King's Daughters

KD-3123.0-26

GC Services for UK King's Daughters Medical Center – Greenup Co. Urgent Care/Family Care Medical Office Building

ADDENDUM # 02

05/29/2026

ATTENTION: This is not an order. Read all instruction, terms, and conditions carefully.

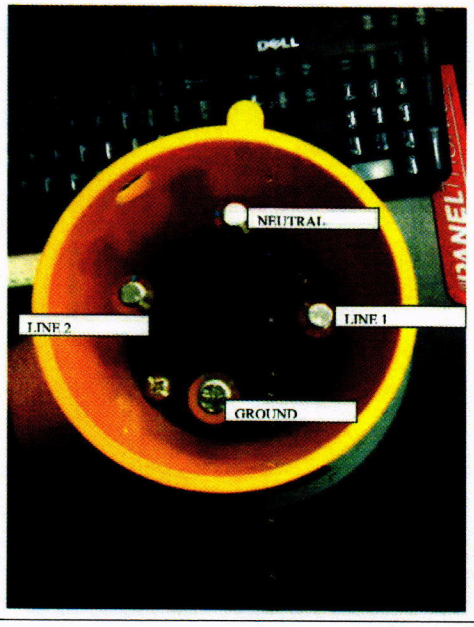
IMPORTANT: BIDS MUST BE RECEIVED BY 06/05/2026 @ 3:00P.M. RUSSELL, KY TIME

Offerors should acknowledge receipt of this, and any addendum, as directed in the Advertisement for Bids.

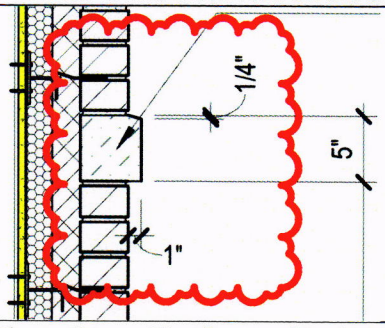
ITEM #1: CLARIFICATIONS AND MODIFICATIONS TO THE CONTRACT DOCUMENTS

- **Bidders are instructed to incorporate the attached Addendum 2 (66 pgs) into their offers**
- **Bidders are instructed to incorporate the following questions and answers into their offers.**
- **Bidders are instructed to use the Form of Proposal in Addendum 2 for their offers (updates/changes are highlighted)**

#	Question	Response
1	**102600 – Wall and Door Protection** This specification section is included; however, no dimensions or color selections for wall protection are identified in the drawings. Please clarify the required sizes for the wall protection (i.e., height).	This information is indicated in the Material Color Legend, Specification Section 09 0520, in the project manual. This legend is also referenced in the "General Notes – Finishes" on G-101.
2	**Signage** The only specification section provided for signage is for post and panel signage; however, there are references throughout the plans for panel signage (G-102) and dimensional signage (noted as OFOI per A-181). Please confirm that post and panel signage is the only signage scope included in this bid package. Additionally, post and panel signage is not identified on the civil plans—please clarify the locations and required quantities for these signs.	The only signage to be provided by the Contractor is post and panel signage described in the site/civil scope. All other signage is Owner Furnished Owner Installed. • All exterior signs to be field located. • "A" to be used at all ADA spaces. • "B" to be used where "DO NOT ENTER" is applied on the ground near the service area – QTY 2 • "C" to be installed on the one-way lane on the upper left – QTY 1 • "D" – NOT USED • "E" – his will be a no LEFT turn arrow sign – QTY 2 in base bid QTY 1 shall be included with Alt. No. 5. • Stop Signs shall be located where shown on L401. Final location to be indicated in the field. QTY – 2 in base bid and 1 additional in Alternate No. 5
3	**107500 – Flagpoles**	Refer to L401 keynote 16.

	The specification section for the flagpole is included; however, no flagpoles are indicated on the civil or architectural drawings. Please confirm if flagpoles are required as part of this scope.	
4	Section 5.3 of the Instructions to Bidders mentions that UK KDMC is tax exempt. Will direct purchase orders be utilized on this project in order to make use of the tax exempt status? If so, is there a minimum purchase order amount to each vendor? Also, is there a maximum number of direct purchase orders allowed?	Yes, direct purchase orders will be utilized, but only for individual items over $100,000. There is no maximum number of direct purchase orders.
5	The electrical scope includes Data/Voice, Access Control, Security, Intrusion, and Digital Video Surveillance, but there are no specifications included for these systems.	Data/Voice and Intrusion Detection System specifications are included with this Addendum. Refer also to Specification Section 26 0502 Scope of Electrical Work and drawings for security system scope. NOTE: Access Control cabling is to be Honeywell Profusion cable from door hardware termination cabinet to controllers in Telecommunication Room. Contractor to provide fire alarm relay interface at egress doors for release of egress pathways on active fire alarm. See Specification Sections 26 0502 articles 2.I and 2.K.
6	Is hospital grade MC cable acceptable for branch circuits in walls?	No. Refer to Raceway Specification 26 0533.
7	Is standard MC cable acceptable for lighting whips?	No. Flex conduit whips are permitted for lighting whips per Raceway Specifications 260533.
8	Door B100A calls for a card reader in the 871000 specification, but a card reader is not show on the systems page. Does this door require a card reader?	Card reader does not occur at this door.
9	There is not a smoke detector shown above the fire alarm annunciator in the lobby. Is this required?	Yes. A smoke detector shall be provided for remote annunciator.
10	Sheet note E1 on E-201 calls to provide connection for mobile mammography vehicle. Please provide specific requirements for this location (disconnect, Russellstoll outlet, etc.)	Mobile Mammography shall a have fused disconnect with Pin/Sleeve 100 Amp Plug. Basis of design is Hubbell M4100P12. Picture of male connection shown below: 240VAC 100A Single Phase w/ Neutral 

11	Is a data connection required at the Mobile MRI location? If so, please provided quantity and connector type	To clarify, there is no mobile MRI unit planned for this project. Assuming this question actually relates to the mobile mammo unit, yes. The connection is to be a RJ-45 CAT 6 with exterior rated connector with lockable cover. Basis of Design is Metz Connect IP44SG Housing with Cat 6 termination.
12	There is no low voltage cable pathway shown on Sheet E-401. Is cable tray required in the corridors or J-hooks? If j-hooks, can these be installed to each stub-up location instead of stub-ups being routed all the way out to the corridors as shown on the cable tray detail?	J-Hooks are acceptable for cable routing outside of MDF Room. Cable is to be managed immediately from stub-up raceway transitions to accessible above ceiling space for continuous bundling, support, and routing to Telecommunication Room.
13	Dimming switches are shown in several locations that would not typically be dimmed. Is dimming required in the following areas: Urgent Care Waiting Room, Family Care Waiting Room, Corridors, Trash/Soiled Utility Room, Env. Services Room, Clean Supply, Nurse's Stations, Med/Prep/Lab Rooms?	Yes. Dimming (0-10 Volt) is standard on LED fixtures and allows for adjustable lighting levels as shown.
14	Surface Profiles: On page 09 0520-4 of spec sheets, the Material Color Legend requests a base bid of post-formed laminate with a 180 bullnose edge. While this works for most surfaces, it is not feasible for wall caps less than 12". Would a self-edge cap with a square edge profile be acceptable for those instances?	Refer to Addendum 1 for clarification, as well as revised wording for Alternate 4
15	Solid Surface Alternate: The same specification calls for solid surface as an alternate. However, the drawing elevations call out the solid surface without noting it as an alternate. Could you please clarify if the solid surface should be treated as the base bid or an alternate?	Refer to Addendum 1 for clarification, as well as revised wording for Alternate 4
16	On the Form of Proposal, does the Unit Prices, Manufacturer & Subcontractor list have to be turned in with the bid? Or can the apparent low bidder fill these out after the bid?	Required at bid
17	Please confirm bids are due to 1000 Ashland Drive, Suite 202, Russell, KY 41169.	Correct
18	Please confirm bids will be publicly opened and read.	Bids will be publicly opened on 6/5/26 at 1000 Ashland Drive, Suite 202, Russell, KY 41169 at 3PM
19	Please confirm no bid bond is required.	Bid bond is required.
20	Please confirm the "Primary List of Proposed Contractors" is not due with the bid.	This is due with the bid
21	Please clarify when the "Primary List of Proposed Contractors" is to be submitted by the low bidder.	This is due with the bid on 6/5/26 at 3PM.
22	Please confirm the "List of Materials and Equipment" is not due with the bid.	No, it is due of time of proposal...See Form of Proposal
23	Please clarify when the "List of Materials and Equipment" is to be submitted by the low bidder.	It is due of time of proposal
24	What date does the owner expect to award the General Contract so procurement can begin?	See #4 of Advertisement for Bids
25	Please confirm the site is ready for construction to begin immediately upon contract award.	Yes, Site is ready
26	Unit Prices #1, please clarify the thicknesses as these do not match Sheet L601/Detail A.	Unit price #1 shall read "heavy duty concrete pavement 7" conc / 6" dga"
27	Unit Prices #2, please clarify the thicknesses as these do not match Sheet L601/Detail B.	Unit price #2 shall read "light duty concrete pavement 5" conc./ 6" dga"
28	Please confirm Base Bid assumes on site soil is suitable for all conditions.	Refer to spec 31 20 00 "Earth Moving" and geotechnical report.

29	Please confirm if unsuitable soils are encountered it will be a change order using the unit price amounts.	Refer to spec 31 20 00 "Earth Moving" 3.4.A. UNCLASSIFIED
30	Unit Prices #7, please clarify the confirm this should read "Heavy duty ASPHALT pavement full pavement section.	Unit Price #7 shall read "Heavy duty ASPHALT pavement full pavement section"
31	Please provide CAD drawings for basis of quantity takeoffs for bidding.	CAD files will not be made available during bidding.
32	Please confirm Base Bid Landscaping and Curb/Gutter (in reference to Alternate No. 5) is to be Sheet L500.	Base bid landscaping is the large plan on L500 Alternate No. 5 landscaping is the enlargement in the lower right.
33	Form of Proposal Alternate 5 has a copy/paste error. Please confirm the add for Alternate No. 5 is as shown on Sheet L401/Detail "Alternate 5 - Parking Lot."	Refer to Addendum 1 for revised wording for Alternate 5
34	Please confirm Base Bid Landscaping is everything on L500 and Alternate No. 6 is an add for the plants only shown on L501. The Form of Proposal appears to have incorrect an sheet number.	Alternate No. 5 is as described on the Bid Form and illustrated on the Landscape Plan and Alternate Landscape Plan on L500. Alternate No. 6 is as described on the Bid Form, relating to all plant, mulches, landscaped beds as shown on L501 and details on L502
35	Sheet A-501/Detail A. Please clarify the thickness of the (04 2000) Cavity Drainage Material.	Refer to Specification Section 04 200 Article 2.11.E.1. The thickness is also illustrated on the drawings.
36	Sheet A-201/Exterior Material Schedule. Please specify the height, width, and length of the CSMU Band units.	
37	Sheet A-501, please provide detail for Exterior Wall Type E-3.	The wall type E3 referenced in this question has been renumbered E4. Refer to the attached revised Sheet A-201 and added Wall Type Detail on the attached revised Sheet A-501. Refer to Addendum 1 for Wall Type E3 locations and detail
38	Alternate No. 7, please provide complete structural and architectural details of the alternate parapet on north and south sides of the building.	The Alternate 7 Parapets are detailed in full. Base bid involves the exclusion of those parapet sections, scope outlined on the building elevations, and details referenced in the Alternate description. Refer to detail K/S403 (in lieu of A/S403) for base bid with no parapet on north and south sides of the building.
39	Please clarify the sizes of brick lintels shown on architectural. They are not shown on structural.	Refer to structural general notes sheet S101; under loose lintel schedule. Lintel sizes are provided for 4" masonry walls (for brick veneers)
40	Please clarify if brick lintels are galvanized.	Yes, all brick lintel angles exposed to weather shall be galvanized. See general notes under loose lintel schedule. Refer also to Specification 05 5000.
41	Sheet A-112/Plan Keynotes C1 - this is undefined in both architectural and structural drawings. Please clarify requirements.	Refer to the Reflected Ceiling Plan for location and scope. This slotted channel framing support structure shall be provided by the Contractor as a Delegated Design item, as part of Specification Section 05 5000. Unistrut shall be minimum 12 gage steel and shall be supported directly from bottom of roof structural steel or steel joists.
42	Sheet A-561/Detail G. Please specify steel plate requirements for low walls. Not shown on structural.	Refer to Specification Section 09 2216 Article 2.4.G

43	Sheet A-111, Plan Keynotes #10. Please specify tube steel support requirements in low wall. Not shown on structural.	This keynote refers to the low wall brace referenced in the question above. Refer to Specification Section 09 2216 Article 2.4.G
44	Sheet A-561/Details F & G. Please define exact construction of the stainless steel posts and the acrylic divider.	Provide Glazing Posts as follows: Posts: 1 ½" diameter, CRL Contemporary Series Partition Post, with flat end caps. Provide concealed mounting lugs HR15CBM. Attach post to mounting lugs with metal contact cement, Cat. No. 32629. Glass Fittings: 1" diameter end load standoff with radius mounting base, for fixed ¼" glazing. Material and Finish: Brushed stainless steel. Miscellaneous: Provide clear spacers for glazing less than ¼" thick.
45	Sheet A-561/Details F. Please confirm this detail is labeled incorrectly and the divider panel is acrylic, not glazed aluminum curtain walls.	Correct, the keynote text "GLAZED ALUMINUM CURTAIN WALL" shall be replaced with the text "(06 6600) – ACRYLIC DIVIDER PANEL"
46	Sheet A-542/Detail C & D. Please clarify exactly what the treated wood blocking construction will be.	The wood blocking product indicated is an engineered wood parapet blocking product, equal to the one made by Tremco: https://www.tremcosealants.com/products/prebuck-parapet-cap#cacf5fc2f5a54148bc643180c6f94b17
47	Sheet A-501, Exterior Wall Types E1, E2, and E3 (missing). Please clarify all locations where fluid applied air barrier is required.	Refer to all enlarged section details for fluid applied air barrier locations. Generally, this will not occur behind foamed-in-place insulation, but there could be some overlap for air barrier continuity.
48	Specification Section 07 1900. Please confirm Water Repellent is required at all Division 4 exterior walls.	Yes
49	Sheet A-612/Detail A. Please provide correct detail for the glazing to wall transition, which is currently mislabled in this detail as F/A612.	This question cannot be answered as it is not understood. These two details do not reference each other.
50	Sheet S-403/Detail E. Please confirm the mid-level of the parapet face is to be constructed with 400S162-43. This contradicts Sheet A-541/Detail H, which calls for a 2" cold-formed metal zee at the mid-parapet elevation.	Revise the mid level 400S162-43 to a 200S162-43 to match the architectural detail
51	Sheet A-131/Detail A. Please confirm Gyp Ceilings along front wall are at 9'-0". This will be below the top of Window Frame Type C.	Thank you for pointing this out. The bulkheads at the front wall windows will be at the top of frame. See Head Detail A/A-612. See also revised Sheet A-131 attached to this Addendum.
52	Sheet A-131/Detail A. Please clarify the construction and height of the curved gyp ceiling shown between Grids 3-5 and E-F.	To clarify, no gyp ceiling occurs between these grid lines. Please refer to the wall sections and section details for the requested information for the curved gyp ceiling that occurs over the building entry
53	FP specification 210100-8, "Flexible fire protection head drops shall not be installed". Drawing F-200, sprinkler head selection, bullet point 5 "Flexible fire protection head drop may be provided". These two notes are conflicting, please advise.	Please follow the specs. Flexible fire protection head drops are not permitted. Refer also to the attached revised Sheet F-200 attached to this Addendum.
54	Please confirm all spoils can be diposed of onsite.	Refer to spec 31 20 00 "Earth Moving" 3.22.A DISPOSAL OF SURPLUS AND WASTE MATERIALS
55	Sheet L200/Demolition Notes D. Please confirm there are no existing to remain trees within the limits of work and this note can be removed.	No trees are to remain within limits of work.

56	Sheet L601/Detail A. Please confirm the note " 2" wide smooth tooled edge where indicated on plans..." does not apply.	All walkway pavements are to have a 2" wide smooth tooled edge.
57	Sheet L601/Detail D. Please clarify where this detail is to be used in all locations.	Refer to spec 32 13 13 "Concrete Paving" 3.5 JOINTS B for applications of this detail and Include this detail at all building edges where concrete walk abuts building and curb
58	Sheet L401/Materials Keynotes 6. Please confirm that only the Curb and Gutter detail on E/601 is used and the other four curb details can be removed.	• Curb and gutter is used throughout • Flush curb with transition will apply at ADA ramps • Header curb is not utilized
59	Sheet L401/Materials Keynotes 7. Please confirm this is to be detal G/L602	Sheet L401/Materials Keynotes 7 shall reference detail **G/L602**
60	Sheet L401/Materials Keynotes 8. Please confirm this note is to align only with the placement of Keynote 9 on the plan.	Confirmed. Wheelstops are utilized at ALL ADA spaces only.
61	Sheet L602/Detail A. Please clarify which signs are to go where.	• All exterior signs to be field located. • "A" to be used at all ADA spaces. • "B" to be used where "DO NOT ENTER" is applied on the ground near the service area – QTY 2 • "C" to be installed on the one way lane on the upper left – QTY 1 • "D" – NOT USED • "E" – This will be a no LEFT turn arrow sign – QTY 2 in base bid QTY 1 shall be included with Alt. No. 5.
62	Sheet 401/Materials Legend. Please clarify where One Way sign is located and confirm count.	This sign is NOT used.
63	Sheet L300/Grading Keynotes 4. Please confirm this note should reference D/L600.	Confirmed. Keynote 4 shall refer to D/L600
64	Sheet L-306/Trench Drain with Rock Filter detail. Please confirm the note "2,700 LF of 4" Dia Perforated PVC Pipe" has an incorrect quantity and the Trench Drain is only required at the bottom of the drainage pond as shown by Note 4 onSheet L-301.	Note shall read as "50 LF of 4" dia. Perforated PVC Pipe with fabric sock". See L-306
65	Specification Section 10-1426, please clarify what is required for Post and Panel Signage.	• All exterior signs to be field located. • "A" to be used at all ADA spaces. • "B" to be used where "DO NOT ENTER" is applied on the ground near the service area – QTY 2 • "C" to be installed on the one-way lane on the upper left – QTY 1 • "D" – NOT USED • "E" – This will be a no LEFT turn arrow sign – QTY 2 in base bid QTY 1 shall be included with Alt. No. 5. • Stop Signs shall be located where shown on L401. Final location to be indicated in the field. QTY – 2 in base bid and 1 additional in Alternate No. 5
66	Sheet A201/Detail A & Sheet A-181/Detail A, please confirm all exterior building signage is O.F.O.I.	The notes referenced are correctly state their intent.
67	Project Manual pages 1113-1114, Owner's Equipment/List of Equipment. Please confirm all of the items listed are O.F.O.I. and not included in this contract.	Refer to the Specialties and Equipment Schedule on A-111
68	Project Manual pages 1113-1114, Owner's Equipment/List of Equipment. If any of this equipment is to be contractor installed or furnished, please list exact items and quantities.	Refer to the Specialties and Equipment Schedule on A-111
69	Project Manual page 1210, Overhead Tube Crane Components. Please confirm the longitudinal rails and	The supporting structure for the x-ray bridge are C.F.C.I.

	all necessary supporting structure are included in O.F.O.I package.	
70	The site utility plan (EU-1) calls for 6 strand SM fiber for signage (note U8). The communication riser (E-701) calls for 24 strand fiber, but there is no indication of what that fiber is serving. Can you please clarify what is required in regard to the fiber on this project?	Incoming fiber is the assumed 24 pair from the service provider. The signal to the signage is as noted as 6 Strand SM fiber. Fiber is also required to provide signal to the site pole mounted IP camera with media converter at the pole enclosure. All fiber scope including patch, fiber cable, terminations, and testing is assumed by Contractor with noted ex exception the service provider's fiber to MDF room service termination block.
71	Drawing L401 appears to have Curb and Gutter mismarked as Thermoplastic Striping Note #17, please advise if it is the owner's intent to have Curb and Gutter at all Paving Perimeters as graphically illustrated.	• Curb and gutter surrounds ALL paved areas. • Thermoplastic striping is for all stop bars and arrows.
72	Drawing G-101 General Notes-Walls: Note A: UNLESS NOTED OTHERWISE, ALL INTERIOR PARTITIONS SHALL BE TYPE 94L(Type 3), Drawing A-301 Building Sections A/B appear to have Gypsum Board to deck on both sides in multiple areas which conflict with the wall type 3, please advise.	Partition Types shall govern.
73	Drawing A-701 Partition Type 1, please advise the method for securing insulation on walls that do not have Gypsum Board extending to deck.	Provide wire or stud bracing at 16" o.c. to hold sound attenuation blankets in place

OFFICIAL APPROVAL
UK KING'S DAUGHTERS MEDICAL CENTER

Angie Huston Contract Coordinator

SIGNATURE

_____

_____
Typed or Print Name

FORM OF PROPOSAL

Date: 06/05/2026

Project Name: **UK King's Daughters Medical Center-Greenup Co. Urgent Care/ Family Care Medical Office Building**

City: Greenup, KY

Bid # **KD-3123.0-26**

UNIT PRICES

Number	Description of Work	Unit	Cost/Unit
1	**heavy duty concrete pavement 7" conc / 6" dga**	SY	
2	**light duty concrete pavement 5" conc./ 6" dga**	SY	
3	Unsuitable soil excavation	CY	
4	Unsuitable soil haul off	CY	
5	Imported suitable fill material and compacted in place	CY	
6	Light duty asphalt pavement full pavement section	SY	
7	Heavy duty ASPHALT pavement full pavement section	SY	
8	Sod	SY	
9	Concrete Curb and Gutter	LF	
10	Structural Flowable Fill (250 psi)	$/Cu.Yd.	
11	Lean Concrete (1,500 psi)	$/Cu.Yd.	
12	Sprinkler head with 15 feet of branch piping	EA	
13	Supply air diffuser with 15 feet of branch duct.	EA	
14	Duplex Convenience Outlet Installed Complete with 50 ft. of 3/4" Conduit and 2#12, 1#12 Ground	EA	
15	Voice/Data outlet with 200' of conduit/wiring and terminations.	EA	
16	Exit Light Installed Complete with 50 Ft. of 3/4" Conduit with 2#12, 1#12 Ground	EA	
17	Integration of a control point into DDC system with graphic interface	EA	

PRIMARY LIST OF PROPOSED CONTRACTORS

Division of Work	Name of Subcontractor
Cast-In-Place Concrete	
Steel Fabricator	
Steel Erector	
Cold-Formed Steel	
Concrete Site Work	
Earthwork	
Storm Installation	
Sewer Installation	
Landscape Installer	
Unit Masonry	
Gypsum Board & Metal Framing	
Interior Architectural Woodwork	
Solid Surfacing Fabrications	
Exterior Insulation and Finish System	
Metal Composite Wall Panels	
Ethylene-Propylene-Diene-Monomer (EPDM) Roofing	
Glass and Glazing	
Foamed-in-place insulation	
Doors & Frames	
Storefront	
Storefront & Glass	
Acoustical Panel Ceilings	
Flooring	
Painting	
Tiling	
Specialties	
Radiation Protection	
HVAC	
Sheet Metal & Flexible Duct	
Controls	
Test and Balance	
Fire Protection	
Plumbing System	
Electrical	
Telecommunication	
Fire Alarm	

LIST OF MATERIALS AND EQUIPMENT

Materials and Equipment	Brand or Manufacturer
Concrete	
Steel Joist & Deck	
Asphalt	
Concrete (Site)	
Storm Drainage Structures	
Landscape Materials	
Seed/Hydroseed/Sod	
Brick	
Hollow Metal Frames	
Wood Doors	
Gypsum Board	
Ceramic Tile	
Acoustical Panel Ceilings	
Luxury Vinyl Tile	
Resilient Sheet Flooring	
Wall Protection	
Exterior Insulation and Finish System	
Metal Composite Wall Panels	
Ethylene-Propylene-Diene-Monomer (EPDM) Roofing	
Glass and Glazing	
Foamed-in-place insulation	
Solid Surfacing	
Radiation Shielding	
Split system HVAC units	
Roof Top Mechanical Units	
Sprinkler heads	
Controls	
Switchboard / panels	
Fire alarm systems	
Wiring devices	
Lighting Fixtures (include list for each fixture type)	
Lighting Control System	

ALLOWANCES

None

ALTERNATIVES

OPTION	PRICE
Alternate No. 1: Owner's Preferred Door Hardware **Base Bid:** Provide door hardware from basis-of-design or acceptable equals listed in Specification Section 08 7100 "Door Hardware."	
Alternate: Provide Owner's preferred hardware as indicated in Article 1.2 of Specification Section 08 7100 "Door Hardware."	
Alternate No. 2: PEX piping **Base Bid:** Provide PEX water piping as indicated on plumbing and mechanical documents.	
Alternate No. 2: Not used.	
Alternate No. 3: CT Suite **Base Bid:** Provide base bid building indicated on Drawings, without rear bump-out for future CT suite.	
Alternate: Provide additional building indicated on Drawings for a future CT suite at the rear of the building. Room C111 shall be constructed as shell space, without gypsum board on the room side of studs, and without slab. C100 shall be expanded and constructed as finished space. Consult the complete Drawing set for complete description of this alternate work.	
Alternate No. 4: Counters **Base Bid**: Provide plastic laminate counters at all counter locations that can be post-formed. Counter front edges shall be 180 degree post-formed. The divider wall tops at the nurse stations shall have 3mm pvc edging. The counters and divider wall tops in the vestibule shall be solid surface	
Alternate: Provide solid surface counters as indicated on the Drawings.	

Alternate No. 5: South Parking **Base Bid:** Provide landscaping in lieu of parking and curbs indicated on Landscape/Civil Drawings.	
Alternate: Provide solid surface counters as indicated on the Drawings	
Alternate No. 6: Trees and Shrubs **Base Bid:** Do not provide trees or shrubs indicated on L501 and L502.	
Alternate: Provide plants, mulches, landscaped beds as shown on L501 and details on L502. .	
Alternate No. 7: Parapet on sides **Base Bid:** Do not provide portions of parapets on north and south sides of building, as indicated on the Building Elevations. Roof edge shall be similar to B/A-542, and the transitions from parapet end to roof shall be similar to A/A-542. Refer also to detail K/S403for base bid.	
Alternate: Provide parapets on full length of north and south sides of building. Move the roof ladder north closer to the parapet and remove one guard rail.	

Name of Contractor: _____

Mailing Address: _____

Business Address: _____ Telephone: _____

Having carefully examined the Instructions to Bidders, Contract Agreement, General Conditions, Supplemental Conditions, Specifications and Drawings, for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies and temporary

devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein.

Addendum _____ (Insert the addendum numbers received or the word "none" if no addendum received.

BASE BID: For the construction required to complete the work, in accordance with the contract documents, I/We submit the following lump sum price of:

_____

Use Figures

_____Dollars & _____

Use Words Use Words

Authorized Company Agent Name: _____

Signature: _____ Date: _____ / _____ / _____

FOR THE PROJECT TITLED:

GREENUP COUNTY URGENT CARE / FAMILY CARE MEDICAL OFFICE BUILDING
1448 Seaton Ave.
Greenup, Kentucky 41144

To: Prospective Bidders

From: JRA Architects
301 East Vine Street
Lexington, KY 40507

Project Contact: Les Olson, AIA, LEED AP

The Addendum will form a part of the Proposal Documents and modifies the original Proposal Documents dated May 1, 2026.

Bidders must acknowledge receipt of this Addendum in the space provided on the Form of Proposal. Failure to do so may subject the bidder to disqualification.

Proposal Documents, including the Drawings and Specifications, are amended as described herein.

CIVIL ITEMS:

ITEM NO. 2.01
Refer to the attached revised Sheet C101 Site Utility Plan: FDC location has been adjusted.

ITEM NO. 2.02
Refer to the attached revised Sheet L306 Detention Basin Plan, Sections and Details: Revised quantity of Perforated Pipe in Detention Basin

STRUCTURAL ITEMS:

ITEM NO. 2.03
Refer to the attached revised Sheet S-201 for added slab recess information to coordinate with architectural drawings. A missing foundation tag was also added.

ITEM NO. 2.04
Refer to the attached revised Sheet S-202 for clarity regarding blocking support for the attachment of pre-fabricated metal canopies at each canopy location

ARCHITECTURAL ITEMS:

ITEM NO. 2.05
Refer to Specification Section 08 7100 – “Door Hardware.” Revise the hardware sets as indicated below:

Set E01:
- In lieu of what is indicated in the System Function, there will be no card reader at this door.

Set E02:
- In lieu of what is indicated, no card reader will occur at door B100A

Set 02:

- Remove closer
- In lieu of the hinges specified, provide Hager 1250 spring hinges

Set 02B:
- Remove closer
- In lieu of the hinges specified, provide Hager 1250 spring hinges

Set 09:
- In lieu of the continuous hinge indicated, provide three BB1279 hinges
- Remove the armor plate.
- Remove the wall stop/holder.

Door Hardware Set Index:
- Delete doors C107, C109-A, and C109-B from this index – these doors do not occur.

ITEM NO. 2.06
An intercom station to be provided on exterior of Door B100B-E, with master intercom stations at Nurse Station B100C and Registration 101 with remote door release for Door B100B-E.

FIRE PROTECTION ITEMS:

ITEM NO. 2.07
Refer to the attached revised Sheet F-101 Fire Protection Plan.
Summary of revisions:
- Added Keynote F6 for check valve on the fire line for the Fire Department Connection located on site.

ITEM NO. 2.08
Refer to the attached revised Sheet F-200 Fire Protection Details/Calculations
Summary of revisions:
- Updated sprinkler head selection to indicate that flexible head drops shall not be installed.

MECHANICAL ITEMS:

ITEM NO. 2.09
Refer to the attached revised Specification Section 20 1300 – Pipe, Pipe Fittings and Pipe Support.
Summary of revisions:
- Revised domestic cold, hot and recirculation hot water piping above slab to include cross-linked polyethylene pipes.
- Removed piping types not used for this project.

ITEM NO. 2.10
Refer to the attached revised Sheet M-101 Mechanical Floor Plan.
Summary of revisions:
- Updated duct layout of supply and return systems for the family care side corridors.
- Updated the return CFMs for both MED/PREP/LAB rooms.
- Updated return CFMs for corridor return outside of MED/PREP/LAB rooms
- Added condensate piping for SS-1B
- Relocated SS-1A within the room and added condensate piping
- Updated Clean Room A113 supply and return CFMs
- Updated return CFM for corridor outside of Clean Room A113
- Updated Clean Room B131 supply CFM and supply diffuser type
- Added keynotes H1 and H2

ITEM NO. 2.11
Refer to the attached revised Sheet M-200 Enlarged Mechanical Plan.
Summary of revisions:
- In view #1, added speed controller locations for exhaust fans
- In view #1, moved BAS panel to not conflict with plumbing scope.
- In view #2, updated CT room scope for alternate
- In view #2, updated return air CFM in X-ray C171 to match supply CFM
- Added keynotes A11 and A12

ITEM NO. 2.12
Refer to the attached revised Sheet M-400 Mechanical Schedules.
Summary of revisions:
- For Air Handling Unit Schedule – Packaged Air Source, updated model numbers and performance for RTU-2,3
- For Air Handling Unit Schedule – Packaged Air Source, added remarks column to all RTUs
- For Air Handling Unit Schedule – Packaged Air Source, updated remarks column.
- For Air Curtain Schedule, updated remarks.
- Added remarks column for Split System Indoor/Outdoor Unit Schedules
- For Unit Heater Schedule, updated remarks column and added EHW-2 for alternate scope.

ITEM NO. 2.13
Refer to the attached revised Sheet M-500 Mechanical Controls
Summary of revisions:
- Added mechanical controls legend.
- Added points lists for control schematics and sequences.

ITEM NO. 2.14
Add the attached Sheet M-501 Mechanical Controls to the drawing set.
Summary:
- Added controls schematic and sequence for Lighting Controls, Water System Metering, and Air Curtain controls.
- Added points lists

ELECTRICAL ITEMS:

ITEM NO. 2.15
Add the following specification sections to the Project Manual:
- Section 270610 – Voice Data Network System.
- Section 281600 – Security Intrusion System.

ITEM NO. 2.16
Refer to the attached revised Sheet E-201 Power Plan
Summary of revisions:
- Removed receptacle and circuit for pediatric under counter fridge. Fridge was removed from scope.
- Note E1 updated to provide additional clarification for mobile mammography power connection.
- Updated X-Ray room conduit and device layout to match update from vendor.

ITEM NO. 2.17
Refer to the attached revised Sheet E-301 Mechanical Power Plan
Summary of revisions:
- New type D6 to clarify contractor supplying disconnect for air curtain.
- Moved VAV for CT alternate to sheet E-601 to clarify scope.

- Switched circuits so CT alternate VAV is on SEC. 2 of panel MP1.
- Added missing circuit tag for circuit MP1 -91, 93, 95.

ITEM NO. 2.18
Refer to the attached revised Sheet – E-401 Systems Plan
Summary of revisions:
- A new intercom station to be provided on exterior of Door B100B-E. Station to be AI-Phone Model IX-DV, or approved equal.
- Provide a new master intercom station at Nurse Station B100C with remote door release for Door B100B-E. Station to IXG-MK, or approved equal.
- Provide a new master intercom station at Registration 101 with remote door release for Door B100B-E. Station to IXG-MK, or approved equal.
- Additional camera location to be provided in Vestibule 100.
- Add nurse call pull stations and dome lights in each patient restroom and Xray with a master station at Registration 101.
- Added smoke detector in entry vestibule.
- Added exterior network connection for Mobile Mammography.

ITEM NO. 2.19
Refer to the attached revised Sheet E-501 One-Line Diagram/Panel Schedules
Summary of revisions:
- Circuit for pediatric fridge removed.
- Switched circuit numbers for VAV-10 serving CT area.
- Renamed circuit for VAV-10 serving CT area to clarify it is part of alternate.
- Added circuit for unit heater in CT area.

ITEM NO. 2.20
Refer to the attached revised Sheet E-601 Add Alternate 3 Plans
Summary of revisions:
- View updated to show VAV-10 properly.
- Added disconnect and circuit for unit heater.
- Added disconnecting means schedule to sheet.

ITEM NO. 2.21
Refer to the Electrical Drawing – EU-1
- Clarification: Signal to pole mount camera location to be 6-strand SM fiber. Include media converter with unswitched 120V power at pole location.

END OF ADDENDUM NO. 2

SECTION 20 1300 - PIPE, PIPE FITTINGS AND PIPE SUPPORT

1. GENERAL

A. The Contractor's attention is directed to the General and Special Conditions, General Conditions-Mechanical and to all other Contract Documents as they apply to this branch of the work. Attention is also directed to all other sections of the Contract Documents which affect the work of this section and which are hereby made a part of the work specified in this section.

B. When a pipe size is not indicated, the Contractor shall request the pipe size from the Engineers. All piping shall be installed straight and true, parallel or perpendicular to the building construction. Piping shall be installed so as to allow for expansion without damage to the building finishes, structure, pipe, equipment, etc., use offsets, U-bends or expansion joints as required. Where a section of piping is not indicated but is obviously required for completion of the system, the Contractor shall provide same at no additional cost to the project. No mitered joints or field fabricated pipe bends shall be accepted. Pipe shall clear all windows, doors, louvers and other building openings.

C. All pipe shall be supported in a neat and workmanlike manner and wherever possible, parallel runs of horizontal piping shall be grouped together on trapeze type hangers. Vertical risers shall be supported at each floor line with approved steel pipe riser clamps. The use of wire or perforated metal to support pipes will not be permitted. Hanging pipes from other pipes shall not be permitted. Spacing of pipe supports shall not exceed eight feet for pipes up to 1-1/4 inches and ten feet on all other piping. Small vertical pipes (1 inch and less) shall be bracketed to walls, structural members, etc. at four (4) foot intervals so as to prevent vibration or damage by occupants. Insulated piping shall be supported on a rigid insulation block at each hanger so as to prevent crushing of insulation by hangers. Hangers shall pass completely around the insulation jacket and a steel protective saddle shall be applied to prevent compression of the insulation. (Refer to Specifications Section entitled INSULATION-MECHANICAL).

D. Where piping rests directly on a hanger, clip, bracket or other means of support, the support element shall be of the same material as the pipe, (e.g., copper to copper, ferrous to ferrous, etc.) or shall be electrically isolated one from the other so as to prevent pipe damage by electrolysis. Pay particular attention and do not allow copper pipe to rest on ferrous structural members, equipment, etc. without electrolytic isolation.

E. In general, piping shall be installed concealed except in Mechanical, Janitor Rooms, etc. unless otherwise indicated, and shall be installed underground or beneath concrete slabs only where indicated. All lines at ceilings shall be held as high as possible and shall run so as to avoid conflicts with other trades, and to facilitate the Owner's use and maintenance. Location of pipe in interior partitions shall be carefully coordinated with whoever will construct the partitions after the piping is in place. Where exposed risers occur, they shall be kept as close to walls as possible.

F. Installation of pipe shall be in such a manner as to provide complete drainage of the system toward the source. Drain valves shall be provided at all drainage points on pipes. Drain valves shall be 1/2" size gate type with 3/4" hose thread end and vacuum breaker. Label each drain valve.

G. All hot and cold-water piping shall be kept a sufficient distance apart so as to prevent heat transfer between them. Cold water piping shall also be kept apart from refrigerant hot gas lines.

H. Piping carrying water or other fluids subject to freezing shall not be installed in locations subject to freezing; if in doubt, consult Engineer.

I. Piping for all drainage systems shall be installed to permit flow, trapping, and venting in accord with current codes and sound practice.

J. All cast iron soil pipe and fittings shall be coated inside and out with coal tar varnish.

K. Non-metallic piping shall be installed in strict accordance with the manufacturer's instructions. If no such instructions are available, consult Engineers.

L. Nipples shall be of the same material, composition and weight classification as pipe with which installed.

M. Where piping is not indicated on the plans, but is obviously or apparently required, contact the Engineers prior to submission of a bid proposal.

N. Pay particular attention to conflict of piping with other work. Do not install until conflict is resolved. If necessary, contact Engineers.

O. Piping materials in each system shall, to the extent practicable, be of the same material. Frequent changes of material (for example, from copper to steel) shall be avoided and in no case, shall be accomplished without use of insulating unions and permission of the Engineers.

P. Apply approved pipe dope (for service intended) to all male threaded joints. Pay particular attention to dope for fuel gas lines. The dope shall be listed for such use.

Q. High points of closed loop hot water heating systems shall have manual or automatic air vents as indicated or required unless automatic air vents are specifically indicated. Pipe to suitable drainage point.

R. All piping shall be capped or plugged during erection as required to keep clean and debris and moisture free.

S. DOMESTIC WATER PIPING STERLIZATION REQUIREMENTS: Contractor shall participate and provide documentation for Legionella's Risk Management Program as described in ASHRAE 188. This includes but is not limited to planning, execution, and documentation of start-up, connection, or shutdown of new and existing domestic water system. Contractor shall provide water quality testing documents as outlined in ASHRAE 188 after the start-up of a new system. And example procedure is included below for reference:

(1) General:
   a. All water piping systems shall be thoroughly disinfected with a solution containing not less than 50 ppm of available chlorine by this Plumbing Contractor. The chlorinating material shall be either liquid chlorine or sodium hypochlorite solution.
   b. This work is to be supervised by the owner's representative and performed by an owner approved chemical testing laboratory and results sent to the architect/engineer or their representative for verification. All costs shall be borne by this Plumbing Contractor.
   c. The testing laboratory shall submit a summary of the test procedure to the owner for approval prior to any work being performed. All work to be in accordance with the owner's requirements. This plumbing contractor shall provide any and all valves, pipe, and connections required to disinfect the water supply system totally or in part as required. Provide isolating valves and draw-off valves for proper containment, phasing, and flushing.

(2) Procedure
   a. The water systems shall be tested and thoroughly flushed prior to chlorination.

b. The chlorine shall be introduced at a point of the system so as not to create a hazard to the existing system. The disinfection solution shall be allowed to remain in the system for a period of 24 hours during which perio all valves and faucets shall be opened and closed several times with the chlorine drawn to all points in the system. After disinfection, the solution shall be flushed from the system with potable water until the residual chlorine content is not greater than the 0.2 ppm for the domestic potable system. Prior to any further testing procedures, the engineer and the owner shall review all draw-off valve locations and chlorine introduction locations.
c. The contractor is to allow ample time for the chlorination of the water systems and is to plan the chlorination just prior to occupancy if possible. If the system is to sit dormant for any extended period of time prior to occupancy, the contractor is to flow water to all points in the building to completely flush the systems prior to occupancy. A full (3) days notice will be given the owner and engineer prior to the start of disinfection.

(3) Tests:

a. The owner's representative shall select a location on the floor for a chlorine concentration test and a chlorine residual, a coliform bacteria, and total plate count bacteria tests. The laboratory report shall include sample locations, chlorine concentration, chlorine residual, coliform bacteria count, and after flushing, total plate count bacteria tests.
b. Acceptable limits for total plat count shall be 300 cfu per 100 ml sample. Acceptable levels of chlorine residual shall be 0.2 ppm for the domestic potable water system.
c. If these parameters are not met, continued flushing of the water systems shall be required until they are met.
d. Full owner acceptance of the water systems shall not be given until these parameters are met, documented, and submitted by the testing laboratory selected.
e. Incoming exterior water mains shall be disinfected similarly except chlorine introduction shall be from the point of new water service connection to the existing main. System shall be disinfected when water pressure testing is completed and accepted.

T. Provide expansion joints where shown on the plans and where required by good practice. Expansion joints shall be guided and anchored in accordance with the recommendations of the Expansion Joint Manufacturer's Association.

U. Where plastic pipe penetrates a fire rated assembly, it shall be replaced with a metal threaded adapter and a metal pipe per code.

V. Foam Core PVC is not permitted

W. Where piping penetrates interior or exterior walls, the wall shall be sealed air tight. Refer to the sleeving, cutting, patching and repairing section of the specifications for additional requirements.

X. Provide thrust blocks on all storm, sanitary, water, steam, hot, chilled, condenser, etc., and any other piping subject to hammering. Thrust blocks shall be provided at all turns.

Y. All piping to hydronic coils shall be full size all the way to the coil connection on the unit. If control valve is smaller than pipe size indicated, transition immediately before and after control valve. Also, if coil connection at unit is a different size than the branch pipe size indicated, provide transition at coil connection to unit. On 3-way valve applications, the coil bypass pipe shall be full size.

Z. Provide check valves on individual hot and cold-water supplies to each mixing valve (including each sensor style faucet, safety shower, mop sink, etc.) and each showerhead with a diverter

valve (including all ADA showers). This requirement shall not be satisfied by mixing valves or fixtures with internal check valves. Independent external check valves are required.

2. UNIONS AND FLANGES AND WELDED TEES

A. Screwed unions, soldered unions or bolted flanges shall be provided as required to permit removal of equipment, valves and piping accessories from the piping system. Keep adequate clearances for coil removal, rodding, tube replacement, motor lubrication, filter replacement, etc. Flanged joints shall be assembled with appropriate flanges, gaskets and bolting. Gaskets for steam piping systems shall be flexitalic spiral wound type. The clearance between flange faces shall be such that the connections can be gasketed and bolted tight without imposing undue strain on the piping system.

B. Dielectric insulating unions or couplings shall be used wherever the adjoining materials being connected are of dissimilar metals such as connections between copper and steel pipe.

C. Tee connections for welded pipe shall be made up with welding fittings. Where the size of the side outlet is such that a different connection technique than on the run is required, a weldolet, sockolet, or threadolet type fitting may be used for the branch in place of reducing tees only where the branch is 2/3 the run size or smaller.

D. All piping 2½” and larger shall use flanged joints in mechanical rooms.

3. SPECIFICATIONS STANDARDS

All piping and material shall be new and shall conform to the following minimum applicable standards:

A. Steel pipe; ASTM A-120, A-53 Grade A, A-53 Grade B.

B. Copper tube; Type K, L, M; ASTM B88-62; Type DWV ASTM B306-62.

C. Cast iron soil pipe; ASA A-40.I and CS 188-59.

D. Cast iron drainage fittings; ASA B16.12.

E. Cast iron screwed fittings; ASA B16.4.

F. Welding fittings; ASA B16.9.

G. Cast brass and wrought copper fittings; ASA B16.18.

H. Cast brass drainage fittings; ASA B16.23.

I. Reinforced concrete pipe; ASTM-C-76-64T.

J. Solder; Handy and Harmon, United Wire and Supply; Air Reduction Co. or equivalent.

K. CPVC Plastic pipe; ASTM D2846.

L. PVC plastic pipe; ASTM D1785.

M. ABS plastic pipe; ASTM D1788-73.

N. Cross-linked polyethylene (PEX) pipe; ASTM F876 and ASTM F877.

O. Cross-linked polyethylene (PEX) fittings; ASTM F1960

4. PITCH OF PIPING

All piping systems shall be installed so as to drain to a low point. Certain minimum pitches shall be required for this drainage. For proper flow and/or for proper operation, the following pitches shall be required:

A. Interior Soil, Waste and Vent Piping:

1/4 inch per foot in direction of flow where possible but in no case less than 1/8" per foot.

B. Exterior Sanitary Lines:

Not less than one (1) percent fall in direction of flow and no greater than indicated.

C. Roof Leaders:

1/8 inch per foot where possible.

D. Condensate Drain Lines from Cooling Equipment:

Not less than 1/4 inch per foot in direction of flow.

E. Exterior Storm Lines:

Not less than 1 percent grade in direction of flow.

F. All Other Lines:

Provide ample pitch to a low point to allow 100 percent drainage of the system.

5. APPLICATIONS

A. General Notes

(1) Where plastic piping penetrates a fire rated assembly, it shall be replaced with a threaded metal adapter and metal pipe or whatever means necessary to maintain the separation rating in accordance with local plumbing and fire codes.

(2) Plastic piping or any materials with a flame and smoke spread rating not approved for plenum use shall not be permitted in supply, return, relief or exhaust plenums.

(3) PVC, CPVC, or plastic piping shall not be used under paving, roads or areas where vehicular traffic is expected.

(4) PVC or plastic piping whether specifically listed or not may not be used in high rise buildings or anywhere else prohibited by code.

B. Sanitary Sewer – Exterior

(1) Service weight cast iron piping with bell and spigot fittings complying with ASTM A 74. All joints shall be compression gasket type.

(2) SDR 35 PVC pipe extruded from Type 1, Grade 1 polyvinyl chloride material. PVC pipe shall have a bell type fitting on one end. All joints shall be solvent cement type, made in accordance with the State Plumbing Code.

(3) Service weight hubless cast iron with manufacturer's approved bands. Bands shall be heavy duty band with extra width for lateral support. Each coupling shall include a minimum for of four bands.

C. Domestic Water Piping - Exterior

(1) Type "K" hard copper with wrought copper fittings and brazed joints.

(2) Schedule 150 ductile iron piping with cement mortar lining and rubber gasketed joints.

(3) Schedule 40 PVC pipe, NSF approved for underground domestic cold-water pipe, with solvent weld joints. All piping and joints shall meet the State Plumbing Code.

(4) Class 200 PVC. Piping shall meet AWWA C900 requirements, be UL listed, Factory Mutual approved and NSF approved. Joints shall have spigot pipe ends with a flexible elastomeric ring seated in a groove to provide water tight seal. Minimum burst pressure to be 900 psi when tested in accordance with ASTM D1599.

D. Fire Protection - Exterior and Interior

Refer to the Fire Protection System section of these specifications.

E. Soil Waste and Vent Piping - General Requirements

(1) Water closet floor flanges and ells shall be cast iron regardless whether PVC piping is allowed or not.

(2) Soil and waste piping serving mechanical rooms, laundries and kitchens shall be cast iron regardless whether PVC piping is allowed or not. Cast iron will also be required at any other location where waste water temperature can exceed 120°F. Cast iron shall extend a minimum of 35' past last waste inlet.

F. Soil, Waste and Vent Piping (Below Slab)

(1) Schedule 40 PVC pipe with drainage pattern fittings and solvent cement joints made in accordance with the State Plumbing Code. **Foam core piping is not permitted.**

(2) Service weight hubless cast iron with manufacturer's approved bands.

(3) Waste piping serving Soda Machine drains, (floor sinks or floor drains) shall be: Service weight cast iron epoxy coated no-hub cast iron pipe and fittings, as manufactured by Newage Casting or approved equal. Certified to conform to ASTM A888 & CISPI 301. The two-part epoxy spray on coating shall have a 2.5 mil. Minimum exterior thickness and a 5 mil. Minimum interior thickness for adhesion and chemical resistance. Two-part epoxy is to be tested to be non- reactive from 2pH-12pH. Install piping in accordance to manufacturer's instructions. This branch piping shall run as this material until connected to the main.

G. Soil, Waste and Vent Piping (Above Slab)

(1) Service weight hubless cast iron pipe. Bands shall be heavy duty band with extra width for lateral support. Each coupling shall include a minimum of four bands.

(2) Service weight cast iron hub and spigot piping with compression gasket joints.

(3) Schedule 40 galvanized steel piping with screwed ends and cast-iron drainage pattern fittings for piping 2" and less in size. Provide pipe adapters for connector of cast iron pipe at slab.

(4) Type DWV copper drainage piping with cast bronze drainage pattern fittings with solder joints.

(5) Schedule 40 PVC pipe with drainage pattern fittings and solvent cement joints made in accordance with the State Plumbing code.

H. Domestic Cold, Hot and Recirculating Hot Water Piping (Above Slab)

(1) Type "L" hard copper tubing with wrought copper fittings with lead free solder equivalent in performance to 95/5. (Maximum lead content of solder and flux is 2%).

(2) Cross-linked polyethylene (PEX) piping.

I. Trap Prime Piping

(1) Above slab: It shall match domestic water piping requirements.

(2) Underslab: It shall match domestic water piping requirements with a protective wrap or cross-linked polyethylene (PEX) piping.

J. Domestic Cold, Hot and Recirculating Hot Water Piping (Below Slab)

Type "K" hard or soft copper tubing with wrought copper fittings and brazed joints. There shall be no joints beneath slabs.

K. Air Vent Discharge Lines

Type "L" soft copper; wrought copper fittings, 95/5 solder.

L. Refrigerant Piping

Interior Piping for Variable Refrigerant Flow Systems 1/8” to 1-3/8” shall be ACR soft copper tube with long radius bends of soft copper tube. Provide ACR hard copper tube in all sizes for systems other than Variable Refrigerant Flow. Interior lines larger than 1-3/8” shall be ACR hard copper tube. All exterior lines shall be ACR hard copper tube. Fitting shall be wrought or forged copper with silver solder joints and minimum 15% silver content.

(1) General Installation Notes:

a. Contact Engineer 24 hours prior to installation of refrigerant lines or evacuation of refrigerant system.

b. Refrigerant lines installation must meet HVAC equipment manufacturer's recommendations.

c. While installing or soldering refrigerant lines, system must continuously be purged with nitrogen.

d. After system is installed, the refrigerant system must be evacuated to 25 microns for eight hours.

M. Condensate Drain Lines

(1) Type "DWV" copper, wrought copper, lead free solder.

(2) Schedule 40 PVC with solvent welded fittings.

N. Water Heater Relief Line

Type "M" copper tubing with sweat fittings and 95/5 solder.

O. Medical Gas Piping (Compressed Air Vacuum, Oxygen, Nitrogen and Nitrous Oxide)

Hard drawn, Type "L", pressure copper tubing conforming to ASTM B-88. Piping shall be factory washed and capped for medical gas service. Fittings shall be wrought copper, brazing type. Solder shall be brazing alloy with 1000°F melting point and suitable flux, Phoson Fifteen or Sil-Fos conforming to ASTM B-260.

END OF SECTION 20 1300

SECTION 27 0610 – VOICE DATA NETWORK SYSTEM

1. GENERAL

A. RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General, Special and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

The Contractor is directed to examine each and every section of these specifications, all drawings relating to the Contract Documents, any and all Addenda, etc., for work described elsewhere that may relate to the provision of the work described herein. Materials and performance requirements are specified elsewhere herein that relate to these systems.

All layout and installation of communications infrastructure shall be in accordance with ANSI / TIA 568 and the BICSI TDMM.

B. SUMMARY

Section Includes:

Work Area Outlets
Patch Panels
Racks, Cabinets and Cable Management
Horizontal Distribution Cable
Fiber Optic Termination Hardware
Patch Cords and Fiber Jumpers
Pathways & Penetrations
Audio Visual Infrastructure
Power (UPS and PDU)
Grounding and Bonding
Copper Cable Protection Units
Cable System Identification System

The Contractor shall furnish all materials, labor, services, purchasing, testing of completely installed systems, etc., that are indicated or required to provide a complete telecommunications distribution network for the project.

The telecommunications distribution network shall be designed and installed in a format and construction as required for an IEEE 802.3an compliant 10Gb Ethernet system. It shall be physically wired in a star configuration.

The telecommunications distribution system shall be installed complete, except as hereinafter described. The system shall be provided with all wall plates, inserts, wiring, equipment racks and supports, copper and fiber termination equipment, connections, wire terminations and identifications, 120 VAC power outlets, grounding etc., for a completely functioning premises wiring network. Components of each subsystem shall be of one manufacture, and be tested and certified as compatible to provide the specified performance.

Horizontal copper systems shall be Tyco/Commscope or pre-approved equal. Fiber systems shall be Corning or Pre-approved equal.

The system active electronic hardware and software shall be installed by the Owner or his vendor, unless otherwise noted or specified.

Per the drawings, a 4” deep inside depth cable tray will loop the entire perimeter inside all Telecommunications (MDF) rooms at no less than 8’ AFF. Maintain a 4” clearance from each wall. Universal 12” or 18” cable ladder will be installed at the top of the communications racks spanning the width of the room. Radius drop outs will be installed on all cable trays where cables exit the tray to a lower elevation.

Fire treated plywood, 3/4-inch thick, shall be mechanically fastened to all walls of each Telecommunications (MDF) room. The plywood shall be painted with two (2) coats of neutral color fire resistant paint. The fire treated plywood will begin at 4” AFF and end at

8’ 4” AFF. The room walls shall be finished with drywall (completely taped, sanded, and painted) or concrete block (painted) prior to mounting the plywood.

C. BACKBONE CABLING DESCRIPTION

Backbone cabling system shall provide interconnections between communications equipment rooms, main terminal space, and entrance facilities in the telecommunications cabling system structure. Cabling system consists of backbone cables, intermediate and main cross-connects, mechanical terminations, and patch cords or jumpers used for backbone-to-backbone cross-connection.

Backbone cabling cross-connects may be located in communications equipment rooms or at entrance facilities. Bridged taps and splitters shall not be used as part of backbone cabling.

Backbone cabling system shall comply with transmission standards in ANSI/TIA-568-C.Z, when tested according to test procedures of this standard.

D. HORIZONTAL CABLING DESCRIPTION

Horizontal cable and its connecting hardware provide the means of transporting signals between the telecommunications outlet/connector and the horizontal cross-connect located in the communications equipment room. This cabling and its connecting hardware are called "permanent link," a term that is used in the testing protocols. Splices shall not be installed in the horizontal cabling.

The maximum allowable horizontal cable length is 275 feet.

Horizontal cabling system shall comply with transmission standards in ANSI/TIA-568-C.1, when tested according to test procedures of this standard.

E. SUBMITTALS

(1) Product Data: For each type of product indicated. Submittals shall also be accompanied by a detailed bill of material, including part numbers and quantities.

(2) Shop Drawings:

a. System Labeling Schedules: Electronic copy of labeling schedules, in software and format selected by Owner.

b. Cabling administration drawings and printouts.

c. Wiring diagrams to show typical wiring schematics including cross-connects and patch panels.

(3) Cross-connects and patch panels. Detail mounting assemblies. Show elevations and physical relationship between the installed components.

(4) Cable tray layout, showing cable tray route to scale, with relationship between the tray and adjacent structural, electrical, and mechanical elements. Include the following:

a. Vertical and horizontal offsets and transitions.

b. Clearances for access above and to side of cable trays.

c. Vertical elevation of cable trays above the floor or bottom of ceiling structure.

d. Load calculations to show dead and live loads as not exceeding manufacturer's rating for tray and its support elements.

(5) Qualification Data: For Installer, qualified layout technician, installation supervisor, and field inspector.

(6) Source quality-control reports.

(7) Field quality-control reports.

(8) Maintenance Data: For connectors to include in maintenance manuals.

F. QUALITY ASSURANCE

Installer Qualifications: Cabling Installer must have personnel certified by BICSI on staff.
Layout Responsibility: Preparation of Shop Drawings, Cabling Administration Drawings, and field testing program development by an RCDD on the permanent staff of installing Contractor.
Installation: Installation shall be under the direct supervision of a Level 2 Installer, who shall be present at all times when Work of this Section is performed at Project site. At least 50% of the Contractor's technicians on site shall be BICSI Certified Installers.
Testing Supervisor: Currently certified by BICSI as an RCDD to supervise on-site testing.
Installer shall be certified by the systems manufacturer as necessary to obtain the cabling system warranty as required by this specification.
Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
Telecommunications Pathways and Spaces: Comply with NFPA 70, and TIA/EIA-569-C.

G. GROUNDING:

Comply with NFPA 70, and ANSI/TIA-607-C and UK Communications and Network Systems standards.

H. DELIVERY, STORAGE, AND HANDLING

Test cables upon receipt at Project site.
Test each pair of UTP cable for open and short circuits.

I. COORDINATION

Coordinate layout and installation of communications equipment with Owner's telecommunications and LAN equipment and service suppliers.
Meet jointly with telecommunications and LAN equipment suppliers, Engineer, and Owner to exchange information and agree on details of equipment arrangements and installation interfaces.
Record agreements reached in meetings and distribute them to other participants.
Adjust arrangements and locations of racks, sleeves, cross-connects, and patch panels in equipment rooms to accommodate and optimize arrangement and space requirements of telephone and LAN equipment.
Coordinate location of power raceways and receptacles with locations of communications equipment requiring electrical power to operate.

J. WARRANTIES

INSTALLATION WARRANTY. The Contractor shall warrant the cabling system unconditionally against defects in workmanship for a period of two (2) years from the date of system acceptance. The warranty shall cover all labor and materials necessary to correct a failed portion of the system and to demonstrate performance within the original installation specifications after repairs are accomplished. Replacement of faulty materials and the cost of labor to make the replacement shall be the responsibility of the Contractor.
Copper drops shall be warranted to results defined in the channel specifications of ANSI/TIA-568-C.2 Category 6A up to 500MHz.
The equipment items shall be supported by service organizations which are reasonably convenient (less than 100 miles from project site) to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.
The Warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under provisions of the Contract Documents and shall be in addition to, and run concurrently with other warranties made by the Contractor under requirements of the Contract Documents.
The Contractor shall provide a system warranty covering the installed cabling system against defects in workmanship, components, and performance, and covering follow-on support after project completion.

2. PRODUCTS

A. MANUFACTURERS

Manufacturers: Subject to compliance with University of Kentucky King's Daughters Medical Center requirements and approved materials list, provide products by one of the following:

(a) Copper Cabling: Commscope (basis of design)
(b) Coaxial Cabling: Commscope (basis of design)
(c) Fiber Cabling: Corning (basis of design)

B. PATHWAYS

General Requirements: Comply with ANSI/TIA-569-C.

Cable Trays: Cable tray shall be aluminum ladder style, have the minimum dimensions of 12 inches wide and 4 inches interior depth or as noted on the Drawings. Rung spacing will be a maximum of 6" over the entire length of the cable tray. Special attention must be given to elevation changes and corners to provide cable support. Only factory corners, T's and radii are to be used (i.e. sweeping factory 90's for all turns). Dropouts will be installed at all points where communications cables will exit the cable tray.

Conduit and Boxes: Comply with requirements in Division 26 Sections "Raceways and Fittings for Electrical Systems" and "Cabinets, Outlet Boxes, and Pull Boxes for Electrical Systems" except as noted below.

All outlet boxes for communications shall be no smaller than 5" x 5" x 2-7/8" deep with a single or double gang plaster ring and integral wire management. Outlet plaster rings shall be as required for faceplates.

Condulets (LB, LR or LL bodies) shall not be used for any communications raceway without written permission from Engineer.

Minimum conduit for communications outlet boxes shall be one (1) 1" conduit (depending on fill which shall not exceed 40% fill). Interior conduit shall be EMT or RGS. Exterior conduits shall be Schedule 40 PVC encased in 3" of concrete per detail.

All wiring shall be installed in conduit or cable tray. Low-voltage wiring shall not share a pathway with power wiring.

Where specifically allowed on the Drawings, cabling for devices without means to mount on a standard electrical box or terminate to conduit shall enter a conduit stubout within 18 inches of the device.

Communications conduit shall run continuously from outlet box to cable tray or other termination enclosure. Provide all conduits with bonding connector or jumper to cable tray. Provide insulated bushing at all conduit termination points.

C. BACKBOARDS

Backboards: Plywood, fire-retardant treated, 3/4" x 96" inches tall. Comply with requirements for plywood backing panels specified in Division 06 Section "Rough Carpentry".

D. EQUIPMENT FRAMES

The equipment rack shall provide vertical cable management and support for the patch cords at the front and back of the rack. Waterfall cable management shall be provided at the top of the rack to maintain proper bend radius and cable support. Wire management shall also be mounted above each patch panel and/or piece of equipment on the rack. The rack shall include mounting brackets for cable tray ladder rack to mount to the top of the rack.

A. Free-Standing Rack shall:

1. provide the necessary strain relief, bend radius and cable routing for proper installation of high performance cross connect products, meeting all specifications of ANSI/TIA 568-D.
2. provide pre-drilled base for floor attachment of rack.
3. be available in standard color of black or white.
4. Provide channels with 10” depth for routing of horizontal cable
5. Standard of quality for 2 and 4 post racks shall be Legrand.

Part Number	Description
OR-MM20710-B	Black 2 Post Rack, 7’ high with 10” channel depth

6. Acceptable substitutions are Tripp Lite and Middle Atlantic or approved equal

B. The vertical and horizontal cable management shall be utilized and installed with the 2 and 4 post racks.
   1. They shall include snap on covers/doors that can swing either direction.
   2. Standard of quality for cable management shall be Legrand MM20 for vertical and SHMC series for horizontal.

Part Number	Description
OR-MM20VMD706-B	Single Sided 6” Vertical Cable Management with door, 6” W x 10.25” D x 7’ H (for end of row or single racks)
OR- MM20VMD710-B	Single Sided Vertical Cable Management with door,10.5” W x 15”D x 7’ H (for between racks)
OR-SHMC2RU	2U Horizontal cable manager to be used between patch panels and/or switch gear
OR-SHMC4RU	4U Horizontal cable manager to be used to pass patch cords from one side of the rack to the other

3. Acceptable substitutions are Tripp Lite and Middle Atlantic

E. WALL MOUNT HARDWARE

Wall mounted voice blocks shall be properly secured to the plywood backboard. Location of the blocks within the MDF room shall be approved by UK King’s Daughters IT Project Manager. D rings shall be installed for wire management on the backboard. Standard 50 pair 66 blocks or 110 blocks shall be used for voice backbone cable terminations not requiring protection. Provide wall mounted protection blocks.

F. OPTICAL FIBER CABLE

Description: Single Mode, nonconductive, tight buffer, inside plant optical fiber cable.

(a) Comply with ICEA S-83-596 for mechanical properties.

(b) Comply with TIA/EIA-568-C.3 for performance specifications.
(c) Retain first option in first subparagraph below for 50/125-micrometer cable; retain second for 62.5/125-micrometer cable.
(d) Comply with ANSI/TIA/EIA-492-CAAA for detailed specifications.
(e) Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444, UL 1651, and NFPA 70 for the following types:
(f) Riser Rated, Nonconductive: Type OFNR or OFNP, complying with UL 1666.
(g) Provide with central non-conductive strength member.
(h) Individual fiber strands shall be color coded per telecommunications industry practice.
(i) Number of strands in cable shall be as noted on Drawings
(j) Fiber strands shall meet the following specifications:
(k) Fiber Type - Single-mode, glass core, glass cladding
(l) Core Diameter - 8.0 to 9.0 microns
(m) Core/Clad Concentricity Error- < or = 0.8 micron
(n) Cladding diameter - 125 microns +/- 1 micron.
(o) Cladding Non-circularity- < or = 1%
(p) Maximum attenuation at 1310 nanometers (nominal) 0.65 dB/km.
(q) Maximum attenuation at 1550 nanometers (nominal) 0.5 dB/km.
(r) ISO/IEC 11801 Type: OS2

Description: Single Mode, nonconductive, loose tube gel filled outside plant optical cable.

(s) Comply with ICEA S-83-596 for mechanical properties.
(t) Comply with TIA/EIA-768-B for performance specifications.
(u) Comply with ANSI/TIA/EIA-492-CAAA for detailed specifications.
(v) Listed and labeled by an NRTL
(w) Provide with central non-conductive strength member.
(x) Individual fiber strands shall be color coded per telecommunications industry practice.
(y) Number of strands in cable shall be as noted on Drawings
(z) Fiber strands shall meet the following specifications:
(aa) Fiber Type - Single-mode, glass core, glass cladding
(bb) Core Diameter - 8.0 to 9.0 microns
(cc) Core/Clad Concentricity Error- < or = 0.8 micron
(dd) Cladding diameter - 125 microns +/- 1 micron.
(ee) Cladding Noncircularity- < or = 1%
(ff) Maximum attenuation at 1310 nanometers (nominal) 0.65 dB/km.
(gg) Maximum attenuation at 1550 nanometers (nominal) 0.5 dB/km.
(hh) ISO/IEC 11801 Type: OS2

Jacket Color:

(ii) single mode - yellow
(jj) OM1 - orange
(kk) OM4 - aqua
(ll) OSP - black

Cable cordage jacket, fiber, unit, and group color shall be according to ANSI/TIA-598-C. Imprint with fiber count, fiber type, and aggregate length at regular intervals not to exceed 40 inches.
Hybrid single mode/multimode cable may be used subject to performance criteria above.

G. OPTICAL FIBER CABLE HARDWARE

Cross-Connects and Patch Panels: Modular panels housing multiple-numbered, duplex cable connectors.
Coordinate subparagraph below with Drawings for quantity of fields.
Number of Connectors per Field: One for each fiber of cable or cables assigned to field, plus spares and blank positions adequate to suit specified expansion criteria.
Cable Connecting Hardware:

Comply with Optical Fiber Connector Intermateability Standards (FOCIS) specifications of TIA/EIA-604-2, TIA/EIA-604-3-A, and TIA/EIA-604-12. Comply with ANSI/TIA-568-C.3.
Quick-connect, Type LC.

H. UTP HORIZONTAL CABLE

Description: 100-ohm, 4-pair Unshielded UTP, covered with a thermoplastic jacket.
Comply with ICEA S-90-661 for mechanical properties.
Comply with ANSI/TIA-568-C.1 for performance specifications.
Comply with ANSI/TIA-568-C.2 Category 6 up to 500 MHz.
Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types:

(a) Communications, General Purpose: Type CM or CMG.
(b) Communications, Riser Rated: Type CMR or CMP where installed in environmental air spaces.

I. UTP HORIZONTAL CABLE HARDWARE

General Requirements for Cable Connecting Hardware: Comply with ANSI/EIA-568-C.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher.
Connecting Blocks: Shielded modular jack to be compatible with cabling system. Provide blocks for the number of cables terminated on the block, plus 25 percent spare. Integral with connector bodies, including plugs and jacks where indicated.
Patch Panel: Modular panels housing 48 modular snap-in jack units.
Patch panels shall be angled style.
Number of Jacks per Field: One for each four-pair UTP cable indicated, plus spares and blank positions adequate to suit specified expansion criteria.
Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals.

J. TELECOMMUNICATIONS OUTLET/CONNECTORS

Jacks: Category 6 100-ohm, unshielded balanced, twisted-pair connector; four-pair, eight-position modular. Comply with ANSI/TIA-568-C.2 up to 500 MHz.
Workstation Outlets: Connector assemblies mounted in one or two gang faceplate. Provide number of ports as shown on the Drawings.
Plastic Faceplate: High-impact plastic. Coordinate color with Division 26 Section "Wiring Devices and Plates."
For use with snap-in jacks accommodating any combination of UTP, optical fiber, and coaxial work area cords.

(a) Flush mounting jacks, positioning the cord at a 45-degree angle.

Legend: Snap-in, clear-label covers and machine-printed paper inserts.

K. GROUNDING

Comply with requirements in Division 26 Section "Grounding and Bonding" for grounding conductors and connectors.
Comply with ANSI -607-C.
Communications Ground bar.
Connectors: Mechanical type, cast silicon bronze, solderless compression-type wire terminals, and long-barrel, two-bolt connection to ground bus bar.
Ground Bus Bar: Copper, minimum 1/4 inch thick by 4 inches wide with 9/32-inch holes spaced 1-1/8 inches apart.
Stand-Off Insulators: Comply with UL 891 for use in switchboards, 600V. Lexan or PVC, impulse tested at 5000 V.

L. LABELING

Comply with TIA/EIA-606-B, UL 969 and UKIT requirements for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.

3. EXECUTION

A. WIRING METHODS

Wiring Method: Install cables completely within raceways and cable trays. Conceal raceway except in unfinished spaces.

Complete with requirements for raceways and boxes specified in Division 26 Sections "Raceway and Fittings for Electrical Systems" and "Cabinets, Outlet Boxes, and Pull Boxes for Electrical Systems".

Wiring within Enclosures: Bundle, lace, and train cables within enclosures. Connect to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.

B. INSTALLATION OF PATHWAYS

Cable Trays: Comply with NEMA VE 2 and ANSI/TIA-569-C.

Comply with requirements of Section 260533 "Raceways & Fittings", Section 260543 "Underground Ducts and Raceways for Electrical Systems" and Section 270535 "Cable Trays for Communication Systems".

Comply with ANSI/TIA-569-C for pull-box sizing and length of conduit and number of bends between pull points.

Install manufactured conduit sweeps and long-radius elbows whenever possible.

All cable tray is to be mounted using a trapeze method with allthread rods and unistrut. Fasten allthread to ceiling anchors, allowing no bends in allthread. Support the cable tray in this manner at every section-to-section junction and at five (5) foot to six (6) foot intervals (mid span) between joints. In no case shall the tray be closer than eighteen (18) inches from the structural ceiling, ducts or pipes, considering all other possible obstructions. A minimum of two (2) feet distance from lighting, especially fluorescent lighting, is required. Supports for cable tray that is less than 12 inches wide may be farther apart but must meet or exceed the manufacturer's installation requirements. A single support per section length is not acceptable.

Maintain a 12" clearance above the cable tray in reference to other utilities in the building. maintain a minimum of 24" along one the side of the tray to allow access from below the tray. Cable trays must be a minimum of six (6) inches above the ceiling and a minimum of eight (8) feet AFF. Cable trays will be the first utility above the ceiling.

Where cable trays penetrate walls provide for smooth sealed edges on all four sides of wall. This is necessary to properly firestop all edges.

A pull string shall be installed in all conduits, including those with cables installed. String shall be securely tied off at both ends.

Provide all conduits with connector and insulated bushing at their termination point. Outlet conduit shall be run continuous from the outlet box to the nearest cable tray. Open air cabling is not acceptable.

Pathway Installation in Communications Equipment Rooms:

(a) Position conduit ends adjacent to a corner on backboard where a single piece of plywood is installed, or in the corner of room where multiple sheets of plywood are installed around perimeter walls of room.
(b) Install cable trays complete around room as shown on drawings. Install cable ladder directly on top of racks and connect to perimeter tray. Refer to drawings for elevation.
(c) Secure conduits to backboard when entering room from overhead.
(d) Extend conduit and sleeves 4 inches above finished floor and/or 18" below ceiling structure.
(e) Install metal conduit and sleeves with grounding bushings and connect with grounding conductor to grounding bar.
(f) Backboards: Install backboards with 96-inch dimension vertical. Butt adjacent sheets tightly, and form smooth gap-free corners and joints. Provide on all walls.

C. INSTALLATION OF CABLES

Comply with NECA 1.
General Requirements for Cabling:

(a) Comply with ANSI/TIA-568-C.1.
(b) Comply with BICSI ITSIM, Ch. 6, "Cable Termination Practices."
(c) Install 110-style IDC termination hardware for backbone cable and modular jacks for horizontal cable.
(d) Terminate all conductors; no cable shall contain unterminated elements. Make terminations only at indicated outlets, terminals, cross-connects, and patch panels.
(e) Cables may not be spliced.
(f) Install lacing bars to restrain cables, to prevent straining connections, and to prevent bending cables to smaller radii than minimums recommended by manufacturer.
(g) Bundle, lace, and train conductors to terminal points without exceeding manufacturer's limitations on bending radii, but not less than radii specified in BICSI ITSIM, "Cabling Termination Practices" Chapter. Use lacing bars and distribution spools.
(h) Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between termination, tap, or junction points. Remove and discard cable if damaged during installation and replace it with new cable.
(i) All fiber optic backbone cabling shall be installed within UL 2024 listed 1” orange innerduct placed in conduit or cable tray. Plenum rated innerduct shall be used where the installation is located in an environmental air space.
(j) Cold-Weather Installation: Bring cable to room temperature before de-reeling. Heat guns shall not be used for heating.
(k) In the communications equipment room, install a 30-foot long service loop on each end of fiber optic cable. Copper cables shall take the longest path around the room prior to landing on racks.
(l) Pulling Cable: Comply with BICSI ITSIM, Ch. 4, "Pulling Cable." Monitor cable pull tensions.

UTP Cable Installation:

(m) Comply with ANSI/TIA-568-C.2.
(n) Do not untwist UTP cables more than 1/2 inch from the point of termination to maintain cable geometry.
(o) Group connecting hardware for cables into separate logical fields.

D. SEPARATION FROM EMI SOURCES

Comply with BICSI TDMM and ANSI/TIA-598-C recommendations for separating unshielded copper voice and data communication cable from potential EMI sources, including electrical power lines and equipment.
Separation between open communications cables or cables in nonmetallic raceways and unshielded power conductors and electrical equipment shall be as follows:

(a) Electrical Equipment Rating Less Than 2 kVA: minimum of 5 inches.
(b) Electrical Equipment Rating between 2 and 5 kVA: minimum of 12 inches.
(c) Electrical Equipment Rating More Than 5 kVA: minimum of 24 inches.

Separation between communications cables in grounded metallic raceways and unshielded power lines or electrical equipment shall be as follows:

(d) Electrical Equipment Rating Less Than 2 kVA: minimum of 2-1/2 inches.
(e) Electrical Equipment Rating between 2 and 5 kVA: minimum of 6 inches.
(f) Electrical Equipment Rating More Than 5 kVA: minimum of 12 inches.

Separation between communications cables in grounded metallic raceways and power lines and electrical equipment located in grounded metallic conduits or enclosures shall be as follows:

(g) Electrical Equipment Rating Less Than 2 kVA: No requirement.
(h) Electrical Equipment Rating between 2 and 5 kVA: minimum of 3 inches.

(i) Electrical Equipment Rating More Than 5 kVA: minimum of 6 inches.

Separation between Communications Cables and Electrical Motors and Transformers, HP and Larger: A minimum of 48 inches.
Separation between Communications Cables and Fluorescent Fixtures: A minimum of 12 inches.

E. FIRESTOPPING

Comply with requirements in Division 07 Section "Penetration Firestopping."
Comply with ANSI/TIA-569-C, Annex A, "Firestopping."
Comply with BICSI TDMM, "Firestopping Systems" Article.

F. GROUNDING

Install grounding according to BICSI TDMM, "Grounding, Bonding, and Electrical Protection" Chapter and Division 27 section "Grounding and Bonding for Communication Systems". Refer to the drawings for interconnections and cable sizes.
Comply with ANSI-607-C.
Bond metallic equipment to the grounding bus bar, using not smaller than #6 AWG equipment grounding conductor.
Bond the shield of shielded cable to the grounding bus bar in communications rooms and spaces.

G. IDENTIFICATION

Identify system components, wiring, and cabling complying with ANSI/TIA-606-B. The identification scheme shall be provided by the owner prior to any labeling or testing.
Comply with requirements in Division 09 Section "Interior Painting" for painting backboards. For fire-resistant plywood, do not paint over manufacturer's label.
Cable Schedule: Post in prominent location in each equipment room and wiring closet. List incoming and outgoing cables and their designations, origins, and destinations. Protect with rigid frame and clear plastic cover. Furnish an electronic copy of final comprehensive schedules for Project.
Cabling Administration Drawings: Show building floor plans with cabling administration-point labeling. Identify labeling convention and show labels for telecommunications closets, backbone pathways and cables, entrance pathways and cables, terminal hardware and positions, horizontal cables, work areas and workstation terminal positions, grounding buses and pathways, and equipment grounding conductors. Follow convention of ANSI/TIA-606-B. Furnish electronic record of all drawings, in software and format selected by Owner.
Cable and Wire Identification:

(a) Label each cable within 4 inches of each termination and tap, where it is accessible in a cabinet or junction or outlet box, and elsewhere as indicated. At a minimum, both ends of all cables are to be labelled.
(b) Label each terminal strip and screw terminal in each cabinet, rack, or panel.
(c) Individually number wiring conductors connected to terminal strips, and identify each cable or wiring group being extended from a panel or cabinet to a building-mounted device shall be identified with name and number of particular device as shown.
(d) Label each unit and field within distribution racks and frames.

Identification within Connector Fields in Equipment Rooms and Wiring Closets: Label each connector and each discrete unit of cable-terminating and connecting hardware. Where similar jacks and plugs are used for both voice and data communication cabling, use a different color for jacks and plugs of each service.
Both ends of all backbone cable shall be labeled. Labels will be self laminating and machine generated. The label shall contain the following information:

(e) The Origination (TR it is feeding from).
(f) The Destination (TR it is feeding).

(g) Number of pairs or fibers
(h) The cable, workstation faceplate, panel ports and block positions shall be labeled with the room number, location in room, outlet type & # (data D1, D2, etc). In rooms with multiple outlets, label clockwise as you enter the room: 1, 2, 3 e.g. a data port at the first drop location to the left of Room 216 door would be (216-1 D1). When terminating workstation cables in the TR, organize and label the cables in numeric room number order at the patch panel.

UKIT will approve all labeling schematics prior to installation. "As-Built" drawing with all outlets identified shall be provided.
Labels shall be self-laminating or computer-printed type with printing area and font color that contrasts with cable jacket color. Handwritten labels will not be acceptable.
Cables must use labels of flexible vinyl or polyester that flex as cables are bent.

H. FIELD QUALITY CONTROL

Perform tests and inspections.
Tests and Inspections:
Visually inspect UTP and optical fiber cable jacket materials for NRTL certification markings. Inspect cabling terminations in communications equipment rooms for compliance with color-coding for pin assignments, and inspect cabling connections for compliance with ANSI/TIA-568-C.1.
Visually confirm Category marking of outlets, cover plates, outlet/connectors, and patch panels.
Visually inspect cable placement, cable termination, grounding and bonding, equipment and labeling of all components.
Test UTP backbone copper cabling for DC loop resistance, shorts, opens, intermittent faults, and polarity between conductors. Test operation of shorting bars in connection blocks. Test cables after termination but not cross-connection.

(a) Test instruments shall meet or exceed applicable requirements in ANSI/TIA-568-C.2. Perform tests with a tester that complies with performance requirements in "Test Instruments (Normative)" Annex, complying with measurement accuracy specified in "Measurement Accuracy (Informative)" Annex. Use only test cords and adapters that are qualified by test equipment manufacturer for channel or link test configuration.

I. UTP PERFORMANCE TESTS

Test for each outlet. Perform the following tests according to ANSI/TIA-568-C.1 and ANSI/TIA-568-C.2:

(a) Wire map.
(b) Length (physical vs. electrical, and length requirements).
(c) Insertion loss.
(d) Near-end crosstalk (NEXT) loss.
(e) Power sum near-end crosstalk (PSNEXT) loss.
(f) Equal-level far-end crosstalk (ELFEXT).
(g) Power sum equal-level far-end crosstalk (PSELFEXT).
(h) Return loss.
(i) Propagation delay.
(j) Delay skew.

Final Verification Tests: Perform verification tests for UTP, systems after the complete communications cabling and workstation outlet/connectors are installed.

(k) Data Tests: These tests assume the Information Technology Staff has a network installed and is available to assist with testing. Connect to the network interface device at the demarcation point. Log onto the network to ensure proper connection to the network.

Document data for each measurement. Data for submittals shall be printed in a summary report that is formatted similar to Table 10.1 in BICSI TDMM, or transferred from the instrument to the computer, saved as text files, and printed and submitted.

If the cable or termination fails to meet the above requirements, it shall be replaced by the contractor at the contractor's expense.

Prepare test and inspection reports documenting compliance with all requirements of these specifications. Provide three (3) printed copies and two (2) compact disks of all data.

APPENDIX A

Approved Manufacturers

Horizontal Cabling
Amp
General Cable Corp.

Horizontal Termination Hardware
Amp

Copper Backbone Cabling
General Cable Corp.
Superior Essex

Optical Fiber Cabling and Termination Hardware
Corning Cable Systems

Telecommunications Room Racks
Legrand
Ortronics
Middle Atlantic
Tripp Lite

Cable Tray
Monosystems or equivalent

Surface Raceway
Wiremold

Protection
AT&T
Marconi

APPENDIX B

Parts Listing

Horizontal Cabling		
Cat 6 Unshielded, Blue (refer to color), Plenum	Commscope SYSTIMAX X10D	2091SDB BLU C6 4/23 U/UTP
Horizontal Termination Hardware		
6 Port Faceplate	Commscope	FP-LBL-6P-XXX
4 Port Faceplate	Commscope	FP-LBL-4P-XXX
2 Port Faceplate	Commscope	FP-LBL-2P-XXX
Cat 6 Modular Jack, Unshielded, Blue (Faceplate and Patch Panel)	Commscope	USL10G-BL
Blank Inserts	Commscope	1116412-X
48 Port Unshielded Angled Patch Panel	Commscope	CPPA-UDDM-SL-2U-48
Cat 6 U/UTP Reduced Diameter Patch Cable	Commscope	CO199K2-XXFXXX
Horizontal Cable Mgmt Panel 2U	Ortronics	60400057
Rack Mount 100 Pr 110 Block	Commscope	558635-1
X = coordinate color of faceplates and blanks (both same color) with the end user and electrical faceplates (if not stainless steel).		
Copper Backbone Cabling		
100 pr UTP Riser Cable	General Cable	2133144
25 pr UTP Riser Cable	General Cable	2133033
900 pr OSP Armored 24 AWG	General Cable	7525876
600 pr OSP Armored 24 AWG	General Cable	7525868
300 pr OSP Armored 24 AWG	General Cable	7525843
25 pr OSP Armored 24 AWG	General Cable	7525785
Optical Fiber Cabling and Termination Hardware		
24 Strand OFNR Fiber Cable SM	Corning Cable Systems	024E81-33131-24
24 Strand OFNR Fiber Cable 62.5 MM	Corning Cable Systems	024K81-33130-24
24 Strand OFNR Fiber Cable OM4 MM	Corning Cable Systems	024T81-33190-24
12 Strand OFNR Fiber Cable SM	Corning Cable Systems	012E81-33131-24
12 Strand OFNR Fiber Cable 62.5 MM	Corning Cable Systems	012K81-33130-24

12 Strand OFNR Fiber Cable OM3 MM	Corning Cable Systems	012T81-33190-24
6 Strand OFNR Cable MM	Corning Cable Systems	006K81-31130-24
Outdoor Hybrid Fiber 48MM/48SM	Corning Cable Systems	096XU4-XXXXXD20
Outdoor Hybrid Fiber 24MM/24SM	Corning Cable Systems	048XU4-XXXXXD20
Outdoor Hybrid Fiber 12MM/12SM	Corning Cable Systems	024XU4-XXXXXD20
Outdoor Hybrid Fiber 6MM/6SM	Corning Cable Systems	012XU4-XXXXXD20
1” Innerduct (orange) – not required if armored fiber is installed		
Fiber Connector Housing	Corning Cable Systems	CCH-04U
Fiber Connector Housing	Corning Cable Systems	CCH-02U
Pigtailed Splice Cassette SM LC	Corning Cable Systems	CCH-CSXX-A9-P00RE
Pigtailed Splice Cassette OM1 LC	Corning Cable Systems	CCH-CSXX-A8-P00KE
Pigtailed Splice Cassette OM4 LC	Corning Cable Systems	CCH-CSXX-E4-P00QE

Telecommunications Room Racks

7' floor rack	Legrand	OR-MM20716-B
Vertical Wire Manager 6.5”	Legrand	OR-MM20VMD706-B
Vertical Wire Manager 10.5”	Legrand	OR-MM20VMD710-B

Telecommunications Room Ladder Runway

Black 12”	CPI	10250-712
Black 18”	CPI	10250-718

Cable Tray

4” Deep Aluminum Ladder Style Cable Tray	6” rung spacing
Horizontal Elbows, Vertical Risers, Tees	
Radius Drop Out	
Connection components	

Protection

Terminal Protection Block 100 pr	CircaMax	1880ECA1-XX
Solid State Protector Modules	CircaMax	4B1S-300

Coaxial Cable

Horizontal RG-6	Belden	1189A

F Connector	Belden	FSNS6U

END OF SECTION 27 0610

SECTION 28 1600 - SECURITY INTRUSION DETECTION SYSTEM

1. GENERAL

Each Contractor's attention is directed to General Provisions, and all other contract documents as they may apply to his work.

A. General Requirements

(1) The Security System shall include all items, articles, materials, necessary for a complete system, including all labor, materials, cabling, equipment and incidentals necessary and required for a complete and operating security system.

(2) This contract includes consulting with the Owner as needed to coordinate receiving services, to allow proper connections to any new or existing monitoring service the Owner wishes to use. Verify these services prior to bid and include any connection costs and the first year's monitoring fee in this contract.

(3) Network communication to the local security service will be furnished and installed by Contractor. Provide all needed equipment, network lines and one year of service in this contract.

(4) All software programming will be done by Contractor. Each device shall be configured as an individual zone to the panel.

(5) Wiring charts will be provided by Contractor as to what sensor will be wired to what channel, to suit Owner's requirements.

(6) All labeling of the LED displays and control panels will be by Contractor.

(7) Extent of Intrusion-Detection security system work is indicated by drawings and schedules. This system will consist of PIR motion detectors in main movement corridors, remote arm/disarm keypads, remote annunciator/control panel, point I.D. transponders, alarm sirens, and data gathering control panel.

(8) Provide software applications for security system, capable of detecting and transmitting security breach by means of cables to data gathering panel for processing and response by panel and distribution to the remote annunciator and sirens as required, as well as off-site notification to the monitoring service as requested by the Owner.

(9) Work of this section includes wires/cables, raceways, electrical boxes and fittings, as specified in other sections of these specifications.

2. SCOPE OF THE WORK

A. The Contractor shall provide the necessary labor, materials, services and coordination with the Owner and equipment supplier to provide the complete security system indicated on the plans and specified herein. The work shall include, but is not necessarily limited to:

(1) All necessary conduit, panels, boxes, power connections, etc., as required.

(2) Cover plates, cabling, testing, terminations, adjustment of devices to ensure adequate coverage patterns.

(3) The Contractor shall insure that all work is scheduled and accomplished on a timely basis so as not to delay any other parts of the construction.

(4) Warranty on complete system, unconditional, for a period of one year from final acceptance of the installation.

3. INSTALLATION

A. The Contractor shall provide all instruments, wiring, lightning surge suppression on incoming lines and connections required for the security system.

B. The Contractor shall install conduit system as shown on plans. Contractor shall provide power connections to security devices as required. Security cables may be installed in cable tray systems where possible, and if properly rated for open tray installation in plenum areas.

C. Cabling

(1) A complete cabling system shall be furnished and installed, which shall adhere to the highest workmanlike standard of quality and appearance.

(2) All cabling shall be concealed, run in conduit from flush-mounted device outlet box to system, then home to control units thru cable tray or routed to control locations in approved conduit.

(3) Cabling may be installed outside of raceway only thru cable tray, provided it meets all N.E.C., local, state and federal fire code's and it is concealed above accessible ceilings, using plenum rated cable.

(4) Wire/cable manufacturers shall be Belden, West Penn, Alpha or approved equivalent.

(5) All cabling shall be stranded - No solid conductors will be accepted. All cabling shall be 100% shielded with appropriate drain wire and insulation.

(6) All cable connections shall be continuous run (including shield) whenever possible. Any junctions of cable conductors or shield shall be made in a metal enclosure, soldered and taped. No mechanical connections will be accepted. The size of cabling shall be a minimum of 22 gauge. All cables will be labeled (on both ends and at each junction) as to the area served with a permanent type of labeling system.

D. Electrical Wiring System

(1) Power for control panel(s) shall be fed from a circuit or circuits from an electrical distribution panel and shall not be taken from receptacles, lighting, or equipment circuits. The circuit(s) within the electrical distribution panels shall be marked "Security System," taken from the indicated 120V power panel in the building, on dedicated circuit(s).

E. Equipment

(1) Manufacturers

In order to set minimum standard of quality, operation and features/options a product brand is named. The manufacturer DMP Aqualite Series 7060 DMPW is specified. Submittals must contain full engineering data, operators manual, list of differences from the specified system, list of existing systems in operation. Any approved systems shall be equivalent in every feature to

the specified system whether or not specifically called for herein. Subject to compliance with requirements, provide security system products of one of the following (for each type of product):

a. Alternate Security System Manufacturers:

DMP, Ademco, Simplex

(2) Intrusion Detection Security Systems

a. General: Provide security system, of types, sizes, capacities and electrical characteristics indicated, consisting of addressable PIR motion detectors, remote arm/disarm keypad with remote annunciators, data gathering panel as required, connection to Owner's required off-site monitoring service, alarm sirens, signal transmission lines, and other components as required for complete installation. Except as otherwise indicated, provide manufacturer's standard security system components as indicated by published product information, designed and constructed as recommended by manufacturer. Provide security systems with following functional and construction features as indicated.

b. System Control Panel: DMP Aqualite Series 7060 DMPW with built in digital communicator, 12vdc 6.0 gel cell back up battery rechargeable, auxiliary power output of 12vdc 700 mA, with circuits that are thermal breaker protected. System shall be furnished with 64 alarm receiving zones active. System shall allow customized zone descriptions. These descriptions shall be chosen from a library of words. The display shall be backlit for easy viewing in the dark. The system shall be capable of downloading via modem or programmed from the keypad. Qualified service representatives shall perform the programming of the system via modem. The system shall be capable of supporting wireless, hardwired and multiplexed alarm zones. The system shall be capable of up to 8 partitions as required, with up to 128 user codes, with ability to log 224 events. The system shall contain loop module as required to support the multiplex cable system with end of line supervisory resistors as required. Supplier shall utilize a RPM programmer for all points in the system that do not utilize a DIP switch. Further, the system shall contain polling loop extender as required for long cable runs to support data transmission and reception.

c. Point I.D. Transponder: Shall be Remote Point Module with all zones supervised via end of line resistors.

d. Group I.D. Transponder: Shall be 8-point Remote Point Module with all zones supervised via end of line resistors.

e. Passive Infrared Motion Detectors: Shall be DMP Quad Zone Passive Infrared Motion Detector, complete with built in RPM. This unit shall contain two twin element pyroelectric detectors and two sets of electronics to minimize false alarms. This unit shall be programmed by the RPM. These units shall be active and require power from the data gathering panel.

f. Alarm Sirens: Furnish as shown on the project drawings. Alarm sirens shall be DMP High intensity sounder mounted in heavy gauge steel enclosure, with tamper proof switches. Note that this unit shall have conduit installed from the data gathering panel to the Siren enclosure and be grounded according to code requirements. Siren shall require no more than 60mA @ 6 volts DC to emit a high frequency, piercing sound. Zone sirens into the area zone configuration.

g. Sounding Devices/Sirens: Shall be self contained siren with a 95dB output at 12vdc.

(3) Security System Cabling And Accessories

a. Alarm Cable: Furnish and install cable as shown on the project drawings and required by local code requirements and the equipment manufacturer. The field cable shall be twisted pair minimum, #16 AWG, stranded, with outside jacket, no shield. One pair to be used for data while the other shall be used for power distribution for field alarm devices. This cable shall be N.E.C. 800 and U.L. listed for use as a security cable in an air plenum space. This cable shall be provided for all system functions including, but not limited to:

1) Multiplexed alarm zones

2) Hardwired alarm zones

3) Remote arm/disarm key pad (home run to panel)

4) Remote alarm annunciator (home run to panel)

5) Alarm siren as shown on the project plans (home run to panel)

6) Main communication board

4. EXECUTION

A. Examination

(1) Examine areas and conditions under which Security system is to be installed, and correct conditions detrimental to proper completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

B. Installation Of Security Systems

(1) Install security system, including components where indicated, in accordance with equipment manufacturer's written instructions, in compliance with National Electrical Code, and with recognized industry practices, to ensure that system complies with requirements and serves intended purposes.

(2) Use care in handling, fishing and pulling-in electronic cable to avoid damage to cable and shielding. Avoid excessive and sharp bends.

(3) Install equipment properly to avoid causing mechanical stresses, twisting or misalignment of equipment being exerted by clamps, supports, and cabling.

(4) Tighten connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified on U.L. Standards 486A and B, and the National Electrical Code.

C. Grounding

(1) Provide equipment grounding connections for security system as indicated. Tighten connections to comply with tightening torques specified in U.L. lighting and standards assuring permanent

and effective grounds. Provide a dedicated isolated ground from the equipment data gathering panel to the incoming main electrical service ground.

D. Adjusting And Cleaning

(1) Set field-adjustable security system components for input voltages, current settings and frequency settings. Set the I.D. numbers for the data gathering panel and the field devices. Provide a complete patching and connection map for the system, posted at the main panel location.

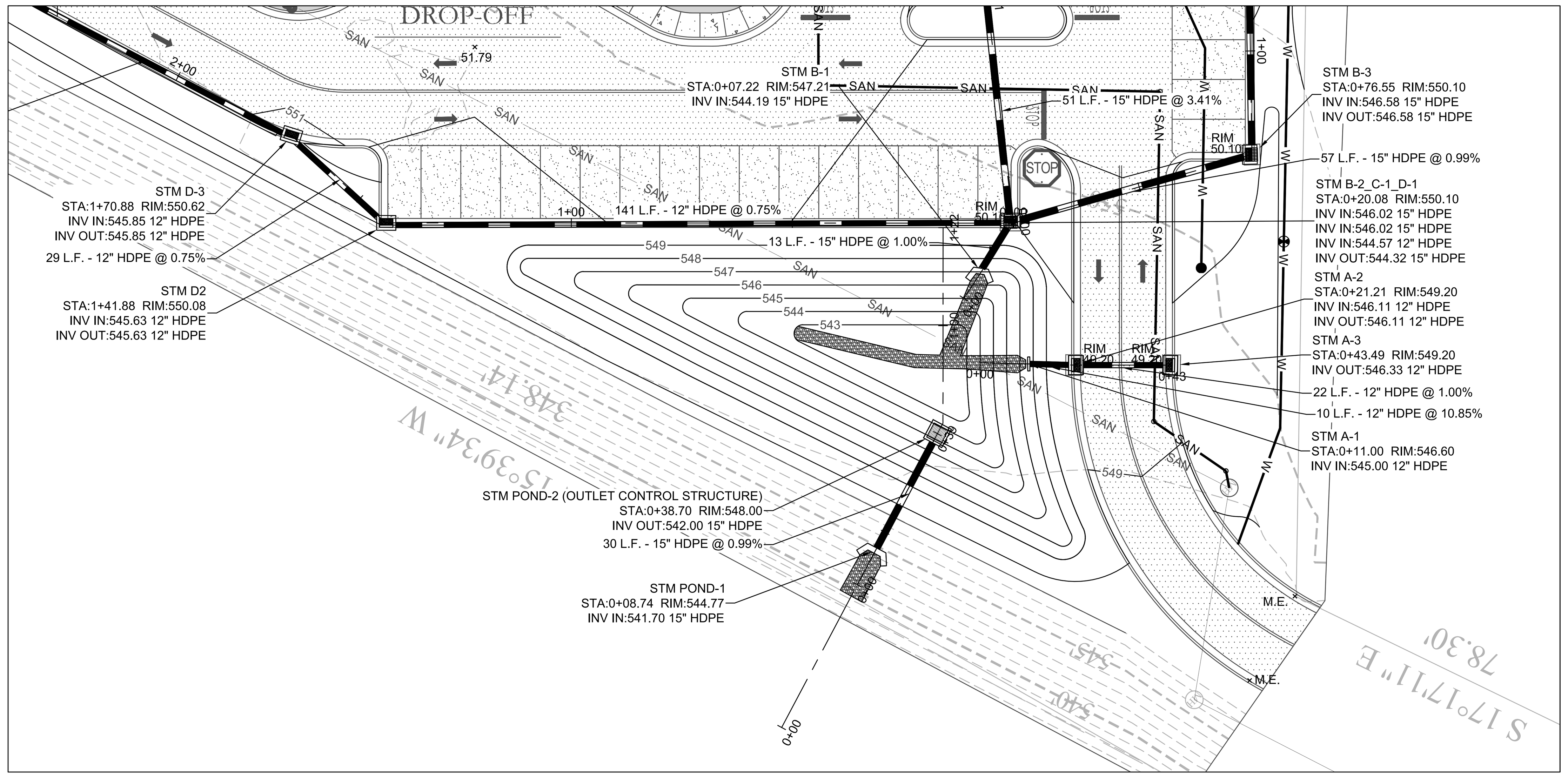
(2) Touch-up scratched and marred surfaces to match original finishes; remove dirt and construction debris.

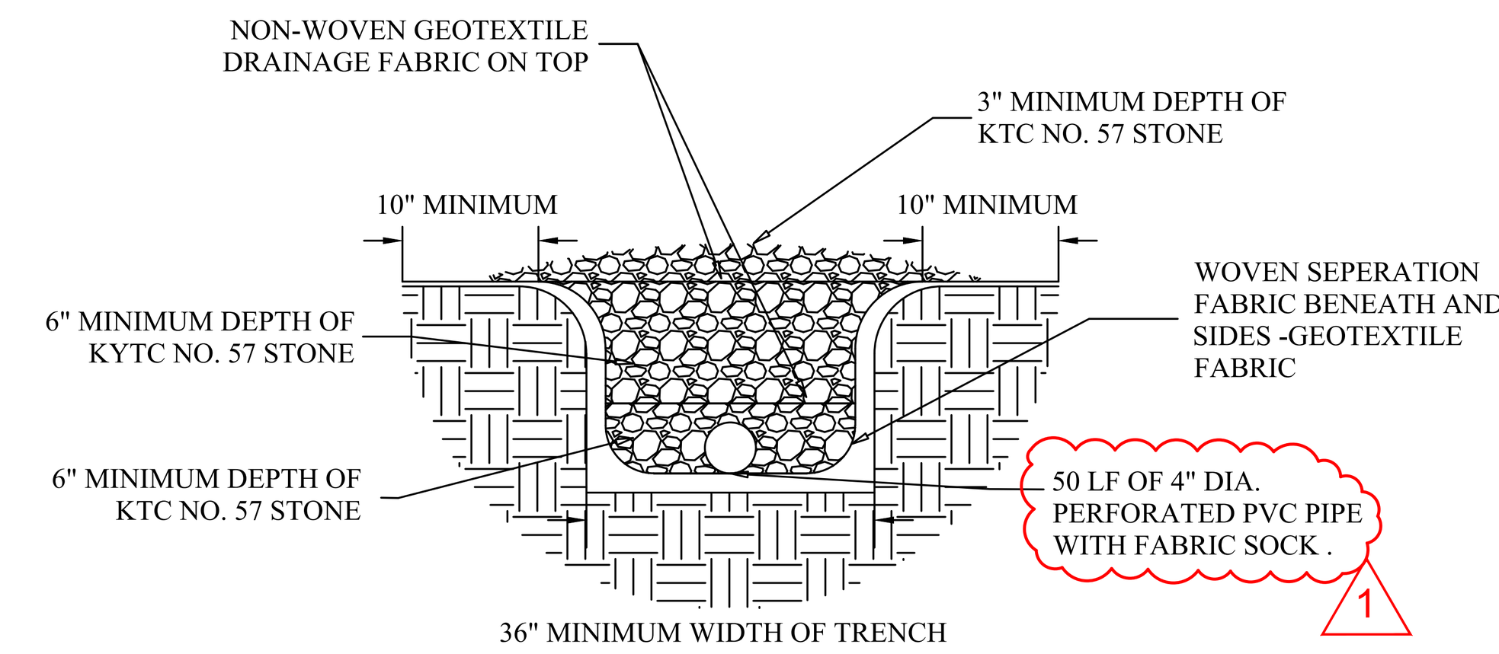
E. Demonstration

(1) Upon completion of installation of security components, and after circuitry has been energized with normal power source, test security system to demonstrate capability and compliance with requirements including, but not limited to; test the operation of each alarm device, as well as the proper annunciation of that device at the remote annunciator.

(2) Contractor shall perform in-service training for the Owner's representatives for at least six hours. Contractor shall set an appointment for this training with the Owner one week in advance. Engineer shall be similarly notified of this in service training.

END OF SECTION 28 1600





TRENCH DRAIN WITH ROCK FILTER

N.T.S.

NOTE: ROCK FILTER SHALL NOT BE INSTALLED UNTIL GRASS COVER HAS BEEN ESTABLISHED ON THE BASIN SIDES AND BOTTOM, AND ON 80% OF THE SITE. UNTIL THAT TIME THE 6" ORIFICE WILL BE DAYLIGHTED AND PROTECTED BY A ROCK CHECK DAM.

NOTES:

1. THE RISER STRUCTURE SHALL BE CONSTRUCTED WITH MINIMUM OF 3500 PSI RCP.

2. NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED AROUND EACH JOINT OF THE RCP BARREL IN 4' WIDE STRIPS CENTERED ON JOINTS.

3. THE OUTLET RISER SHALL BE A MINIMUM OF 5'X5' I.D., WITH MONOLITHIC BASE. MANHOLE JOINTS SHALL BE SECURELEY ANCHORED TOGETHER TO PREVENT SEPERATION. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF THE MANHOLE SECTION ANCHORING SYSTEM.

4. RCP ANTI-FLOTATION BLOCK SHALL BE INTEGRALLY ATTACHED TO RISER BASE TO PREVENT RISER/BLOCK SEPERATION, OR PRECAST AS THE EXTENDED BASE OF THE MANHOLE DURING FABRICATION. IF THE RCP ANTI-FLOTATION BLOCK IS CAST SEPERATE FROM THE MANHOLE ASSEMBLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING THE ANTI-FLOTATION BLOCK TO THE MANHOLE RISER ASSEMBLY. THE RCP BASE FLANGE SHALL EXTEND A MINIMUM OF 12" BEYOND THE OUTSIDE WALL OF THE RISER BASE.

5. ALL POURED RCP RCP SHALL BE MINIMUM OF 3000 PSI (28 DAY) UNLESS OTHERWISE NOTED.

6. ALL FILL SOILS FOR BERM SECTION SHALL BE CLEAN, INPERMEABLE MATERIAL AND COMPACTED TO AT LEAST 95% STANDARD PROCTOR MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT. NO BLASTED MATERIALS SHALL BE USED IN THE EMBANKMENT CONSTRUCTION. SOILS SHALL NOT EXHIBIT SIGNIFICANT SHRINK/SWELL OR DISPERSIVE CHARACTERISTICS. ON-SITE GEOTECHNICAL ENGINEER SHALL APPROVE THE SOILS FOR PLACEMENT WITHIN THE BERM SECTION. THE GEOTECHNICAL ENGINEER SHALL ALSO SPECIFY THE METHODS TO BE USED FOR PLACEMENT OF FILL. IF ADDITIONAL USES PLANNED UPON THE BERM SECTION THE GEOTECHNICAL ENGINEER SHALL SPECIFY SOILS SUITABLE FOR THAT ADDITIONAL USE.

7. IN ALL FILL AREAS OF THE BERM, SOILS COMPACTION TEST SHALL BE CONDUCTED PER REQUIREMENTS OF GEOTECHNICAL ENGINEER.

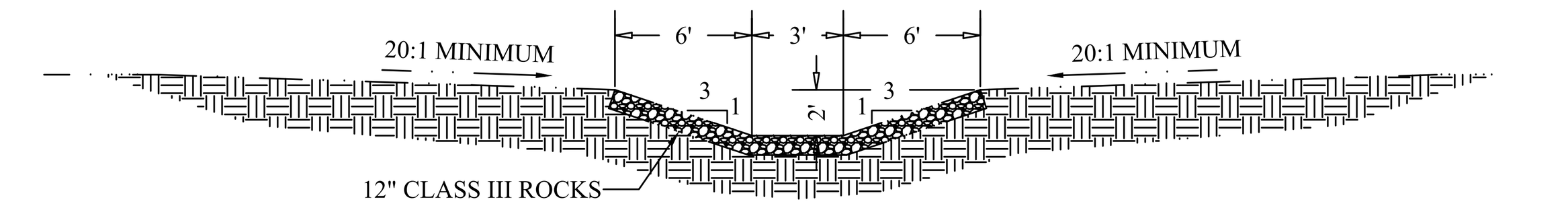
8. A KEY TRENCH IS TO BE PROVIDED IN ALL FILL AREAS. TRENCH TO EXTEND A MINIMUM OF FIVE FEET BELOW EXISTING GRADE. SOILS COMPACTION FOR KEY TRENCH SHALL MEET ALL REQUIREMENTS ABOVE.

9. NO TREES OF ANY TYPE MAY BE LOCATED ON THE BERM SECTION.

10. FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8" LIFT. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF EMBANKMENT. BEFORE PLACEMENT OF FILL FOR THE BERM SECTION, ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND THE SURFACE PROPERLY PREPARED FOR FILL PLACEMENT.

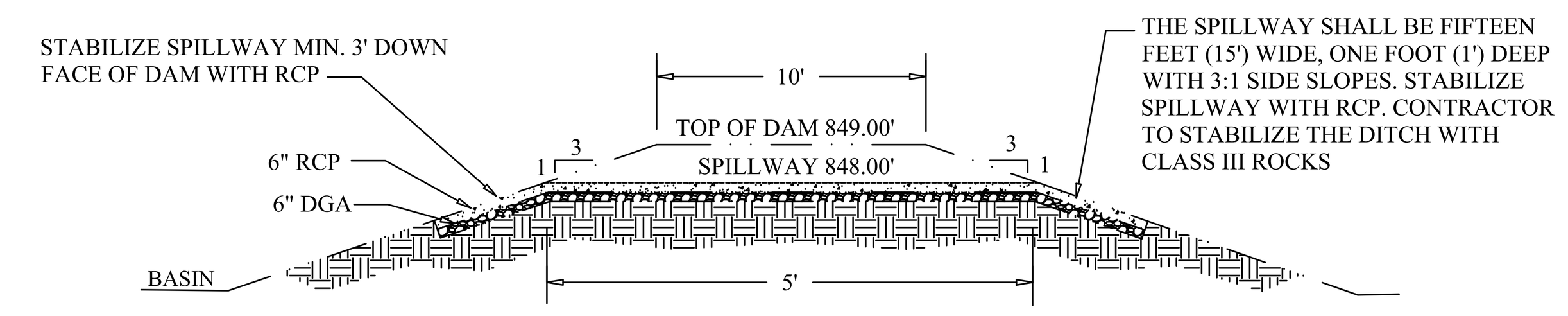
11. SLOPE SHALL BE COMPACTED AND CONSTRUCTED TO A FLATTER SLOPE (4:1 OR GREATER) AND THEN EXCESS CUT TO 3:1 PER EMBANKMENT DETAIL.

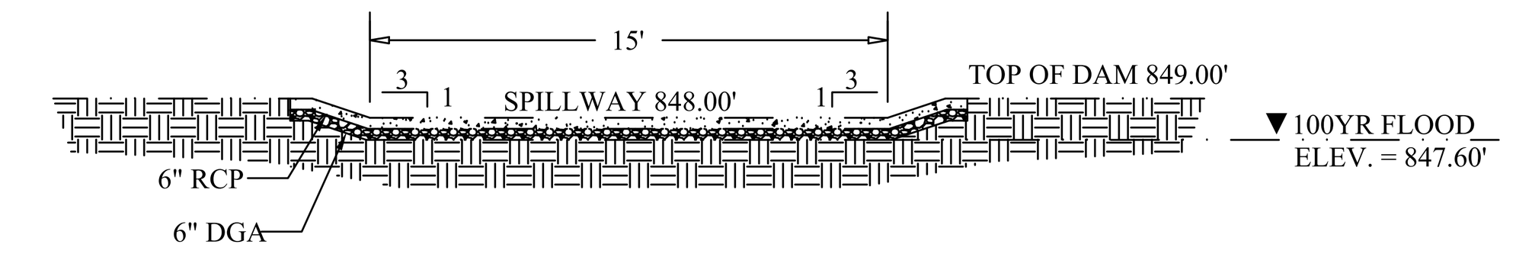
12. DETENTION BASIN TO BE PLATTED WITH ADJACENT FUTURE SINGLE FAMILY RESIDENTIAL LOTS. UNTIL THAT TIME DETENTION BASIN IS OWNED AND MAINTAINED BY ANDERSON COMMUNITIES, INC.



BASIN DITCH SECTION

N.T.S.

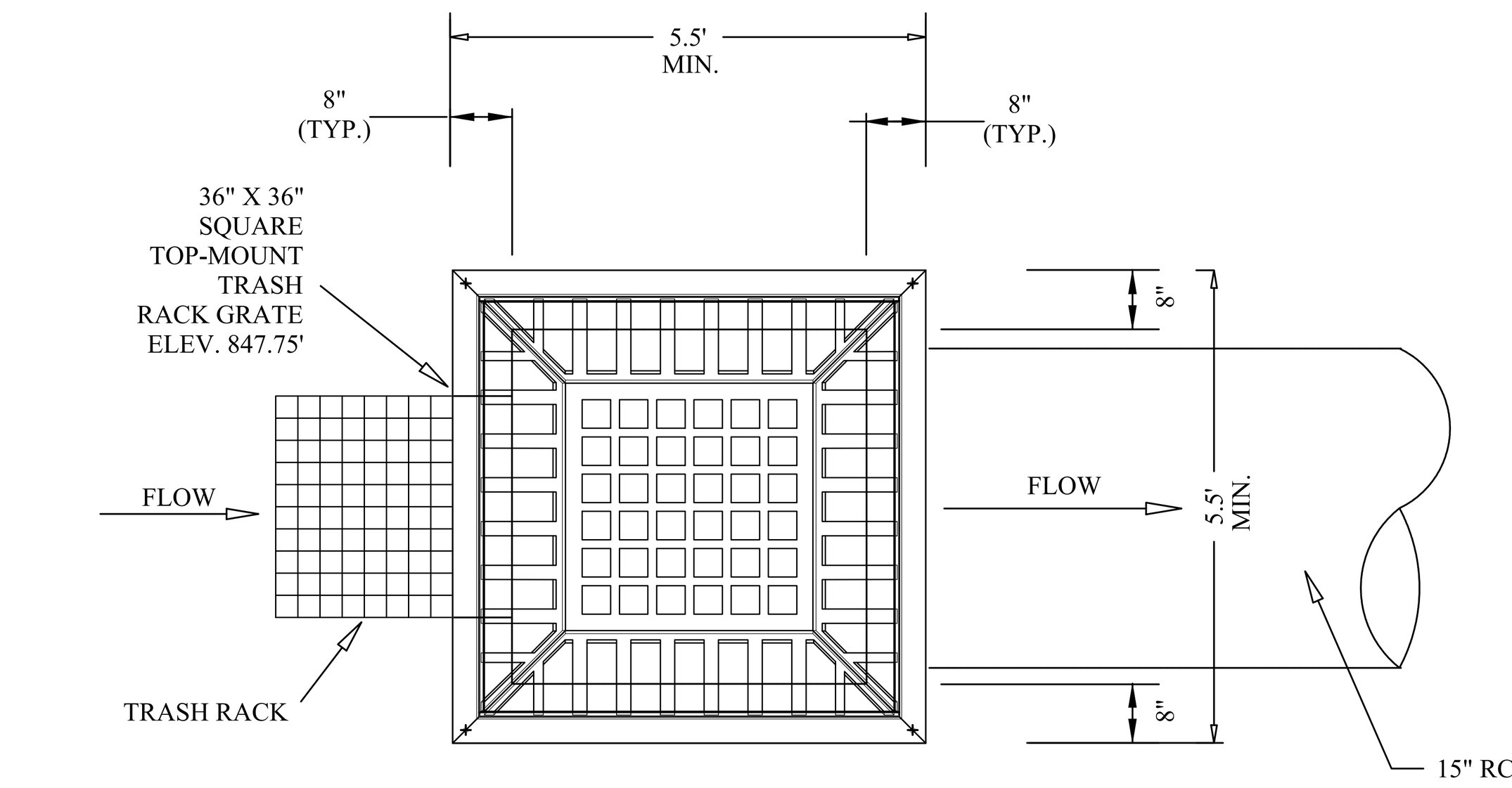




EMERGENCY SPILLWAY SECTION

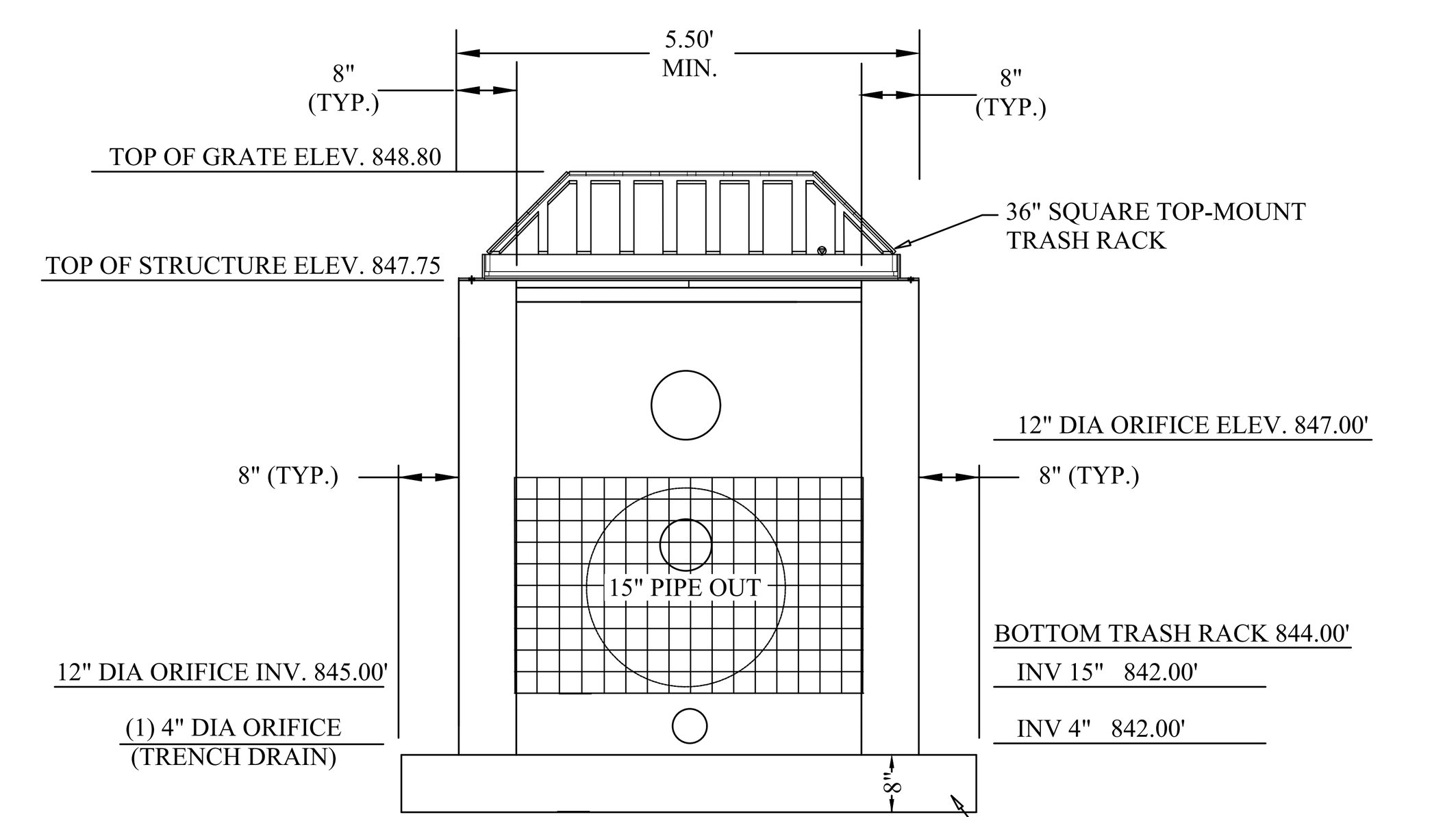
N.T.S.

DRAINAGE STRUCTURE DETAIL



PLAN VIEW

N.T.S.



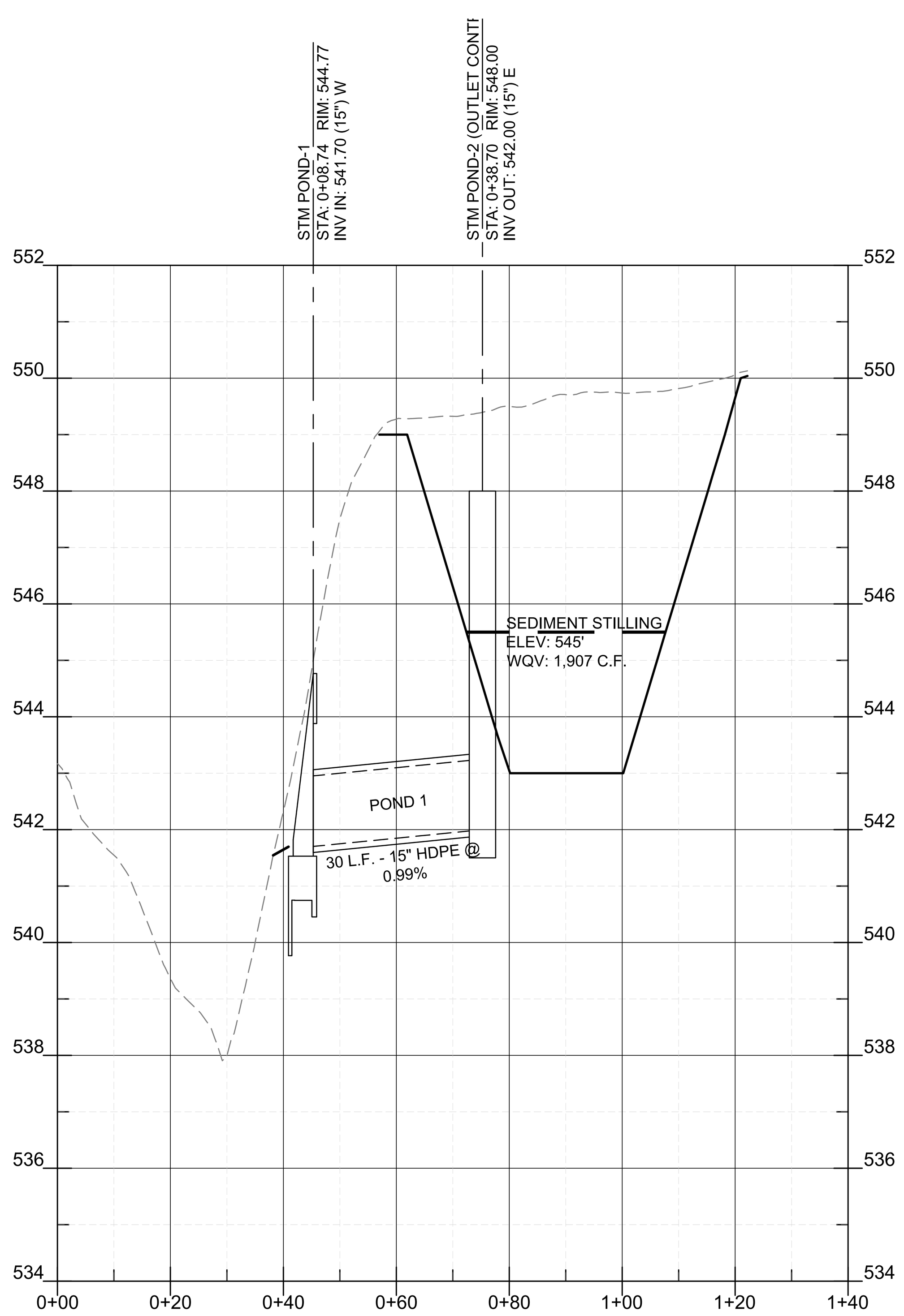
FRONT ELEVATION

N.T.S.

NOTE:

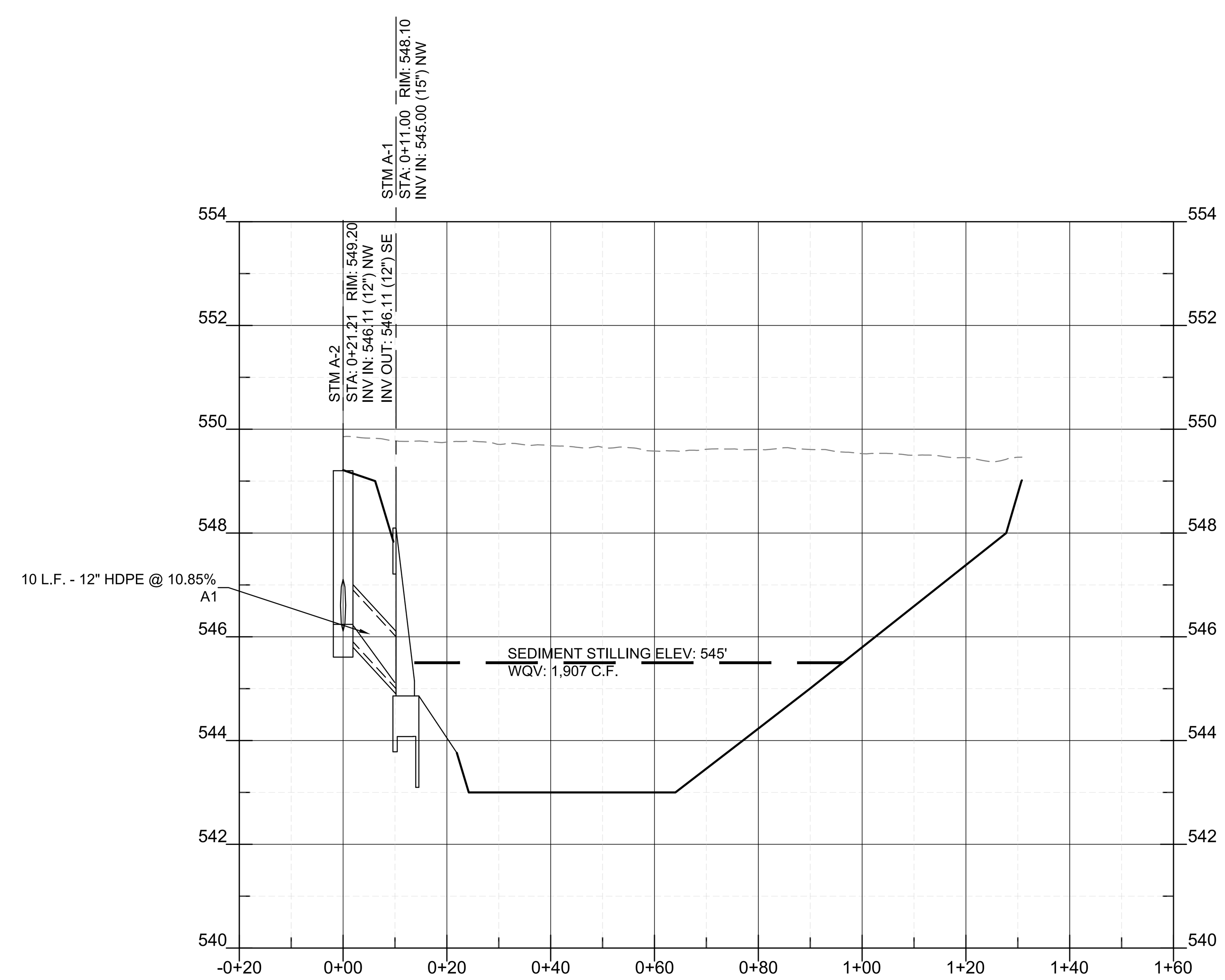
RISER BARREL OUTLET PIPE SHALL BE INSTALLED PRIOR TO THE BEGINNING OF OVERALL SITE GRADING AND SHALL BE UTILIZED AS A SEDIMENT CONTROL DEVICE DURING CONSTRUCTION. ONCE SITE HAS BEEN STABILIZED AND GRADING IS COMPLETED THE BASIN SHALL BE CLEANED OUT AND STABILIZED.

FLANGE BASE ANTI-FLOATATION BLOCK. EXTEND 12" BEYOND OUTSIDE WALL OF DRAINAGE STRUCTURE.



POND SECTION PROFILE

SCALE H:1"=20'; V:1"=2'



POND SECTION 2 PROFILE

SCALE H:1"=20'; V:1"=2'

BURIED UTILITIES NOTE

BURIED UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATION BASED UPON INFORMATION OBTAINED FROM UTILITY COMPANIES AND FIELD EVIDENCE. OTHER BURIED UTILITIES MIGHT EXIST ON THE SUBJECT SITE WHICH ARE NOT SHOWN ON THIS DRAWING. USE EXTREME CAUTION DURING EXCAVATION PROCEDURES AND CONTACT B.U.D. @ # 811 FOR EXACT LOCATION OF BURIED FACILITIES PRIOR TO EXCAVATION OPERATIONS.

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p. 502.489.4221

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301 East Vine Street
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CONSTRUCTION DOCUMENTS

UK KDMC GREENUP MOB

UNIVERSITY OF KENTUCKY KING'S DAUGHTERS MEDICAL CENTER
1448 SEATON AVENUE, GREENUP, KENTUCKY

King's Daughters

SITE

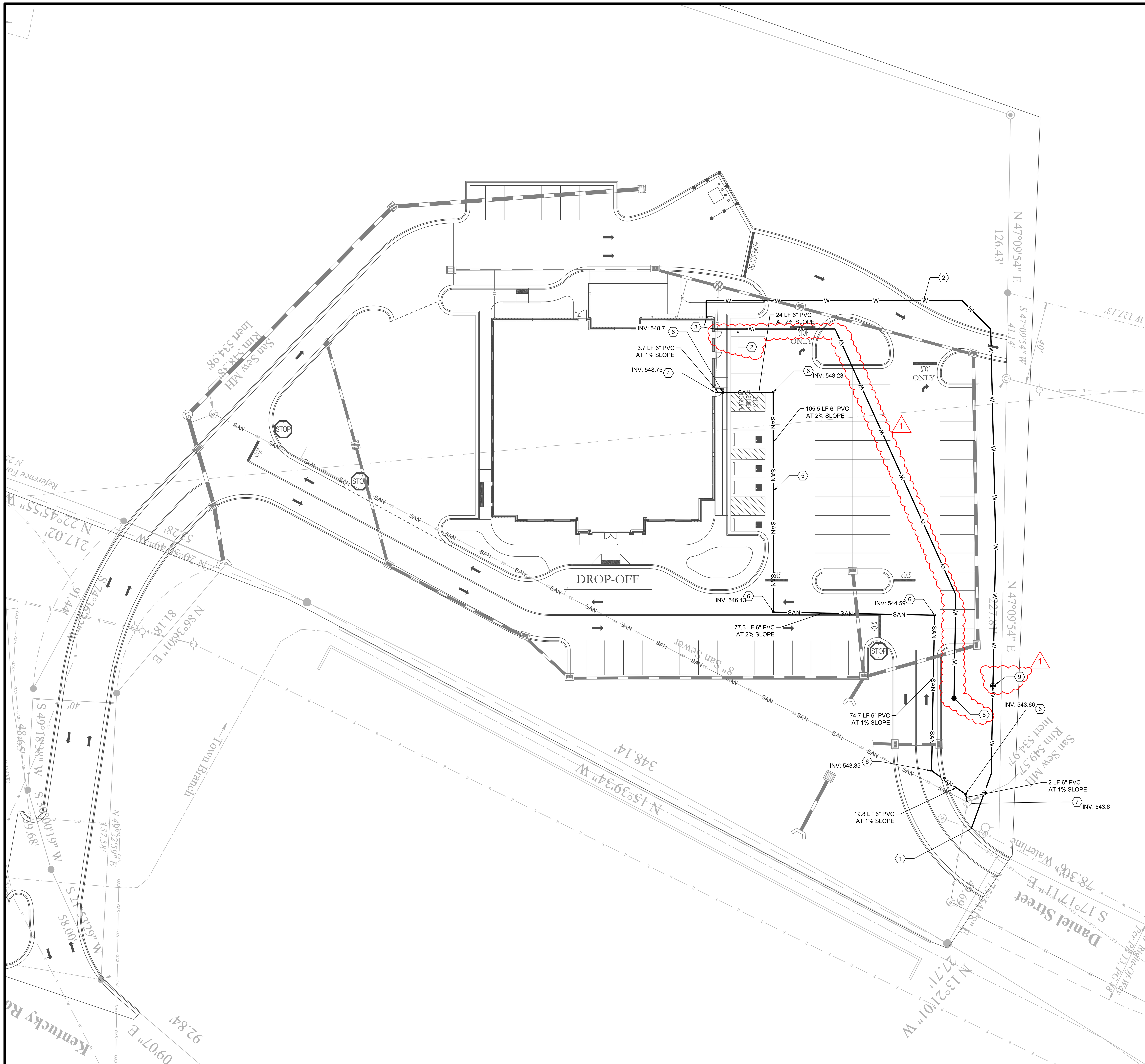
PROJECT	202587
UK #	3123.0
DATE	05.29.26

REVISIONS

No.	Description	Date
1	ADDENDUM 02	05.29.26

DETENTION BASIN PLAN, SECTIONS, AND DETAILS

L-306



SITE UTILITY PLAN

SCALE 1" = 20'-0"

0 10 20 40 80

N

UTILITY PLAN KEYNOTES

1. COORDINATE 4" WATER LINE TAP WITH GREENUP WATER DEPARTMENT. COORDINATE LOCATION OF WATER METER. UTILIZE TAPPING SLEEVE AND VALVE. SEE DETAIL 3/C-101
2. CONSTRUCT 4" PVC WATER LINE.
3. CONNECT 4" PVC WATER LINE TO BUILDING. COORDINATE LOCATION WITH PLUMBING PLAN.
4. CONNECT 6" SANITARY TO BUILDING. SEE PLUMBING SHEETS.
5. INSTALL 6" PVC LATERAL @ 1% SLOPE, MINIMUM.
6. INSTALL CLEANOUT. SEE DETAIL 4/C-101
7. CONNECT 6" SANITARY LATERAL TO EXISTING SANITARY MANHOLE WITH INSIDE DROP. SEE DETAIL 4/C-101
8. FIRE DEPARTMENT CONNECTION.
9. POST INDICATOR VALVE.

GENERAL UTILITY NOTES:

1. WATER AND SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL CODES AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PAY ALL FEES AND OBTAIN PERMITS.
3. ALL EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND ARE BASED ON BEST INFORMATION AVAILABLE. ADDITIONAL UTILITIES MAY BE PRESENT. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE FOR INSTRUCTIONS.
4. THE CONTRACTOR SHALL NOTIFY THE STATE ONE-CALL SYSTEM AT (811) AT LEAST THREE WORKING DAYS PRIOR TO ANY EXCAVATION AND/OR DEMOLITION.
5. MAINTAIN 10-FOOT HORIZONTAL AND 24-INCH VERTICAL SEPARATIONS BETWEEN SANITARY SEWER AND WATER SUPPLY LINES.
6. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES WITHIN 14 DAYS OF PROJECT CONSTRUCTION. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTORS EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES AND UNDERGROUND ELECTRIC DO NOT CONFLICT WITH SANITARY SEWERS OR STORM INSTALL UTILITIES PRIOR TO FINAL PAVEMENT CONSTRUCTION.
8. BACKFILL UTILITY TRENCHES UNDER PAVEMENT AREAS WITH CRUSHED STONE OR GRAVEL. BACKFILL UTILITY TRENCHES IN LAWN AREAS WITH SATISFACTORY FILL MATERIAL COMPACTED TO AT LEAST 95% OF MAXIMUM PER ASTM D698.
9. ADJUST ALL EXISTING CASTINGS TO MATCH PROPOSED FINISH GRADE.
10. ALL SANITARY SEWER PIPE SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE.
11. WATER SERVICE PIPE SHALL BE SDR21 PVC PRESSURE RATING 200 PSI.
12. CONTRACTOR IS RESPONSIBLE FOR ALL PUBLIC UTILITY CONNECTIONS (ELECTRIC, WATER, GAS, SEPTIC, SEWER) AS WELL AS PROVIDING ALL INFRASTRUCTURE REQUIRED BY UTILITY COMPANY.
13. ALL WATER LINES SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE.

UTILITY LEGEND

Symbol	Description
SAN	SEWER PIPE
W	WATER PIPE
IRRIG	IRRIGATION SLEEVE
UG-E	UNDERGROUND ELECTRIC
OH-E	OVERHEAD ELECTRIC
G	NATURAL GAS PIPE
SS	SANITARY MANHOLE
	SANITARY CLEANOUT
	GREASE TRAP
WM	WATER METER
	FIRE HYDRANT
BF	BACKFLOW PREVENTER
	REDUCER
	CORP VALVE
	GATE VALVE
	TEE

BURIED UTILITIES NOTE

BURIED UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATION BASED UPON INFORMATION OBTAINED FROM UTILITY COMPANIES AND FIELD EVIDENCE. OTHER BURIED UTILITIES MIGHT EXIST ON THE SUBJECT SITE WHICH ARE NOT SHOWN ON THIS DRAWING. USE EXTREME CAUTION DURING EXCAVATION PROCEDURES AND CONTACT B.U.D. @ # 811 FOR EXACT LOCATION OF BURIED FACILITIES PRIOR TO EXCAVATION OPERATIONS.

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CIVIL

PROJECT	202587
UK #	3123.0
DATE	05.29.26

REVISIONS

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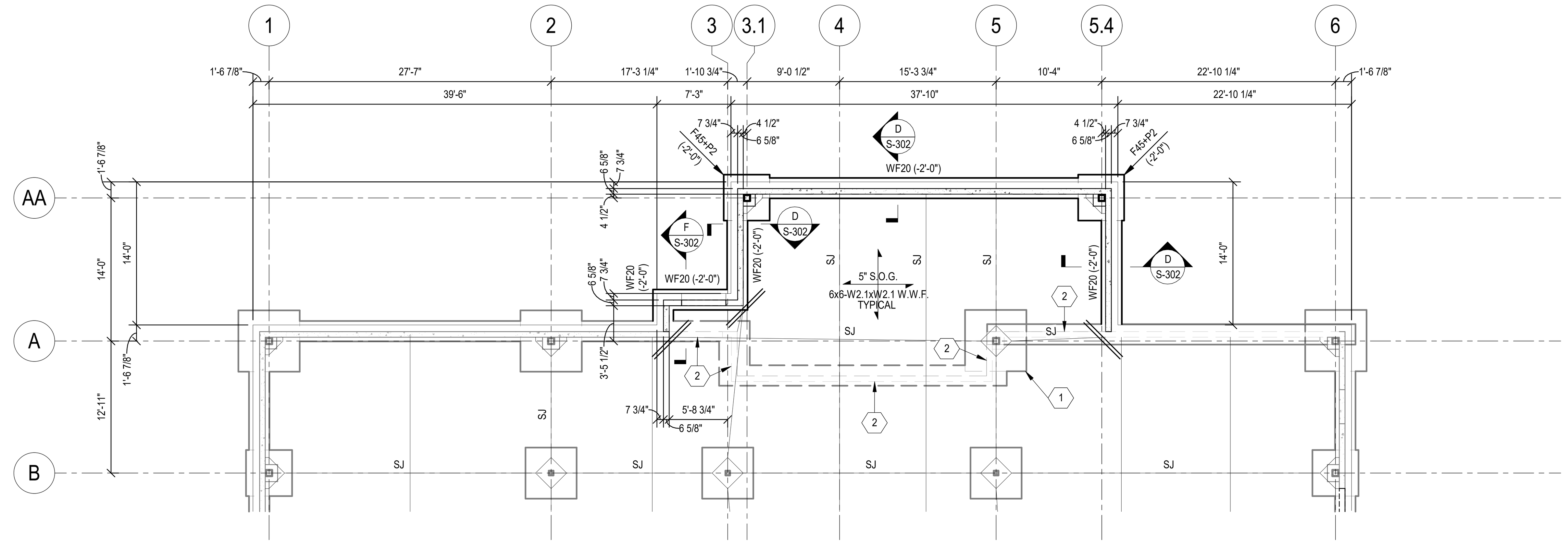
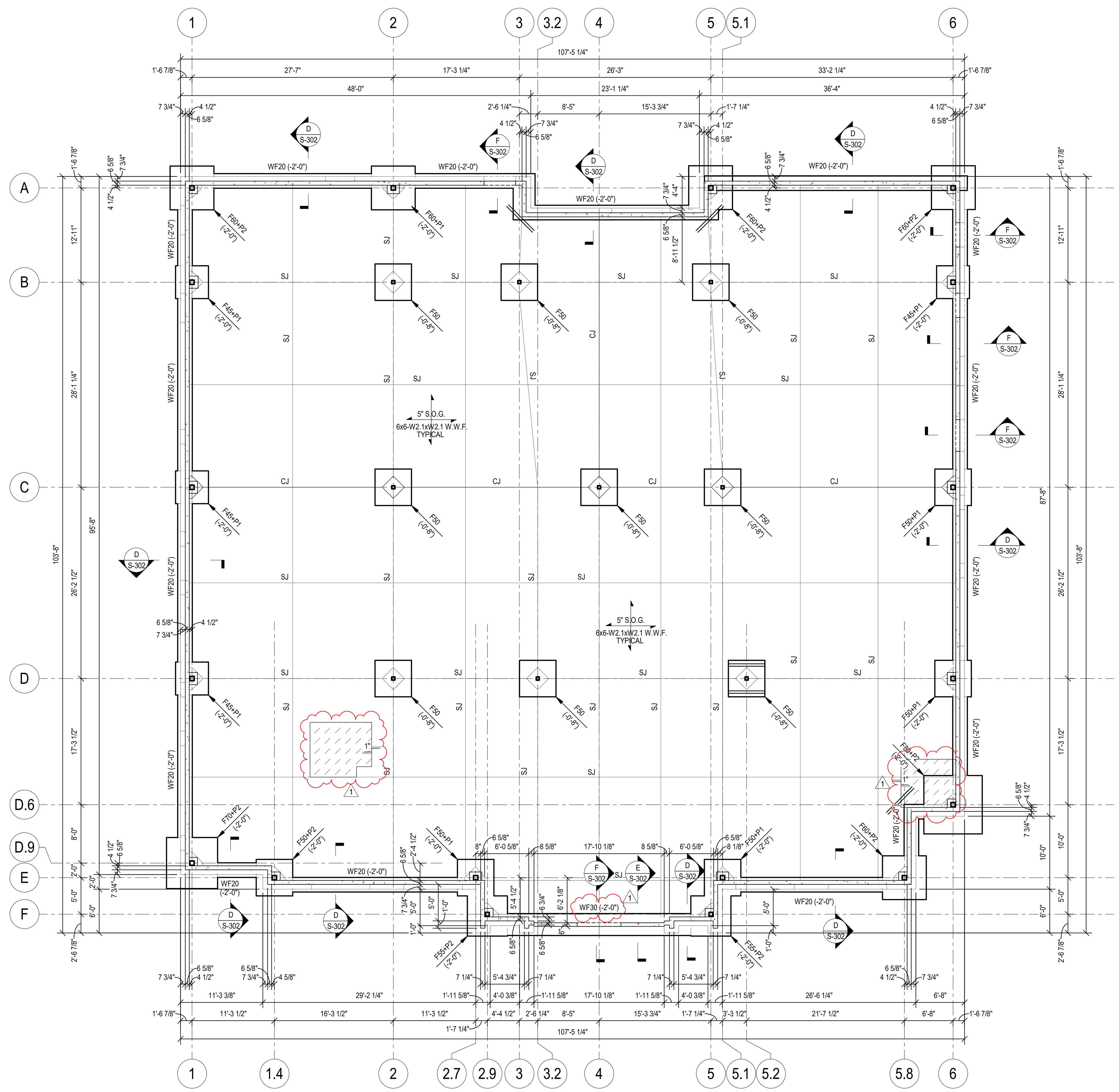
1	ADDENDUM 02	05.29.26

UTILITY PLAN

C-101



B S-201 FOUNDATION PLAN CT ALTERNATE
1/8" = 1'-0"



A S-201 FOUNDATION PLAN
1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. ELEVATIONS SHOWN ARE TO THE TOP OF THE FOUNDATION AND ARE REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").
2. CENTER ALL WALL FOOTINGS ON WALL (OR WALL ASSEMBLY INCLUIDNG MASONRY VENEER WALL) CENTERLINE U.N.O.
3. CENTER ALL SPREAD FOOTINGS ON COLUMN GRID INTERSECTION U.N.O.
4. SEE DWG S-101 FOR GENERAL NOTES.
5. SEE DWG S-102 FOR STRUCTURAL SPECIAL INSPECTION NOTES.
6. SEE DWGS S-301 & S-302 FOR TYPICAL FOUNDATION DETAILS.
7. SEE DWG S-501 FOR COLUMN SCHEDULE.
8. SLAB ON GRADE SHALL BE PLACED ON VAPOR RETARDER (SEE SPECIFICATIONS) OVER 6" MINIMUM COMPACTED CRUSHED STONE OR DENSE GRADED AGGREGATE.
9. REINFORCE SLABS ON GRADE AT RE-ENTRANT CORNERS PER DET G/S-301 REINFORCING BARS MAY NOT BE SHOWN GRAPHICALLY ON PLAN IN ALL LOCATIONS.
10. ALL FOOTINGS SHALL BE SUPPORTED ON UNDISTURBED SOIL CAPABLE OF SUPPORTING DESIGN LOADS WITHOUT APPRECIABLE SETTLEMENT. CONTRACTOR SHALL PROBE BEARING STRATA WITH DRIVEN RODS, REMOVE SHALLOW BEDROCK AND OBSTRUCTIONS (AND OVERLYING SOIL) WITHIN TWO FEET BELOW BOTTOM OF FOOTING, AND REPLACE WITH ENGINEERED SOIL BACKFILL. FOUNDATIONS SHALL NOT BEAR ON EXISTING UNDOCUMENTED FILL MATERIAL. ALL EXISTING FILL MATERIAL SHALL BE REMOVED (FULL DEPTH) WITHIN THE INFLUENCE ZONE OF THE FOOTING (SEE DET B/S-301 FOR DEFINITION OF "INFLUENCE ZONE").
11. ALL SLABS ON GRADE SHALL BE SUPPORTED ON UNDISTURBED SOIL CAPABLE OF SUPPORTING DESIGN LOADS WITHOUT APPRECIABLE SETTLEMENT. CONTRACTOR SHALL PROBE BEARING STRATA WITH DRIVEN RODS, REMOVE SHALLOW BEDROCK AND OBSTRUCTIONS (AND OVERLYING SOIL) AT LEAST 6" BELOW SLAB ON GRADE ELEVATION, AND REPLACE WITH COMPACTED CRUSHED STONE OR D.G.A. BACKFILL. SLABS ON GRADE SHALL NOT BEAR ON EXISTING UNDOCUMENTED FILL MATERIAL OR EXISTING FAT CLAY. CONTRACTOR SHALL REMOVE SHALLOW FILL TO A MINIMUM OF TWO FEET BELOW SLAB SUBGRADE ELEVATION AND REPLACE WITH ENGINEERED SOIL OR D.G.A BACKFILL. CONTRACTOR SHALL PROOFROLL SUBGRADE TO ENSURE ADEQUACY OF SUBGRADE PRIOR TO FILLING. CONTRACTOR SHALL REMOVE FAT CLAY WITHIN TWO FEET BELOW SLAB SUBGRADE ELEVATION AND REPLACE WITH ENGINEERED SOIL OR D.G.A BACKFILL.
12. COORDINATE RECESSED FLOOR SLAB EXTENT WITH ARCHITECT DRAWINGS. COORDINAE COORDINATE QUANTITY, SIZE AND LOCATION OF FLOOR DRAINS, FLOOR BOXES AND OTHER SLAB ON GRADE PENETRATIONS WITH MECHANICAL / ELECTRICAL / PLUMBING DRAWINGS. REINFORCE AROUD PENETRATIONS IN SLAB ON GRADE LARER THAN 6' IN DIAMETER PER DETAIL J/S-301 .

FOUNDATION LEGEND

F40 = SPREAD FOOTING. SEE SCHEDULE.
WF40 = WALL FOOTING. SEE SCHEDULE.
P1 = COLUMN PIER. SEE DET C/S-302.
SF = STEP FOOTING. SEE DET C/S-301.
(-2'-0") = TOP OF FOOTING ELEVATION.
SJ = SAWN CONTRACTION JOINT. SEE DET F/S-301.
CJ = CONSTRUCTION JOINT. SEE DET F/S-301.
= CONCRETE WALL.
1" = EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE. SEE ARCH DWGS EXACT PLAN EXTENTS. (1)

FOUNDATION TAG NOTES

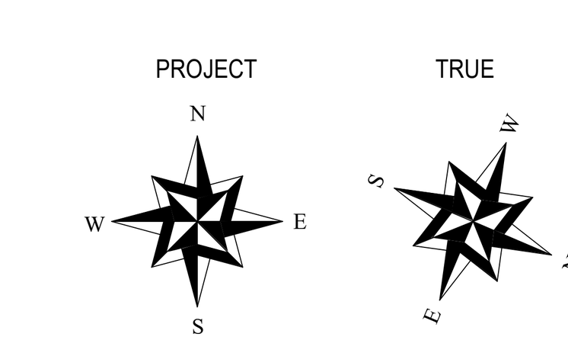
1 FOOTING TOP ELEV + (-0'-8") WITHOUT PIER FOR CT ALTERNATE.
2 STEM WALL AND WALL FOOTING NOT OCCUR FOR CT ALTERNATE.

WALL FOOTING SCHEDULE

MARK	WIDTH	THICKNESS	REINFORCING CONT BOTTOM	TRANSVERSE REINFORCING BOTTOM
WF20	2'-0"	1'-0"	(2) #5	#4@48" O.C.
WF30	3'-0"	1'-0"	(3) #5	#4@48" O.C.

SPREAD FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCING E.W. BOTTOM
F45	4'-6"	4'-6"	1'-4"	(5) #5
F50	5'-0"	5'-0"	1'-4"	(6) #5
F55	5'-6"	5'-6"	1'-4"	(7) #5
F60	6'-0"	6'-0"	1'-4"	(8) #5
F70	7'-0"	7'-0"	1'-6"	(9) #5
F80	8'-0"	8'-0"	1'-6"	(8) #6



REFERENCE ELEVATION (0'-0") = 552'-0" SEA LEVEL

3225 Summit Square Place, Suite 200
Lexington, Kentucky 40509
859.252.6781

STATE OF KENTUCKY ZHENG WANG 25595 LICENSED PROFESSIONAL ENGINEER © BROWN + KUBICAN, PSC
STATE OF KENTUCKY TANNER J. WILLIAMS 39120 LICENSED PROFESSIONAL ENGINEER © BROWN + KUBICAN, PSC

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546 East Main Street, Suite 300
Lexington, KY 40508
859-543-0933
www.brownkubican.com

CONSTRUCTION DOCUMENTS
GREENUP COUNTY URGENT CARE MEDICAL OFFICE BUILDING
GREENUP, KENTUCKY

STRUCTURAL

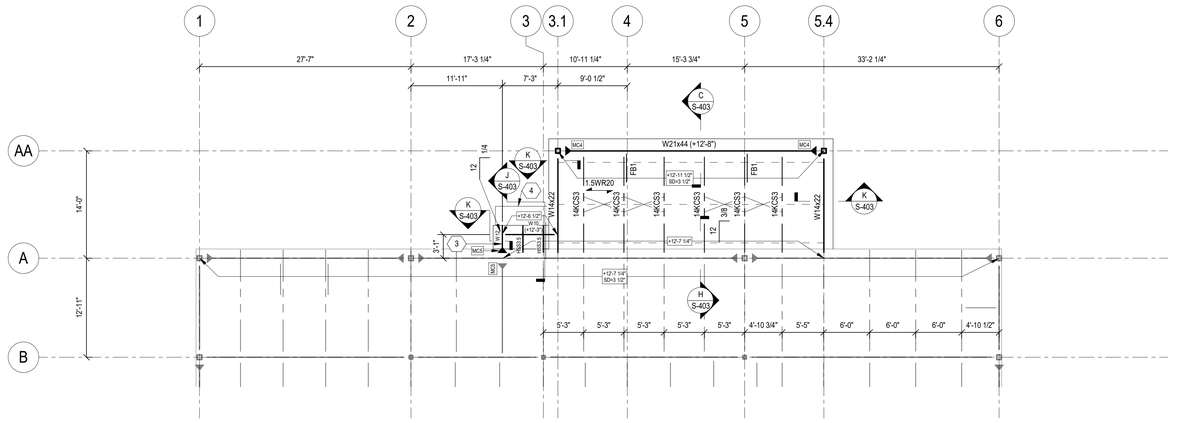
PROJECT	202587
DATE	05/01/26

REVISIONS

No.	Description	Date
1	FINAL ADDENDUM	05/28/26

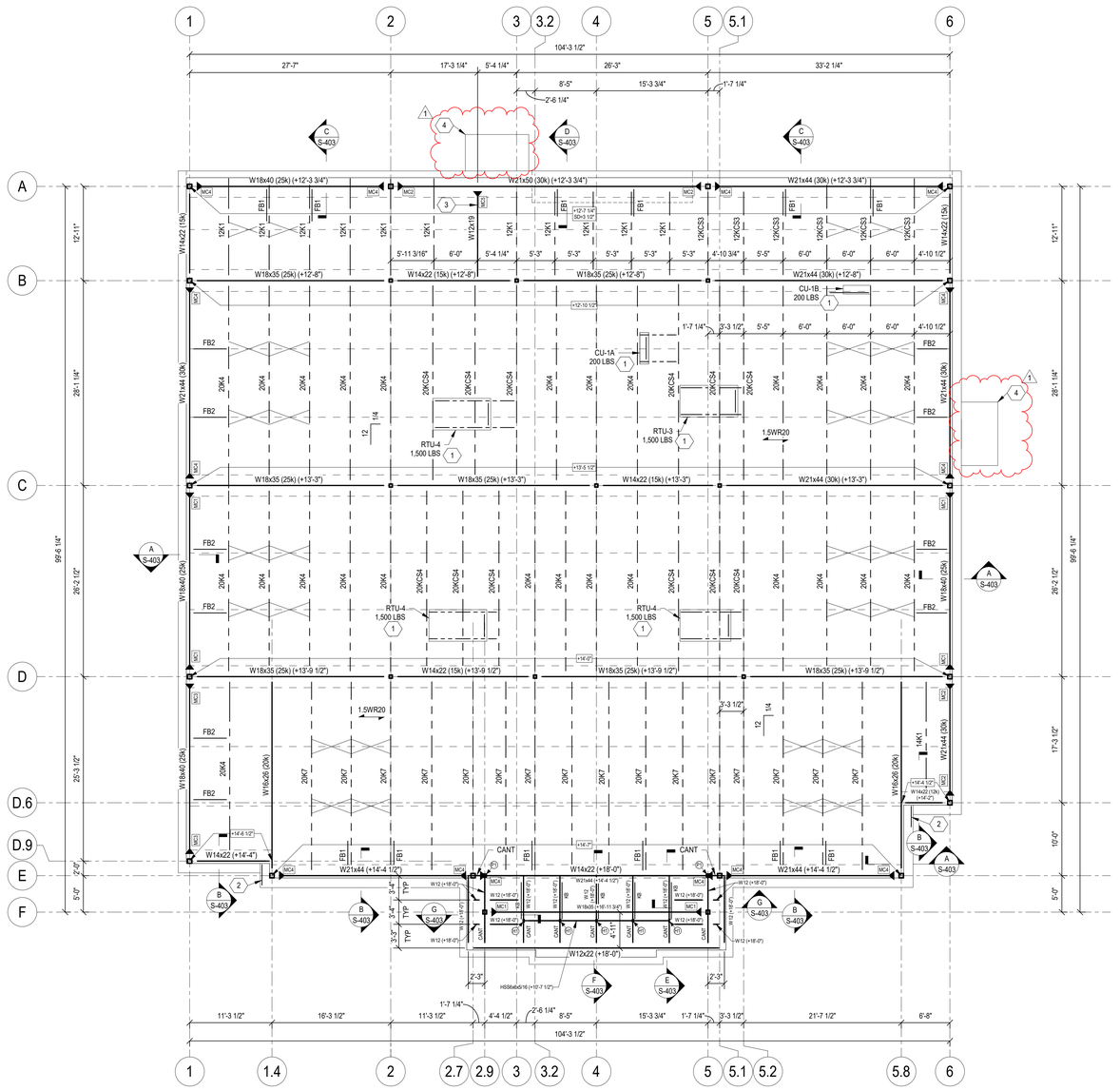
FOUNDATION PLAN

S-201



B S-202 ROOF FRAMING PLAN CT ALTERNATE

1/8" = 1'-0"



A S-202 ROOF FRAMING PLAN

1/8" = 1'-0"

FRAMING PLAN NOTES

1. ELEVATIONS SHOWN ARE TO THE TOP OF STEEL AND ARE REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").
2. SEE DWG S-101 FOR GENERAL NOTES.
3. SEE DWG S-102 FOR STRUCTURAL SPECIAL INSPECTION NOTES.
4. SEE DWGS S-401 & S-402 FOR TYPICAL FRAMING DETAILS.
5. SEE DWG S-501 FOR COLUMN SCHEDULE.
6. SPACE BEAMS / JOISTS EVENLY THROUGHOUT BAY U.N.O.
7. PROVIDE LOOSE LINTELS PER SCHEDULE IN GENERAL NOTES ON S-101 OVER ALL MASONRY OPENINGS NOT OTHERWISE SHOWN ON STRUCTURAL DWGS, INCLUDING BUT NOT LIMITED TO DUCT PENETRATIONS, ETC. IN VENEERS.
8. ROOF DECK SUPPORT BENT PLATES AND ANGLES SHOWN IN SECTIONS ARE CONTINUOUS AROUND BUILDING PERIMETER. RUN MEMBERS OVER TOPS OF COLUMN ENDS. MITER ANGLE/BENT PLATE LEGS AT CORNERS AND WELD TOGETHER PER GENERAL NOTES ON DWG S-101.
9. NOT ALL MECHANICAL EQUIPMENT, HANGING EQUIPMENT, ROOF PENETRATIONS AND ASSOCIATED SUPPORT FRAMING/JOIST REINFORCEMENT MAY BE SHOWN ON STRUCTURAL DRAWINGS. COORDINATE QUANTITY, SIZE AND LOCATIONS OF ALL MECHANICAL UNITS AND HANGING LOADS WITH MEP DWGS AND THE EQUIPMENT CONTRACTOR. OPERATING WEIGHT (INCLUDING CURBS) SHALL NOT EXCEED WEIGHT SHOWN ON PLAN. SEE DET C/S-402 FOR ADDITIONAL FRAMING REQUIREMENTS AT UNITS. SEE DET B/S-402 FOR JOIST REINFORCEMENT AT UNITS.

FRAMING LEGEND

- 1.5WR20 = 1 1/2" 20 GA GALVANIZED WIDE RIB STEEL ROOF DECK.
- (+X'-X") SD=X" = TOP OF STEEL (BOTTOM OF DECK) SPOT ELEVATION. SLOPE STEEL EVENLY BETWEEN POINTS. DROP STEEL JOIST SUPPORT BEAMS/ BEARING PLATES BY DEPTH OF JOIST SEAT (SIGNIFIED AS SD - SEAT DEPTH). WHERE NO SEAT DEPTH IS SPECIFIED, DEPTH SHALL BE SJI STANDARD FOR TYPE OF JOIST. SEAT DEPTH GIVEN AT CENTERLINE OF GIRDER.
- W14x22 (15k) = STEEL BEAM SIZE. SERVICE LOAD REACTION (KIPS) EACH END.
- (+13'-3") = TOP OF STEEL BEAM ELEVATION REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").
- MC1 = MOMENT CONNECTION. SEE DET F/S-401.
- S1 = STEEL HANGER BELOW. SEE DET F/S-403.
- P1 = STEEL POST STARTING AT AND EXTENDING UPWARD FROM THIS LEVEL. SEE DET S-501 FOR SCHEDULE.
- KB = KNEE BRACE. SEE DET F/S-403.
- FB1 = BEAM BOTTOM FLANGE BRACE. SEE DET D/S-402.
- CANT = CANTILEVER BEAM END. SEE DET D/S-401.
- 12 / 1/4 = ROOF SLOPE.
- W10 = W10x12 (8k).
- W12 = W12x19 (12k).
- HSS3.5 = HSS3 1/2x3 1/2x3/16.

FRAMING TAG NOTES

1. ROOFTOP MECHANICAL UNIT. COORDINATE EXACT LOCAITON W/ MEP DWGS. SEE DETAIL C/S-402 FOR ANGLE FRAME SUPPORT REQUIREMENTS.
2. PROVIDE GALVANIZED L4x3 1/2x5 1/16 L.D.V. x 2'-8" IN BRICK VENEER AT TOP OF ADJACENT PARAPET. (ANGLE IS TO BE SUPPORTED VIA BEARING ON PORTION OF WALL EXTENDING TO FOUNDATION AND IS TO CANTILEVER FOR SUPPORT OF BRICK OVER PARAPET).
3. CONT HSS3 1/2x3 1/2x3/16 SHOP WELDED TO TOP OF STEEL BEAM W/ 3/16" FILLET STITCH WELD @ 2" EVERY 18" ON BOTH SIDES.
4. PRE-FABRICATED METAL CANOPY SUPPORTED BY C.F.S. BLOCKING BETWEEN WALL STUDS FOR HANGER AND LEDGER. BLOCKING SHALL BE C.F.S. BOX SHAPE WITH (2) 600S162-54 AND (2) 600T125-54 AT EACH ATTACHMENT POINT. SEE ARCH DWGS FOR METAL CANOPY DETAILS.

PROJECT NORTH / TRUE NORTH

REFERENCE ELEVATION (0'-0") = 552'-9" SEA LEVEL

RA
3225 Summit Square Place, Suite 200
Lexington, Kentucky 40509
859.252.6781

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ROOF FRAMING PLAN

S-202

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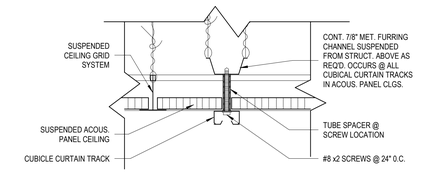
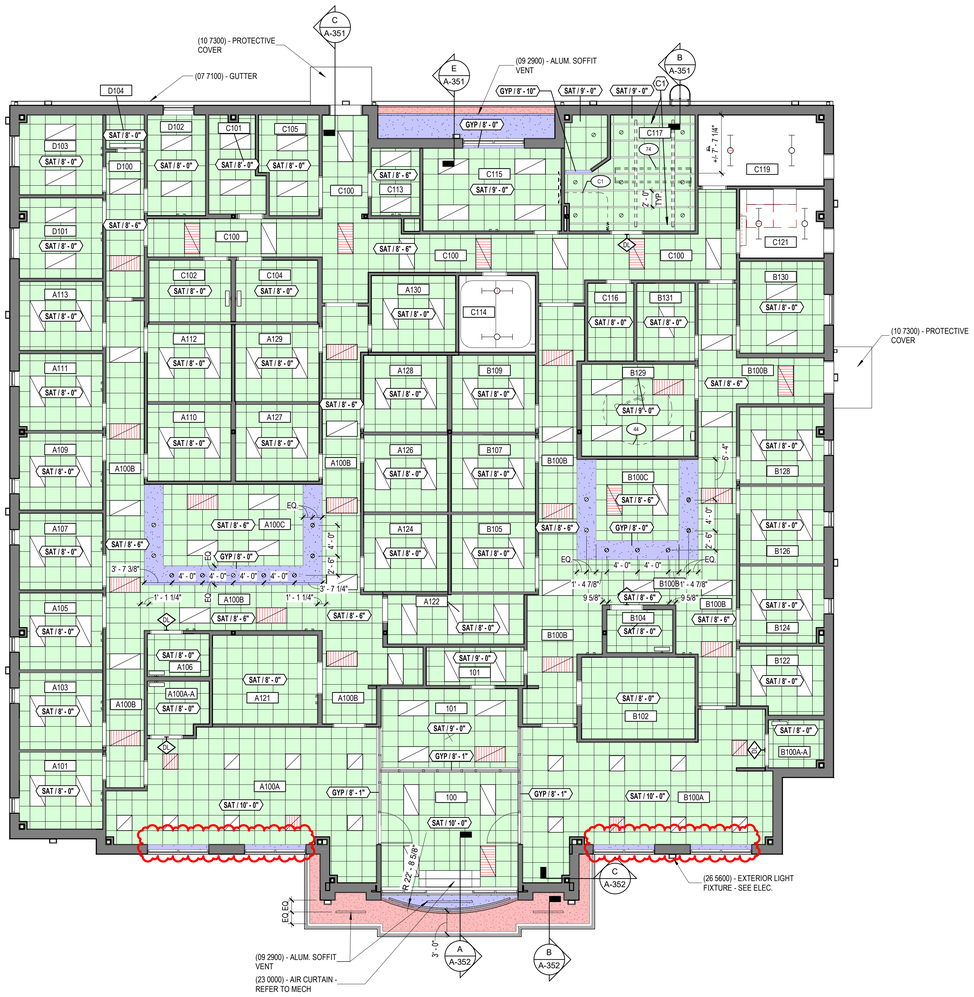


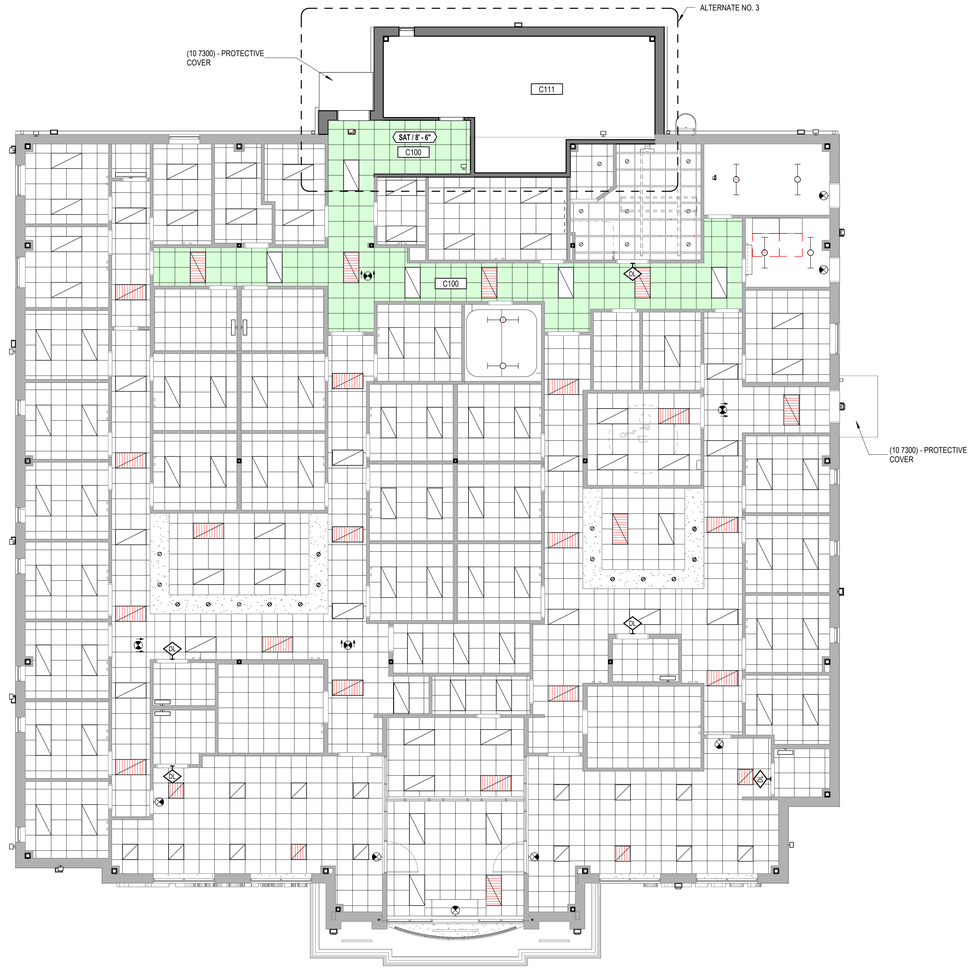
C CUBICLE CURTAIN TRACK DETAIL
3" = 1'-0"

PLAN KEYNOTES

1 THIS SPACE WILL BE A MOCK UP ROOM. ONCE METAL STUDS ARE IN PLACE, INSTALL LABELED CARDBOARD REPRESENTATIONS OF ALL BACK BOXES (POWER, DATA, COMM, CONTROLS, ETC.) AND WALL-MOUNTED EQUIPMENT IN THIS SPACE. OWNER'S MEDICAL EQUIPMENT SHALL ALSO BE REPRESENTED, EITHER BY CARDBOARD OR BY ACTUAL EQUIPMENT
2 CARD READER - SEE ALSO ELEC. VERIFY FINAL LOCATION WITH OWNER.
3 AUTO OPERATOR PUSH PLATE - SEE ALSO ELEC. VERIFY FINAL LOCATION WITH OWNER.
4 FURNITURE - O.F.O.I.
5 PROVIDE 1" SLAB RECESS THIS SPACE - SEE ALSO STRUCTURAL
6 SERVER RACK - SEE ALSO ELEC.
7 REFER TO ROOM A100A-A FOR EQUIPMENT TAGS, PLAN KEYNOTES, AND ELEVATIONS.
8 REFER TO ROOM B105 FOR EQUIPMENT TAGS, PLAN KEYNOTES, AND ELEVATIONS.
9 REFER TO ROOM A107 FOR EQUIPMENT TAGS, PLAN KEYNOTES, AND ELEVATIONS.
10 STEEL LOW WALL BRACE IN PARTIAL HEIGHT WALL
11 FREE STANDING ACRYLIC SPLASH GUARD - O.F.O.I.
12 REFER TO ROOM A106 FOR EQUIPMENT TAGS, PLAN KEYNOTES, AND ELEVATIONS.
13 PROVIDE FRAMING FOR FUTURE 4'-0" X 7'-0" FRAMED DOOR OPENING.
14 PROVIDE 16 GA. COLD-FORMED METAL STUDS THIS WALL
15 REFER TO ROOM A124 FOR EQUIPMENT TAGS, PLAN KEYNOTES, AND ELEVATIONS.
C1 PROVIDE UNISTRUT CHANNELS TO CARRY X-RAY TRANSVERSE BRIDGE - SEE ALSO STRUCTURAL. PROVIDE CHANNEL INSERTS TO MATCH CEILING COLOR.



A REFLECTED CEILING PLAN
1/8" = 1'-0"



B REFLECTED CEILING PLAN - ALTERNATE NO. 3
1/8" = 1'-0"

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

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King's Daughters

ARCHITECTURAL	
PROJECT	202587
UK #	3123.0
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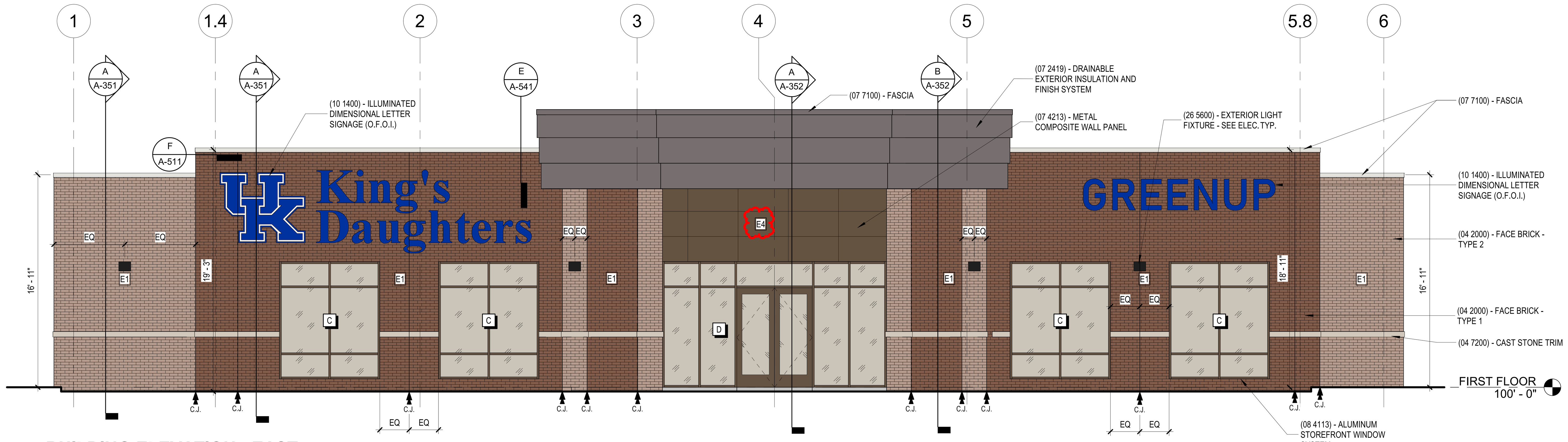
REVISIONS

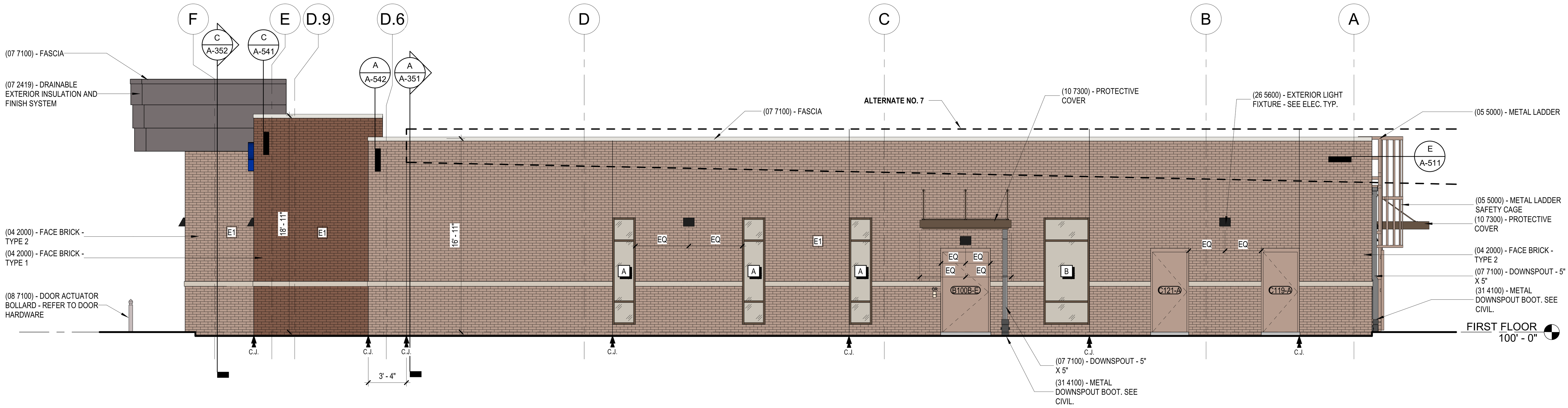
No.	Description	Date
3	Addendum 2	05.29.26

REFLECTED CEILING PLANS

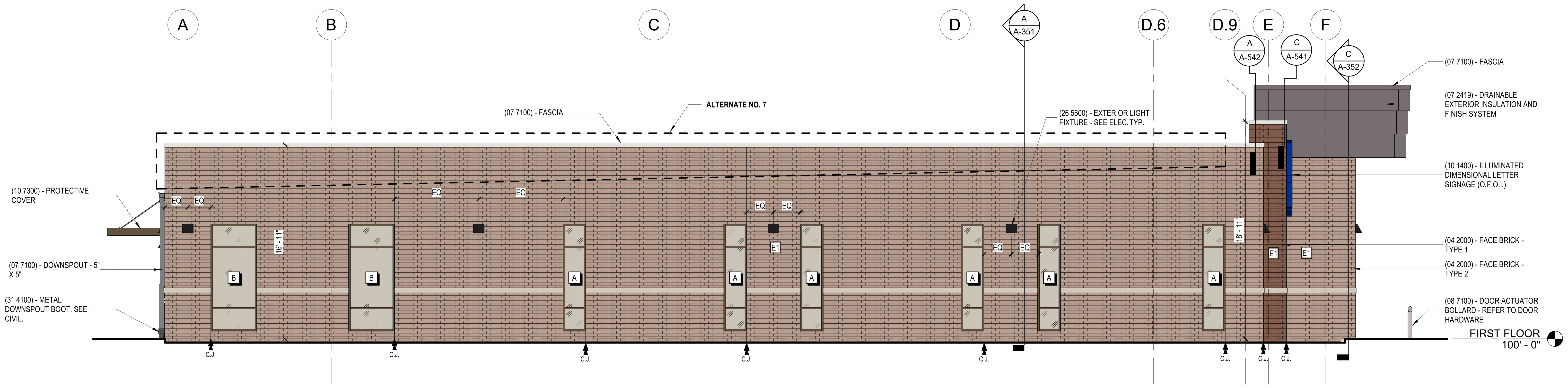
A-131



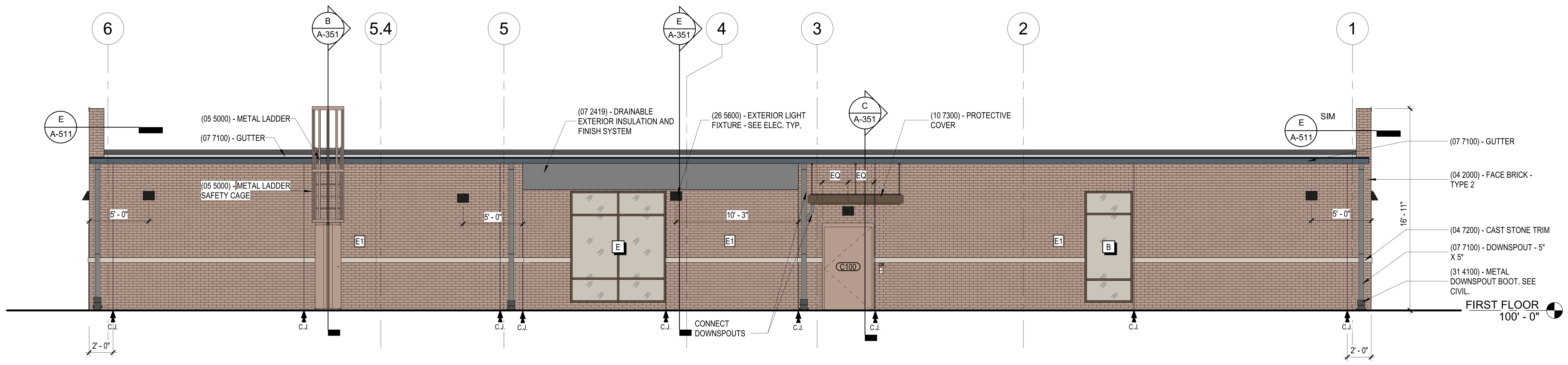
A BUILDING ELEVATION - EAST
3/16" = 1'-0"



B BUILDING ELEVATION - NORTH
3/16" = 1'-0"

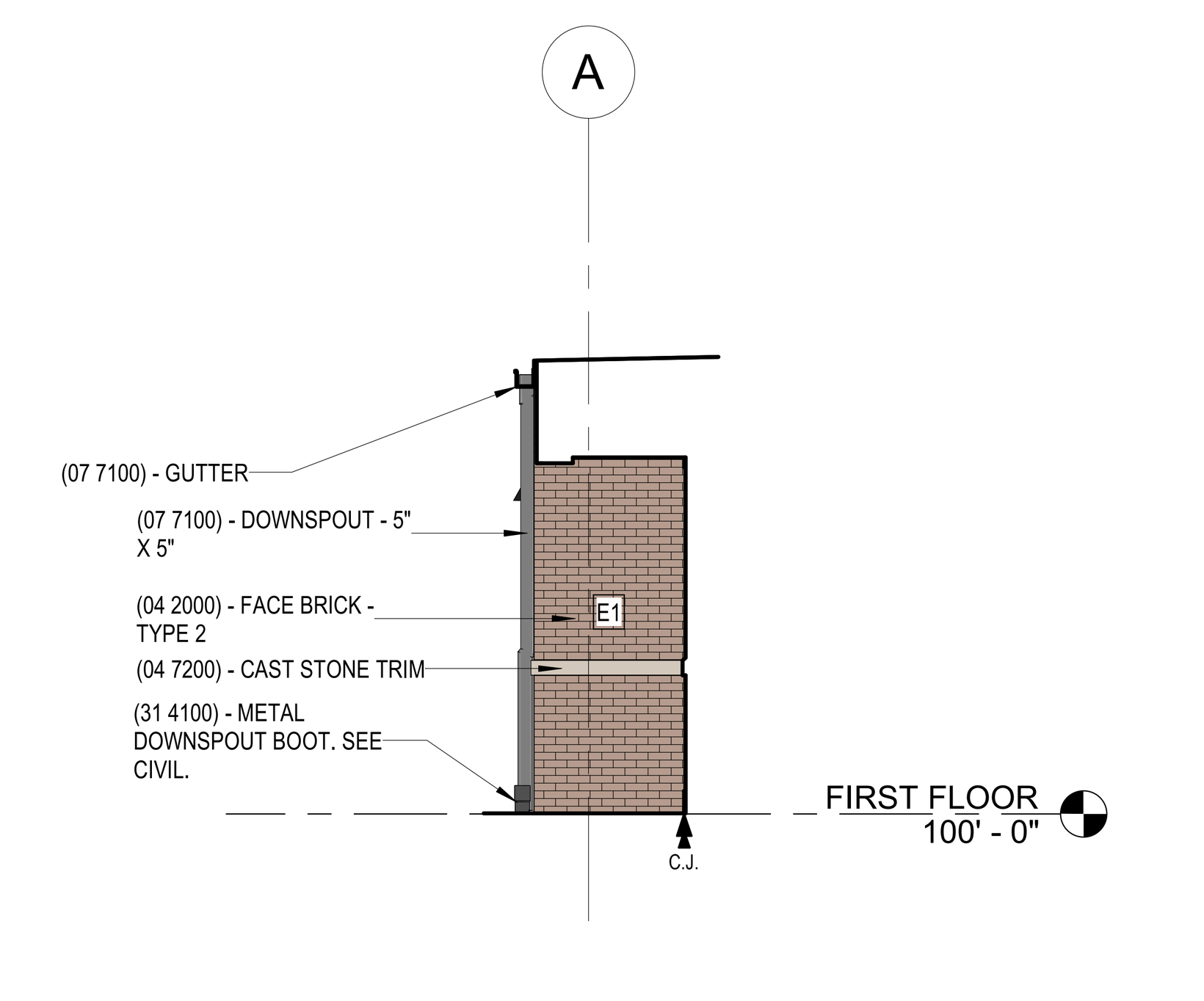


C BUILDING ELEVATION - SOUTH
3/16" = 1'-0"

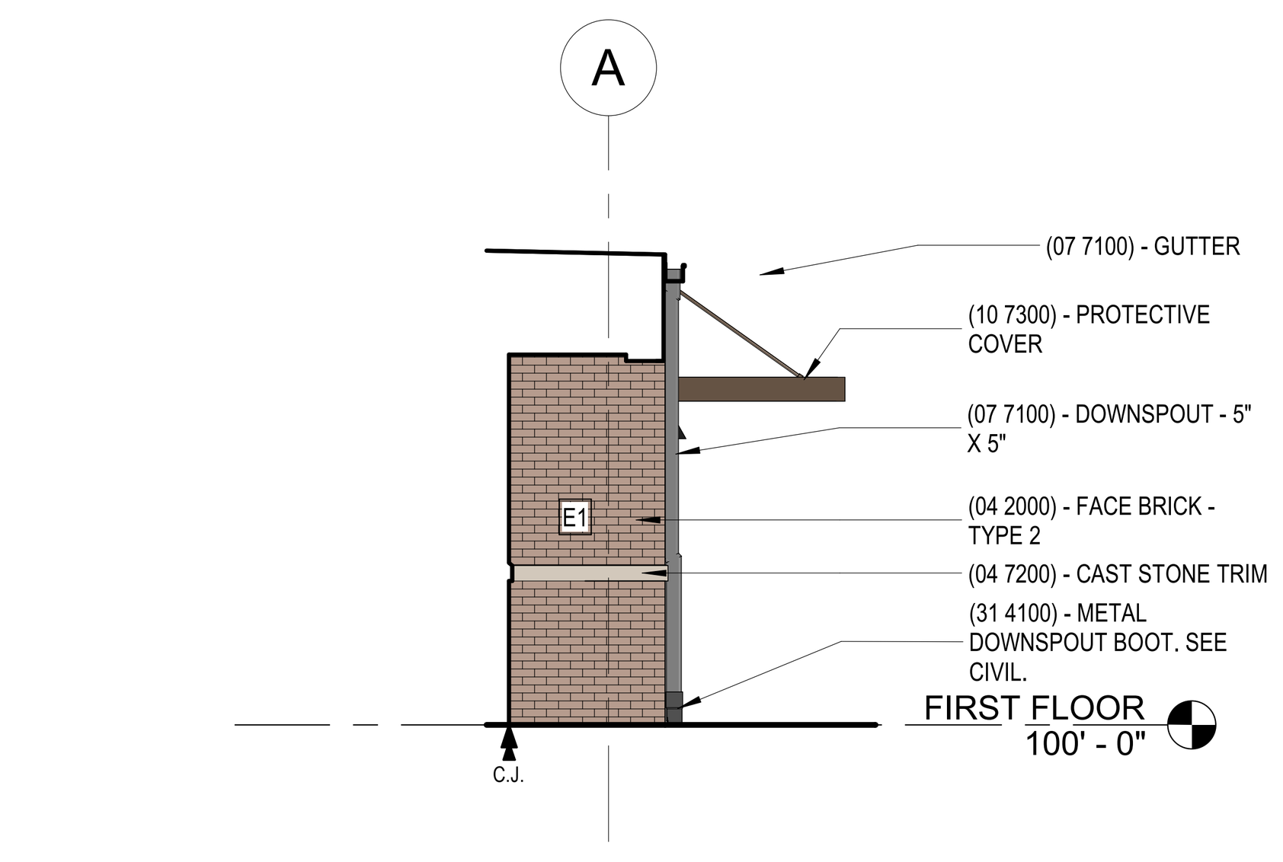


D BUILDING ELEVATION - WEST
3/16" = 1'-0"

EXTERIOR MATERIAL SCHEDULE			
MARK	MATERIAL	DESCRIPTION	NOTES
	BOLLARDS	PAINT BLACK, U.N.O.	
B-1	BRICK - TYPE 1	BELDEN MODULAR JEWEL BLD	
B-2	BRICK - TYPE 2	BELDEN MODULAR NO. 8521	
MP-1	COMPOSITE METAL PANEL	ALUCOBOND HARVEST GOLD MICA	
	CSMU BAND	ARRISCRAFT RENAISSANCE SMOOTH OAK RIDGE	
	DOWNSPOUT	MATCH HOST WALL BRICK	
	EIFS	MATCH OWNER'S SAMPLE	
	EXTERIOR H.M. DOORS/FRAMES	MATCH HOST WALL BRICK	
	GUTTER	MATCH DOWNSPOUTS	
	OPENING LINTELS	PAINT TO MATCH HOST WALL BRICK	
	PROTECTIVE COVER	MATCH BRICK	
RE-1	ROOF EDGE, PORCH	MATCH EIFS COLOR	
RE-2	ROOF EDGE, TYPICAL WALLS	MATCH OWNER'S SAMPLE	
	STOREFRONT & CURTAIN WALL	DARK BRONZE ANODIZED	



E ELEVATION REAR ALCOVE SOUTH FACE
3/16" = 1'-0"



F ELEVATION REAR ALCOVE NORTH FACE
3/16" = 1'-0"

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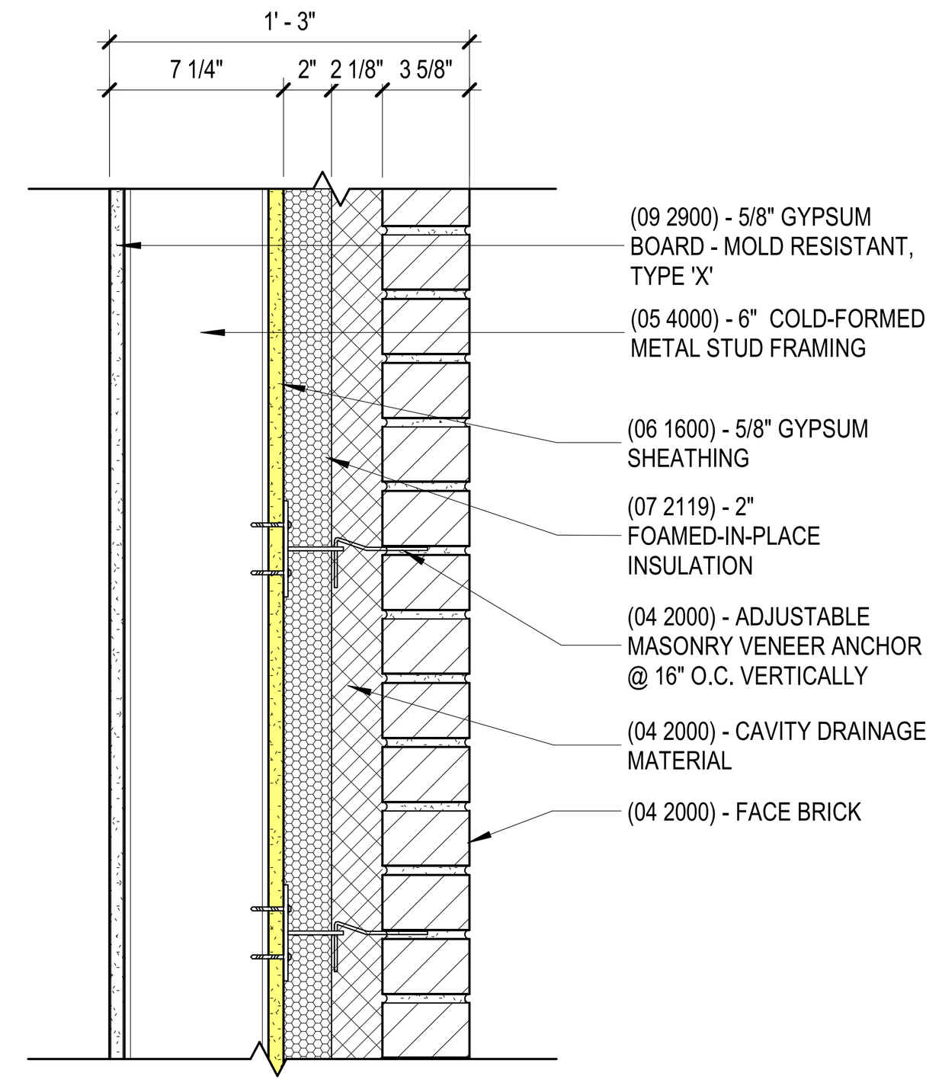
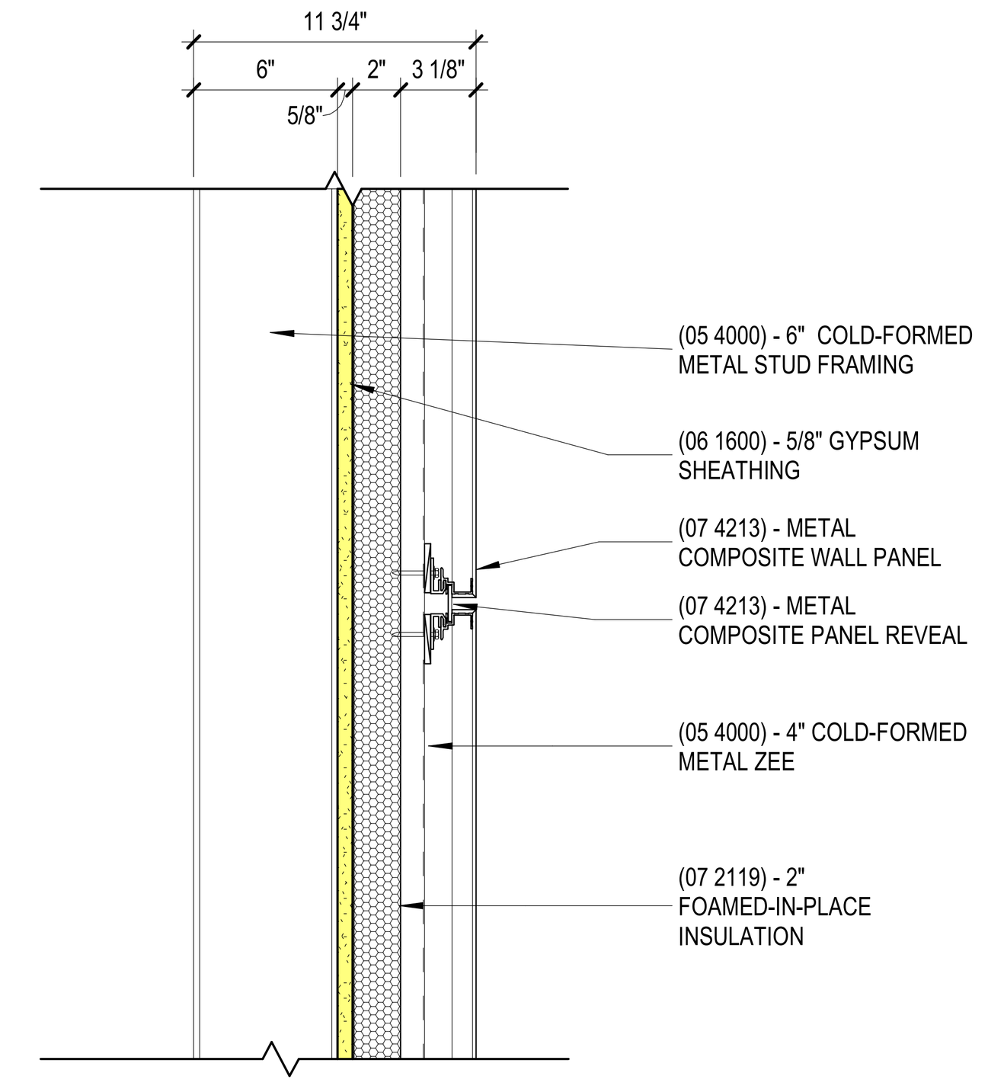
BUILDING ELEVATIONS

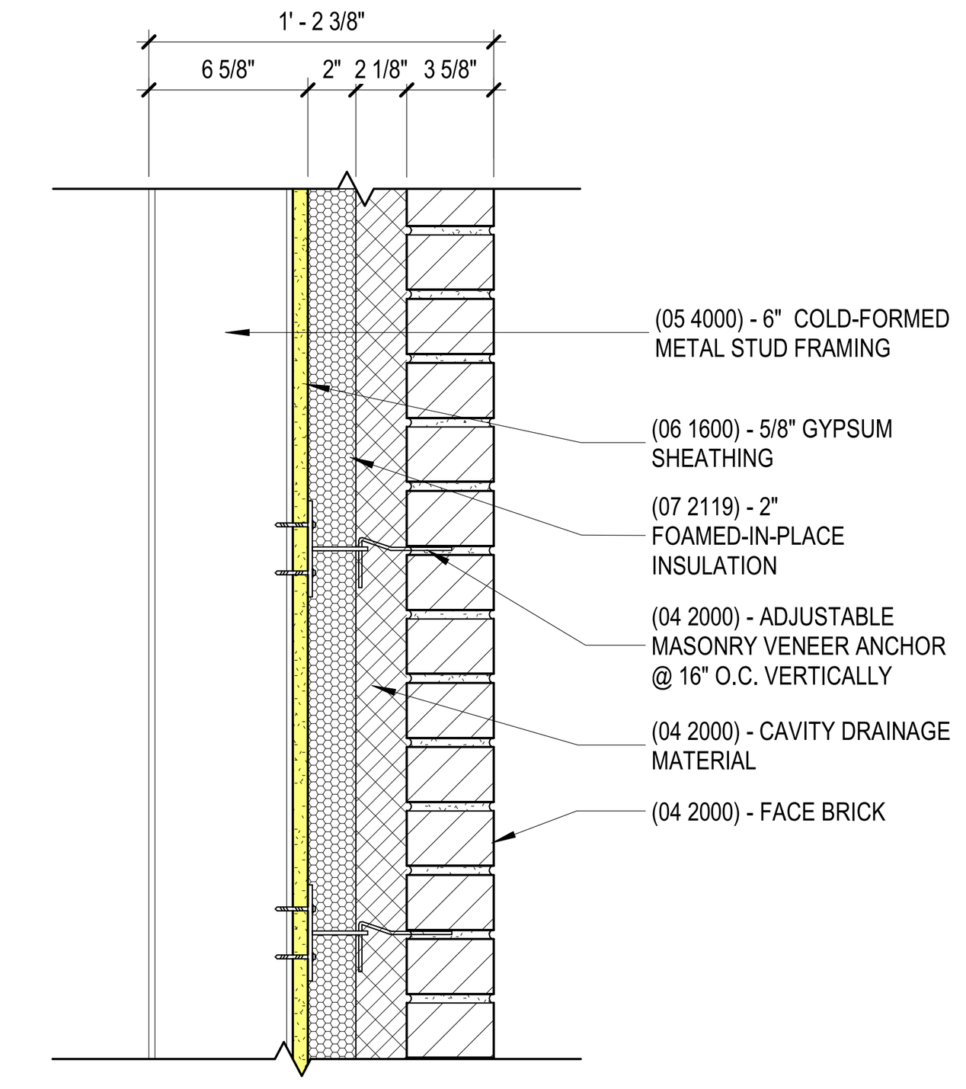
A-201



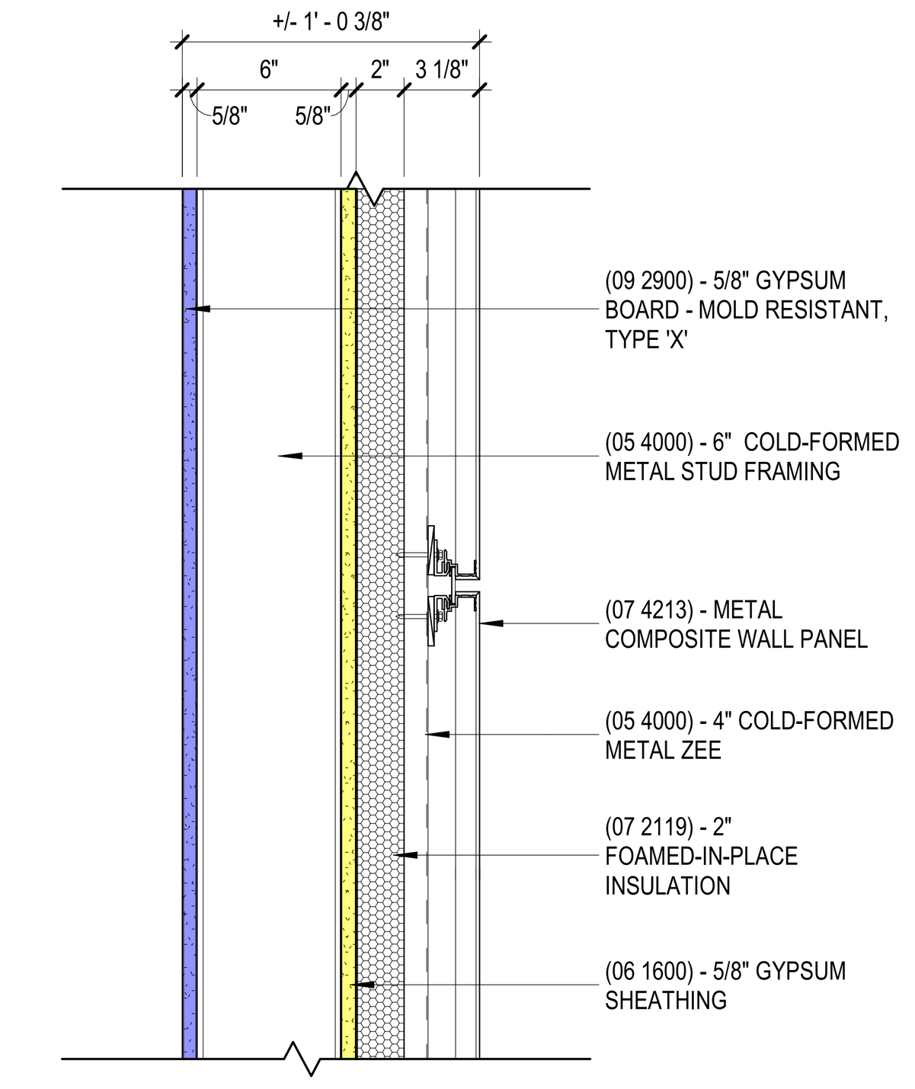
A **EXTERIOR WALL TYPE E1**
1 1/2" = 1'-0"



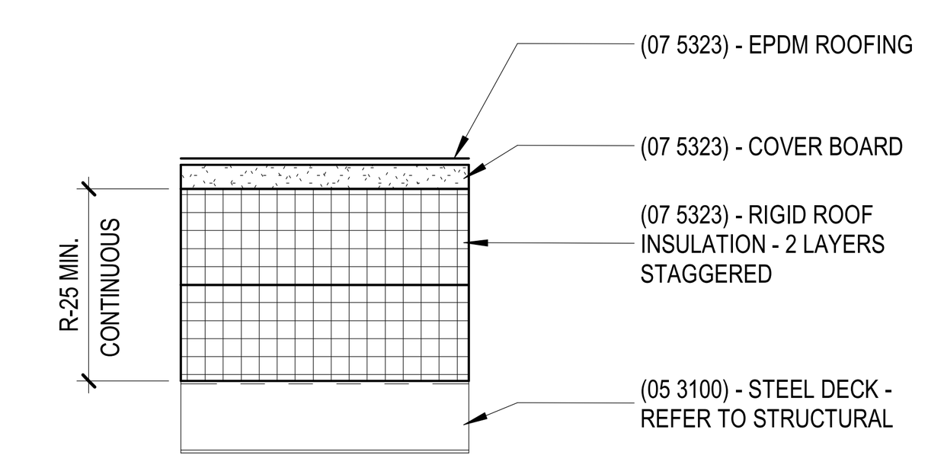
B **EXTERIOR WALL TYPE E2**
1 1/2" = 1'-0"



D **EXTERIOR WALL TYPE E3**
1 1/2" = 1'-0"



E **EXTERIOR WALL TYPE E3**
1 1/2" = 1'-0"



R1 - EPDM ON METAL DECK

C **ROOF TYPES**
3" = 1'-0"

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3	Addendum 2	05.29.26

EXTERIOR ASSEMBLIES

A-501

TAGGED NOTES

F1 IN THE OUTLINED AREA PROVIDE A NEW 100% WET PIPE SPRINKLER COVERAGE SYSTEM AS REQUIRED TO MEET NFPA-13 REQUIREMENTS. COORDINATE INSTALLATION PIPES AND SPRINKLER HEADS WITH CEILING, DUCK WORK, LIGHTS AND OTHER TRADE PIPES. REFER TO ARCHITECTS'S REFLECTED CEILING PLANS FOR CEILING LAYOUT.

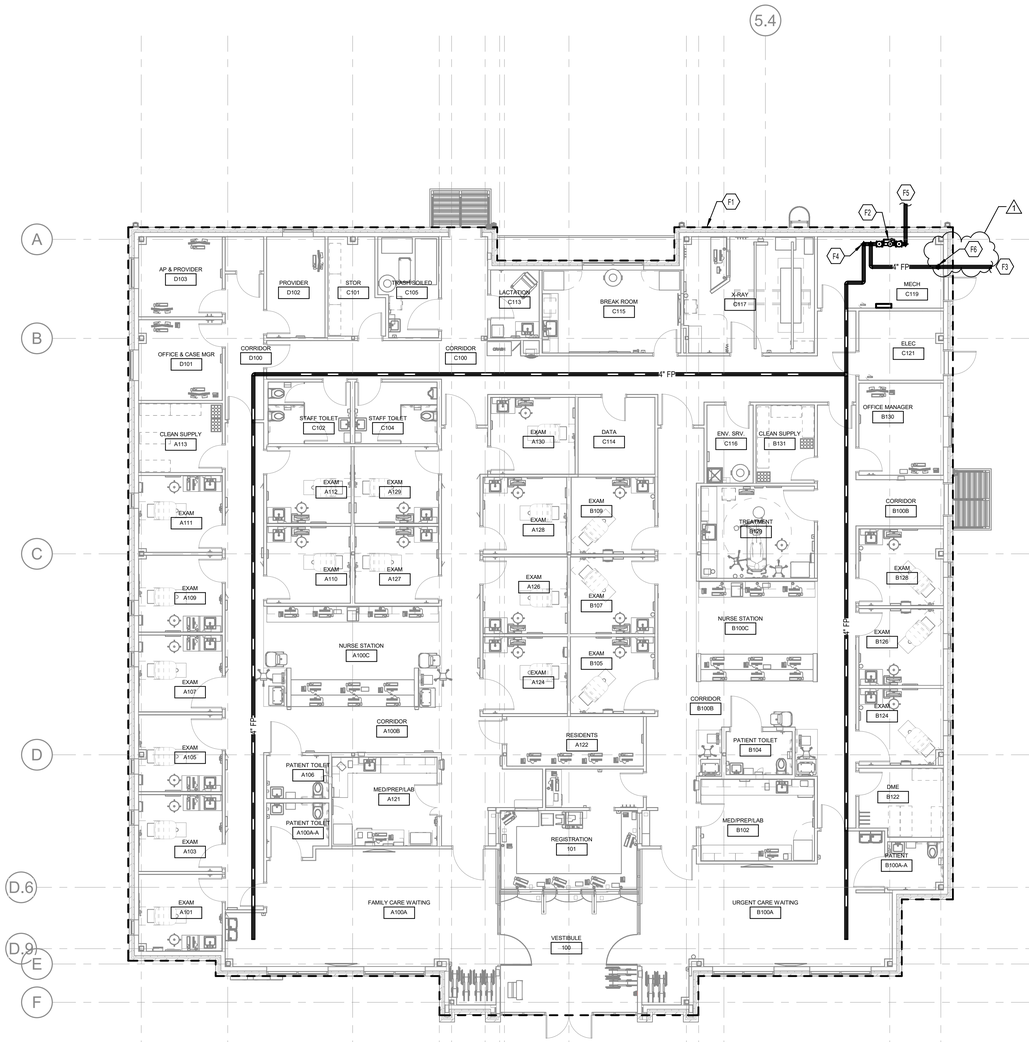
F2 PROVIDE DOUBLE DETECTOR CHECK VALVE FOR THE FIRE PROTECTION ENTRANCE.

F3 FIRE PROTECTION LINE TO THE FREE STANDING FIRE DEPARTMENT CONNECTION ON THE SITE. REFER TO CIVIL SITE UTILITY PLAN FOR CONTINUATION.

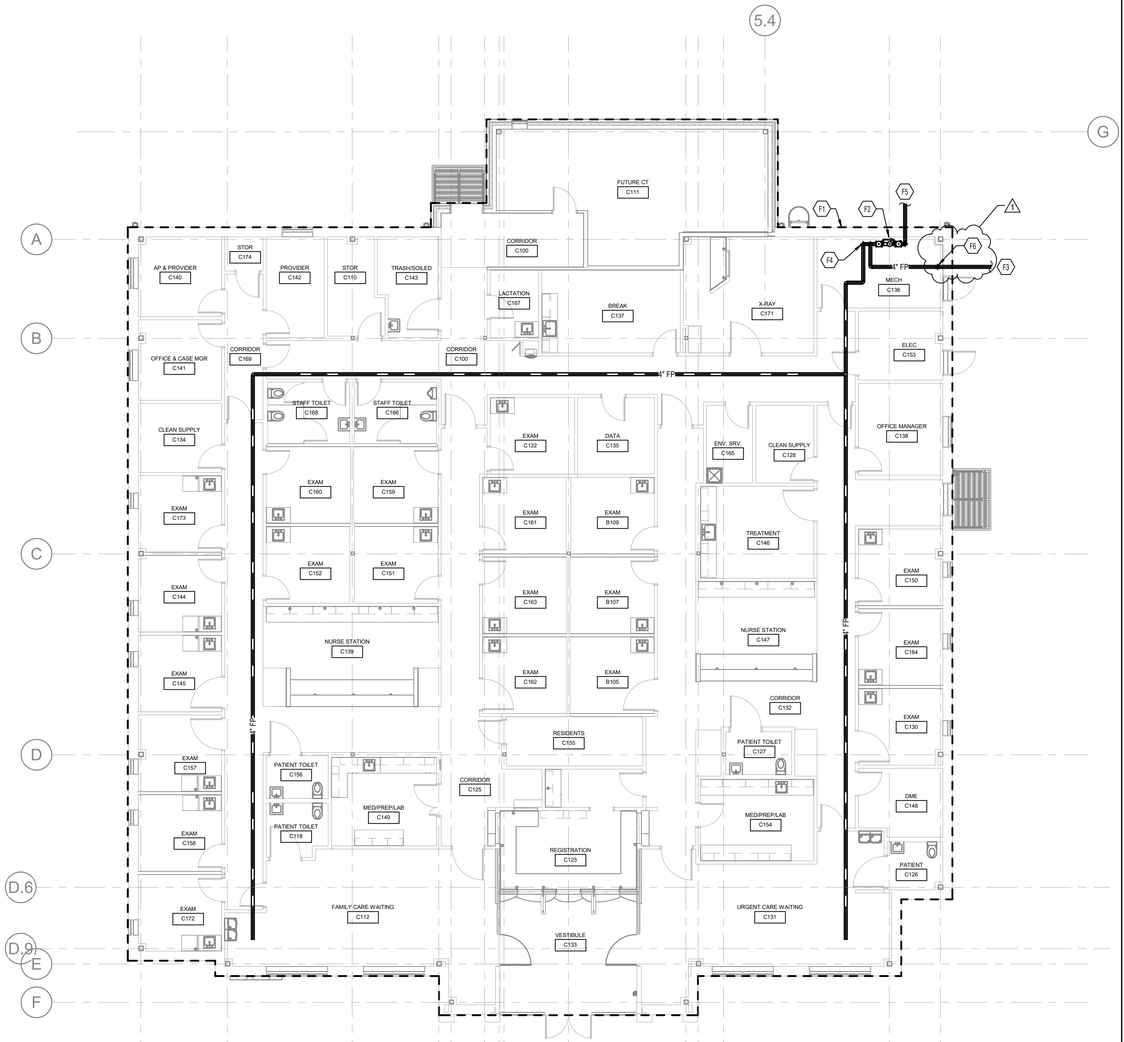
F4 FIRE PROTECTION SYSTEM RISER. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

F5 COMBINED WATER SERVICE FOR FIRE AND DOMESTIC WATER. REFER TO CIVIL SITE UTILITY PLAN FOR CONTINUATION.

F6 INSTALL CHECK VALVE ON THE VERTICAL PIPING FOR THE FREESTANDING FIRE DEPARTMENT CONNECTION LOCATED ON SITE. INSTALL CHECK VALVE 48" FROM THE FINISH FLOOR TO THE CENTER OF THE CHECK VALVE. INSTALL DRIP DRAIN THROUGH EXTERIOR WALL.



1 FIRE PROTECTION FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'



2 FIRE PROTECTION FLOOR PLAN - CT ALTERNATE
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

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859.252.6781

STATE OF KENTUCKY
JEFFREY AUSTIN HUTCHISON
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FIRE PROTECTION	
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FIRE PROTECTION PLAN

F-101

1 HYDRANT FLOW TEST LOCATIONS
SCALE: NONE

FIRE PROTECTION PIPE

WET SYSTEMS:
- NIPPLES AND FITTINGS SHALL BE OF SAME MATERIAL, COMPOSITION, AND WEIGHT CLASSIFICATION AS PIPE IN WHICH INSTALLED
- UP TO 2" (INTERIOR) SCHEDULE 40 ASTM A-53 BLACK STEEL; 125# CAST IRON SCREWED FITTINGS OR SCHEDULE 10, ASTM A-135 BLACK STEEL WITH VICTAULIC OR SIMILAR TYPE APPROVED FITTINGS.
- 2-1/2" AND LARGER (INTERIOR) SCHEDULE 40 BLACK STEEL WITH FLANGED, WELDED OR VICTAULIC (OR SIMILAR) TYPE APPROVED FITTINGS OR SCHEDULE 10, ASTM A-135 BLACK STEEL WITH VICTAULIC OR SIMILAR TYPE APPROVED FITTINGS.

SPRINKLER HEAD SELECTION

GEM, GRINNELL, STAR, VIKING, RELIABLE, CENTRAL OR APPROVED EQUIVALENT AS FOLLOWS:

- ALL SPRINKLER HEADS SHALL BE "QUICK ACTING" SEMI RECESSED SPRINKLER HEADS. EXTENDED RANGE SPRINKLER HEADS ARE NOT PERMITTED.
- PROVIDE "STANDARD UP RIGHT" SPRINKLERS WHERE PIPING IS EXPOSED.
- PROVIDE TWO PIECES, SEMI RECESSED, WHITE PLATED SPRINKLER HEADS WITH REMOVABLE ESCUTCHEON WHERE PIPING IS CONCEALED ABOVE FINISHED CEILINGS.
- PROVIDE SPRINKLER HEAD GUARDS WHERE HEADS ARE SUBJECT TO PHYSICAL ABUSE. HEADS LOCATED BELOW SEVEN (7) FEET ABOVE FLOOR ETC.
- FLEXIBLE FIRE PROTECTION HEAD DROPS SHALL NOT BE INSTALLED.
- SPRINKLER HEAD DEGREE RATINGS SHALL BE DETERMINED BY THE AREA SERVICED IN ACCORD WITH CURRENT CODES AND STANDARD PRACTICES. INDICATE DEGREE RATINGS ON SUBMITTED SHOP DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR INSPECTION, ONE (1) SAMPLE OF EACH TYPE OF SPRINKLER HEAD, PROPOSED TO BE USED ON THE PROJECT.
- HEADS SHALL BE INSTALLED IN THE MIDDLE OF THE TILES, AT HALF OR QUARTER POINTS ALONG THE LENGTH OF THE TILES. INSTALL SPRINKLER HEADS AT QUARTER POINTS OF CENTER SCOURED 2' X 4' CEILING TILES.
- PROVIDE HIGH TEMPERATURE HEADS AROUND RANGE HOODS, KITCHEN EQUIPMENT, KILNS, BOILERS, WATER HEATERS AND OTHER HEAT PRODUCING EQUIPMENT.

BUILDING AREA CALCULATIONS

	AREA (SQ. FT)	NO. OF FIRE PROTECTION SYSTEM(S)
FIRST FLOOR	10,235	1
TOTAL	10,235	1

NFPA 13-19 ALLOWS MAXIUMUM 52,000 SQUARE FEET PER FLOOR PER SYSTEM RISER.

FLOW DATA

STATIC PSI:	120
RESIDUAL PSI:	108
FLOW:	1525 GPM
DURATION:	CONTINUOUS
DATE & TIME:	04/01/2026
SOURCE OF WATER:	CITY OF GREENUP WATER COMPANY
SOURCE OF DATA:	BREWER & COMPANY
HAZARD:	LIGHT
OCCUPANCY OF BUILDING:	BUSINESS

REMOTE AREA FIRE FLOW CALCULATION MATRIX

BUILDING LIGHT HAZARD FLOW

NFPA 13 HOSE STREAM TABLE 5-2.3	LIGHT HAZARD	TOTAL INSIDE AND OUTSIDE HOSE	100 GPM
NFPA 13 AREA/DENSITY CURVE TABLE 5-2.3	LIGHT HAZARD	REMOTE SPRINKLER DEMAND 0.10 GPM/FT^2 X 1,500 SQ. FT	150 GPM
		TOTAL	250 GPM

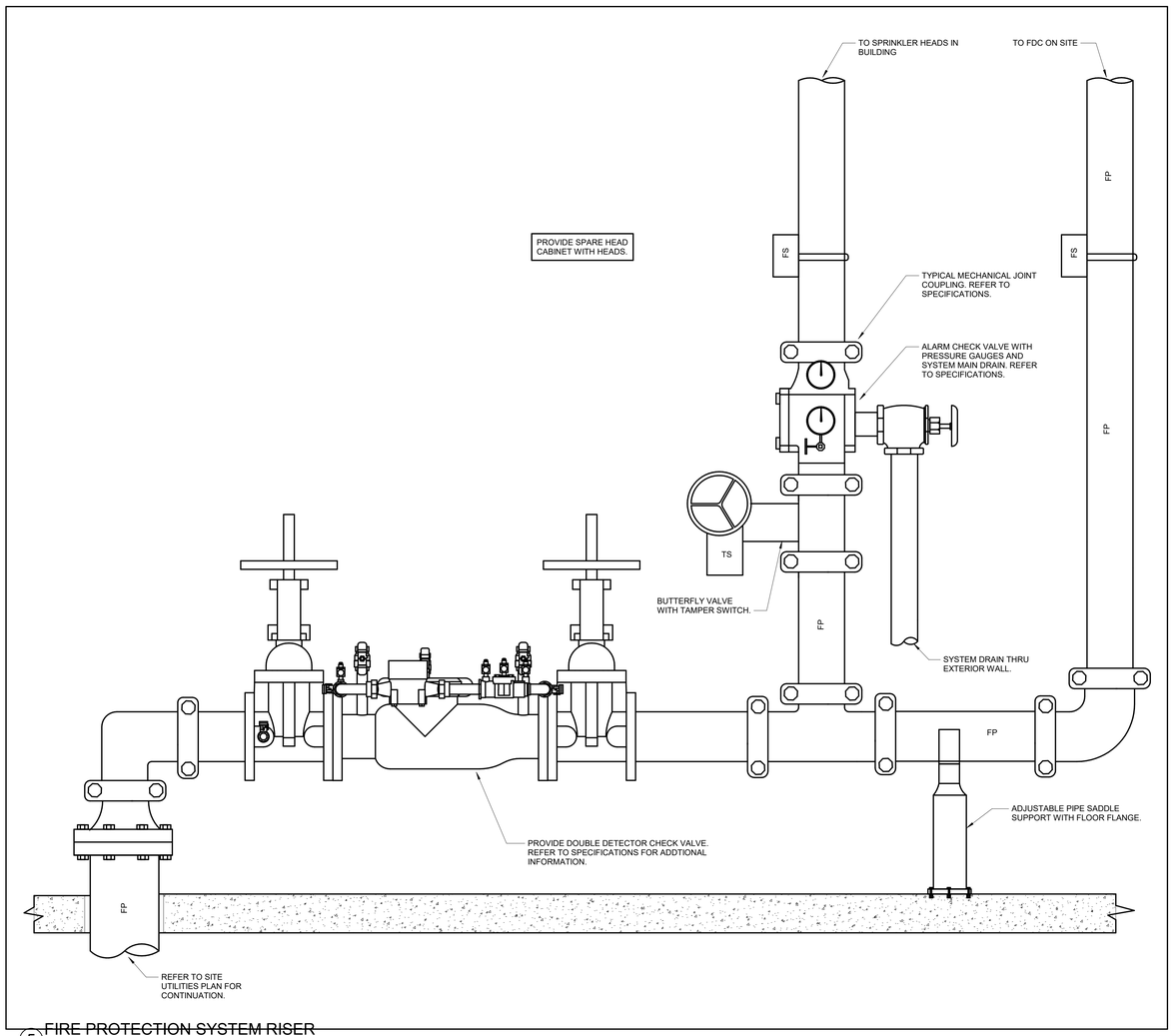
FLOW CALCULATIONS BASED ON NFPA 13-19 FIGURE 19.3.3.1.1 DENSITY/AREA CURVES AND TABLE 19.3.3.1.2 HOSE STREAM ALLOWANCE FOR HYDRAULICALLY CALCULATED SYSTEMS.

REMOTE AREA PRESSURE LOSS CALCULATION

BUILDING LIGHT HAZARD PRESSURE LOSS AT 250 GPM

	HEAD LOSS	COMPONENT PRESSURE LOSS
SITE PIPE FRICTION	20' HD	8.68 PSI
SITE ELEVATION HEAD LOSS	20'	8.68 PSI
BACKFLOW PREVENTION LOSS		5 PSI
BUILDING PIPE FRICTION LOSS	240' (3.4'/100') = 8.16' HD	3.54 PSI
BUILDING ELEVATION HEAD LOSS	14'	6.08 PSI
REMOTE SPRINKLER HEAD LOSS		15 PSI
	TOTAL	46.98 PSI

PIPE AND ELBOW FRICTION COEFFICIENT WAS TAKEN FROM NFPA 13-19. TABLE 27.2.3.1.1.



5 FIRE PROTECTION SYSTEM RISER
SCALE: NONE

EQUIVALAENT SCHEDULE 40 STEEL PIPE LENGTH CHART

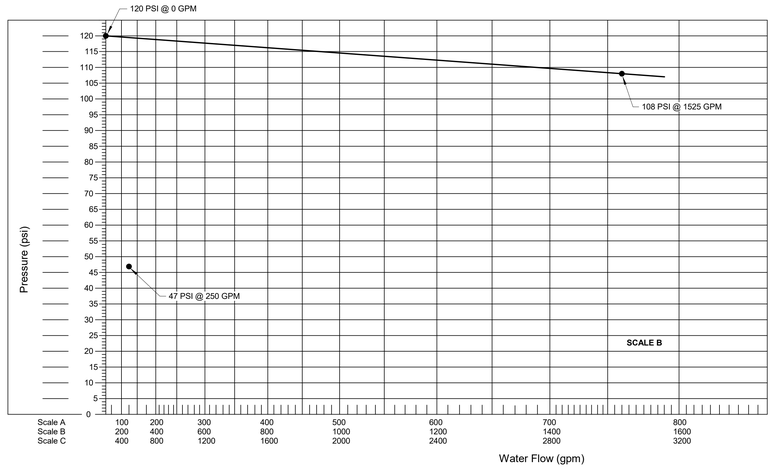
	FITTINGS AND VALVES EXPRESSED IN EQUIVALENT FEET OF PIPE									
	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"
45° ELBOW	1	1	1	2	2	3	3	4	7	9
90° STANDARD ELBOW	2	2	3	4	5	6	7	10	14	18
90° LONG-TURN ELBOW	1	2	2	2	3	4	7	6	9	13
TEE OR CROSS	4	5	6	8	10	12	15	20	30	35
BUTTERFLY VALVE	-	-	-	-	6	7	10	12	10	12
GATE VALVE	-	-	-	-	1	1	1	2	3	4
VANE TYPE FLOW SWITCH	-	6	9	10	14	17	22	30	16	22
SWING CHECK	-	5	7	9	11	14	16	22	32	45

TABLE IS TAKEN FROM NFPA13-19 SECTION 27.2.3.1.1.

EQUIVALENT LENGTH MODIFIER FOR NON-SCHEDULE 40 STEEL PIPE

$$\left(\frac{\text{ACTUAL INSIDE DIAMETER}}{\text{SCHEDULE 40 STEEL PIPE INSIDE DIAMETER}}\right)^{4.87} = \text{FACTOR}$$

FORMULA IS TAKEN FROM NFPA13-19 SECTION 27.2.3.1.3.1.



2 FIRE PROTECTION DESIGN CRITERIA
SCALE: NONE

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

STATE OF KENTUCKY · JEFFREY AUSTIN HUTCHISON · LICENSED PROFESSIONAL ENGINEER

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CONSTRUCTION DOCUMENTS

GREENUP COUNTY URGENT CARE / FAMILY CARE MEDICAL OFFICE BUILDING
UNIVERSITY OF KENTUCKY KING'S DAUGHTERS MEDICAL CENTER
1448 SEATON AVENUE, GREENUP, KENTUCKY 41144

King's Daughters

FIRE PROTECTION

PROJECT	202587
UK #	3123.0
DATE	05/01/26

REVISIONS

No.	Description	Date
1	ADDENDUM 2	5/27/26

FIRE PROTECTION DETAILS/ CALCULATIONS

F-200

VAV/CAV BOX RUNOUT SCHEDULE

MARK	DUCT INLET SIZE
VAV-6	6"
VAV-8	8"
VAV-10	10"

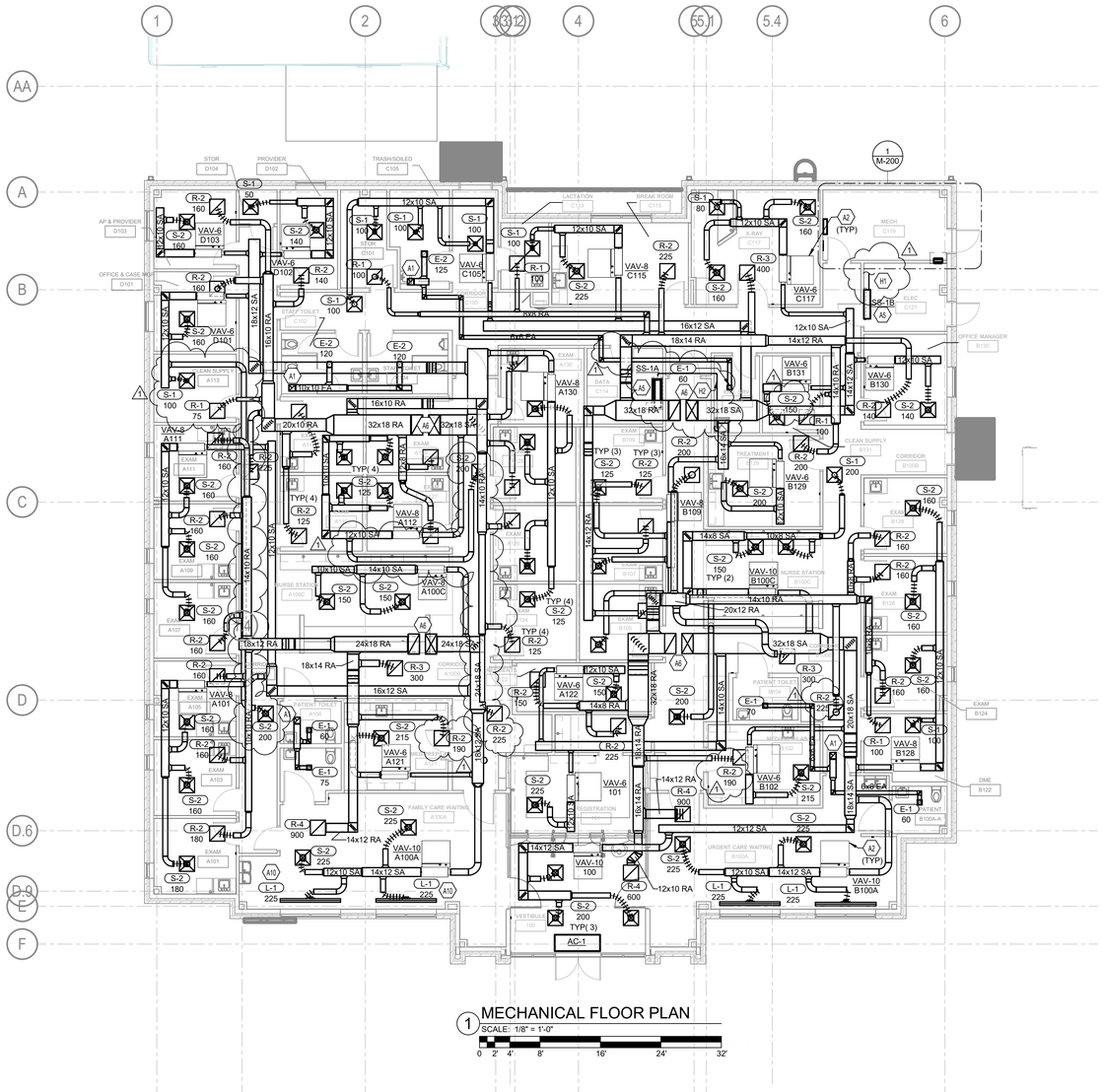
M R,G,D RUNOUT SCHEDULE

MARK	DUCT BRANCH SIZE
E-1	6"X6"
E-2	8"X8"
L-1	8"Ø
R-1	6"Ø
R-2	8"Ø
R-3	10"Ø
R-4	22"X22"
S-1	6"Ø
S-2	8"Ø

TAGGED NOTES

(##)

- A1 10"x10" EA DUCT UP TO EXHAUST FAN ON ROOF. REFER TO ROOF PLAN.
- A2 CLEARANCE FOR ELECTRIC REHEAT VAV. ENSURE ALL CLEARANCES ARE MAINTAINED.
- A5 MOUNT UNIT ABOVE DOOR. COORDINATE WITH ELECTRICAL EQUIPMENT. ROUTE ALL PIPING UP TO UNIT ON ROOF. SIZE PIPING ACCORDING TO MANUFACTURER'S REQUIREMENTS. REFER TO PIPE CHASE/ROOF CURB DETAIL ON SHEET M-300.
- A6 SUPPLY AND RETURN DUCTWORK UP TO UNIT ON ROOFTOP, REFER TO ROOF PLAN.
- A10 LINEAR SLOT DIFFUSER TO ALIGN WITH WINDOW WIDTH. PROVIDE BLANK OFF SECTIONS AS REQUIRED.
- H1 ROUTE 3/4" CONDENSATE PIPE TO NEAREST FLOOR DRAIN. ROUTE PIPE IN A WAY THAT DOES NOT CAUSE A TRIPPING HAZARD.
- H2 ROUTE 3/4" CONDENSATE PIPE TO SPILL IN JANITOR'S CLOSET MOP SINK



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MECHANICAL

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MECHANICAL FLOOR PLAN

M-101

M R,G,D RUNOUT SCHEDULE

MARK	DUCT BRANCH SIZE
E-1	6"X6"
E-2	8"X8"
L-1	8"Ø
R-1	6"Ø
R-2	8"Ø
R-3	10"Ø
R-4	22"X22"
S-1	6"Ø
S-2	8"Ø

VAV/CAV BOX RUNOUT SCHEDULE

MARK	DUCT INLET SIZE
VAV-6	6"
VAV-8	8"
VAV-10	10"

TAGGED NOTES

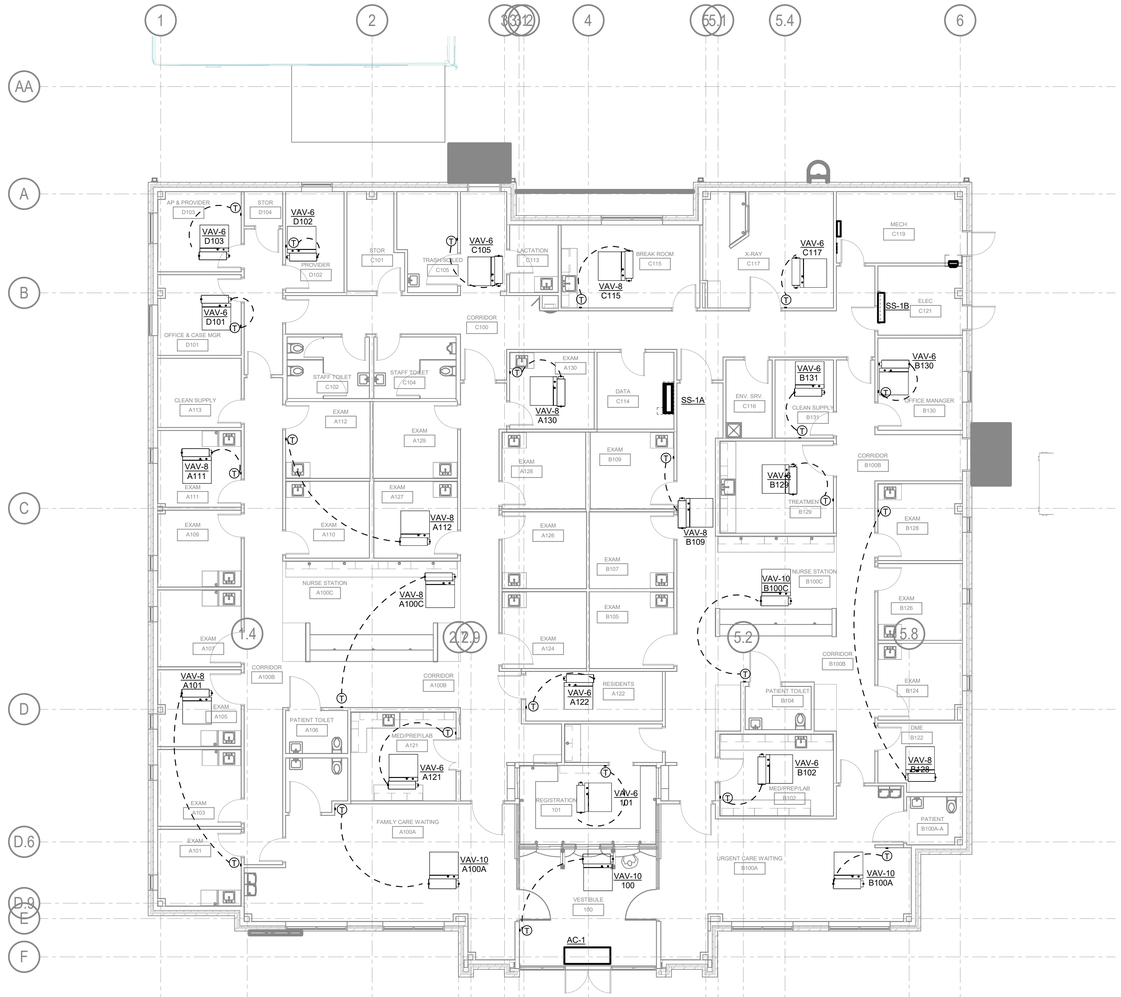
##

A7 IF ALTERNATE IS ACCEPTED, PROVIDE MECHANICAL SCOPE WITHIN OUTLINED.

A8 IN-WALL ELECTRIC WALL HEATER, PROVIDE MOUNTED THERMOSTAT.

A11 IF ALTERNATE IS ACCEPTED, CAP DUCTWORK FOR BOTH SUPPLY AND RETURN. LEAVE DAMPER UPSTREAM OF UNIT TO BE CLOSED UNTIL CT SPACE IS FULLY FIT OUT.

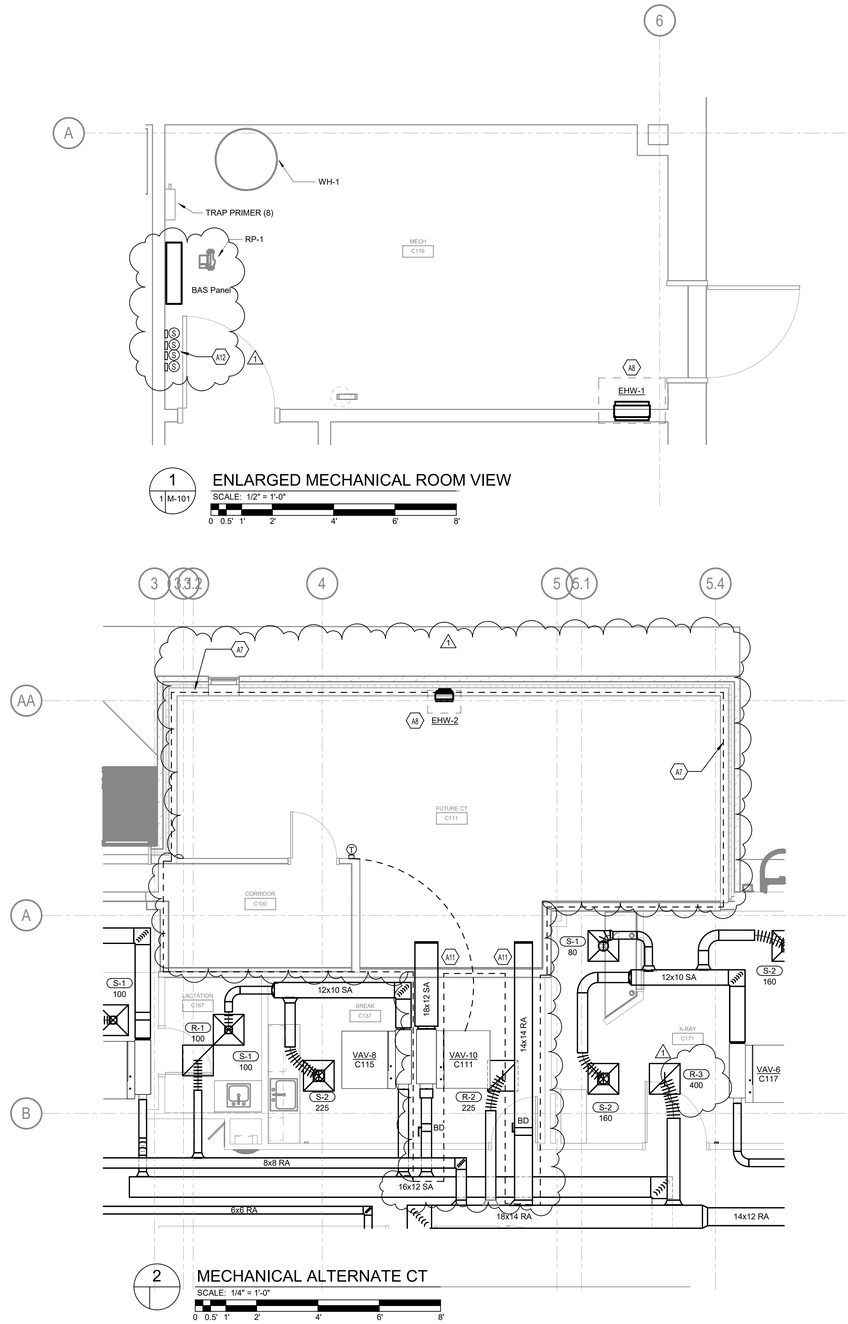
A12 PROVIDE SPEED CONTROLLERS FOR EXHAUST FANS HERE.



3 MECHANICAL THERMOSTAT PLAN

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

0 0.5' 1' 2' 4' 6' 8'



1 / 1 M-101 ENLARGED MECHANICAL ROOM VIEW

SCALE: 1/2" = 1'-0"

0 0.5' 1' 2' 4' 6' 8'

2 MECHANICAL ALTERNATE CT

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

0 0.5' 1' 2' 4' 6' 8'

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301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

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ENLARGED MECHANICAL PLANS

M-200

AIR HANDLING UNIT SCHEDULE - PACKAGED AIR SOURCE

MARK	MANUFACTURER	MODEL	CFM	OA CFM	NO. OF ROWS	FIN SPACING (FINS/IN)	REFRIGERANT	COOLING PERFORMANCE: DX COIL: TOTAL (MBH)	SENSIBLE (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	FACE VELOCITY (FPM)	ESP (IN WG)	SEER	HOT GAS REHEAT COIL: TOTAL CAPACITY (MBH)	LAT (°F)	UNIT LAT (°F)	ELECTRIC HEATING: TOTAL HEATING CAPACITY (MBH)	ELECTRIC CONSUMPTION (KW)	EAT (°F)	LAT (°F)	ELECTRIC: MCA	MOCP	PHASE	VOLTAGE	SUPPLY FAN HP	WEIGHT	REMARKS
RTU-1	TRANE	WSK102	2800	840	4	16	R-454B	100.8	73.8	80	67	54	54	221	1.65	11	38.2	68	55	92.2	27 W	52	82	137 A	150	3	208 V	3	1175	ALL
RTU-2	TRANE	WSK120	3500	1050	4	16	R-454B	120.0	92.5	80	67	54	54	224	1.50	11	52.8	68	55	92.2	27 W	52	82	144 A	150	3	208 V	3	1161	ALL
RTU-3	TRANE	WSK120	3500	1050	4	16	R-454B	120.0	92.5	80	67	54	54	224	1.50	11	52.8	68	55	92.2	27 W	52	82	144 A	150	3	208 V	3	1161	ALL
RTU-4	TRANE	WSK090	2400	720	4	16	R-454B	82.6	64.0	80	67	54	54	194	1.75	11	43.0	71	55	92.2	27 W	52	87	127 A	150	3	208 V	3	1157	ALL

REMARKS:
1. PROVIDE WITH MERV-13 FILTERS.
2. PROVIDE WITH BACNET/IP COMMUNICATION CARD.
3. UNIT SHALL BE SINGLE POINT POWER.
4. SUPPLY WITH ROOF CURB.
5. PROVIDE WITH MANUFACTURER'S NON FUSED DISCONNECT. EC TO INSTALL.

VAV BOX WITH ELECTRIC REHEAT COIL SCHEDULE

MARK	MANUFACTURER	MODEL #	BOX TYPE	DIMENSIONS (IN): LENGTH	WIDTH	HEIGHT	INLET SIZE	INLET STATIC PRESS. @ MAX CFM (" WG)	VOLUME CONTROL DAMPER: MAX DISCHARGE NC	MAX. CFM	MIN. CFM	ELECTRIC REHEAT COIL: CFM	EAT DB RH COIL	LAT DB RH COIL	KW	VOLTAGE	PHASE	MCA	MOCP	REMARKS
VAV-6	TRANE	6	VAV	45	19	12	6"	0.22	20	500	100	250	55	80	2	208 V	3	6.94 A	15	ALL
VAV-8	TRANE	8	VAV	45	19	12	8"	0.10	20	900	180	450	55	76	3	208 V	3	10.41 A	15	ALL
VAV-10	TRANE	10	VAV	45	22	14	10"	0.05	20	1400	280	700	55	77	5	208 V	3	17.35 A	20	ALL

REMARKS:
1. PROVIDE VAV BOX WITH 1" FOAM INSULATION.
2. PROVIDE WITH NON-FUSED DISCONNECT AT UNIT.

REGISTERS, GRILLES, AND DIFFUSERS

MARK	MANUFACTURER	MODEL #	TYPE	GRILLE SIZE	DUCT INLET SIZE	MAX CFM	P.D.	NOISE CRITERIA	THROW PATTERN	REMARKS
E-1	TITUS	350FS	ALUMINUM EXHAUST GRILLE	6"X6"	6"X6"	80	0.10	20	-	ALL
E-2	TITUS	350FS	ALUMINUM EXHAUST GRILLE	8"X8"	8"X8"	150	0.05	20	-	ALL
L-1	TITUS	FL-10	LINEAR SLOT SUPPLY DIFFUSER, 1" SINGLE SLOT	-	8"Ø	650	0.05	10	-	ALL
R-1	TITUS	50F	ALUMINUM EGG CRATE RETURN	24"X24"	6"Ø	100	0.05	20	-	ALL
R-2	TITUS	50F	ALUMINUM EGG CRATE RETURN	24"X24"	8"Ø	225	0.05	20	-	ALL
R-3	TITUS	50F	ALUMINUM EGG CRATE RETURN	24"X24"	10"Ø	400	0.05	20	-	ALL
R-4	TITUS	50F	ALUMINUM EGG CRATE RETURN	24"X24"	22"X22"	2000	0.05	15	-	ALL
S-1	TITUS	OMNI-AA	PERFORATED ALUMINUM	24"X24"	6"Ø	100	0.05	25	4-WAY	ALL
S-2	TITUS	OMNI-AA	PERFORATED ALUMINUM	24"X24"	8"Ø	225	0.05	25	4-WAY	ALL

REMARKS:
1. PROVIDE WITH FACTORY MOUNTED R-6 BACK INSULATION.
2. PROVIDE ALL MOUNTING HARDWARE FOR INSTALLATION.
3. COLOR TO BE SELECTED BY ARCHITECT.

AIR CURTAIN SCHEDULE

MARK	MANUFACTURER	MODEL #	MOUNTING TYPE	NOMINAL AIRFLOW (CFM)	FAN SIZE (HP)	ELECTRICAL INFORMATION: VOLTAGE	PHASE	Hz	HP	AMPS	REMARKS
AC-1	MARS	PH1072-2U-PW	CEILING	2920	2.5	208 V	3	60	2.5	3.6	ALL

REMARKS:
1. PROVIDE WITH DOOR LIMIT SWITCH.
2. PROVIDE WITH SINGLE POINT POWER CONNECTION. EC TO PROVIDE AND INSTALL DISCONNECT.
3. PROVIDE WITH ALL NECESSARY WALL-MOUNTED SUPPORTS AND FASTENERS.

SPLIT SYSTEM INDOOR UNIT SCHEDULE

MARK	MODEL #	MANUF.	DIMENSIONS (IN.): LENGTH	WIDTH	HEIGHT	WEIGHT (LBS)	AIRFLOW (CFM)	ELECTRICAL: PHASE	VOLTAGE	REMARKS
SS-1A	TPKA0A241KA80A	MITSUBISHI	46	12	14	46	700	1	208 V	ALL
SS-1B	TPKA0A241KA80A	MITSUBISHI	46	12	14	46	700	1	208 V	ALL

REMARKS:
1. PROVIDE DISCONNECT. EC TO INSTALL.
2. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT. ALL POWER WIRING BETWEEN UNITS BY ELECTRICAL CONTRACTOR.
3. PROVIDE WITH CONDENSATE PUMP.
4. PROVIDE BACNET INTERFACE FOR INTEGRATION INTO BUILDING AUTOMATION SYSTEM.
5. REFRIGERANT PIPE SIZING AND ROUTING PER MANUFACTURER'S SPECIFICATIONS.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

MARK	MANUF.	MODEL #	DIMENSIONS (IN.): LENGTH	WIDTH	HEIGHT	WEIGHT (LBS)	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	MINIMUM SEER	MCA	MOCP	PHASE	E VOLTAGE	REMARKS
CU-1A	MITSUBISHI	TRUYA0341HA70NA	37	14	37	150	24.0	18.5	21.3	19 A	26	1	208 V	ALL
CU-1B	MITSUBISHI	TRUYA0341HA70NA	37	14	37	150	24.0	18.5	21.3	19 A	26	1	208 V	ALL

REMARKS:
1. PROVIDE DISCONNECT AND SINGLE-POINT POWER CONNECTION. EC TO INSTALL.
2. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT. ALL POWER WIRING BETWEEN UNITS BY ELECTRICAL CONTRACTOR.
3. PROVIDE BACNET INTERFACE FOR INTEGRATION INTO BUILDING AUTOMATION SYSTEM.
4. REFRIGERANT PIPE SIZING AND ROUTING PER MANUFACTURER'S SPECIFICATIONS.
5. PROVIDE LOW AMBIENT COOLING KIT AND WIND BAFFLE.
6. PROVIDE HAIL GUARDS

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	TYPE	AIRFLOW (CFM)	E.S.P.	DRIVE	RPM	FAN HP	ELECTRICAL DATA: PHASE	VOLTAGE	HZ	SONES	REMARKS
EF-1A	GREENHECK	CUE-080-VG	EXHAUST FAN	DIRECT	135	0.50	DIRECT	1446	0.4	1	208 V	60	7.1	ALL
EF-1B	GREENHECK	CUE-080-VG	EXHAUST FAN	DIRECT	130	0.50	DIRECT	1446	0.4	1	208 V	60	7.1	ALL
EF-1C	GREENHECK	CUE-080-VG	EXHAUST FAN	DIRECT	210	0.50	DIRECT	1446	0.4	1	208 V	60	7.1	ALL
EF-2	GREENHECK	G-098-VG	EXHAUST FAN	DIRECT	240	0.50	DIRECT	1181	0.1	1	208 V	60	5.8	ALL

REMARKS:
1. PROVIDE WITH SINGLE POINT POWER CONNECTION AND DISCONNECT. EC TO INSTALL.
2. PROVIDE WITH SPEED CONTROLLER.
3. PROVIDE WITH 14 INCH ROOF CURB.
4. PROVIDE WITH MOTORIZED DAMPER WITH END SWITCH THAT SHALL OPEN WHEN FAN IS COMMANDED ON.
5. PROVIDE ALUMINUM BIRD SCREEN.

UNIT HEATER SCHEDULE - ELECTRIC

MARK	MANUF.	MODEL #	TYPE	AIRFLOW (CFM)	kW	VOLTAGE	PHASE	REMARKS
EHW-1	MARKEL	J3325TD-RP	ELECTRIC WALL MOUNT	175	3	208	3	1,2
EHW-2	MARKEL	J3327TD-RP	ELECTRIC WALL MOUNT	175	5	208	3	ALL

REMARKS:
1. PROVIDE ALL MOUNTING HARDWARE FOR INSTALLATION.
2. PROVIDE DISCONNECT AND REMOTE WALL THERMOSTAT. EC TO INSTALL DISCONNECT.
3. PROVIDE ONLY IF ALTERNATE SCOPE IS ACCEPTED.

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
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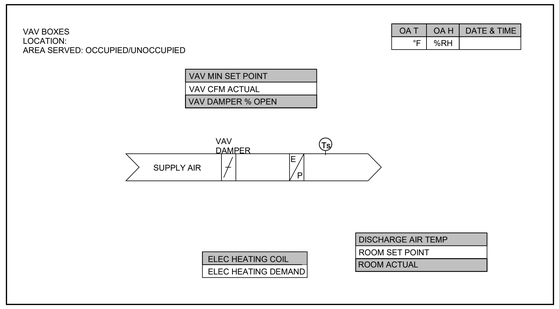
MECHANICAL SCHEDULES

M-400

5/28/2026 10:00:28 AM

MECHANICAL CONTROL LEGEND

AFF	ABOVE FINISHED FLOOR	(Ts)	INSERTION TEMPERATURE SENSOR
BAS	BUILDING AUTOMATION SYSTEM	(H)	HUMIDITY SENSOR
CO2	CARBON DIOXIDE	(LL)	LOW LIMIT TEMPERATURE SENSOR
TCC	TEMPERATURE CONTROL CONTRACTOR	(P)	PRESSURE SENSOR
DP	DEWPOINT	(DP)	DUCT STATIC PRESSURE SENSOR
EA	EXHAUST AIR PATH	DPSW	DIFFERENTIAL PRESSURE SWITCH
RA	RETURN AIR PATH	(DPS)	DIFFERENTIAL PRESSURE SENSOR
SA	SUPPLY AIR PATH	C	START/STOP COMMAND
HPS/R	HEAT PUMP WATER SUPPLY/RETURN	M	MOTORIZED DAMPER
NC	NORMALLY CLOSED	F	FLOW METER
OA	OUTSIDE AIR PATH	CS	CURRENT SENSOR
OCC	OCCUPANCY	SD	DUCT MOUNTED SMOKE DETECTOR
PRESS	PRESSURE	COS	CONDENSATE OVERFLOW SWITCH
DI	DIGITAL INPUT	DSP-HL	DUCT STATIC PRESSURE HIGH LIMIT
DO	DIGITAL OUTPUT	DSP-LL	DUCT STATIC PRESSURE LOW LIMIT
AI	ANALOG INPUT	ZN-DP	ZONE DEW POINT
AO	ANALOG OUTPUT	ZN-CO2	ZONE CARBON DIOXIDE
VFD	VARIABLE FREQUENCY DRIVE	ZN-OCC	ZONE OCCUPANCY SENSOR
RH	RELATIVE HUMIDITY	ZN-T	ZONE TEMPERATURE
MAU	MAKE-UP AIR UNIT	CO2	DDC STANDALONE CARBON DIOXIDE SENSOR
O/H	OCCUPIED HEATING SETPOINT	Ds	DOOR POSITION SENSOR
O/C	OCCUPIED COOLING SETPOINT	CSR	CURRENT SENSOR RELAY
U/H	UNOCCUPIED HEATING SETPOINT		
U/C	UNOCCUPIED COOLING SETPOINT		
(K)	EMERGENCY HVAC/VENTILATION KILL BUTTON		
(Ta)	AVERAGING TEMPERATURE SENSOR		



1 VARIABLE AIR VOLUME (VAV) BOXES

SCALE: NONE

1. VARIABLE AIR VOLUME (VAV) BOXES

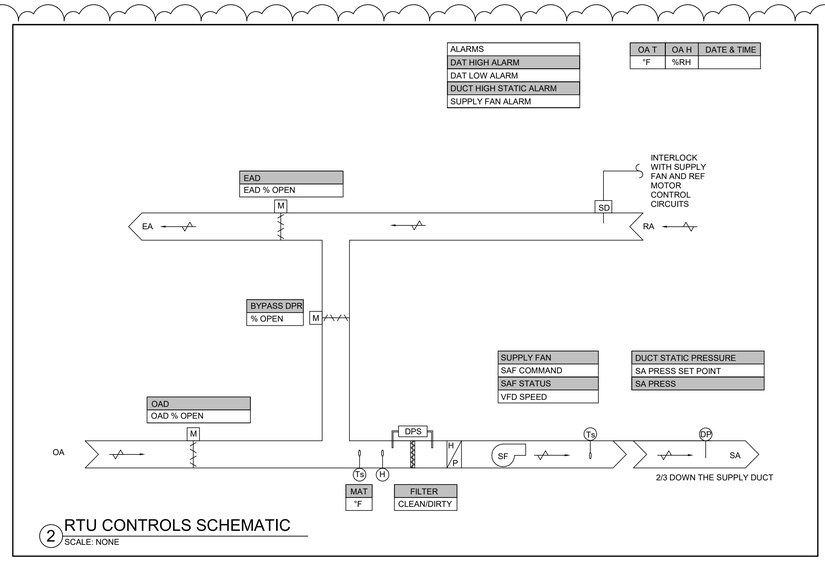
1.1. Refer to drawings if room is controlled via a wall mounted temperature sensor, duct mounted temperature sensor or wall mounted thermostat.

1.2. When cooling is required, the inlet damper shall modulate between the maximum and minimum air flow setpoints as required to maintain space temperature. When heating is required, the inlet damper shall modulate to the minimum heating position and the SCR control shall be modulate the electric heat as required to maintain space temperature setpoint.

1.3. Primary air CFM, leaving air temperature, room temperature and room setpoint shall be monitored by the DDC control system. An air flow sensor shall be located on the inlet side of the VAV box and duct temperature sensor shall be located on the discharge side of the VAV box.

VAV BOX POINTS LIST

Point Description	Object name	DI	DO	AI	AO	Override
VAV Damper	VAV_DPR				X	X
Supply Air Discharge Air Temp	VAV_DAT			X		
Zone Temp Room Setpoint	ZN_T_SP				X	X
Zone Temp Room Actual	ZN_T_A			X		
Room CFM Supply Air	VAV_F			X		



2 RTU CONTROLS SCHEMATIC

SCALE: NONE

RTU SEQUENCE OF CONTROL

1. Factory Mounted Controls: Unit to be provided with factory mounted controls with BAS interface.

2. Occupancy Schedule:
   A. The unit shall be placed into occupied or unoccupied mode from the DDC control system.

3. Supply Fan Control:
   A. Supply fan shall modulate its speed as required to maintain duct static pressure.

4. Supply Air Temperature Controls - Cooling:
   A. Occupied Mode: Modulate the DX cooling capacity to maintain discharge air setpoint of 55 deg F.
   B. Unoccupied Mode: The unit shall be off unless more than 4 VAV boxes call for cooling.
   C. When setback setpoint of 78 deg F (adj.) is exceeded in any space, unit shall be automatically activated into cooling mode with DX coil modulating capacity and condenser fans to maintain unit discharge setpoint.

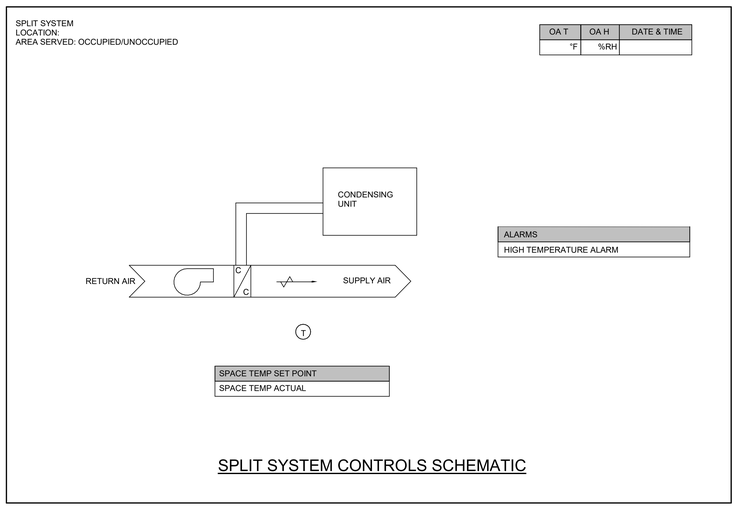
5. Supply Air Temperature Controls - Heating:
   A. Occupied Mode: Primary - Modulate heat pump to maintain discharge air setpoint of 55 deg F.
   B. Unoccupied Mode: The unit shall be off unless more than 4 VAV boxes call for heating.
   C. When temperature falls below SPACE SETBACK setpoint of 62 Deg F, unit shall be automatically be activated into heating mode and the supply fan shall start and unit will maintain 55 deg F leaving air temperature.

6. Damper Control:
   A. Occupied Mode: Coordinate with balance contractor to set OA min intake as per mechanical schedule. In occupied mode, OA damper shall modulate with RA to maintain minimum cfm.
   B. Unoccupied Mode: OA damper shall be closed and RA BYPASS damper shall be open.

7. Economizer Mode: The unit shall be placed into economizer mode if cooling is required and the OA temperature is below 60ºF (adj.)
   A. Modulate OA/RA bypass damper as required to maintain unit discharge setpoint.

8. Smoke Shutdown: Smoke detectors shall be located in the return air stream. If smoke is detected, the supply and exhaust fans shall de-activate and an audio/visual alarm shall activate. Upon correction of the problem, the system shall be reset and unit shall return to normal operation. The smoke detectors shall provide a supervisory signal to the Fire Alarm System.

9. Unit Alarms: Pull all alarms and associated alarm codes into the BAS and upon recieving the alarm from the factory mounted controller, display the alarm code and description and alert owner.



SPLIT SYSTEM CONTROLS SCHEMATIC

DUCTLESS SPLITS POINTS LIST

POINTS	OBJECT NAME	DI	DO	AI	AO	OVERRIDE
Room Temp Setpoint	RM_T_SP				X	X
Room Temp Actual	RM_T_A			X		
High Temperature Alarm	H_T_AL	X				

RTU-# POINTS LIST

POINT DESCRIPTION	OBJECT NAME	DI	DO	AI	AO	OVERRIDE
Discharge Air Temperature Actual	RTU_#_DAT_A			X		
Return Air Temperature	RTU_#_RAT			X		
Supply Air Static Pressure	RTU_#_DASP			X		
Discharge Air Humidity	RTU_#_DA_HUM			X		
Outside Air Damper Position	RTU_#_OA_DAMP_P			X		
Hot Gas Reheat Valve Position	RTU_#_HGRH_VLV_P	X				
Compressor Status	RTU_#_COMP_ST	X				
Fan Alarm	RTU_#_F_AL	X				
Fan Status	RTU_#_F_ST	X				
Fan Command	RTU_#_F_C		X			X
Outside Air Damper Command	RTU_#_OA_DAMP_C				X	X
Discharge Air Temperature Setpoint	RTU_#_DAT_SP				X	X

1. SPLIT SYSTEM SEQUENCE OF OPERATOINS

1.1. These units shall be provided with factory controls. The DDC system shall monitor space temperature and provide a high temperature alarm. The BAS contractor shall provide all necessary wiring conduit, etc. as required to interlock the DDC thermostat with unit and condensing unit. Each room served shall be provided with the split system manufacturer's programmable thermostat and the split system shall control to maintain all spaces a minimum of 72°F (adj.).

1.2. The DDC system shall have the ability to start and stop the split system. Each split system shall be provided with a BACnet over MSTP communication and all points shall be available to the DDC system.

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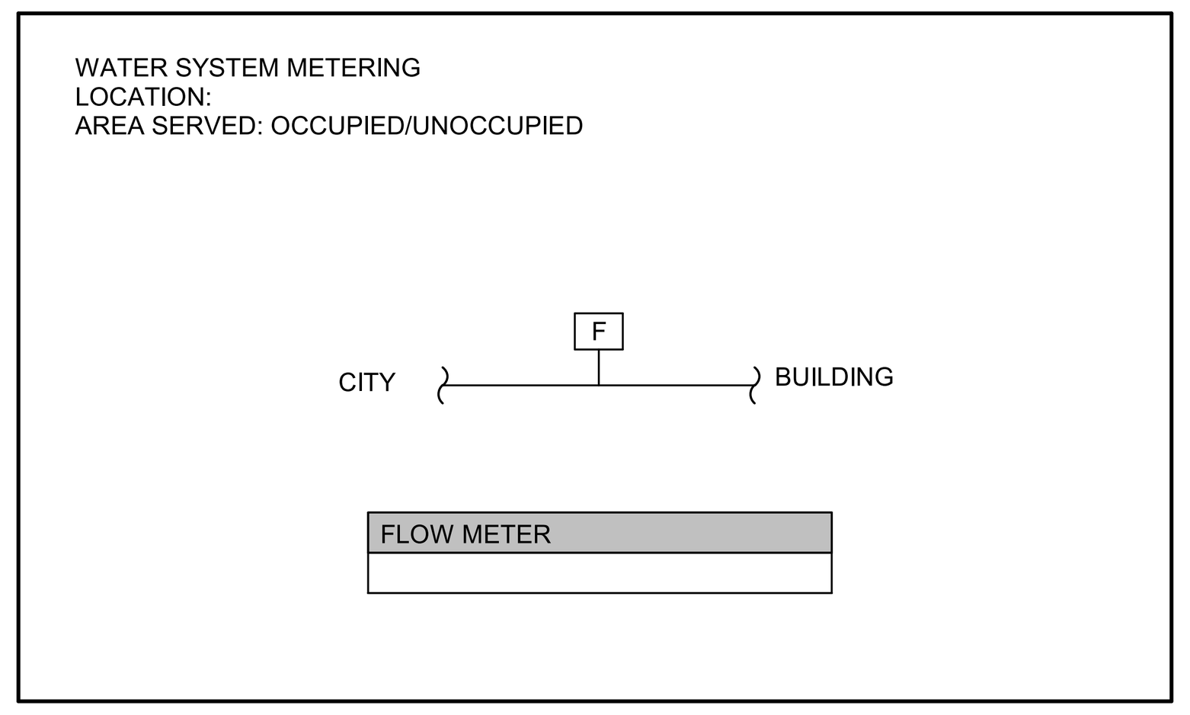
MECHANICAL CONTROLS

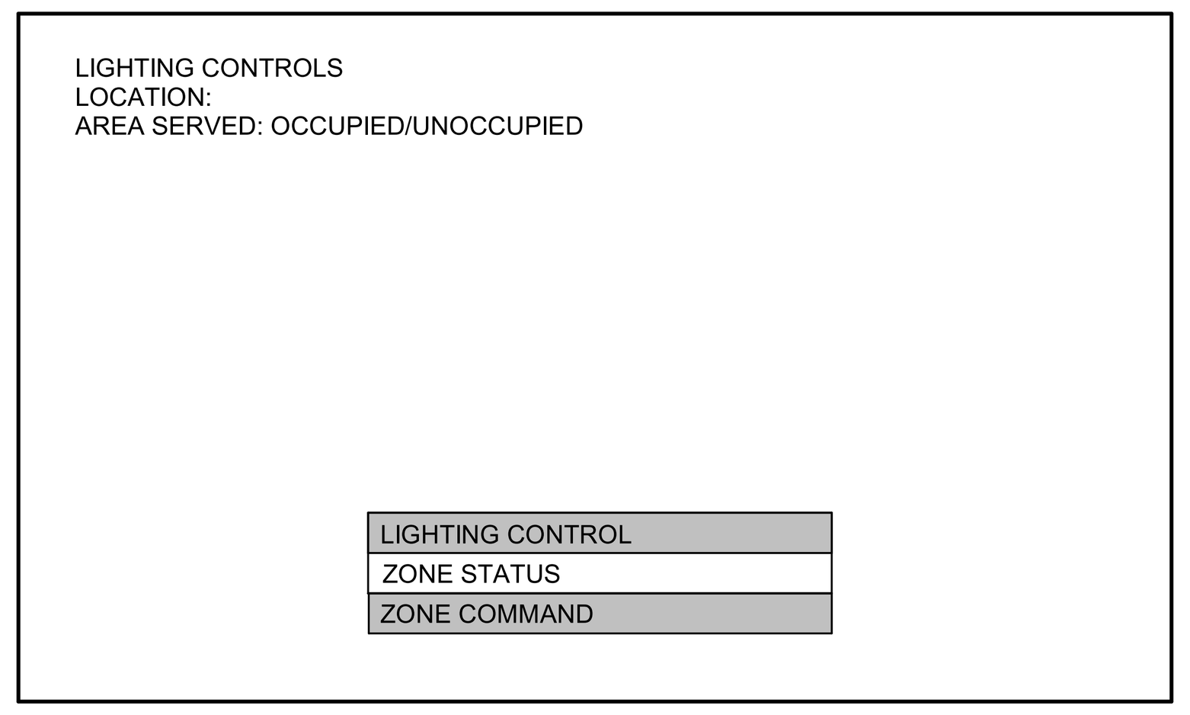
M-500



WATER SYSTEM METERING POINTS LIST						
Point Description	Object Name	DI	DO	AI	AO	Override
Domestic Water Flow Meter Interior	DMW_INT			X		

1. WATER SYSTEM METERING

1.1. Provide a water meter for the building. This shall be connected to the DDC system and provide a total GPM per month of water usage.



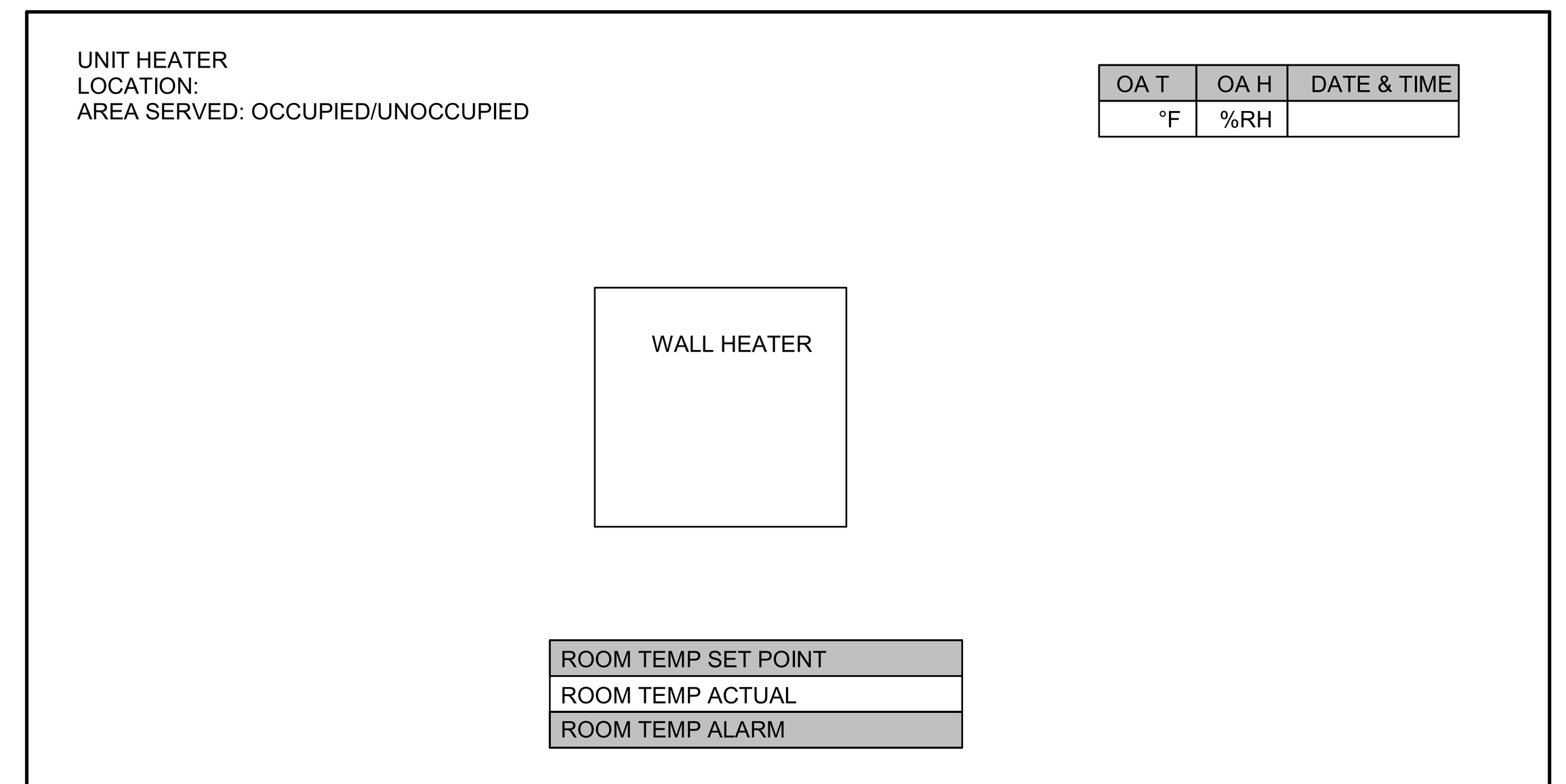
LIGHTING CONTROL SYSTEM POINTS LIST						
Points Description	Object Name	DI	DO	AI	AO	Override
Lighting Zone # Status	LT_#_S	X				
Lighting Zone # Command	LT_#_C		X			X

1. LIGHTING CONTROL SYSTEM

1.1. The DDC shall monitor the lighting control system both the interior and exterior lighting zones and shall have a visual indication on the graphics screen of the building if the lights are on or off for each room/area. The DDC system shall have the availability to turn on and off the lights and control all schedules at each of the following zones.

1.1. Number of control zones -

1.2. Provide all required relays, panels, controllers, etc. as required to control this system. Coordinate all requirements with lighting control vendor. Refer to electrical specifications for additional information.

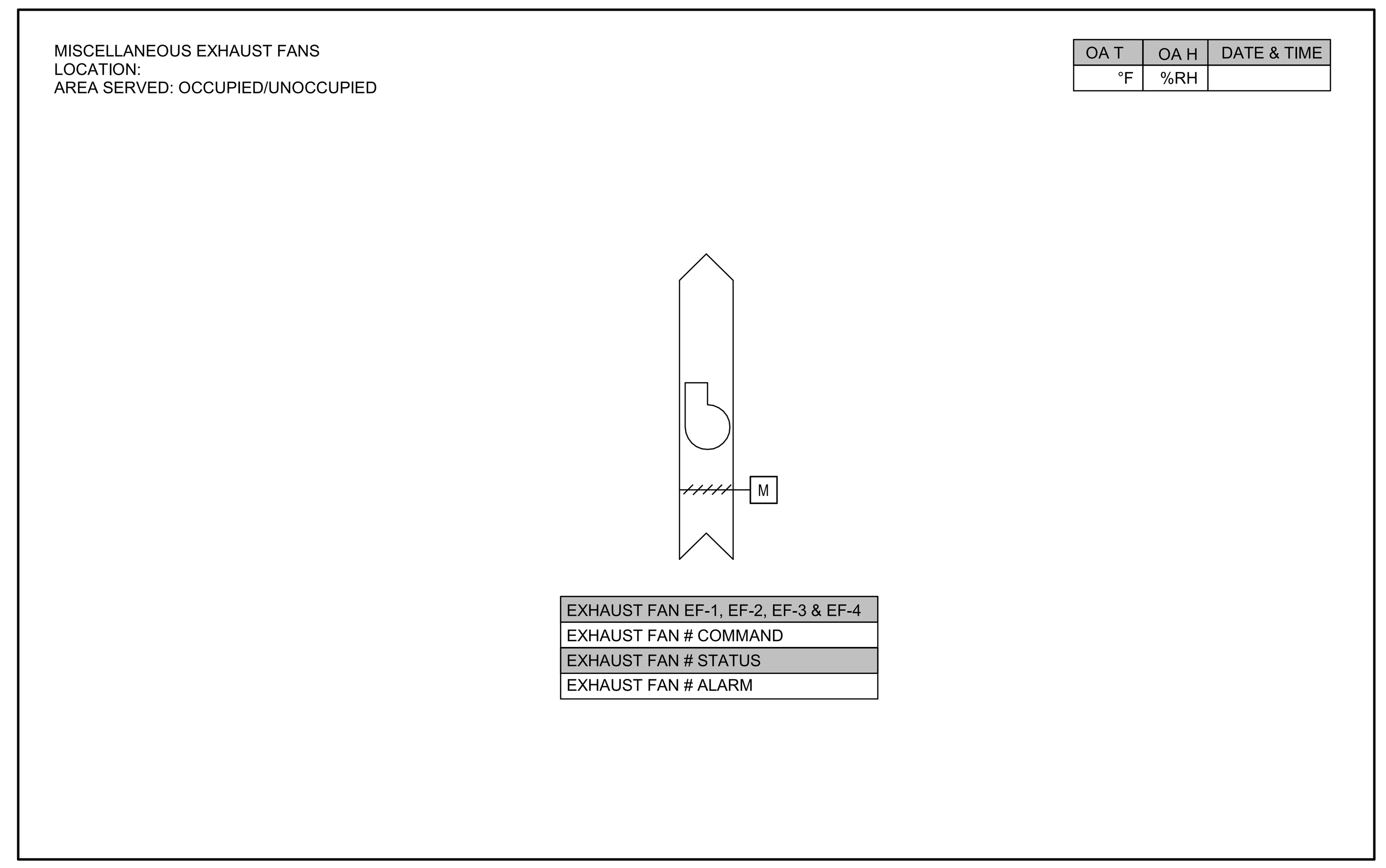


ELECTRIC WALL HEATER CONTROLS SCHEMATIC

UNIT HEATER POINTS LIST						
Point Description	Object Name	DI	DO	AI	AO	Override
Room Temp Setpoint	RM_T_SP				X	X
Room Temp Actual	RM_T_A			X		
Room Temp Alarm	RM_T_AL	X				
Unit Heater Status	UH_S	X				
Unit Heater Command	UH_C		X			

1. ELECTRIC WALL HEATER - SEQUENCE OF OPERATIONS

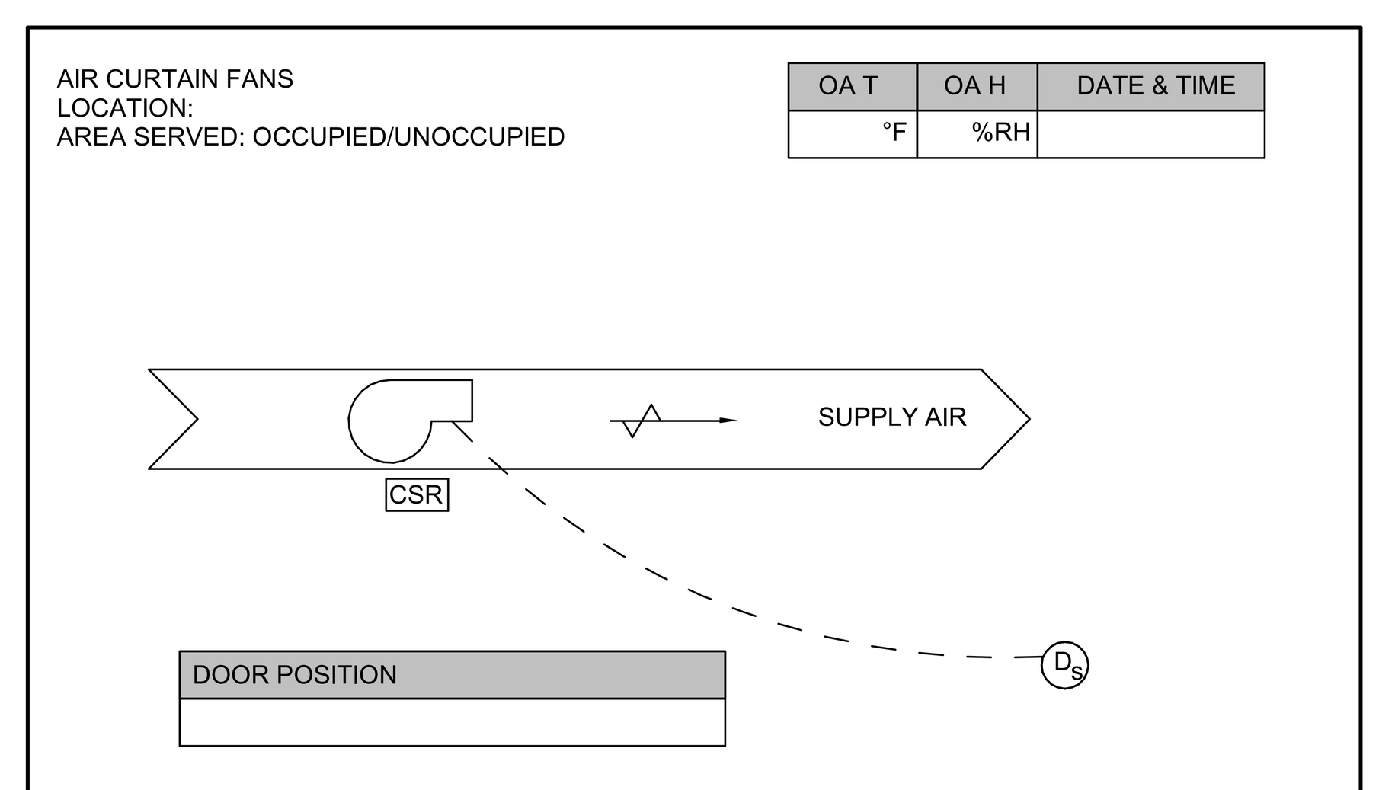
1.1. On a call for heating the fan shall be activated and the heater shall operate under it's own controls as required to maintain a setpoint of 65F (adj.). This shall be monitored through the DDC control system. The DDC system shall have the capability to start and stop these units.



EXHAUST FANS POINT LIST						
POINTS	OBJECT NAME	DI	DO	AI	AO	OVERRIDE
Exhaust Fan # Command	EF_#_C		X			X
Exhaust Fan # Status	EF_#_S	X				

1. MISCELLANEOUS EXHAUST FANS

1.1. The exhaust fans shall operate whenever RTUs are in operation. Provide a current sensor indicating fan status. If fan status does not match fan command an alarm shall be enuciated at the DDC front end. Upon a call to start, the motorized damper shall open and upon proof of open via an end switch the fan shall start.



AIR CURTAIN CONTROLS SCHEMATIC

AIR CURTAIN POINTS LIST						
Point Description	Object Name	DI	DO	AI	AO	Override
Door Position	RM_D_P	X				
Fan Status	SF_S	X				
Fan Command	SF_C		X			X

1. AIR CURTAIN FAN CONTROLS SEQUENCE

1.1. Air curtain fans shall be installed where indicated on the drawings.

1.2. When the door being served by the air curtain is closed, the air curtain shall remain off. When the door opens, the fan shall run.

1

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

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CONSTRUCTION DOCUMENTS

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UNIVERSITY OF KENTUCKY KING'S DAUGHTERS MEDICAL CENTER
1448 SEATON AVENUE, GREENUP, KENTUCKY 41144

King's Daughters

MECHANICAL

PROJECT	202587
UK #	3123.0
DATE	05/01/26

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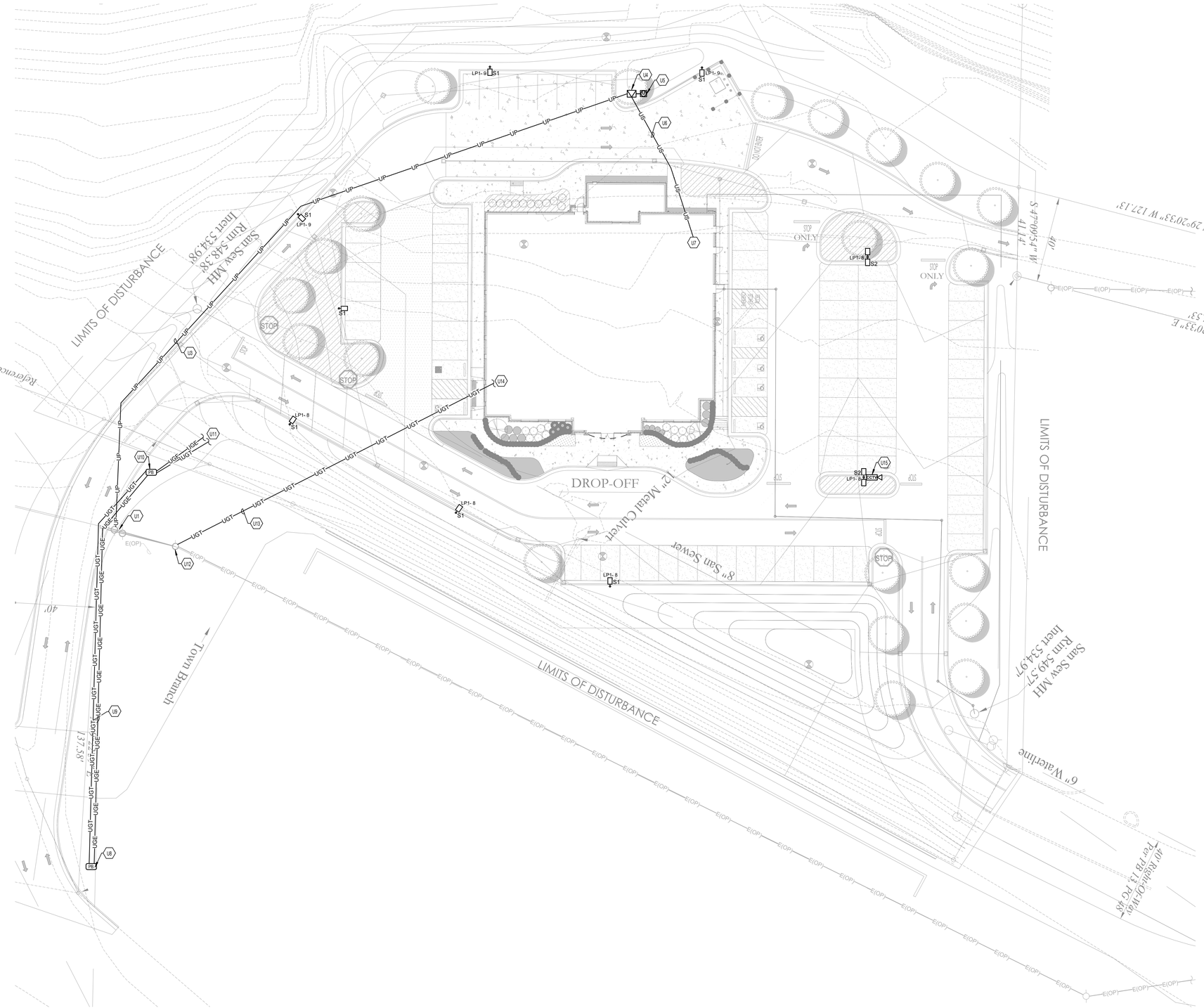
No.	Description	Date
1	ADDENDUM 2	5/27/26

MECHANICAL CONTROLS

M-501



1 SITE UTILITY PLAN
1" = 20'-0"

ELECTRICAL SITE NOTES

A DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS AND COORDINATE WITH CIVIL DRAWINGS AND SURVEYS.

B REFER ALSO TO ALL OTHER PLANS AND THE SPECIFICATION, BUT ESPECIALLY TO: THE SITE SURVEY, THE ARCHITECTURAL SITE PLAN, THE SITE GRADING PLAN, THE PLANTING PLAN (WHERE AVAILABLE), FOUNDATION PLAN(S), APPROPRIATE MECHANICAL & ELECTRICAL FLOOR PLANS FOR SERVICE CONTINUATIONS, THE SITE UTILITY PLAN - MECHANICAL & ELECTRICAL. WHERE THERE ARE CONFLICTS AMONG THESE PLANS AND/OR RELATED SPECIFICATIONS, ADVISE THESE ENGINEERS AT LEAST TEN DAYS PRIOR TO SUBMISSION OF BIDS.

C ALL FEES AND ANY OTHER COSTS TO UTILITY COMPANIES, MUNICIPALITIES, INSPECTORS, REVIEWING AGENCIES, ETC. ARE TO BE INCLUDED AS A PART OF THIS CONTRACT.

D FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.

E WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICE IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.

F LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS, EXISTING UTILITIES LOCATIONS MAY VARY. CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS.

G PROVIDE LONG RADIUS ELBOWS FOR UNDERGROUND CONDUIT BENDS. WHERE SERVING A UTILITY OWNED TRANSFORMER, THE UTILTY STANDARDS SHALL TAKE PRECEDENCE.

H UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE ENGINEER. CONTRACTOR SHALL VISIT THE SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES WITHOUT REQUESTS FOR ANY ADDITIONAL CHANGES.

I PROVIDE GALVANIZED RIGID CONDUIT FOR EXTERIOR UNDERGROUND TRANSITIONS TO ABOVE GRADE; EXTEND CONDUIT A MINIMUM OF 6" ABOVE GRADE.

J CONTRACTOR SHALL PERFORM A SMOKE TEST ON ALL CONDUITS INSTALLED ON SITE AND SHALL TAKE ALL NECESSARY CORRECTIVE ACTION IF NOT FOUND IN COMPLIANCE WITH FACILITY STANDARDS.

K CONTRACTOR SHALL CONTACT ENGINEER FOR INSPECTION OF TRENCHES PRIOR TO INSTALLATION OF CONDUITS OR RACEWAYS. PROVIDE PHOTOS UPON REQUEST.

L CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, ETC. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK. FINISH GRADE, SEED AND STRAW ALL DISTURBED GREEN SPACES. ALL PATCH AND REPAIR WORK SHALL BE IN ACCORDANCE WITH BOTH CIVIL AND LANDSCAPE DRAWINGS AND SPECIFICATIONS.

M COORDINATE UNDERGROUND ELECTRICAL WITH ALL LANDSCAPING AND FENCING, ADJUST ELECTRICAL LINES TO AVOID CONFLICTS. REFER TO LANDSCAPING PLANS FOR FURTHER INFORMATION. AVOID ROUTING UNDERGROUND CONDUITS UNDER ROADWAYS OR PARKING LOTS, CROSS ROADWAYS WITH UNDERGROUND CONDUITS AT 90 ANGLES WHERE POSSIBLE.

N PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT, AND THE BUILDING OPERATORS AT LEASTE ONE WEEK IN ADVANCE OF ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT LEAST TWO WEEKS IN ADVANCE IN WRITING AND INSURE THAT THEY DO NOT DELAY WORK.

O THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY.

P THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.

Q THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE UTILITY WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT.

R CONTRACTOR SHALL PAY ALL TAP FEES, UTILITY COST, UTILITY CONNECTION COSTS, METER FEES, EXTENSION AND DEVELOPMENT CHARGES. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

S THE UTILITY WILL PROVIDE STAKING DATA INCLUDING NORTHING AND EASTING DATA AS REQUIRED OR SHOWN ON DRAWINGS.

SITE UTILITIES LEGEND

	EXISTING, DEMOLITION, NEW WORK
PB	PULL BOX
XXX	NEW RACEWAY - (XXX) DENOTES SYSTEM
D(XXX)	RACEWAY TO BE DEMOLISHED - (XXX) DENOTES SYSTEM
E(XXX)	EXISTING RACEWAY - (XXX) DENOTES SYSTEM
OP	OVERHEAD PRIMARY
OS	OVERHEAD SECONDARY
OT	OVERHEAD TELECOMMUNICATIONS
UP	UNDERGROUND PRIMARY
US	UNDERGROUND SECONDARY
UGE	UNDERGROUND ELECTRICAL
UTS	UNDERGROUND TRAFFIC SIGNAL
UGT	UNDERGROUND TELECOMMUNICATIONS
UF	UNDERGROUND FIBER OPTIC
UTV	UNDERGROUND CATV

UTILITY COMPANY CONTACTS:

POWER:		
KENTUCKY POWER	TEHUFF@AEP.COM	1.800-572-1113
TELEPHONE:		
SPECTRUM	KING'S DAUGHTERS PM	

IT IS THE CONTRACTORS RESPONSIBILITY TO MEET ALL LOCAL ORDINANCE AND MUNICIPAL REQUIREMENTS RELATED TO UTILITY INSTALLATION, INSPECTIONS, MATERIALS, FEES, ETC.

TAGGED NOTES

U1 EXISTING OVERHEAD UTILITY POWER POLE TO BE UTILIZED AS SERVICE DEMARCATION FOR TRANSITION FROM OVERHEAD TO UNDERGROUND PRIMARY. INSTALL RACEWAY PER KENTUCKY POWER (AEP) REQUIREMENTS. PRIMARY CABLE BY UTILITY.

U3 NEW PRIMARY RACEWAY TO BE TWO (2) 5" CONDUITS. INSTALL PER KENTUCKY POWER (AEP) REQUIREMENTS. PRIMARY CONDUCTORS TO BE INSTALLED BY UTILITY.

U4 NEW PAD MOUNTED UTILITY TRANSFORMER. CONTRACTOR TO INSTALL PAD AND PROVISIONS PER UTILITY REQUIREMENTS. TRANSFORMER TO BE BY UTILITY.

U5 METER AND METER BASE TO BE INSTALLED PER UTILITY REQUIREMENTS. METER BASE IS BY CONTRACTOR WITH METER INSTALLATION BY UTILITY.

U6 ELECTRICAL SECONDARY DUCT. REFER TO ONE-LINE DIAGRAM AND DETAILS FOR ADDITIONAL INFORMATION.

U7 CONTINUE UNDERGROUND ELECTRICAL SECONDARY TO MAIN SWITCH BOARD (MSB) SERVICE ENTRANCE BREAKER IN MAIN ELECTRIC ROOM.

U8 APPROXIMATE LOCATION OF SIGNAGE LOCATION. PROVIDE DEDICATED 20 AMP, 120 VOLT CIRCUIT AND FIBER OPTIC 6 STRAND SINGLE MODE (SM) SIGNAL CONNECTION. COORDINATION INSTALLATION WITH SIGNAGE VENDOR.

U9 UNDERGROUND SIGNAGE POWER AND SIGNAL CONDUITS TO BE TWO (2) 1" CONDUITS.

U10 QUAZITE PULL BOXES FOR SIGNAL AND POWER. PROVIDE FLUSH WITH GRADE.

U11 CONTINUE SIGNAGE SIGNAL FIBER OPTIC TO MAIN DISTRIBUTION FRAME (MDF) TELECOMMUNICATION ROOM. CONTINUE SIGNAGE POWER CIRCUIT TO MAIN ELECTRICAL ROOM LIGHTING PANEL.

U12 EXISTING OVERHEAD UTILITY POWER POLE TO BE UTILIZED AS SERVICE DEMARCATION FOR TRANSITION FROM OVERHEAD TO UNDERGROUND TELECOMMUNICATION SERVICE. INSTALL RACEWAY PER SPECTRUM REQUIREMENTS. SERVICE ENTRANCE TELECOMMUNICATION CABLE TO BE BY UTILITY.

U13 UNDERGROUND TELECOMMUNICATION SERVICE DUCT TO BE TWO (2) 2" CONDUITS FROM TRANSITION RISER POLE TO MDF ROOM. COORDINATE INSTALLATION WITH SPECTRUM SERVICE PROVIDER.

U14 CONTACT TELECOMM/UNICATION SERVICE ENTRANCE TO MDF ROOM WITH 50' SERVICE LOOP.

U15 MOUNT 360 DEGREE VIEW CCTV CAMERA TO LIGHT POLE. PROVIDE MEDIA CONVERTER WITH UNSWITCHED 120 VOLT POWER CONNECTION AND FIBER OPTIC 6 STRAND SINGLE MODE (SM) SIGNAL CONNECTION.

BEFORE YOU DIG

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT "BUD (BEFORE YOU DIG)" AT 1-800-752-6007 TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CALL "BUD" TO OBTAIN AN AUTHORIZATION NUMBER.

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

COMMONWEALTH OF KENTUCKY
WILLIAM RYAN SHARP 29905
LICENSED PROFESSIONAL ENGINEER
RESERVED FOR AHJ STAMP

CMTA

CONSTRUCTION DOCUMENTS

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1448 SEATON AVENUE, GREENUP, KENTUCKY 41144

King's Daughters

ELECTRICAL

PROJECT	202587
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1	ADDENDUM 2	5/27/26

ELECTRICAL SITE UTILITY PLAN

EU-1

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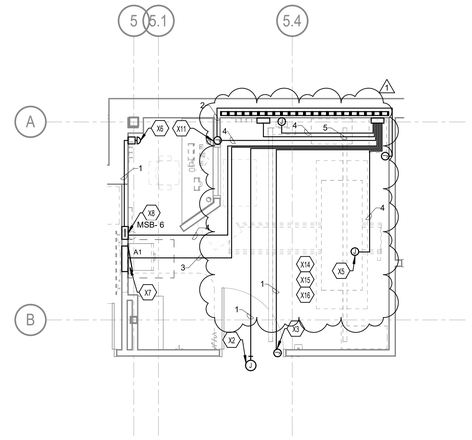
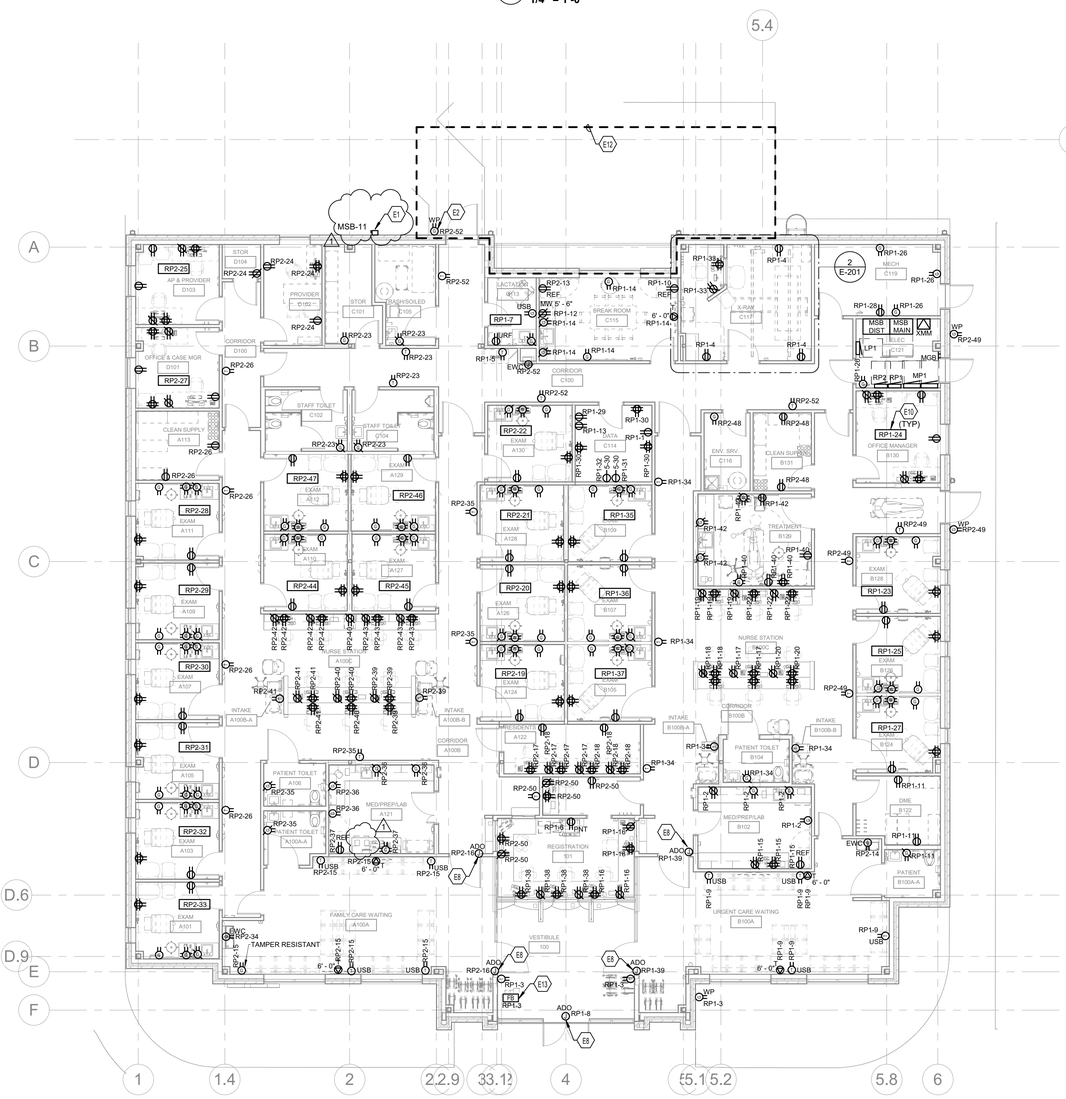


CONDUIT LEGEND	
1	1/2" CONDUIT
2	1" CONDUIT
3	1 1/2" CONDUIT
4	2" CONDUIT
5	(3) 2" CONDUITS

2 ENLARGED XRAY PLAN
1/4" = 1'-0"



1 POWER PLAN
1/8" = 1'-0"

ELECTRICAL POWER NOTES

A REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.

C IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.

D RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM SHALL BE MARKED IN ACCORDANCE WITH NEC 406.3(E).

E LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER TRADES.

TAGGED NOTES

E1 PROVIDE POWER CONNECTION FOR MOBILE MAMMOGRAPHY VEHICLE. THE CONNECTOR SHALL BE A FUSED DISCONNECT WITH PIN/SLEEVE 100A PLUG. BASIS OF DESIGN IS HUBBELL M4100P12.

E2 DEVICE WILL HAVE REFERENCE LOCATION AND ALTERNATE 3 ACCEPTED. SEE SHEET E-601 FOR ALTERNATE LOCATION.

E8 DOOR TO HAVE ELECTRIC HARDWARE. PROVIDE POWER, RACEWAY, CABLING, AND COORDINATE WITH DOOR HARDWARE CONTRACTOR, DIVISION 08 SPECIFICATIONS, DOOR HARDWARE SCHEDULE AND LOW VOLTAGE CONTRACTOR.

E10 ALL RECEPTACLES IN ROOM ARE ON ONE CIRCUIT. SEE TAG IN ROOM FOR CIRCUIT NUMBER. (TYP)

E12 SEE DRAWING E601, DETAIL 2 FOR ADD ALTERNATE 3 POWER SCOPE.

E13 FLOOR BOX TO HAVE DUPLEX RECEPTACLE AND (TWO) 2 NETWORK CONNECTIONS. BOX TO BE FLUSH WITH FINISHED FLOOR WITH MOP RATED, GASKETED LID.

X2 XRAY "IN USE" WARNING SIGN (DEL MEDICAL ITEM W). 4" X 4" X 2" JUNCTION BOX MOUNTED FLUSH IN WALL. FACILITY SHALL DETERMINE EXACT LOCATION. CIRCUIT FOR LAMP SHALL BE COORDINATED BETWEEN THE FACILITY, CONTRACTORS, AND EQUIPMENT INSTALLERS.

X3 PROVIDE SINGLE POLE, SINGLE THROW MOMENTARY INTERLOCK SWITCH IN DOOR FRAME (DEL MEDICAL ITEM N). SWITCH SHALL HAVE NORMALLY OPEN CONTACTS RATED AT 120VAC, 15A. SWITCH SHOULD OPEN CONTACTS WHEN DOOR IS OPEN.

X5 CABLE ACCESS FOR TABLE (DEL MEDICAL ITEM G). 8" X 8" X 4" DEEP JUNCTION BOX FLUSH MOUNTED IN FLOOR. PROVIDE BLANK LIQUID TIGHT COVER PLATE.

X6 EPO SWITCH (DEL MEDICAL ITEM B). 4" X 2" X 2" DEEP SWITCH BOX MOUNTED FLUSH IN WALL, LOCATE BOX CENTER LINE AT 72" A.F.F. PROVIDE ONE NORMALLY OPEN SWITCH WITH RED MUSHROOM HEAD AND "EMERGENCY OFF" LABEL. SWITCH WILL BE USED FOR SHUNT TRIP DEVICE ON CIRCUIT BREAKER.

X7 PROVIDE 208V SINGLE PHASE LOAD CENTER (DEL MEDICAL ITEM A1) WITH A 30A/2 MAIN, GROUND AND NEUTRAL ACCESSORIES, AND (2) 15A/1P BRANCH BREAKERS. FEED LOAD CENTER FROM PANEL RP1.

X8 100A CIRCUIT BREAKER WITH SHUNT TRIP DEVICE (DEL MEDICAL ITEM A). DEVICE FLUSH MOUNTED IN WALL. LOCATED ENCLOSURE CENTER LINE 66" A.F.F. ENSURE LUGS ARE PROPERLY SIZED FOR EQUIPMENT. PROVIDE FEEDER TO DEVICE FROM SWITCHBOARD MSB. PROVIDE ALL INTERCONNECT WIRING FOR SHUNT TRIP FUNCTIONALITY. POWER SHUNT TRIP FROM LOAD CENTER A1.

X11 CABLE ACCESS FOR CONTROL CONSOLE (DEL MEDICAL ITEM D). 8" X 8" X 4" DEEP JUNCTION BOX. FLUSH MOUNT IN WALL WHERE SHOWN. LOCATE BOX CENTER LINE 12" A.F.F. PROVIDE A COVER PLATE.

X14 CONFIRM ALL LOCATIONS AND DIMENSIONS PRIOR TO ROUGH IN WITH XRAY INSTALLER.

X15 CONVENIENCE OUTLETS AND CIRCUIT SHOWN ON SHEET E-201.

X16 CONTRACTOR SHALL DETERMINE THE SHORTEST CONDUIT RUN THAT SITE CONDITIONS ALLOW AND MAKE APPROPRIATE CONNECTIONS.

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

COMMONWEALTH OF KENTUCKY
WILLIAM RYAN SHARP
28905
LICENSED PROFESSIONAL ENGINEER
RESERVED FOR AHJ STAMP

CMTA

CONSTRUCTION DOCUMENTS

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King's Daughters

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POWER PLAN

E-201

ELECTRICAL POWER NOTES

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C IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.

D RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM SHALL BE MARKED IN ACCORDANCE WITH NEC 406.3(E).

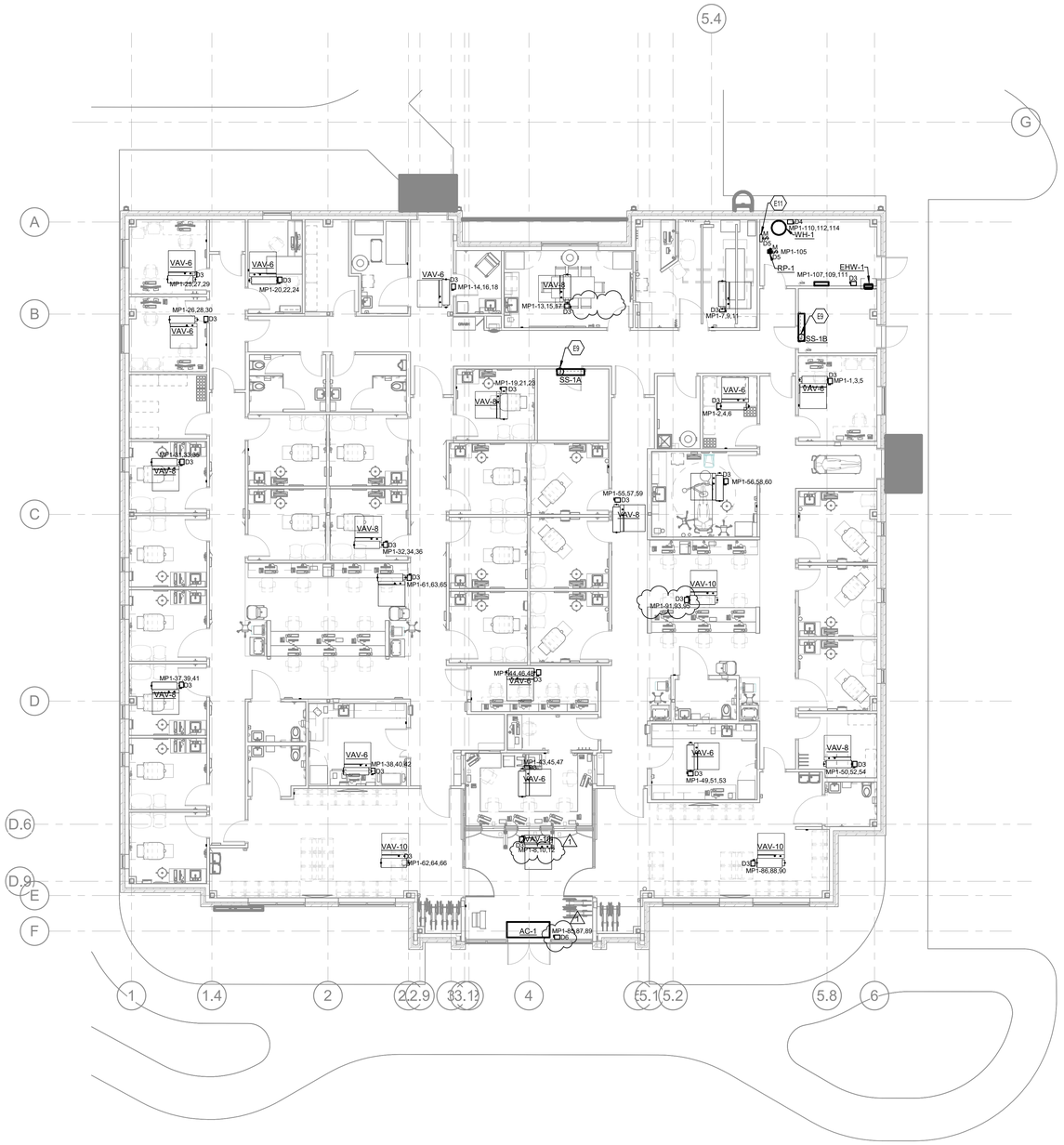
E LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER TRADES.

TAGGED NOTES

(##)

E9 INDOOR UNIT POWERED BY OUTDOOR UNIT. COORDINATE WITH MECHANICAL VENDOR.

E11 TRAP PRIMER TO BE POWERED BY LOCAL RECEPTACLE CIRCUIT.



1 MECHANICAL POWER PLAN
1/8" = 1'-0"

DISCONNECTING MEANS SCHEDULE

REMARKS:
1. PROVIDE UNISTRUT TO MOUNT DISCONNECTS NEAR UNIT.
2.COORDINATE CONNECTIONS AND INSTALLATIONS WITH MECHANICAL CONTRACTORS.

TYPE	AMPACITY RATING/POLES	FURNISHED BY	INSTALLED BY	NEMA RATING	VOLTAGE	REMARKS
D1	200/3	MC	EC	3R	208 V	2
D2	30/2	MC	EC	3R	208 V	1,2
D3	30/3	MC	EC	1	208 V	2
D4	30/3	MC	EC	1	208 V	2
D5	30/1	EC	EC	1	120 V	2
D6	30/3	EC	EC	1	208 V	2

JRA architects
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Lexington, Kentucky 40507
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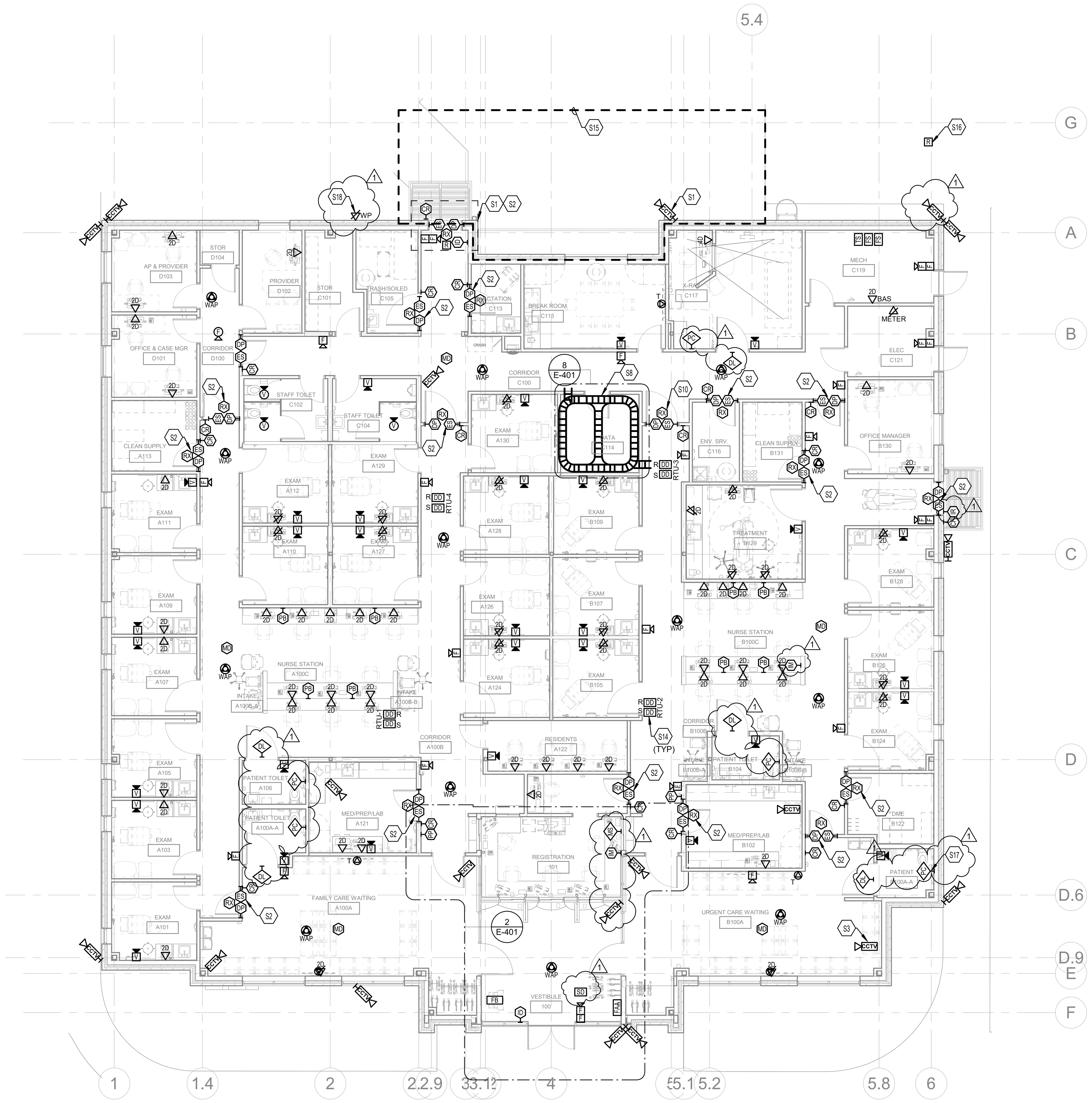
No.	Description	Date
1	ADDENDUM 2	5/27/26

MECHANICAL POWER PLAN

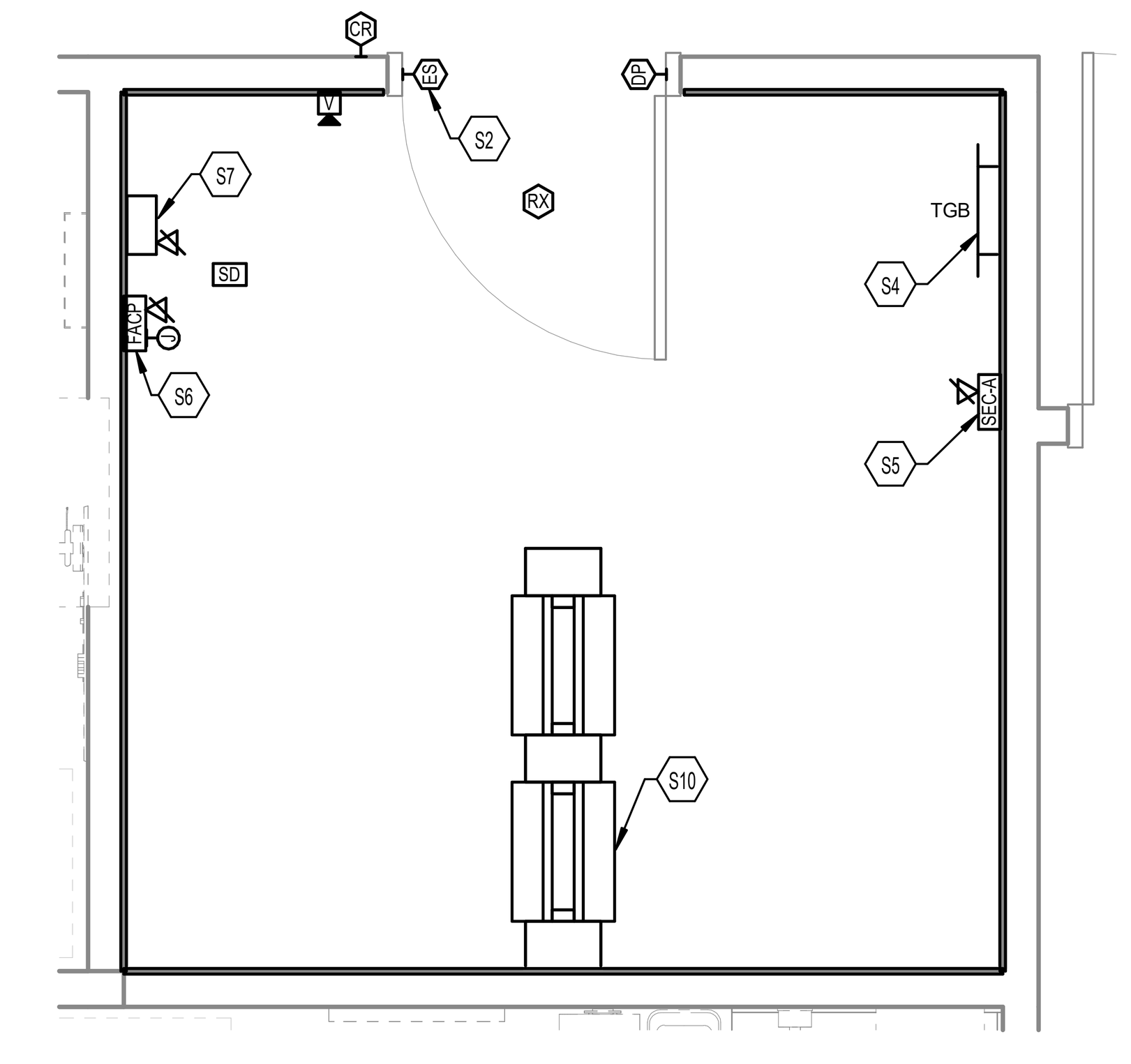
E-301

5/27/2026 5:01:16 PM

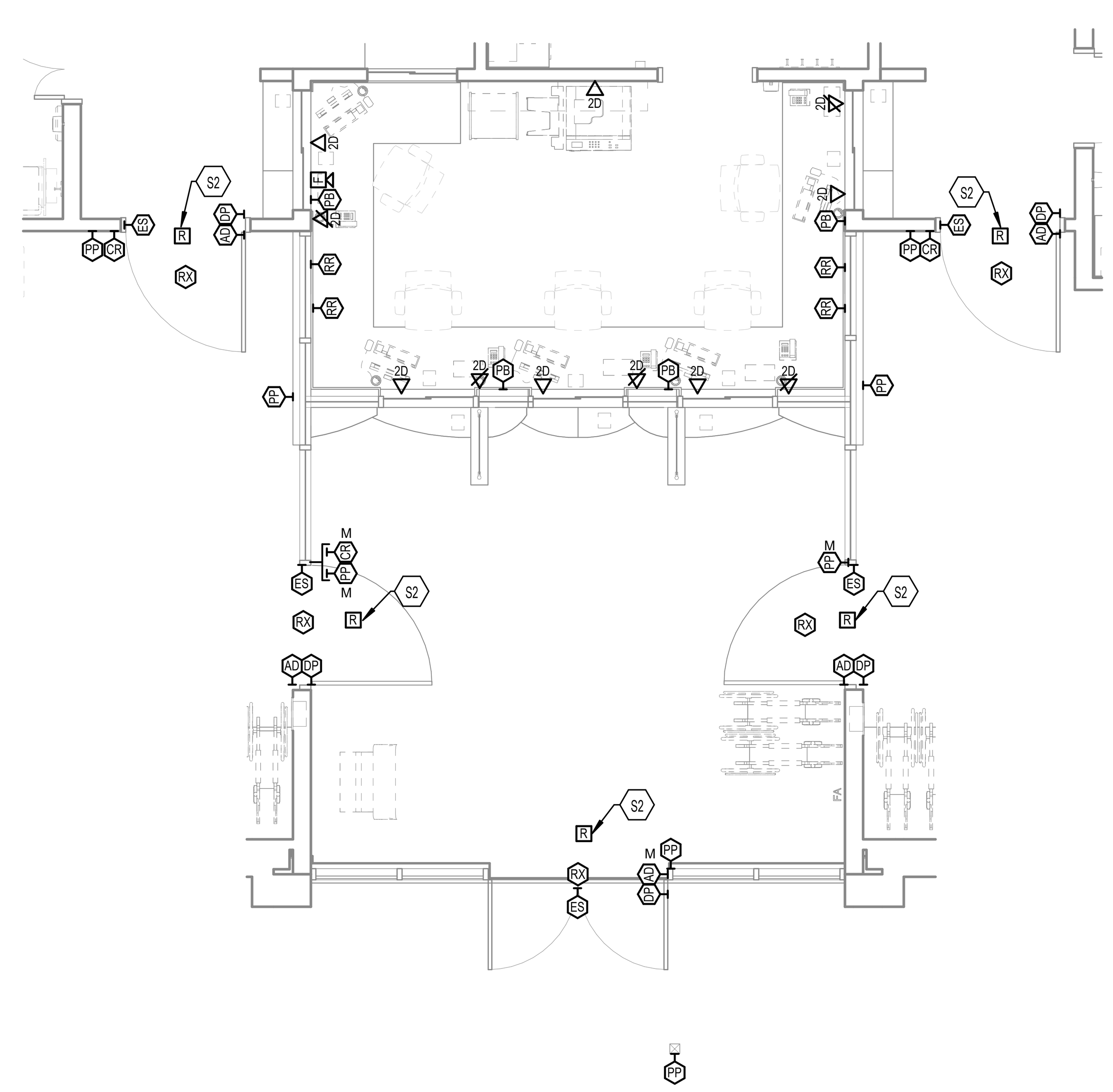
Autodesk Docs://202587 - UK KDMC GREENUP MOB/XKGM25 MEP Model.rvt



1 **SYSTEMS PLAN**
1/8" = 1'-0"



8 **ENLARGED IT ROOM PLAN**
1/2" = 1'-0"



2 **ENLARGED REGISTRATION AND REMOTE DOORS**
1/4" = 1'-0"

ELECTRICAL FIRE ALARM NOTES

A THIS RISER IS PARTIAL. ALL THE DEVICES CONNECTED TO THE "FACP" UNITS ARE NOT SHOWN. THE CONTRACTOR SHALL REFER TO THE ELECTRICAL FLOOR PLANS FOR THE COMPLETE FIRE ALARM SYSTEM.

B THE EXTENT OF ALL FIRE ALARM SYSTEM WORK IS INDICATED OR IMPLIED ON THE CONTRACT DRAWINGS.

C FIELD VERIFY THE EXACT NUMBER AND LOCATIONS OF ALL MECHANICALLY RELATED ITEMS (SPRINKLER CONNECTIONS, EXTINGUISHING SYSTEMS, SMOKE DAMPERS, RANGE HOOD SUPPRESSION SYSTEMS, ETC.) AND MAKE CONNECTIONS AS REQUIRED/INDICATED.

D PROVIDE CONNECTIONS TO ALL FIRE PROTECTION TAMPER AND FLOW SWITCHES VIA ZONE ADDRESSABLE MODULES AS REQUIRED. CONTRACTOR SHALL VERIFY ALL LOCATIONS WITH FIRE PROTECTION SYSTEM SHOP DRAWINGS. CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR COMPLETE INSTALLATION OF A CONNECTION TO EXISTING FIRE PROTECTION SWITCHES.

E ALL FIRE ALARM STROBE LIGHTS SHALL BE SYNCHRONIZED TO ACCOMMODATE BUILDING STANDARDS AS REQUIRED.

F TAP SPEAKERS TO PROVIDE SUFFICIENT AUDIBILITY FOR AREA SERVED.

G SMOKE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 36" TO SUPPLY, RETURN OR EXHAUST AIR OPENINGS NOR CLOSER THAN 12" TO WALL/ CEILING INTERSECTIONS.

H AIR HANDLING UNITS SHALL ONLY SHUT DOWN WHEN SMOKE IS DETECTED AT THAT PARTICULAR AIR HANDLING UNIT (UON). SMOKE DAMPERS SHALL CLOSE ONLY WHEN SMOKE IS DETECTED AT THAT PARTICULAR SMOKE DAMPER BY ACTIVATION OF THE CONTROLLING SMOKE DETECTOR. REFER TO THE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

I PROVIDE DUCT SMOKE DETECTORS WITH REMOTE TEST SWITCH/INDICATOR LIGHT AT 7'-6" AFF ON WALL IN AREA BELOW DETECTOR.

J RISER DIAGRAM IS FOR BID PURPOSES ONLY. SYSTEM SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM MANUFACTURER, THAT HAVE BEEN APPROVED BY THE STATE FIRE MARSHAL'S OFFICE OR AUTHORITY HAVING JURISDICTION.

K PROVIDE FIRE ALARM MANUFACTURER WITH LOCATION DESCRIPTIONS FOR ALL FIRE ALARM DEVICES AS SOON AS POSSIBLE AFTER AWARD OF CONTRACT FOR PRE-PROGRAMMING OF FIRE ALARM SYSTEM. COORDINATE DESCRIPTIONS WITH BUILDING OWNER. UTILIZE FINAL ROOM NAMES AND NUMBERS, NOT NAMES AND NUMBERS FROM FLOOR PLANS.

L EACH FIRE ALARM DEVICE SHALL BE LABELED WITH SELF ADHESIVE POLYESTER COATED PRINTED LABELS INDICATING DEVICE ADDRESS AND CIRCUIT PER FIRE ALARM SHOP DRAWINGS.

M MODIFY AND/OR EXPAND EXISTING CONTROL PANEL(S) AND ANNUNCIATOR(S) TO ACCOMMODATE AS REQUIRED TO SUPPORT ADDITIONAL DEVICES SHOWN. FURNISH AND INSTALL ANY MODULES OR EQUIPMENT NECESSARY TO EXPAND SYSTEM. EXISTING ANNUNCIATOR(S) AND CONTROL PANEL(S) SHALL BE UPDATED TO DISPLAY TROUBLES AND ALARM LOCATIONS FOR ALL NEW ZONES.

N PROVIDE CONNECTIONS TO NEW ACCESS CONTROL DOORS TO ALLOW POSITIVE LATCHING AND FREE EGRESS UNDER ALARM CONDITIONS. COORDINATE EXACT REQUIREMENTS WITH SUCCESSFUL DOOR HARDWARE MANUFACTURER PRIOR TO CONSTRUCTION.

O PROVIDE ACCESS PANELS AS REQUIRED FOR MAINTENANCE AND TESTING FOR SMOKE DETECTORS LOCATED ABOVE INACCESSIBLE CEILINGS. COORDINATE SIZE AND LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.

P PROVIDE APPROVED TESTING AND REQUIRED CERTIFICATION OF SYSTEM COMPONENTS AND PROVE OPERATION OF SYSTEM FOR THE AREA OF WORK WHEN COMPLETE.

Q WIRING TO ALL FIRE ALARM DEVICES SHALL BE PER NEC AND MANUFACTURER'S RECOMMENDATIONS. VERIFY ALL WIRING REQUIREMENTS WITH THE OWNER AND FIRE ALARM VENDOR.

R ALL NEW DEVICES INDICATED, SUCH AS SMOKE DETECTORS, NOTIFICATION APPLIANCES, ETC., SHALL MATCH AND BE COMPATIBLE WITH EXISTING BUILDING SYSTEM.

S ALL 120V POWER FOR NEW FIRE ALARM SYSTEM COMPONENTS SHALL BE CONNECTED TO EMERGENCY LIFE-SAFETY BRANCH PANELS AS APPLICABLE. PROVIDE ALL NEW POWER CONNECTIONS AS REQUIRED FOR SYSTEM OPERATION.

T PROVIDE A DEDICATED POWER CIRCUIT TO EACH FIRE ALARM EQUIPMENT PANEL OR POWER SUPPLY.

U FIRE ALARM OCP DEVICES SHALL HAVE NON-REMOVABLE LOCKABLE HANDLE PAINTED RED.

V THIS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL BUILDING PERMITS, ELECTRICAL APPROVALS, AND APPROVALS FROM THE STATE OFFICE OF FIRE SAFETY OR AUTHORITY HAVING JURISDICTION (AHJ). THIS INCLUDES PREPARING DRAWINGS, CUTSHEETS, AND OTHER DOCUMENTATION REQUIRED BY THE AHJ OR FIRE ALARM EQUIPMENT MANUFACTURER. A COPY OF THESE REQUIREMENTS SHALL BE OBTAINED FROM AHJ. THE DRAWINGS SHALL BE PREPARED AS A FINAL SUBMITTAL AS OUTLINED IN THE SUBMITTAL REQUIREMENTS. ELECTRONIC COPIES OF THESE PLANS REQUIRED FOR THIS PURPOSE MAY BE OBTAINED FROM THE ENGINEER. DRAWINGS THAT ARE REQUIRED FOR APPROVAL SHALL BE FINISHED WITHIN 7 WORKING DAYS OF AWARD OF CONTRACT.

W WRITTEN CERTIFICATION OF ENTIRE FIRE ALARM SYSTEM SHALL BE SUBMITTED TO OWNER & ENGINEER AT CLOSE OF PROJECT.

X A TECHNICAL REPRESENTATIVE OF FIRE ALARM MANUFACTURER SHALL BE PRESENT AT ALL TIMES DURING FIRE ALARM CERTIFICATION.

Y CONTRACTOR SHALL MONITOR TROUBLES ON EXISTING PANEL EQUIPMENT ON A DAILY BASIS. WHERE A TROUBLE IS INDICATED, IT SHALL BE REPORTED TO THE OWNER AND CONSTRUCTION SHALL STOP UNTIL TROUBLE IS RESOLVED UNLESS OTHERWISE INDICATED BY OWNER.

Z INITIATING DEVICE CIRCUITS AND NOTIFICATION APPLIANCE CIRCUITS SHALL BE IN SEPARATE RACEWAYS. FIRE ALARM SYSTEM JUNCTION BOXES, BACK BOXES, AND PULL BOXES SHALL BE PAINTED RED.

AA PROVIDE QUANTITY OF POWER SUPPLIES AND NAC PANELS BASED UPON FINAL SYSTEM DESIGN AND REQUIRED SPARE CAPACITY. LOCATE ADDITIONAL PANELS ADJACENT TO THOSE SHOWN ON PLANS. DO NOT INSTALL ADDITIONAL EQUIPMENT IN OTHER AREAS OF THE PROJECT WITHOUT WRITTEN CONSENT BY THE ENGINEER.

ELECTRICAL SYSTEMS NOTES

A REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B REFER TO "SYSTEM INSTALLATION MATRIX" (ON SYSTEMS LEGEND SHEET) AND SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS OF EACH SYSTEM.

C THE CONTRACTOR SHALL ROUTE ALL "SYSTEM CONDUIT STUB-UPS" TO THE NEAREST CORRIDOR CABLING PATH (SEE "STUB-UP" DETAILS). REFER TO CABLING PATH INSTALLATION DETAIL FOR ADDITIONAL REQUIREMENTS.

D CONTRACTOR SHALL PAINT ALL SYSTEMS CONDUIT STUB-UPS LIGHT BLUE FOR SYSTEMS CABLING INTO THE CORRIDOR CABLING PATH. PROVIDE PULL STRINGS IN ALL NEW CONDUIT RUNS FOR SYSTEM CABLING INSTALLATION.

TAGGED NOTES

(##)

S1 DEVICE WILL HAVE DIFFERENT LOCATION IF ADD ALTERNATE 3 ACCEPTED. SEE SHEET E-601 FOR ALTERNATE LOCATION.

S2 DOOR WITH ELECTRONIC HARDWARE. CONTRACTOR TO PROVIDE ALL RACEWAY, POWER, BOXES, AND CABLE. SECURITY CABLE TO BE HONEYWELL PROFUSION, OR APPROVED EQUAL. COORDINATE WITH DOOR HARDWARE SCHEDULE, DIV 08 HARDWARE SETS, AND SECURITY VENDOR.

S3 CCTV IP BASE CAMERA LOCATION. CONTRACTOR TO PROVIDE RACEWAY, BACKBOX, TERMINATED NETWORK CABLE, AND COORDINATION WITH SECURITY VENDOR. CAMERA TO BE BY SECURITY VENDOR.

S4 MAIN TELECOMMUNICATION GROUND BUS. ALL CURRENT CARRYING EQUIPMENT (RACKS, CABLE TRAY, RACEWAYS, ETC.) TO BE BONDED TO GROUND.

S5 SECURITY CONTROLLERS TO HAVE NETWORK CONNECTION AND POWER VIA DEDICATED CIRCUIT. COORDINATE WITH SECURITY VENDOR.

S6 FIRE ALARM CONTROL PANEL (FACP) TO HAVE NETWORK CONNECTION AND CELLULAR DIALER.

S7 LIGHTING CONTROLLER TO HAVE NETWORK CONNECTION.

S8 LADDER RACK TO BE 18" BY 4". ROUTE CABLES TO ENSURE 40% MAXIMUM FILL. CABLES TO BE BUNDLED AND MANAGED.

S10 PROVIDE WALL PENETRATION SLEEVE FOR CABLE TRAY CONNECTION.

S14 PROVIDE DUCT MOUNTED SMOKE DETECTOR WITH REMOTE INDICATOR AND TEST STATION. COORDINATE DEVICE INSTALLATION WITH HVAC CONTRACTOR. (TYPICAL)

S15 SEE DRAWING E601, DETAIL 3 FOR ADD ALTERNATE 3 SYSTEMS SCOPE.

S16 COORDINATE FIRE PROTECTION POST INDICATOR VALVE (PIV) FIRE ALARM SIGNAL INTERFACE. REFER TO CIVIL PLANS FOR LOCATION.

1 S17 PROVIDE PATIENT PULL CORD STATION WITH INTEGRATED VISUAL/ALARM NOTIFICATION TO REGISTRATION AND LOCAL DOME LIGHT. NURSE CALL STATION TO BE TEK-CARE 120, OR EQUAL FROM HILROM OR RAULAND. (TYPICAL)

S18 PROVIDE EXTERIOR RATED RJ-45 CAT 6 CONNECTOR WITH LOCKABLE COVER FOR MOBILE MAMMOGRAPHY VEHICLE. BASIS OF DESIGN IS METZ CONNECT IP44SG HOUSING WITH CAT 6 TERMINATION.

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

STATE OF KENTUCKY
WILLIAM RYAN SHARP
26908
LICENSED PROFESSIONAL ENGINEER

RESERVED FOR AHJ STAMP

CMTA

CONSTRUCTION DOCUMENTS

GREENUP COUNTY URGENT CARE / FAMILY CARE MEDICAL OFFICE BUILDING

UNIVERSITY OF KENTUCKY KING'S DAUGHTERS MEDICAL CENTER
1448 SEATON AVENUE, GREENUP, KENTUCKY 41144

UK King's Daughters

ELECTRICAL

PROJECT	202587
UK #	3123.0
DATE	05/01/26

REVISIONS

No.	Description	Date
1	ADDENDUM 2	5/27/26

SYSTEMS PLAN

E-401

5/27/2026 5:01:18 PM

ONE-LINE FEEDER SCHEDULE (COPPER)

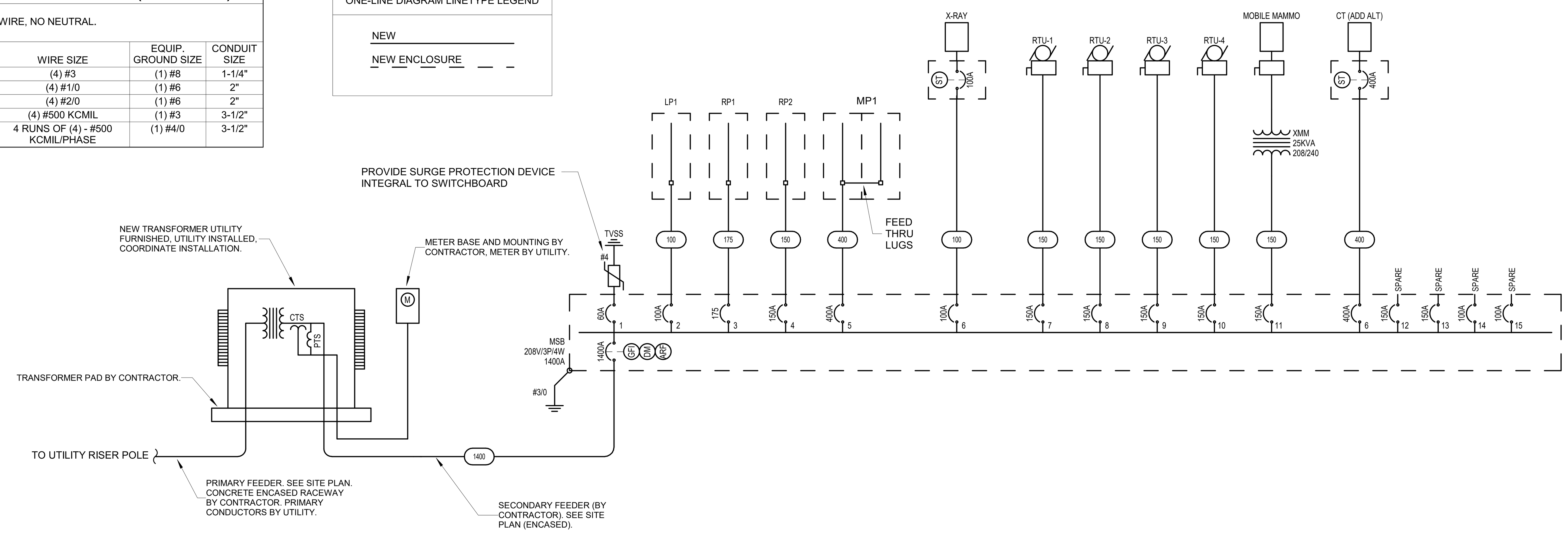
NOTES:
• TAGS WITH SUFFIX "-3W" ARE THREE-WIRE, NO NEUTRAL.

TAG	OCPD SETTING	WIRE SIZE	EQUIP. GROUND SIZE	CONDUIT SIZE
100	90/3 OR 100/3 (4W)	(4) #3	(1) #8	1-1/4"
150	150/3 (4W)	(4) #1/0	(1) #6	2"
175	175/3 (4W)	(4) #2/0	(1) #6	2"
400	400/3 (4W)	(4) #500 KCMIL	(1) #3	3-1/2"
1400	1400/3 (4W)	4 RUNS OF (4) - #500 KCMIL/PHASE	(1) #4/0	3-1/2"

ONE-LINE DIAGRAM LINETYPE LEGEND

NEW

NEW ENCLOSURE



1 **ONE-LINE DIAGRAM**
SCALE: NO SCALE

PANELBOARD AND WIRING SCHEDULE

PANEL: LP1 | **MAINS TYPE:** MLO | **PANEL INTERRUPTING RATING:** 10,000
VOLTAGE: 208Y/120V,3P,4W | **SPD:** No | **LOCATION:** ELEC C121
AMPERES: 100 A | **MOUNTING:** SURFACE | **SUPPLY FROM:** MSB DIST

GENERAL NOTES:

NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	P	CKT	A		B		C		CKT	P	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
	LTNG FAMILY WAITING & CORE RMS	1-#10, 1-#10, 1-#10	20	1	1	1.1	1.4					2	1	20	1-#10, 1-#10, 1-#10	LTNG CENTRAL RMS.	
	LTNG FAMILY PERIMETER RMS.	1-#10, 1-#10, 1-#10	20	1	3			0.9	0.5			4	1	20	1-#12, 1-#12, 1-#12	LTNG URGENT CORRIDORS	
	LTNG FAMILY CORRIDORS	1-#12, 1-#12, 1-#12	20	1	5					0.4	1.6	6	1	20	1-#10, 1-#10, 1-#10	LTNG URGENT SUITE RMS.	
	LTNG EXTERIOR FIXTURES	1-#12, 1-#12, 1-#12	20	1	7	0.3	0.9					8	1	20	1-#8, 1-#8, 1-#8	SITE LIGHTING	
	SITE LIGHTING	1-#10, 1-#10, 1-#10	20	1	9			0.5	0.0			10	1	20	--	SPARE	
	SPARE	--	20	1	11					0.0	0.0	12	1	20	--	SPARE	
	SPARE	--	20	1	13	0.0	0.0					14	1	20	--	SPARE	
	SPARE	--	20	1	15			0.0	0.0			16	1	20	--	SPARE	
	SPARE	--	20	1	17					0.0	0.0	18	1	20	--	SPARE	
	SPARE	--	20	1	19	0.0	0.0					20	1	20	--	SPARE	
	SPARE	--	20	1	21			0.0	0.0			22	1	20	--	SPARE	
	SPARE	--	20	1	23					0.0	0.0	24	1	20	--	SPARE	
	SPARE	--	20	1	25	0.0	0.0					26	1	20	--	SPARE	
	SPARE	--	20	1	27			0.0	0.0			28	1	20	--	SPARE	
	SPARE	--	20	1	29					0.0	0.0	30	1	20	--	SPARE	
	SPARE	--	20	1	31	0.0	0.0					32	1	20	--	SPARE	
	SPARE	--	20	1	33			0.0	0.0			34	1	20	--	SPARE	
	SPARE	--	20	1	35					0.0	0.0	36	1	20	--	SPARE	
	SPARE	--	20	1	37	0.0	0.0					38	1	20	--	SPARE	
	SPARE	--	20	1	39			0.0	0.0			40	1	20	--	SPARE	
	SPARE	--	20	1	41					0.0	0.0	42	1	20	--	SPARE	
						3.8 kVA		1.9 kVA		2.0 kVA							
						31 A		16 A		17 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
LTNG	7685 VA	100.00%	7685 VA	TOTAL CONNECTED LOAD:	7685 VA
				TOTAL ESTIMATED DEMAND:	7685 VA
				TOTAL CONNECTED CURRENT:	21 A
				TOTAL ESTIMATED DEMAND CURRENT:	21 A
				25 % ADDITIONAL CAPACITY:	5 A
				TOTAL PANEL CURRENT:	27 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: RP1 | **MAINS TYPE:** MLO | **PANEL INTERRUPTING RATING:** 10,000
VOLTAGE: 208Y/120V,3P,4W | **SPD:** No | **LOCATION:** ELEC C121
AMPERES: 175 A | **MOUNTING:** SURFACE | **SUPPLY FROM:** MSB DIST

GENERAL NOTES:

NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	P	CKT	A		B		C		CKT	P	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
	REC - SECURITY CONTROLLER	1-#12, 1-#12, 1-#12	20	1	1	0.2	0.7					2	1	20	1-#12, 1-#12, 1-#12	REC - URGENT MED PREP	
	REC VESTIBULE 100	1-#10, 1-#10, 1-#10	20	1	3			0.9	0.5			4	1	20	1-#12, 1-#12, 1-#12	REC - X-RAY C117	
	REC - CRASH CART	1-#12, 1-#12, 1-#12	20	1	5					0.2	1.2	6	1	20	1-#10, 1-#10, 1-#10	REC - PRINTER REGISTRATION	
	REC - LACTATION	1-#12, 1-#12, 1-#12	20	1	7	1.0	0.5					8	1	20	1-#12, 1-#12, 1-#12	AUTO DOOR VESTIBULE	
	REC - URGENT WAITING B100A	1-#12, 1-#12, 1-#12	20	1	9			1.1	0.8			10	1	20	1-#12, 1-#12, 1-#12	REC - BREAKROOM FRIDGE	1
	REC - DME, B100A TLT	1-#12, 1-#12, 1-#12	20	1	11					0.5	1.5	12	1	20	1-#12, 1-#12, 1-#12	REC - BREAKROOM MICROWAVE	1
	REC - FACP	1-#12, 1-#12, 1-#12	20	1	13	0.2	0.9					14	1	20	1-#12, 1-#12, 1-#12	REC - BREAKROOM	
	REC - URGENT MED PREP	1-#10, 1-#10, 1-#10	20	1	15			1.3	1.1			16	1	20	1-#10, 1-#10, 1-#10	REC - REGISTRATION	
	REC - NURSE STN B100C	1-#12, 1-#12, 1-#12	20	1	17					0.9	0.9	18	1	20	1-#12, 1-#12, 1-#12	REC - NURSE STN B100C	
	REC - NURSE STN B100C	1-#12, 1-#12, 1-#12	20	1	19	0.7	0.9					20	1	20	1-#12, 1-#12, 1-#12	REC - NURSE STN B100C	
	REC - ROOF CONVENIENCE	1-#12, 1-#12, 1-#12	20	1	21			0.7	0.9			22	1	20	1-#12, 1-#12, 1-#12	REC - NURSE STN B100C	
	REC - EXAM B128	1-#12, 1-#12, 1-#12	20	1	23					1.3	1.4	24	1	20	1-#12, 1-#12, 1-#12	REC - OFFICE MNGR. B130	
	REC - EXAM B126	1-#12, 1-#12, 1-#12	20	1	25	1.3	0.7					26	1	20	1-#12, 1-#12, 1-#12	REC - MECH/ELEC	
	REC - EXAM B124	1-#12, 1-#12, 1-#12	20	1	27			1.3	0.2			28	1	20	1-#12, 1-#12, 1-#12	REC - BAS PANEL	
	REC - LIGHTING CONTROL PANEL	1-#12, 1-#12, 1-#12	20	1	29					0.2	1.1	30	1	20	1-#12, 1-#12, 1-#12	REC - DATA C114	
	REC - UPS NEMA 5-30	1-#10, 1-#10, 1-#10	30	1	31	2.0	2.0					32	1	30	1-#10, 1-#10, 1-#10	REC - UPS NEMA 5-30	
	REC - X-RAY CTRL BOOTH	1-#12, 1-#12, 1-#12	20	1	33			0.5	1.1			34	1	20	1-#12, 1-#12, 1-#12	REC - CORR., INTAKE, TLT	
	REC - EXAM B109	1-#12, 1-#12, 1-#12	20	1	35					1.3	1.3	36	1	20	1-#12, 1-#12, 1-#12	REC - EXAM B107	
	REC- EXAM B105	1-#10, 1-#10, 1-#10	20	1	37	1.3	1.1					38	1	20	1-#10, 1-#10, 1-#10	REC - REGISTRATION	
	AUTO DOOR URGENT CARE	1-#10, 1-#10, 1-#10	20	1	39			1.0	0.7			40	1	20	1-#12, 1-#12, 1-#12	REC - TREATMENT B129	
	X-RAY LOAD CENTER	2-#10, 1-#10, 1-#10	30	2	41					0.0	0.9	42	1	20	1-#12, 1-#12, 1-#12	REC - TREATMENT B129	
					43	0.0	0.0					44	1	20	--	SPARE	
	SPARE	--	20	1	45			0.0	0.0			46	1	20	--	SPARE	
	SPARE	--	20	1	47					0.0	0.0	48	1	20	--	SPARE	
	SPARE	--	20	1	49	0.0	0.0					50	1	20	--	SPARE	
	SPARE	--	20	1	51			0.0	0.0			52	1	20	--	SPARE	1
1	SPARE	--	20	1	53					0.0	0.0	54	1	20	--	SPARE	1
						13.4 kVA		12.2 kVA		12.6 kVA							
						112 A		102 A		106 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	2100 VA	100.00%	2100 VA	TOTAL CONNECTED LOAD:	38180 VA
REC	36080 VA	63.86%	23040 VA	TOTAL ESTIMATED DEMAND:	25140 VA
				TOTAL CONNECTED CURRENT:	106 A
				TOTAL ESTIMATED DEMAND CURRENT:	70 A
				25 % ADDITIONAL CAPACITY:	17 A
				TOTAL PANEL CURRENT:	87 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.
1. BREAKER SHALL HAVE GFCI PROTECTION

PANELBOARD AND WIRING SCHEDULE

PANEL: RP2 | **MAINS TYPE:** MLO | **PANEL INTERRUPTING RATING:** 10,000
VOLTAGE: 208Y/120V,3P,4W | **SPD:** No | **LOCATION:** ELEC C121
AMPERES: 150 A | **MOUNTING:** SURFACE | **SUPPLY FROM:** MSB DIST

GENERAL NOTES:

NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	P	CKT	A		B		C		CKT	P	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
1	REC - BREAKROOM FRIDGE	1-#12, 1-#12, 1-#12	20	1	13	0.8	0.6					14	1	20	1-#12, 1-#12, 1-#12	REC - URGENT WATER FOUNTAIN	
	REC - FAMILY WAITING	1-#8, 1-#8, 1-#8	20	1	15			1.3	1.0			16	1	20	1-#10, 1-#10, 1-#10	AUTO DOORS FAMILY CARE	
	REC - RESIDENTS A122	1-#10, 1-#10, 1-#10	20	1	17					1.1	1.3	18	1	20	1-#10, 1-#10, 1-#10	REC - RESIDENTS A122	
	REC - EXAM A124	1-#10, 1-#10, 1-#10	20	1	19	1.3	1.3					20	1	20	1-#10, 1-#10, 1-#10	REC - EXAM A126	
	REC - EXAM A128	1-#12, 1-#12, 1-#12	20	1	21			1.3	1.3			22	1	20	1-#12, 1-#12, 1-#12	REC - EXAM A130	
	REC - STOR C101, STAFF TLTS	1-#12, 1-#12, 1-#12	20	1	23					1.1	0.9	24	1	20	1-#12, 1-#12, 1-#12	REC - PROVIDER D102, STORAGE	
	REC - AP & PROVIDER D103	1-#10, 1-#10, 1-#10	20	1	25	1.4	1.1					26	1	20	1-#10, 1-#10, 1-#10	REC - CLEAN SUPPLY & CORR.	
	REC OFFICE & CASE MNGR	1-#10, 1-#10, 1-#10	20	1	27			1.4	1.3			28	1	20	1-#10, 1-#10, 1-#10	REC - EXAM A111	
	REC - EXAM A109	1-#10, 1-#10, 1-#10	20	1	29					1.3	1.3	30	1	20	1-#10, 1-#10, 1-#10	REC - EXAM A107	
	REC - EXAM A105	1-#8, 1-#8, 1-#8	20	1	31	1.3	1.3					32	1	20	1-#8, 1-#8, 1-#8	REC - EXAM A103	
	REC - EXAM A101	1-#8, 1-#8, 1-#8	20	1	33			1.3	0.2			34	1	20	1-#12, 1-#12, 1-#12	REC - FAMILY WATER FOUNTAIN	
	REC - CORR A100B, TLTS	1-#10, 1-#10, 1-#10	20	1	35					0.9	0.7	36	1	20	1-#12, 1-#12, 1-#12	REC - FAMILY MED/PREP, PATIENT...	
	REC - FAMILY MED/PREP	1-#10, 1-#10, 1-#10	20	1	37	1.2	0.0					38	1	20	--	SPARE	
	REC - NURSE STN A100C	1-#10, 1-#10, 1-#10	20	1	39			1.1	1.1			40	1	20	1-#10, 1-#10, 1-#10	REC - NURSE STN A100C	
	REC - NURSE STN A100C	1-#10, 1-#10, 1-#10	20	1	41					1.1	1.1	42	1	20	1-#10, 1-#10, 1-#10	REC - NURSE STN A100C	
	REC - NURSE STN A100C	1-#10, 1-#10, 1-#10	20	1	43	1.1	1.3					44	1	20	1-#10, 1-#10, 1-#10	REC - EXAM A110	
	REC - EXAM A127	1-#10, 1-#10, 1-#10	20	1	45			1.3	1.3			46	1	20	1-#10, 1-#10, 1-#10	REC - EXAM A129	
	REC - EXAM A112	1-#10, 1-#10, 1-#10	20	1	47					1.3	0.5	48	1	20	1-#12, 1-#12, 1-#12	REC - ENV. SRV. & CLEAN SUPPLY	
	REC - URGENT CORR., EXTERIOR	1-#12, 1-#12, 1-#12	20	1	49	0.9	1.4					50	1	20	1-#10, 1-#10, 1-#10	REC - REGISTRATION	
	SPARE	--	20	1	51			0.0	1.1			52	1	20	1-#12, 1-#12, 1-#12	REC - CORR., BOTTLE FILLER	
	SPARE	--	20	1	53					0.0	0.0	54	1	20	--	SPARE	
	SPARE	--	20	1	55	0.0	0.0					56	1	20	--	SPARE	
	SPARE	--	20	1	57			0.0	0.0			58	1	20	--	SPARE	
	SPARE	--	20	1	59					0.0	0.0	60	1	20	--	SPARE	
	SPARE	--	20	1	61	0.0	0.0					62	1	20	--	SPARE	
1	SPARE	--	20	1	63			0.0	0.0			64	1	20	--	SPARE	1
1	SPARE	--	20	1	65					0.0	0.0	66	1	20	--	SPARE	1
						14.8 kVA		14.7 kVA		12.4 kVA							
						126 A		126 A		104 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	1400 VA	100.00%	1400 VA	TOTAL CONNECTED LOAD:	41950 VA
REC	40550 VA	62.33%	25275 VA	TOTAL ESTIMATED DEMAND:	26675 VA
				TOTAL CONNECTED CURRENT:	116 A
				TOTAL ESTIMATED DEMAND CURRENT:	74 A
				25 % ADDITIONAL CAPACITY:	19 A
				TOTAL PANEL CURRENT:	93 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.
1. BREAKER SHALL HAVE GFCI PROTECTION

PANELBOARD AND WIRING SCHEDULE

PANEL: MP1 (SEC. 1) | **MAINS TYPE:** MLO | **PANEL INTERRUPTING RATING:** 22,000
VOLTAGE: 208Y/120V,3P,4W | **SPD:** Yes | **LOCATION:** ELEC C121
AMPERES: 400 A | **MOUNTING:** SURFACE | **SUPPLY FROM:** MSB DIST

GENERAL NOTES:
PANEL TO HAVE FEED THRU LUGS.

NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	P	CKT	A		B		C		CKT	P	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
					1	0.7	0.7					2					
	VAV-6	3-#12, 1-#12, 1-#12	15	3	3			0.7	0.7			4	3	15	3-#12, 1-#12, 1-#12	VAV-6	
					5					0.7	0.7	6					
					7	1.0	1.7					8					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	9			1.0	1.7			10	3	20	3-#12, 1-#12, 1-#12	VAV-10	
					11					1.0	1.7	12					
					13	1.0	1.0					14					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	15			1.0	1.0			16	3	15	3-#12, 1-#12, 1-#12	VAV-8	
					17					1.0	1.0	18					
					19	1.0	0.7					20					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	21			1.0	0.7			22	3	15	3-#12, 1-#12, 1-#12	VAV-6	
					23					1.0	0.7	24					
					25	0.7	1.0					26					
	VAV-6	3-#12, 1-#12, 1-#12	15	3	27			0.7	1.0			28	3	15	3-#12, 1-#12, 1-#12	VAV-8	
					29					0.7	1.0	30					
					31	1.0	1.0					32					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	33			1.0	1.0			34	3	15	3-#12, 1-#12, 1-#12	VAV-8	
					35					1.0	1.0	36					
					37	1.0	0.7					38					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	39			1.0	0.7			40	3	15	3-#12, 1-#12, 1-#12	VAV-6	
					41					1.0	0.7	42					
					43	0.7	0.7					44					
	VAV-6	3-#12, 1-#12, 1-#12	15	3	45			0.7	0.7			46	3	15	3-#12, 1-#12, 1-#12	VAV-6	
					47					0.7	0.7	48					
					49	0.7	1.0					50					
	VAV-6	3-#12, 1-#12, 1-#12	15	3	51			0.7	1.0			52	3	15	3-#12, 1-#12, 1-#12	VAV-8	
					53					0.7	1.0	54					
					55	1.0	1.0					56					
	VAV-8	3-#12, 1-#12, 1-#12	15	3	57			1.0	1.0			58	3	15	3-#12, 1-#12, 1-#12	VAV-8	
					59					1.0	1.0	60					
					61	1.7	1.7					62					
	VAV-10	3-#12, 1-#12, 1-#12	20	3	63			1.7	1.7			64	3	20	3-#10, 1-#10, 1-#10	VAV-10	
					65					1.7	1.7	66					
					67	0.0	0.0					68					
	SPARE	--	15	3	69			0.0	0.0			70	3	15	--	SPARE	
					71					0.0	0.0	72					
					73	0.0	0.0					74					
	SPARE	--	15	3	75			0.0	0.0			76	3	15	--	SPARE	
					77					0.0	0.0	78					
					79	0.0	0.0					80					
	SPARE	--	20	3	81			0.0	0.0			82	3	20	--	SPARE	
					83					0.0	0.0	84					
						32.6 kVA		32.9 kVA		32.9 kVA							
						271 A		275 A		274 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	5328 VA	100.00%	5328 VA	TOTAL CONNECTED LOAD:	98328 VA
HVAC	93000 VA	85.00%	79050 VA	TOTAL ESTIMATED DEMAND:	84378 VA
				TOTAL CONNECTED CURRENT:	273 A
				TOTAL ESTIMATED DEMAND CURRENT:	234 A
				25 % ADDITIONAL CAPACITY:	59 A
				TOTAL PANEL CURRENT:	293 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: MP1 (SEC. 2) | **MAINS TYPE:** MLO | **PANEL INTERRUPTING RATING:** 22,000
VOLTAGE: 208Y/120V,3P,4W | **SPD:** No | **LOCATION:** ELEC C121
AMPERES: 400 A | **MOUNTING:** SURFACE | **SUPPLY FROM:** MP1

GENERAL NOTES:

NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	P	CKT	A		B		C		CKT	P	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
					85	0.4	1.7					86					
	AC-1	3-#12, 1-#12, 1-#12	20	3	87			0.4	1.7			88	3	20	3-#12, 1-#12, 1-#12	VAV-10	
					89					0.4	1.7	90					
					91	1.7	1.7					92					
	VAV-10	3-#12, 1-#12, 1-#12	20	3	93			1.7	1.7			94	3	15	3-#12, 1-#12, 1-#12	VAV-10 ADD ALT. 3	
					95					1.7	1.7	96					
	EF-2	2-#12, 1-#12, 1-#12	15	2	97	0.2	0.2					98	2	15	2-#12, 1-#12, 1-#12	EF-1C	
					99			0.2	0.2			100					
	CU-1A	2-#10, 1-#10, 1-#10	25	2	101					0.8	0.2	102	2	20	2-#12, 1-#12, 1-#12	EF-1B	
					103	0.8	0.2					104					
	RP-1	1-#12, 1-#12, 1-#12	15	1	105			0.5	0.8			106	2	25	2-#10, 1-#10, 1-#10	CU-1B	
					107					1.0	0.8	108					
	EHW-1	3-#12, 1-#12, 1-#12	15	3	109	1.0	1.7					110					
					111			1.0	1.7			112	3	20	3-#12, 1-#12, 1-#12	WH-1	
	SPARE	--	15	1	113					0.0	1.7	114					
	SPARE	--	15	2	115	0.0	0.2					116	2	20	2-#12, 1-#12, 1-#12	EF-1A	
					117			0.0	0.2			118					
	SPARE	--	20	2	119					0.0	1.6	120					
					121	0.0	1.6					122	3	20	3-#12, 1-#12, 1-#12	EHW-2 ADD ALT. 3	
	SPARE	--	25	2	123			0.0	1.6			124					
					125					0.0	0.0	126					
					127	0.0	0.0					128	3	20	--	SPARE	
	SPARE	--	15	3	129			0.0	0.0			130					
					131					0.0	0.0	132	2	20	--	SPARE	
					133	0.0	0.0					134					
	SPARE	--	20	3	135			0.0	0.0			136	2	25	--	SPARE	
					137					0.0	0.0	138					
						11.2 kVA		11.6 kVA		11.5 kVA							
						93 A		97 A		96 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
EQUIP	5328 VA	100.00%	5328 VA	TOTAL CONNECTED LOAD:	34328 VA
HVAC	29000 VA	85.00%	24650 VA	TOTAL ESTIMATED DEMAND:	29978 VA
				TOTAL CONNECTED CURRENT:	95 A
				TOTAL ESTIMATED DEMAND CURRENT:	83 A
				25 % ADDITIONAL CAPACITY:	21 A
				TOTAL PANEL CURRENT:	104 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

JRA architects
301 East Vine Street
Lexington, Kentucky 40507
859.252.6781

STATE OF KENTUCKY WILLIAM RYAN SHARP 26908 LICENSED PROFESSIONAL ENGINEER

RESERVED FOR AHJ STAMP

CMTA

CONSTRUCTION DOCUMENTS

GREENUP COUNTY URGENT CARE / FAMILY CARE MEDICAL OFFICE BUILDING

UNIVERSITY OF KENTUCKY KING'S DAUGHTERS MEDICAL CENTER
1448 SEATON AVENUE, GREENUP, KENTUCKY 41144

UK King's Daughters

ELECTRICAL

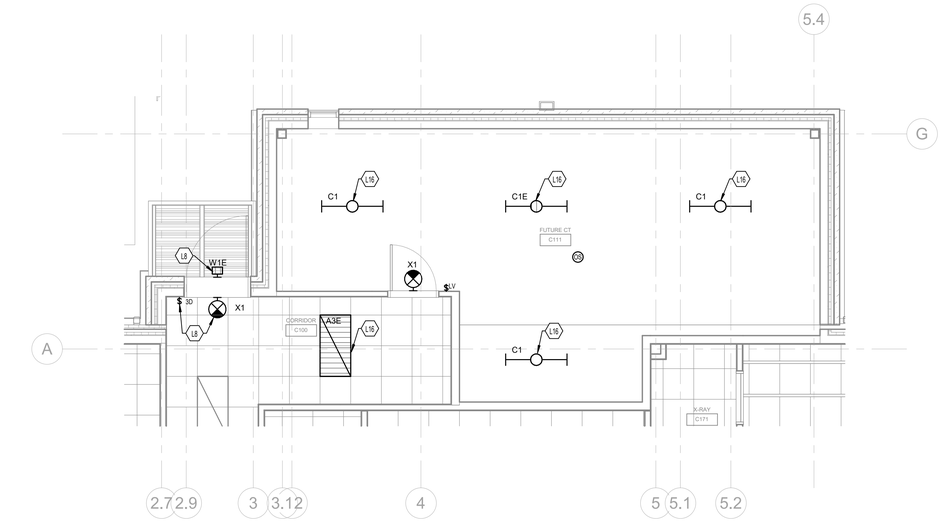
PROJECT	202587
UK #	3123.0
DATE	05/01/26

REVISIONS

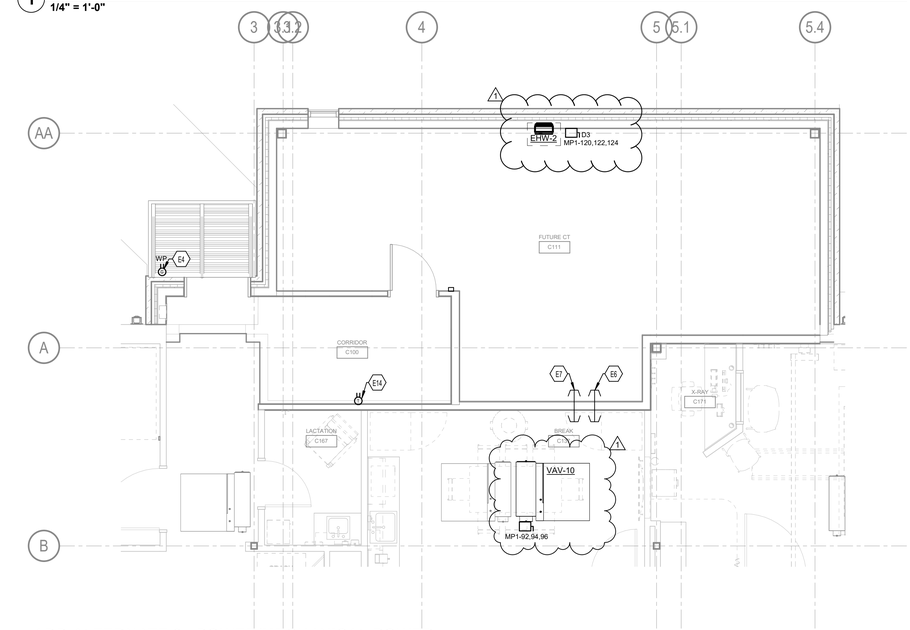
No.	Description	Date
1	ADDENDUM 2	5/27/26

ONE-LINE DIAGRAM/ PANEL SCHEDULES

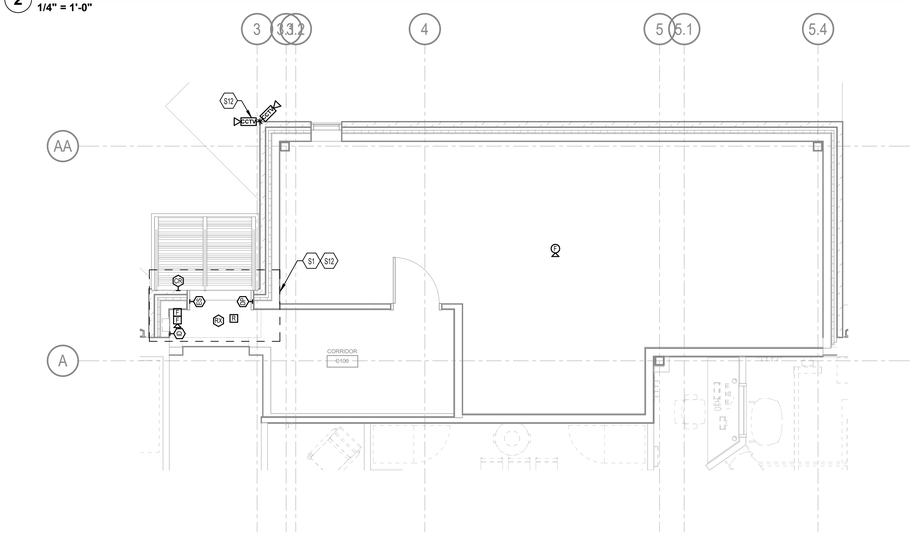
E-501



1 ADD ALTERNATE 3 - LIGHTING
1/4" = 1'-0"



2 ADD ALTERNATE 3 - POWER/MECHANICAL POWER
1/4" = 1'-0"



3 ADD ALTERNATE 3 - SYSTEMS
1/4" = 1'-0"

TAGGED NOTES

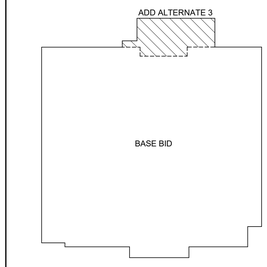
E4	NEW LOCATION OF BASE BID DEVICE IF ADD ALTERNATE 3 IS ACCEPTED.
E6	PROVIDE THREE (3) CONDUITS FOR FUTURE POWER CONNECTIONS. REFER TO ONE-LINE FOR ADDITIONAL INFORMATION.
E7	PROVIDE A 2/1/2" CONDUIT FROM MAIN SWITCH GEAR FOR FUTURE CT POWER.
E14	CONNECT RECEPTACLE TO BASE BID CIRCUIT RP2-52.
L8	NEW LOCATION OF BASE BID DEVICE IF ADD ALTERNATE 3 IS ACCEPTED.
L16	CONNECT FIXTURE TO BASE BID LIGHTING CIRCUIT LP1-2.
S1	DEVICE WILL HAVE DIFFERENT LOCATION IF ADD ALTERNATE 3 ACCEPTED. SEE SHEET E-601 FOR ALTERNATE LOCATION.
S12	NEW LOCATION OF BASE BID DEVICE IF ADD ALTERNATE 3 IS ACCEPTED.

1

DISCONNECTING MEANS SCHEDULE

REMARKS:
1. PROVIDE UNISTRUT TO MOUNT DISCONNECTS NEAR UNIT.
2.COORDINATE CONNECTIONS AND INSTALLATIONS WITH MECHANICAL CONTRACTORS.

TYPE	AMPACITY RATING/POLES	FURNISHED BY	INSTALLED BY	NEMA RATING	VOLTAGE	REMARKS
D1	200/3	MC	EC	3R	208 V	2
D2	30/2	MC	EC	3R	208 V	1,2
D3	30/3	MC	EC	1	208 V	2
D4	30/3	MC	EC	1	208 V	2
D5	30/1	EC	EC	1	120 V	2
D6	30/3	EC	EC	1	208 V	2



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King's Daughters

ELECTRICAL

PROJECT	202587
UK #	3123.0
DATE	05/01/26

REVISIONS

No.	Description	Date
1	ADDENDUM 2	5/27/26

ADD ALTERNATE 3 PLANS

E-601

5/27/2026 5:01:18 PM