--	--	--	--
10	Space	--	--	3	--	--	--	--	--	--	--

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Lighting	7524 VA	100.00%	7524 VA		
Motor	170692 VA	80.00%	136553 VA	Total Conn. Load:	886.74 kVA
Receptacle	153823 VA	53.25%	81912 VA	Total Est. Demand:	382.81 kVA
Diagnostic Imaging NEC 517.73(B)	429000 VA	29.23%	125400 VA	Total Conn.:	2461 A
Resistive Heat (Seasonal Load)	125700 VA	25.00%	31425 VA	Total Est. Demand:	1063 A

NOTES: 1. PROVIDE SHUNT TRIP CIRCUIT BREAKER. CONTROLLED BY EPO.

TOTAL CONNECTED	ESTIMATED DEMAND
886.74 kVA	382.81 kVA (1063 A)

Panel: E/P-1

Location: ELECTRICAL 714 **Mounting:** Surface **A.I.C. Rating:** 22k
Supply From: E/ATS-1 **Enclosure:** Type 1 **Mains Type:** MCB
Voltage: 208/120V-1PH-3W **Mains Rating:** 125 A

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	$ R-UCR LAB 225	20 A	1	1000 VA	1000 VA			1	20 A	$ R-UCR LAB 225	2
3	Recept CC CORR 212	20 A	1			1400 VA	1500 VA	1	20 A	Recept Pyxis CORR 212	4
5	$ R-UCR CT PREP 105	20 A	1	1000 VA	360 VA			1	20 A	Receptacle ZONE 3 MRI...	6
7	Receptacle...	20 A	1			720 VA	1500 VA	1	20 A	Receptacle	8
9	$ R-FRZ 330	20 A	1	1600 VA	978 VA			1	20 A	$ R-ICE 330	10
11	$ R-FRZ 330	20 A	1			1600 VA	360 VA	1	20 A	Receptacle EXAM/...	12
13	$ R-RF 221	20 A	1	1600 VA	1600 VA			1	20 A	$ R-RF 221	14
15	$ R-UCR LAB 225	20 A	1			1000 VA	1080 VA	1	20 A	Receptacle PHARMACY...	16
17	$ R-RF 602	20 A	1	1600 VA	1600 VA			1	20 A	$ R-RF 602	18
19	Receptacle DATA 508	30 A	2			2882 VA	180 VA	1	20 A	SEC panel	20
21	--	--	--	2882 VA	700 VA			1	20 A	$ R-UCFR 602	22
23	Receptacle...	20 A	1			1200 VA	1000 VA	1	20 A	R-602	24
25	Space	--	1	--	500 VA			1	20 A	NCCP 714	26
27	Space	--	1			--	0 VA	1	20 A	Spare	28
29	Space	--	1	--	0 VA			1	20 A	Spare	30
31	Space	--	1			--	0 VA	1	20 A	Spare	32
33	Space	--	1	--	0 VA			1	20 A	Spare	34
35	Space	--	1			--	--	1	--	Space	36
37	Space	--	1	--	--			1	--	Space	38
39	Space	--	1			--	--	1	--	Space	40
41	Space	--	1	--	--			1	--	Space	42
			Total Load:	16.42 kVA		14.42 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Receptacle	30842 VA	66.21%	20421 VA		
				Total Conn. Load:	30.84 kVA
				Total Est. Demand:	20.42 kVA
				Total Conn.:	148 A
				Total Est. Demand:	98 A

Notes: $ = PROVIDE GROUND FAULT CIRCUIT BREAKER.

TOTAL CONNECTED	ESTIMATED DEMAND
30.84 kVA	20.42 kVA (98 A)

Panel: N/P-1

Location: ELECTRICAL 714 **Mounting:** Surface **A.I.C. Rating:** 22K
Supply From: N/DP-1 **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 208Y/120V-3PH-4W **Mains Rating:** 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Ltg 713, 714, 712	20 A	1	246 VA	355 VA					1	20 A	EMERG Ltg-710, 500, 400, 602, 603...	2
3	Coiling Gate RM 600	20 A	1			1176...	1080...			1	20 A	R-WS-1 507, 304	4
5	R- RM 502	20 A	1					360 VA	1440...	1	20 A	R-300	6
7	R-300	20 A	1	900 VA	1500...					1	20 A	R-300	8
9	$ R-UCFZ 300	20 A	1			1500...	1000...			1	20 A	$ R-ICE PT 300	10
11	R-713	20 A	1					900 VA	1440...	1	20 A	R-305	12
13	R-305, 400	20 A	1	1620...	1080...					1	20 A	R-506, 401	14
15	R-401	20 A	1			720 VA	1260...			1	20 A	R-401	16
17	R-306	20 A	1					1080...	1440...	1	20 A	R-301	18
19	R-300, 302	20 A	1	1000...	1040...					1	20 A	R-302	20
21	R-508	30 A	2			1040...	776 VA			1	20 A	Ltg	22
23	--	--	--					1040...	1032...	3	150 A	RTU-4	24
25	DWH-1 507	20 A	1	600 VA	1032...					--	--	--	26
27	$ R- WS-1 507	20 A	1			360 VA	1032...			--	--	--	28
29	RCP-1 507	20 A	1					180 VA	3000...	3	40 A	CT HUMID. EVS 712	30
31	R- 500	20 A	1	1080...	3000...					--	--	--	32
33	Exterior Lighting	20 A	1			60 VA	3000...			--	--	--	34
35	RTU-5	60 A	3					6016...	3996...	3	60 A	XRAY HUMID. EVS 712	36
37	--	--	--	6016...	3996...					--	--	--	38
39	--	--	--			6016...	3996...			--	--	--	40
41	Ltg 504	20 A	1					93 VA	3833...	3	40 A	Resistive Heat Rm 400	42
43	Ltg 304	20 A	1	741 VA	3833...					--	--	--	44
45	Resistive Heat-RM 401	20 A	1			900 VA	3833...			--	--	--	46
47	Resistive Heat RM 305	20 A	1					1400...	2367...	3	40 A	Resistive Heat RM 300	48
49	Resistive Heat RM 300	50 A	3	4100...	2367...					--	--	--	50
51	--	--	--			4100...	2367...			--	--	--	52
53	--	--	--					4100...	964 VA	2	30 A	AC-2/CU-2 ROOF	54
55	AC-1/CU-1 ROOF	30 A	2	964 VA	964 VA					--	--	--	56
57	--	--	--			964 VA	510 VA			2	20 A	AD-2 WAITING 400	58
59	R-714	20 A	1					720 VA	510 VA	--	--	--	60
61	R-500	20 A	2	1040...	370 VA					1	20 A	$ R-WC 500	62
63	--	--	--			1040...	1200...			1	20 A	R-PR 506	64
65	HOOD 603	20 A	1					300 VA	500 VA	1	20 A	DDC ELEC 714	66
67	R- RM 603	20 A	1	720 VA	180 VA					1	20 A	Recept - ROOF	68
69	Receptacle DATA 713	20 A	1			180 VA	0 VA			1	20 A	Spare	70
71	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	72
73	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	74
75	Spare	20 A	1			0 VA	--			1	--	Space	76
77	Space	--	1					--	--	1	--	Space	78
79	Space	--	1	--	--					1	--	Space	80
81	Space	--	1			--	--			1	--	Space	82
83	Space	--	1					--	--	1	--	Space	84
			Total Load:	48.04 kVA		47.41 kVA		46.01 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Lighting	2270 VA	100.00%	2270 VA		
Motor	49032 VA	80.00%	39226 VA	Total Conn. Load:	141.45 kVA
Receptacle	56949 VA	58.78%	33475 VA	Total Est. Demand:	83.27 kVA
Resistive Heat (Seasonal Load)	33200 VA	25.00%	8300 VA	Total Conn.:	393 A
				Total Est. Demand:	231 A

Notes: $ = PROVIDE GROUND FAULT CIRCUIT BREAKER.

TOTAL CONNECTED	ESTIMATED DEMAND
141.45 kVA	83.27 kVA (231 A)

Panel: A1

Location: X-RAY 207 **Mounting:** Surface **A.I.C. Rating:** 10K
Supply From: N/P-3 **Enclosure:** Type 1 **Mains Type:** MCB
Voltage: 208/120V-1PH-3W **Mains Rating:** 100 A

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	WARNING LIGHT 200	20 A	1	180 VA	--			1	--	Space	2
3	PSI POWER 207	20 A	1			180 VA	--	1	--	Space	4
5	Spare	20 A	1	0 VA	--			1	--	Space	6
7	Spare	20 A	1			0 VA	--	1	--	Space	8
9	Spare	20 A	1	0 VA	--			1	--	Space	10
11	Spare	20 A	1			0 VA	--	1	--	Space	12
			Total Load:	0.18 kVA		0.18 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Receptacle	360 VA	100.00%	360 VA		
				Total Conn. Load:	0.36 kVA
				Total Est. Demand:	0.36 kVA
				Total Conn.:	2 A
				Total Est. Demand:	2 A

Notes:

TOTAL CONNECTED	ESTIMATED DEMAND
0.36 kVA	0.36 kVA (2 A)

Panel: N/P-2

Location: CORRIDOR 700 **Mounting:** Recessed **A.I.C. Rating:** 22K
Supply From: N/DP-1 **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 208Y/120V-3PH-4W **Mains Rating:** 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle EXAM 183	20 A	1	900 VA	900 VA					1	20 A	Receptacle EXAM 181	2
3	Receptacle EXAM 182	20 A	1			900 VA	900 VA			1	20 A	Receptacle EXAM 180	4
5	Receptacle EXAM 207	20 A	1					900 VA	900 VA	1	20 A	Receptacle EXAM 204	6
7	Receptacle EXAM 206	20 A	1	900 VA	900 VA					1	20 A	Receptacle EXAM 205	8
9	Receptacle EXAM 205	20 A	1			900 VA	900 VA			1	20 A	Receptacle EXAM 202	10
11	Receptacle EXAM 199	20 A	1					900 VA	900 VA	1	20 A	Receptacle EXAM 203	12
13	Receptacle EXAM 200	20 A	1	900 VA	1200...					1	20 A	Receptacle-PR RM 334	14
15	Receptacle EXAM 201	20 A	1			900 VA	900 VA			1	20 A	Receptacle MA/RN...	16
17	Receptacle MD...	20 A	1					1260...	1260...	1	20 A	Receptacle Room 219,...	18
19	Receptacle MD...	20 A	1	1080...	1620...					1	20 A	Receptacle Room 223,...	20
21	Receptacle MD...	20 A	1			900 VA	540 VA			1	20 A	Receptacle Room 221,...	22
23	Receptacle EXAM/...	20 A	1					500 VA	1260...	1	20 A	Receptacle MA/RN...	24
25	ICE 705	20 A	1	1450...	1440...					1	20 A	Receptacle MA/RN...	26
27	Receptacle LAB 701	20 A	1			720 VA	1440...			1	20 A	Receptacle MA/RN...	28
29	Receptacle MA/RN...	20 A	1					1000...	1080...	1	20 A	Receptacle Room 505,...	30
31	Receptacle LAB 225	20 A	1	720 VA	360 VA					1	20 A	Receptacle LAB 225	32
33	Receptacle Room 502,...	20 A	1			900 VA	720 VA			1	20 A	Receptacle Room 500,...	34
35	EF-1 ROOF	20 A	1					1176...	417 VA	1	20 A	Lighting CORRIDOR 300	36
37	Receptacle ROOF	20 A	1	180 VA	3200...					3	40 A	Resistive Heat Room...	38
39	CP-1 CORR 700	20 A	1			1176...	3200...			--	--	--	40
41	$ R-RF 705	20 A	1					1725...	3200...	--	--	--	42
43	$ R-RF 705	20 A	1	1725...	3900...					3	50 A	Resistive Heat Room...	44
45	$ R-MW 705	20 A	1			1500...	3900...			--	--	--	46
47	$ R-MW 705	20 A	1					1580...	3900...	--	--	--	48
49	Receptacle EXAM/...	20 A	1	816 VA	4267...					3	50 A	Resistive Heat Room...	50
51	Lighting EXAM 201	20 A	1			1226...	4267...			--	--	--	52
53	Lighting Room 214, 21...	20 A	1					1717...	4267...	--	--	--	54
55	Recept CM BRKRM 705	20 A	1	1450...	1733...					3	20 A	Resistive Heat CORR...	56
57	Motor STAFF...	20 A	1			1176...	1733...			--	--	--	58
59	Spare	20 A	1					0 VA	1733...	--	--	--	60
61	Spare	20 A	1	0 VA	1667...					3	20 A	UH-2 R-Heat 330	62
63	Spare	20 A	1			0 VA	1667...			--	--	--	64
65	Spare	20 A	1					0 VA	1667...	--	--	--	66
67	Spare	20 A	1	0 VA	--					1	--	Space	68
69	Spare	20 A	1			0 VA	--			1	--	Space	70
71	Spare	20 A	1					0 VA	--	1	--	Space	72
73	Spare	20 A	1	0 VA	--					1	--	Space	74
75	Spare	20 A	1			0 VA	--			1	--	Space	76
77	Space	--	1					--	--	1	--	Space	78
79	Space	--	1	--	1531...					3	175 A	RTU-3	80
81	Space	--	1			--	1531...			--	--	--	82
83	Space	--	1					--	1531...	--	--	--	84
			Total Load:	46.62 kVA		45.78 kVA		46.65 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Lighting	3360 VA	100.00%	3360 VA		
Motor	49462 VA	80.00%	39570 VA	Total Conn. Load:	139.05 kVA
Receptacle	41926 VA	61.93%	25963 VA	Total Est. Demand:	79.97 kVA
Resistive Heat (Seasonal Load)	44300 VA	25.00%	11075 VA	Total Conn.:	386 A
				Total Est. Demand:	222 A

Notes: $ = PROVIDE GROUND FAULT CIRCUIT BREAKER.

TOTAL CONNECTED	ESTIMATED DEMAND
139.05 kVA	79.97 kVA (222 A)

Panel: CT

Location: CT 211 **Mounting:** Surface **A.I.C. Rating:** 18K
Supply From: **Enclosure:** Type 1 **Mains Type:** MCB
Voltage: 480Y/277V-3PH-4W **Mains Rating:** 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	GANTRY	150 A	3	0 VA									2
3	--	--	--			0 VA							4
5	--	--	--					0 VA					6
7	INDOOR HEAT EXCH	25 A	3	0 VA	0 VA					3	30 A	SPD	8
9	--	--	--			0 VA	0 VA			--	--	--	10
11	--	--	--					0 VA	0 VA	--	--	--	12
13	Space	--	1	--	--					1	--	Space	14
15	Space	--	1			--	--			1	--	Space	16
17	Space	--	1					--	--	1	--	Space	18
19													20
21													22
23	Space	--	1					--	--	1	--	Space	24
			Total Load:	0.00 kVA		0.00 kVA		0.00 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
				Total Conn. Load:	0 kVA
				Total Est. Demand:	0 kVA
				Total Conn.:	0 A
				Total Est. Demand:	0 A

Notes:

TOTAL CONNECTED	ESTIMATED DEMAND
0 kVA	0 kVA (0 A)

Panel: N/P-3

Location: CORRIDOR 700 **Mounting:** Recessed **A.I.C. Rating:** 22K
Supply From: N/DP-1 **Enclosure:** Type 1 **Mains Type:** MLO
Voltage: 208Y/120V-3PH-4W **Mains Rating:** 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Recepts Mammo 202	20 A	1	1080...	1620...					1	20 A	Receptacle Room 101,...	2
3	Receptacle CT PREP...	20 A	1			1800...	1080...			1	20 A	Receptacle Room 114,...	4
5	Receptacle Room 112,...	20 A	1					1080...	1440...	1	20 A	Receptacle CONTROL...	6
7	Receptacle Room 115,...	20 A	1	1620...	1810...					1	20 A	$ Recept RM 115	8
9	Receptacle...	20 A	1			1620...	1080...			1	20 A	Receptacle...	10
11	RTU-1	80 A	3					6016...	8406...	3	125 A	RTU-2	12
13	--	--	--	6016...	8406...					--	--	--	14
15	--	--	--			6016...	8406...			--	--	--	16
17	RTU-6	50 A	3					3951...	5692...	3	70 A	RTU-7	18
19	--	--	--	3951...	5692...					--	--	--	20
21	--	--	--			3951...	5692...			--	--	--	22
23	Recept BW CORR 212	20 A	1					1680...	2467...	3	30 A	1-5 R-Heat (Seasonal...	24
25	Recepts Mammo 202	20 A	1	720 VA	2467...					--	--	--	26
27	Receptacle CT 211	20 A	1			1080...	2467...			--	--	--	28
29	Recepts exterior	20 A	1					360 VA	560 VA	2	20 A	AD-1 CHECK-IN/OUT...	30
31	Autodoor CORR 212	20 A	1	600 VA	560 VA					--	--	--	32
33	Autodoor MRI RES. 213	20 A	1			600 VA	1667...			3	20 A	UH-1 R-Heat RM 212	34
35	Autodoors REG 101	20 A	1					860 VA	1667...	--	--	--	36
37	Lighting CORRIDOR...	20 A	1	294 VA	1667...					--	--	--	38
39	Lighting Room 100, 11...	20 A	1			882 VA	2000...			2	40 A	MAMMO	40
41	Lighting Room 115, 11...	20 A	1					718 VA	2000...	--	--	--	42
43	Resistive Heat CT PR...	20 A	1	1100...	3833...					3	40 A	1-1, 1-2, 1-5 R-Heat R...	44
45	Resistive Heat OFFIC...	20 A	1			900 VA	3833...			--	--	--	46
47	6-2 R-Heat CORR 114	20 A	1					900 VA	3833...	--	--	--	48
49	Resistive Heat Room...	40 A	3	1733...	3733...					3	40 A	Resistive Heat...	50
51	--	--	--			1733...	3733...			--	--	--	52
53	--	--	--					1733...	3733...	--	--	--	54
55	UH-3- MRI 215	20 A	3	1667...	180 VA					2	60 A	PANEL A1 XRAY	56
57	--	--	--			1667...	180 VA			--	--	--	58
59	--	--	--					1667...	1248...	2	20 A	FFU-1 (X4) 100	60
61	Spare	20 A	1	0 VA	1248...					--	--	--	62
63	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	64
65	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	66
67	Spare	--	1	--	0 VA					1	20 A	Spare	68
69	Spare	--	1			--	0 VA			1	--	Space	70
71	Spare	--	1					--	--	1	--	Space	72
73	Spare	--	1	--	--					1	--	Space	74
75	Spare	--	1			--	--			1	--	Space	76
77	Space	--	1					--	--	1	--	Space	78
79	Space	--	1	--	--					1	--	Space	80
81	Space	--	1			--	--			1	--	Space	82
83	Space	--	1					--	--	1	--	Space	84
			Total Load:	50.00 kVA		50.39 kVA		50.01 kVA					

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Lighting	1894 VA	100.00%	1894 VA		
Motor	72197 VA	80.00%	57758 VA	Total Conn. Load:	150.4 kVA
Receptacle	24106 VA	70.74%	17053 VA	Total Est. Demand:	90.75 kVA
Diagnostic Imaging NEC 517.73(B)	4000 VA	50.00%	2000 VA	Total Conn.:	417 A
Resistive Heat (Seasonal Load)	48200 VA	25.00%	12050 VA	Total Est. Demand:	252 A

Notes: $ = PROVIDE GROUND FAULT CIRCUIT BREAKER.

TOTAL CONNECTED	ESTIMATED DEMAND
150.4 kVA	90.75 kVA (252 A)

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UK HealthCare

UK HealthCare Richmond

2091 Lantern Ridge Dr
Richmond, KY 40475

UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By APO,KDS
Checked By DED
Client No. 514
Project No. 7484

STATE OF KENTUCKY DANIEL E. DOWLER 26940 LICENSED PROFESSIONAL ENGINEER 03/21/2025

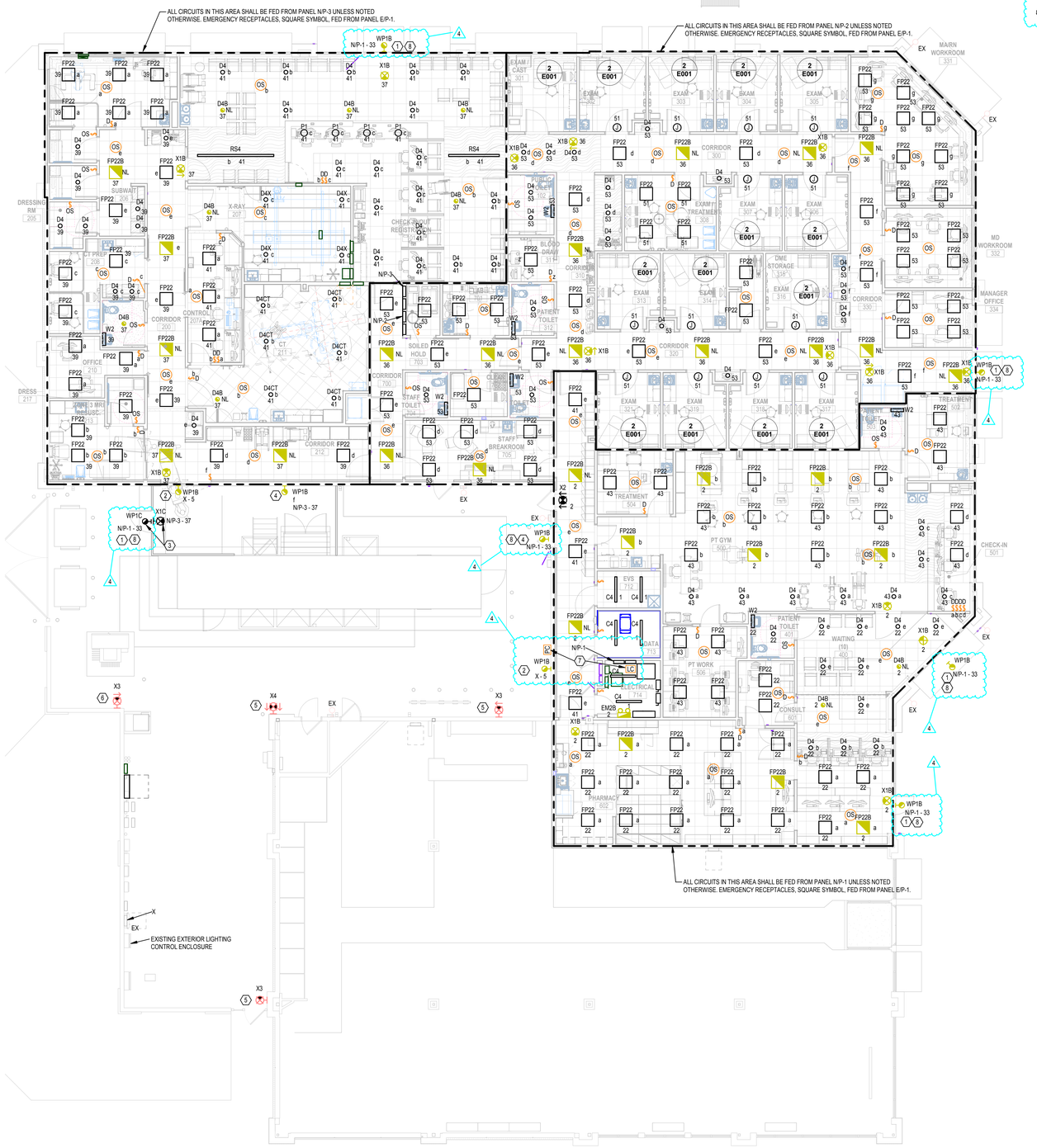
PANELBOARD SCHEDULES

E003

3/21/2025 2:07:34 PM

NOTES

1. MOUNT +10'-0"AFF.
2. CONNECT NEW LUMINAIRE TO EXISTING EXTERIOR LIGHTING CIRCUIT / CONTROLS (ON HOUSE PANEL). (+9'-0"AFF)
3. MOUNT +9'-0"AFF. PROVIDE FLEXIBLE CONNECTION FROM BUILDING WALL FOR EASE IN REMOVAL AT A LATER DATE.
4. MOUNT +9'-0"AFF.
5. CONNECT NEW LUMINAIRE TO EXISTING EXTERIOR LIGHTING CIRCUIT (ON HOUSE PANEL 'X'). PROVIDE UNSWITCHED POWER. MOUNT +8-0"AFF.
6. CONNECT NEW LUMINAIRE TO EXISTING EXTERIOR LIGHTING CIRCUIT (ON HOUSE PANEL 'X'). PROVIDE UNSWITCHED POWER. MOUNT ON WALL AS HIGH AS POSSIBLE.
7. 3-POLE EXTERIOR LIGHTING CONTACTOR AND PHOTOCELL ON ROOF. CONTROL IS PHOTCELL ON/OFF.
8. CONDUIT AND WIRING TO PANEL VIA EXTERIOR LIGHTING CONTACTOR.



1 FIRST FLOOR - NEW WORK LIGHTING PLAN

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

0 4 8 16 24

CHAMPLIN ARCHITECTURE

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Drawn By APO,KDS

Checked By DED

Client No. 514

Project No. 7484

STATE OF KENTUCKY DANIEL E. DOWLER 26940 LICENSED PROFESSIONAL ENGINEER 03/21/2025

FIRST FLOOR - NEW WORK LIGHTING PLAN

E201

3/21/2025 1:53:24 PM

MAMMO CONDUCTOR / CONDUIT SIZING

A. BELOW ARE SIZING FOR CONDUCTOR AND CONDUIT AS REFERENCED FROM THE VENDOR DRAWINGS. REFER TO VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.

a.	"CB1" TO "ELECTRICAL PANEL":	(2) #8, #8G IN 3/4"C
b.	"CB1" TO "FD1" VIA "WH1":	(2) #8, #8G IN 3/4"C
c.	"FD1" TO BACK OF GANTRY:	3/4" SEALTIGHT
d.	REMOTE EM STOP "EPO" TO "CB1":	(2) #12, #12G IN 3/4"C
e.	"WL" TO "FD1":	(2) #12, #12G IN 3/4"C

X-RAY CONDUCTOR / CONDUIT SIZING

A. BELOW ARE SIZING FOR CONDUCTOR AND CONDUIT AS REFERENCED FROM THE VENDOR DRAWINGS. REFER TO VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.

a.	XRAY "A" TO "F":	4 #2, #6G IN 2"C (+10' COIL AT 'F')
b.	XRAY "A1" TO "F":	2 #12, #12G 3/4"C
c.	"G" TO "B":	WIRE IN 2"C
d.	"E" TO "F":	WIRE IN 2"C

B. ALL CONDUITS TO HAVE WIDE SWEEPING BENDS. 90 DEGREE ELBOWS ARE NOT ACCEPTABLE.

CT CONDUCTOR / CONDUIT SIZING

4

A. BELOW ARE SIZING FOR CONDUCTOR AND CONDUIT AS REFERENCED FROM THE VENDOR DRAWINGS. REFER TO VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.

a.	CT PANEL "MP" TO "EPO":	(2) #12, #12G, 3/4"C
b.	"EPO" TO "EPO":	(2) #12, #12G, 3/4"C
c.	"EPO" TO GANTRY "B":	(2) #12, #12G, 3/4"C
d.	CT PANEL "MP" TO "SPD":	(3) #10, #12G, 3/4"C
e.	CT PANEL "MP" TO "BP":	(4) #2/0, #6G, 2"C
f.	"B" TO "COD":	3"C
g.	"B" TO "IRS":	2"C
h.	"B" TO "UPS":	2"C
i.	"B" TO "WAP":	1"C
j.	"S" TO "B1":	(2) 3"C
k.	"B" TO "DS":	(2) #12, 3/4"C
l.	"B" TO "WARNING LIGHT":	(2) #12, #12G, 3/4"C
m.	CT PANEL "MP" TO (S)	(4) #10, #10G, 3/4
n.	"S" TO "S1" (ON ROOF)	WIRE IN 3/4"C

GENERAL NOTES

A. EXISTING FEEDER CONDUITS SHOWN FOR REFERENCE ONLY. EXACT ROUTING TO BE FIELD VERIFIED. CAP AND MARK LOCATION ON RECORD DRAWINGS.
B. PROVIDE TAMPERPROOF RECEPTACLES THROUGHOUT BUILDING.
C. ALL EMERGENCY CIRCUITS FED FROM PANEL E/P-1.

NOTES

1 EC SHALL BE RESPONSIBLE FOR PROVIDING ALL VENDOR REQUIRED SYSTEM POWER, WALL/FLOOR DUCTS, GROUNDING, LIGHTING, RACEWAYS, CONDUITS, CABLE TRAY, ETC. AS DEFINED PER VENDOR DRAWINGS. CUT AND PATCH FLOOR AS REQUIRED FOR CONDUIT/FLOOR DUCT INSTALLATION.

2 CT POWER PANEL FOR VENDOR EQUIPMENT. REFER TO SELECTED VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.

3 XRAY SHUNT TRIP ENCLOSED CIRCUIT BREAKER FOR VENDOR EQUIPMENT.

4 XRAY LOADCENTER FOR VENDOR EQUIPMENT. REFER TO SELECTED VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.

5 40AMP-2POLE ENCLOSED SHUNT TRIP CIRCUIT BREAKER FOR VENDOR EQUIPMENT. EXTEND 3/4"C, 3 #8, 1 #10G TO PANEL.

6 CUT AND PATCH PAVEMENT FOR INSTALLATION OF FEEDER. COORDINATE WITH OTHER UTILITIES IN AREA. ROUTE FEEDER UP WALL AND INTO BUILDING.

7 CONNECT COILING GATE AND INSTALL KEYED SWITCH.

8 CONNECT AUTOMATIC DOOR AND INSTALL ASSOCIATED DEVICES, CONDUIT AND WIRING.

9 EXTERIOR OUTLET AND ELECTRICAL EQUIPMENT FOR MOBILE MRI. REFER TO SINGLE LINE DIAGRAM ON DRAWING E002.

10 PROVIDE FLOOR MOUNTED FREESTANDING UNISTRUT RACK TO SUPPORT TRANSFORMER ABOVE.

11 PROVIDE ON/OFF SWITCH AND CONNECT AUTO FLUSH VALVE. COORDINATE WITH DIVISION 22 CONTRACTOR.

12 RECEPTACLE CIRCUIT NUMBER FOR EXAM ROOM.

13 DEVICES MOUNTED IN CASEWORK. COORDINATE WITH CASEWORK INSTALLER.

14 DEVICES MOUNTED IN CASEWORK. COORDINATE WITH CASEWORK INSTALLER. CUT AND PATCH FLOOR FOR CONDUIT INSTALLATION OUT TO CASEWORK.

15 CONNECT HOOD. COORDINATE WITH HOOD INSTALLER.

16 CONNECT EXAM LIGHT IN CEILING. COORDINATE WITH EXAM LIGHT INSTALLER.

17 CUT AND PATCH FLOOR FOR CONDUIT INSTALLATION TO FLOOR BOX.

18 EMERGENCY POWER OFF BUTTON (EPO) FOR MOBILE MRI. EXTEND CONDUIT AND WIRING TO SHUNT TRIP CIRCUIT BREAKER IN PANEL.

19 POWER FOR CHANGING TABLE. COORDINATE EXACT REQUIREMENTS WITH VENDOR.

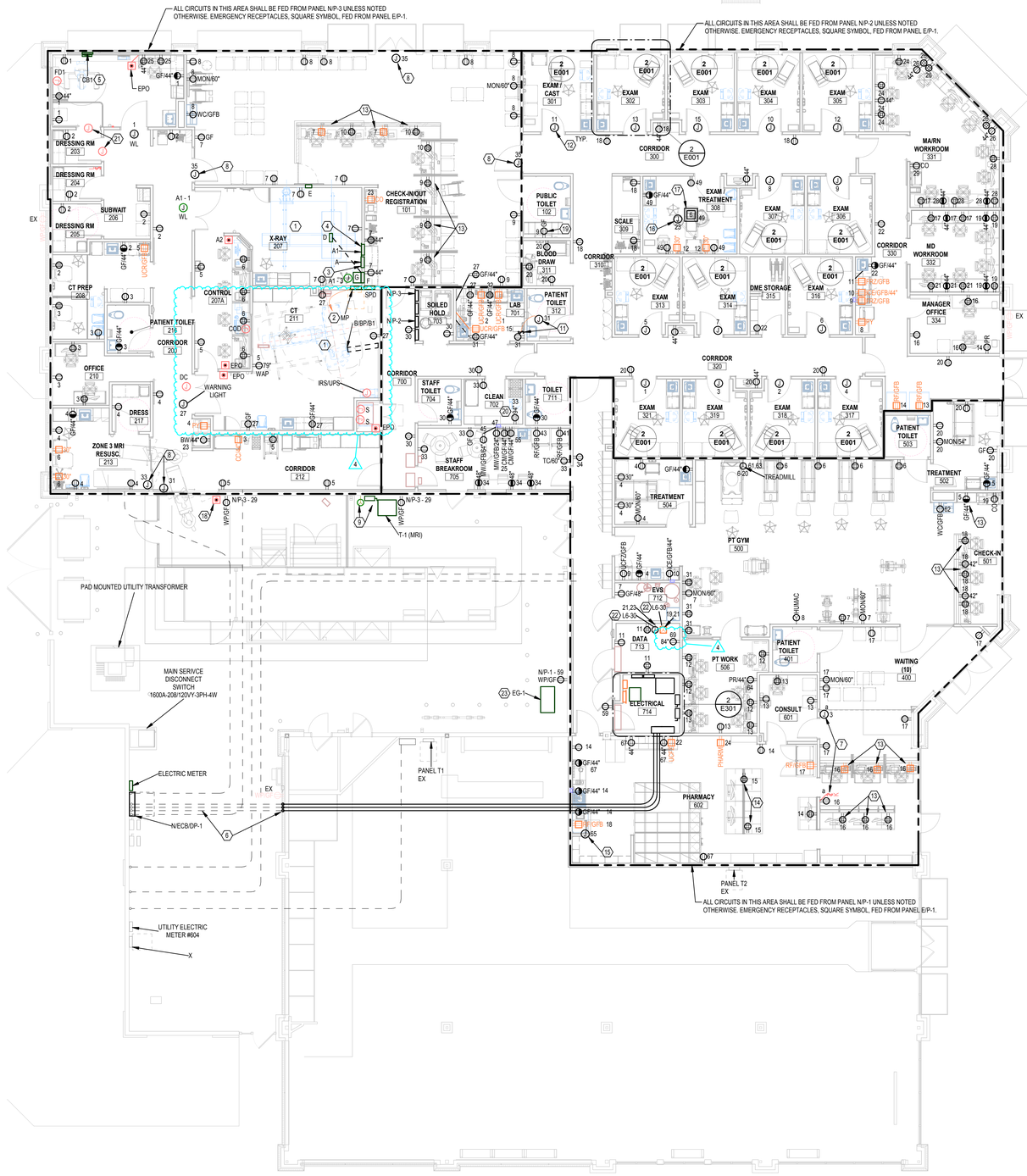
20 RECEPTACLE FOR PARx SYSTEM.

21 PROVIDE CONNECTION TO DOOR INTERLOCKING SYSTEM. CONNECT TO LOCAL RECEPTACLE CIRCUIT. COORDINATE REQUIREMENTS WITH VENDOR.

22 CONFIRM NEMA CONFIGURATION PRIOR TO INSTALLATION.

23 PROVIDE CONCRETE BASE 4" THICK AND 3" LARGER THAN FOOTPRINT OF UNIT ON ALL SIDES.

24 SUPPROT TRANSFORMER FROM STRUCTURE ABOVE.



1 **FIRST FLOOR - NEW WORK POWER PLAN**
SCALE: 1/8" = 1'-0"
0 4 8 16 24

2 **ENLARGED ELECTRICAL ROOM**
SCALE: 3/8" = 1'-0"
0 1 2 4 6 8

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UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By
APO,KDS

Checked By
DED

Client No.
514

Project No.
7484

COMMONWEALTH OF KENTUCKY DANIEL E. DOWLER 26940 LICENSED PROFESSIONAL ENGINEER 03/21/2025

FIRST FLOOR - NEW WORK POWER PLAN

E301

3/21/2025 2:35:28 PM

NOTES

1 INDOOR UNIT FED FROM OUTDOOR UNIT.

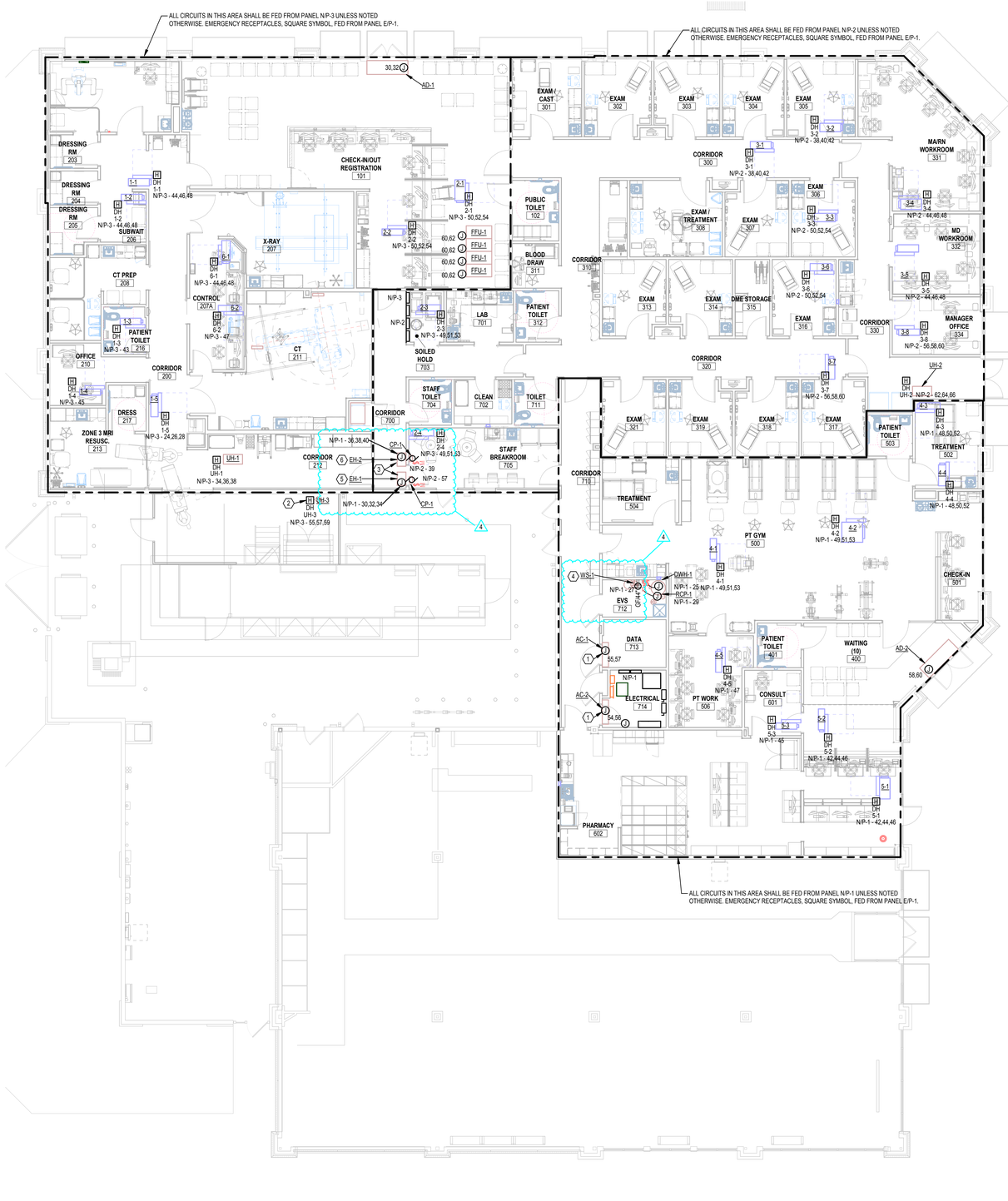
2 PROVIDE FLEXIBLE CONNECTION TO UNIT FROM WALL FOR EASE IN REMOVAL AT A LATER DATE.

3 DO NOT ROUTE ANY CONDUITS IN WORKING CLEARANCE SPACES, FOR UNITS ABOVE THE CEILING.

4 CONNECT DIGITAL MIXING VALVE (DMV-1) FROM RECEPTACLE CIRCUIT.

5 3/4"C, 3 #8, 1 #10G. (CT)

6 1"C, 3 #6, 1 #10G. (XRAY)



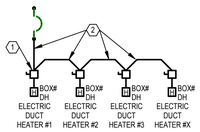
AIR TERMINAL UNIT SCHEDULE

NOTES:
1.

VAV NO.	VOLTAGE	PHASE	LOAD	PANEL	CIRCUIT NO.	SEE NOTE
1-1	208 V	3	4.5 kVA	N/P-3	44,46,48	
1-2	208 V	3	2.1 kVA	N/P-3	44,46,48	
1-3	120 V	1	1.1 kVA	N/P-3	43	
1-4	120 V	1	0.9 kVA	N/P-3	45	
1-5	208 V	3	7.4 kVA	N/P-3	24,26,28	
2-1	208 V	3	9.5 kVA	N/P-3	50,52,54	
2-2	208 V	3	1.7 kVA	N/P-3	50,52,54	
2-3	208 V	3	2.7 kVA	N/P-3	49,51,53	
2-4	208 V	3	2.5 kVA	N/P-3	49,51,53	
3-1	208 V	3	3.8 kVA	N/P-2	38,40,42	
3-2	208 V	3	5.8 kVA	N/P-2	38,40,42	
3-3	208 V	3	7.4 kVA	N/P-2	50,52,54	
3-4	208 V	3	7.0 kVA	N/P-2	44,46,48	
3-5	208 V	3	4.7 kVA	N/P-2	44,46,48	
3-6	208 V	3	5.4 kVA	N/P-2	50,52,54	
3-7	208 V	3	2.6 kVA	N/P-2	56,58,60	
3-8	208 V	3	2.6 kVA	N/P-2	56,58,60	
4-1	208 V	3	2.4 kVA	N/P-1	49,51,53	
4-2	208 V	3	9.9 kVA	N/P-1	49,51,53	
4-3	208 V	3	3.3 kVA	N/P-1	48,50,52	
4-4	208 V	3	3.8 kVA	N/P-1	48,50,52	
4-5	120 V	1	1.4 kVA	N/P-1	47	
5-1	208 V	3	8.4 kVA	N/P-1	42,44,46	
5-2	208 V	3	3.1 kVA	N/P-1	42,44,46	
5-3	120 V	1	0.9 kVA	N/P-1	45	
6-1	208 V	3	4.9 kVA	N/P-3	44,46,48	
6-2	120 V	1	0.9 kVA	N/P-3	47	
UH-1	208 V	3	5.0 kVA	N/P-3	34,36,38	
UH-2	208 V	3	5.0 kVA	N/P-2	62,64,66	
UH-3	208 V	3	5.0 kVA	N/P-3	55,57,59	

ELECTRIC AIR TERMINAL DETAIL NOTES

1. EC SHALL PROVIDE A FUSIBLE DISCONNECT AT EACH BOX. THE RATING FOR THE DISCONNECT SHALL BE EQUAL TO OR MORE THAN THE AMPACITY OF THE BREAKER FEEDING IT. THE FUSE SIZE SHALL BE PER VAV BOX MANUFACTURER'S RECOMMENDATION. PROVIDE CLASS "R" FUSES.
2. REFER TO PANEL SCHEDULE FOR CIRCUIT INFORMATION. ALL CIRCUITS SHALL INCLUDE A FULL SIZE NEUTRAL DUE TO SOME BOXES HAVING A 277V FAN. THE LOAD FOR THE FAN IS INCLUDED IN THE TOTAL LOAD FOR THE BOX. RUN #8 FOR 40A CIRCUITS AND #10 FOR 30A CIRCUITS. CONFIRM WITH BOX MANUFACTURER THAT THEIR LUGS CAN ACCEPT THESE SIZE OF CONDUCTORS.



1 FIRST FLOOR - ELECTRICAL NEW WORK PLAN

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

0 4 8 16 24

2 ELECTRIC AIR TERMINAL DETAIL

SCALE: NONE

CHAMPLIN ARCHITECTURE

EOP architecture | interiors
201 W Short Street, Suite 700
Lexington, KY 40507
T 859.231.7538

HEAPY
2900 Reading Rd, Ste 312
Cincinnati, OH 45206
T 513.587.1877
PROJECT NO. 2024-05109 STATE COA FIRM NO. 01528

BROWN+KUBICAN STRUCTURAL ENGINEERS
546 E Main Street
Lexington, KY 40508
T 859.543.0933

HealthCare

UK HealthCare Richmond

2091 Lantern Ridge Dr
Richmond, KY 40475

UK Project#: 12566, 12567, 12568, 12569

ISSUANCES

No.	Description	Date
1	90% OWNER REVIEW SET	01/06/2025
2	BID & PERMIT SET	02/07/2025
3	ADDENDUM #1	03/14/2025
4	ADDENDUM #2	03/21/2025

Drawn By: APO,KDS
Checked By: DED
Client No.: 514
Project No.: 7484

STATE OF KENTUCKY DANIEL E. DOWLER 26940 LICENSED PROFESSIONAL ENGINEER 03/21/2025

FIRST FLOOR - ELECTRICAL NEW WORK PLAN

E501

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