UNIVERSITY OF KENTUCKY
Purchasing Division

INVITATION FOR BIDS

CCK-2632-22
ADDENDUM# 2
05/26/2022

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

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY: 06/10/2022 @ 3:00 P.M. LEXINGTON, KY TIME

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

1. Please refer to and incorporate within the offer, the attached written questions and answers and additional information from Turner Construction Company.

2. If you have any questions, please reach out to Ken Scott at the number below or at Kenneth.Scott@uky.edu.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

Ken Scott 06/03/2022

Contracting Officer / (859) 257-9102

SIGNATURE

_____

_____
Typed or Printed Name

University of Kentucky
Purchasing Division
322 Peterson Service Building
Lexington, KY 40506-0005

UK Reynolds Building #1 College of Design
BID PACKAGE - 01
ADDENDUM No. 2
CCK-2632-22
05/25/2022

TCCO Addendum Items

Attachment "B" Scope of Work

Item 1. Revise Attachment "B" Scope of work TC-003 Section E.15.g, h add addition of i to read as follows:

g) SALVAGE items as stipulated. Any Items to be re-installed should be turned over to the General Trades Contractor for reinstallation. Please note at south main entrance should be removed and turned over to owner prior to demolition activities.

i. ALL Tongue and Groove hardwood flooring called to be removed will be by **TC-014** (Flooring) down to the subfloor.

h) This contractor to include ALL abatement as required to perform this scope of work. Forthcoming addendum to extents for existing materials that will need abatement by this contractor.

i. All interior abatement items have been contracted directly with **University of Kentucky**. This scope of work will only need to abate any unforeseen conditions that may arise during your scope of work, this will be handled by case by case basis by change order.

i) Demo of Heavy Timber Beams and floor decking at new openings will be by **TC-007 General Trades**.

Item 2. Addition to Attachment "B" Scope of Work TC-007 Section E.15.b.iv. to read as follows:

iv. Provide jersey water barriers fencing for use for the project duration as indicated on the project site logistics plan – Attachment I. Include an extra 60 linear feet of jersey barrier fencing for use by construction manager. Fencing is to also have screening fabric. Include filling with water and maintaining water levels required for safety – treat water for winter usage. Include placement and modification as needed for exterior excavation and site work.

Item 3. Addition to Attachment "B" Scope of Work TC-007 Section E.16. to read as follows:

16) This contractor shall include **SELECTIVE DEMOLITION** (as related to Heavy Timber or Wood Members) as shown on the Contract Documents and in accordance with DIVISION 02. This contractor to include all selective demo as shown on Demolition SD Sheets which includes but not limited to:

a) This contractor to include all demo of the upper flooring plan for the opening of the new forum and clearing stair. This contractor to include all temp shoring and left in place until new heavy timber and structural members are all be placed as shown on the structural drawings. This contractor to pay special attention of demo and replacement of these areas.

i. This contractor to provide all temp fall protection at leading edges as needed. This contractor to include regular maintenance as needed. This contractor to include all toe, mid-rail and top railing as required.

ii. This contractor to include $5,000 for 3rd Party Engineering for design of shoring at the new stair opening and loading capacities.

iii. his contractor to include $5,000 for aluminum shoring post and 160 hours labor for additional shoring to be used at the direction of Construction Manager.

a. This contractor to include all structural demo of footings, beams, columns, purlins, decking, etc. as shown on the structural and architectural drawings.

ii. All structural heavy timber that is to be demoed is to be salvaged for reuses.

b. This contractor to include all necessary shoring to be included until new footings, columns, beams can be replaced. This contractor to review all components with Turner prior to removal of any shoring.

c. This contractor to include 3rd party engineering for all shoring of existing structure.

Item 4. Addition to Attachment "B" Scope of Work TC-007 Section E.43, to read as follows:

43. This contractor shall provide and install all **OVERHEAD GLASS SECTIONAL DOORS** as shown in the Construction Documents and specified in section 08 3600. Reference detail 3/A-801.

Item 5. Addition to Attachment "B" Scope of Work TC-007 Section E.44 & 45, to read as follows:

44. This contractor shall provide and install all **FOLDING PARTITIONS** as shown in the Contract Documents and specified in section 10 2226. Reference detail 1/A-606.

45. This contractor shall include 15 KIP Galv. Steel Pile Anchors to Wall as shown on S100-B at the north Maker Yard Wall. This contractor to include any excavation and temp shoring required. This work to be performed early in the project before excavation and asphalt removal.

Item 6. Remove Attachment "B" Scope of Work TC-007 - Section E - Division 05 - Section 7300 - DECORATIVE METAL RAILINGS.

DIVISION 05 – METALS

SECTION 05 5000 – METAL FABRICATIONS (as related to scope of work)
SECTION 05 7000 – ORNAMENTAL METAL GRILLS
~~SECTION 05 7300 – DECORATIVE METAL RAILINGS~~

Item 7. Modified Section of work for Division 07 for section 9200 Joint Sealants to read as follow:

SECTION 07 7200 – ROOF ACCESSORIES (as related to scope of work)

Item 8. Remove Attachment "B" Scope of Work TC-007 – Section E – Division 12 – Section 9300 – SITE FURNISHINGS.

Item 9. TC-022 to provide complete scope of work per added specification section 26 0900 - Electric Power Monitoring

Item 10. Remove Attachment "B" Scope of Work TC-007 – Section E.24

24. This contractor shall ~~provide~~ **receive, shake out and** install all **HOLLOW METAL DOORS (**with PRE-INSTALLED HARDWARE*) **& FRAMES** (FOB jobsite) as shown on the Contract Documents and in accordance with specification section 08 1113 & 08 1214.

Item 11. Addition to Attachment "B" Scope of Work TC-009 Section E.18.h, to read as follows:

h. This contractor to include all structural steel for reinforcing of maker yard existing walls as shown on S-101B, S-413, & S-416. This contractor to include all thru bolts, lintels, tube steel, etc as shown in detail J/S-413, H/S-413 & J/S-416.

Item 12. Addition to Attachment "B" Scope of Work TC-011 Section E.14.a.iv to read as follows:

iv. Wood Windows at West Elevation are found to have hazardous materials in the putty of glazing. This contractor to include all hazardous removal, containment, dumpsters, and haul off of windows. For windows that are to be salvaged and turned over to UK. The intent would be that the window be bagged in containing bag and crated in wood container for transportation and turned over to UK.

Item 13. Revise Attachment "B" Scope of work TC-012 Section E.13.a to read as follows:

13. This contractor shall provide **SELECTIVE DEMOLITION** as shown on the Contract Documents and in accordance with Specification 02 4119.

a. See D series sheets (Sheets D-103A and D-103B) and SD Series Sheets (SD-101) which should be used for reference, though field conditions may differ and should be accounted for:

i. Include demolition of existing roofing systems assemblies, parapet caps, flashing systems, etc. as shown.

1. This contractor to include abatement for known roofing material called to be removed for new roofing system. This contractor to include all handling, haul off, and dumpsters for contaminated materials. See attached report for tested materials.

"BID BREAKOUT" Sheets

Item 14. TC-007 General Trades, See attached Bid Breakout form to be used.

Attachment "F" General Work Requirements

Item 15. Remove Attachment "F" General Work Requirements Line Item 1.A.

a. Onsite project supervision shall have minimum 5 years of active hospital construction experience. Resumes will be due after low bid is determined.

Item 16. Revise Attachment "F" General Work Requirements Line Item 45.k, to read as follows:

k. **TC-007 General Trades** contractor shall provide and maintain an automated dumping mechanism, basis of design is Zorin multi-purpose tote dumper model V-JMD-1000-72 and **Thirty-two** (32) V-MPT-2 compatible trash hoppers to use for the duration of the project.

Item 17. Revise Attachment "F" General Work Requirements Line Item 65.a, to read as follows:

a. **TC-007 General Trades Contractor** will provide and maintain (cleaning minimum twice per week eight (8) general & one (1) women's port-o-lets, **Four** (4) hand washing stations for the project site, from project start through project completion.

ATTACHMENTS & ADDITIONAL REPORTS

Item 18. ATTACHEMENT "I" LOGISTICS PLAN ATTACHED

Item 19. Include additional Hazardous Material Report for Tested Roofing material (ACM Analytical Results & Photolog)

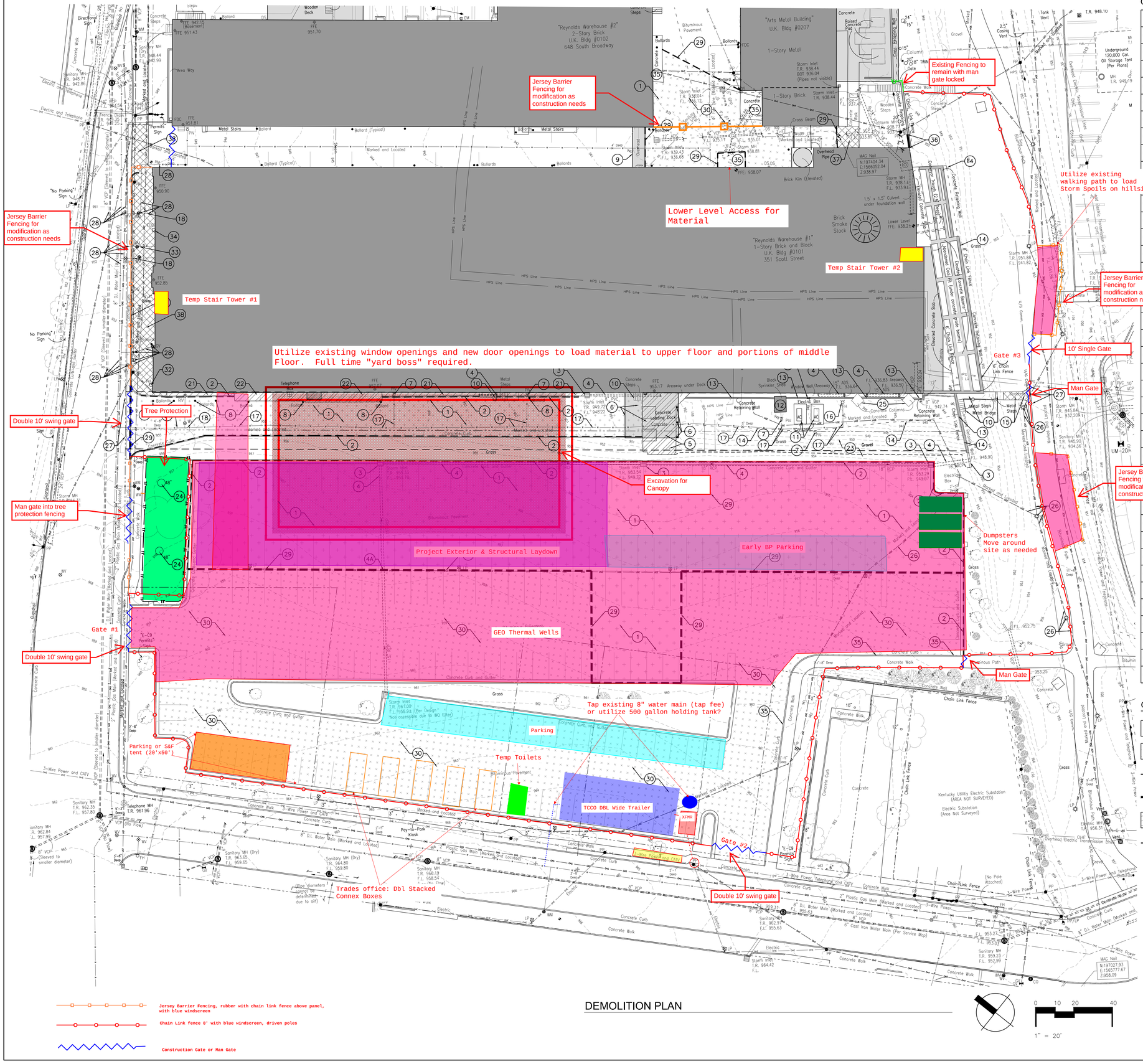
SCOPE OF WORK

TC-007 – GENERAL TRADES

BID BREAKOUT

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

DESCRIPTION OF WORK	**COST INCLUDED IN BID**
Engineering & layout, Permits & Fees, Shop drawings and submittals	$_____
Division 1: General Req., dumpsters, trash carts, lull & yard boss, temp stairs, Janitorial services, mobilizations, etc.	$_____
Division 1: Site Fencing	$_____
Division 2 Selective Demolition	$_____
Division 5 Misc. Metals	$_____
~~Division 5 Column Covers, Decorative Metal Railings, Gates, Glazed Decorative Metal Railings, Decorative Formed Metal~~	$_____
Division 6 Heavy Timer Columns & Beams	$_____
Division 6 Shoring as related to Heavy Timber Work	$_____
Division 6 Wood Bench	$_____
Division 6 Window Sills	$_____
Division 7 Joint Sealants	$_____
Division 8 Hollow Metal Frame & Doors, Wood Doors & Hardware (Labor)	$_____
~~Division 8 Aluminum-Framed Entrances & Storefronts~~	$_____
Division 8 Glazing	$_____
~~Division 8 Decorative Glass Glazing~~	$_____
Division 10 Specialties	$_____
~~Division 10 Exterior Sun Control Devices~~	$_____
Division 12 Roller Window Shades	$_____
~~Division 12 Solid Surfacing Countertops~~	$_____
General Work Requirements (Section F Items)	$_____
Safety & Housekeeping	$_____
Remaining work not listed above, Overhead & Profit	$_____
TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)	$_____
Cost of Performance and Payment Bond ***DO NOT INCLUDE THIS COST IN YOUR BID***	$_____



DEMOLITION PLAN

0 10 20 40

1" = 20'

CODED DEMOLITION NOTES

KEY	DESCRIPTION
1	REMOVE ASPHALT AND BASE MATERIALS TO FULL DEPTH
2	REMOVE CONCRETE CURB AND GUTTER
3	REMOVE DRAINAGE STRUCTURE
4	REMOVE STORM WATER PIPING
4A	CAP END OF STORM WATER PIPING FOR FUTURE USE
5	REMOVE CONCRETE LOADING DOCK AND ALL COMPONENT PIECES
6	PROTECT OVERHEAD STRUCTURE OVER LOADING DOCK AND ALL SUPPORTING STRUCTURES
7	REMOVE POST INDICATOR VALVE
8	REMOVE BOLLARD
9	REMOVE ELECTRIC EQUIPMENT AND COMPONENTS
10	REMOVE METAL STEPS OR METAL BRIDGE AND CONCRETE FOOTERS AND ASSOCIATED HANDRAILS
11	REMOVE AIR CONDITION UNITS, CONCRETE PAD AND BASE MATERIAL
12	REMOVE BLOCK SPRINKLER SHED, ALL COMPONENTS INSIDE, CAP AND SEAL ANY CONNECTIONS TO BUILDING AND REMOVE ASSOCIATED FOUNDATION MATERIAL
13	REMOVE RETAINING WALL, ATTACHED RAILING AND BRACING COMPONENTS AGAINST BUILDING. SEE STRUCTURAL FOR FURTHER INFORMATION
14	REMOVE CHAIN LINK FENCE
15	REMOVE CONCRETE AND BASE MATERIALS
16	REMOVE FIRE HYDRANT
17	REMOVE WATER LINE
18	CAP EXISTING WATER LINE
19	ELECTRICAL EQUIPMENT. SEE MEP PLANS FOR FURTHER INFORMATION
20	REMOVE ELECTRIC LINE
21	REMOVE CONCRETE RUNNEL. MAINTAIN INTEGRITY OF BUILDING WALL AND FOUNDATION
22	REMOVE CONCRETE RAMP AND ASSOCIATED HANDRAILS
23	REMOVE AND STOCKPILE RIP RAP
24	PROTECT EXISTING TREE
25	PROTECT EXISTING CONCRETE COLUMNS
26	REMOVE EXISTING ELECTRICAL EQUIPMENT, LIGHT FIXTURE AND ELECTRICAL LINE
27	REMOVE EXISTING ASPHALT
28	PROTECT EXISTING UTILITY
29	SAWCUT LINE
30	MILL ASPHALT AND REPLACE
31	WATER TAP TO REMAIN IN ORDER TO SERVE FIRE SUPPRESSION SYSTEM
32	FIRE DEPARTMENT CONNECTION TO REMAIN
33	DOMESTIC WATER TAP & VALVE TO REMAIN IN SERVICE
34	REMOVE FIRE DEPARTMENT CONNECTION
35	PROTECT EXISTING CURB AND SIDEWALK
36	REMOVE 7' PORTION OF WALL TO ALLOW FOR INSTALLATION OF GABION RETAINMENT AND ACCESS
37	REMOVE AND REPLACE CONCRETE
38	REMOVE AND REPLACE CONCRETE SIDEWALK

GRAPHIC LEGEND

- REMOVE AND REPLACE ASPHALT FULL DEPTH
- MILL ASPHALT AND REPLACE
- REMOVE CONCRETE CURB AND GUTTER
- SAW CUT
- REMOVE CONCRETE SIDEWALK
- TF TREE PROTECTION FENCING

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

NOT FOR CONSTRUCTION

DATE	DESCRIPTION
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 815
Louisville, KY 40202
502.582.2500

Design Architect:
STUDIO GANG
1520 W. Division St
Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
2429 Members Way
Lexington, KY 40504
859.253.0892

Structural Engineer:
BROWN + KUBICAN, Psc.
2224 Young Dr.
Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
CARMAN
310 Old Vine St., #200
Lexington, KY 40507
859.254.9803

Acoustics Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
1841 Ft. Henry Drive
Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

August 28, 2020, 100% DESIGN DEVELOPMENT

Sheet Title:
SITE DEMOLITION PLAN

Project Number	19-131
Drawn By	MRH
Approved By	KLW
Date	28 August, 2020
Revisions:	

C-100

UNIVERSITY OF KENTUCKY
Purchasing Division

Written Questions and Answers

CCK-2632-22
Reynolds Building#1

No.	Question	Responsible Party	Answer
1.	Will a schedule be released for this project?	Turner Construction	Included in addendum #1.
2.	I was going through the drawings and noticed Acoustical baffles being called out but could not find a spec section on these. I also saw the spec for the Novawall stretched wall and ceiling system but could not locate the product in the drawings.	KNBA	The basis of design for the baffles is the product noted on the drawings. A cutsheet is attached for reference. Equal products in size, type and performance are acceptable. The wall and ceiling system is shown on A304, A305, Reflected Ceiling plans, and ASK-02 (Add #1)
3.	REF: SPECIFICATION SECTION097713 PART 2 – 2.1A In this section you have your basis of design a Novawall system. I do not see any requirement or form for a "substitution request", so I am asking to be included as an acceptable manufacturer for your "stretch wall & ceiling acoustical system". The G&S ACOUSTICS FABRIC-WALL SYSTEM will meet and/or exceed your specification requirements and there is not need to change your drawings, installation methods or requirements. I have attached some product information for your review and am available to meet and review the product at your convenience.	KNBA	Product is acceptable
4.	Water Source Heat Pump: Per the water source heat pump schedule notes in drawing M-800 (Fig A), it is mentioned that the unit is coming with factory-mounted controls and to provide BACnet integration for the same. However, per the drawing IC-201 (Fig B), we have a control point list, for which we haven't found the supply scope of the field devices. Please confirm,	CMTA	The Water-Source Heat Pump schedule indicates a field-mounted, wired, programmed controller for BAS interface (Remark #8). This shall be provided and installed by the Temperature Controls Contractor.

	whether to consider only BACnet integration or to furnish complete controls for these units.		
5.	Water to Water Heat Pump: Per the water to water heat pump schedule notes in drawing M-801 (Fig A), it is mentioned to provide BACnet integration for these units. However, while referring to its sequence of operation in drawing IC-203 (Fig B), we found that the unit is controlled with a DDC controller. Please confirm, whether to consider only BACnet integration or to furnish the complete controls.	CMTA	The Water-to-Water Heat Pump schedule indicates a field-mounted, wired, programmed controller for BAS interface. This shall be provided and installed by the Temperature Controls Contractor. Omit BACNet Interface reference. This will be reflected in the final addendum.
6.	What will be the maximum allowable load on the floor for equipment? In order to set the main lobby stair equipment will need to be used along with the fact the lobby stair will weigh over 8000+ lbs when ready for install	B+K & Turner	All floors in the building, where deteriorated members do not occur, is adequate for 80 pounds per square foot minimum (some areas may be ok for more). For loads greater than 80 pounds per square foot, shoring may be required and must be adequately engineered. The Design Team is only responsible for the completed building conditions. Means and methods to achieve the completed building, including any needed shoring systems, will not be by the Design Team.
7.	I am trying to determine the division of labor between the structural steel stair manufacture (Section 055000 Metal Fabrications) and the decorative railing (Section 057300) for the Maker Yard Stair. Is the spiraling piece of plate metal in the center of this stair a structural steel component in the stair manufacturers scope or is it considered guardrail with side mount handrail? I think it's in Section 055000 because it structurally supports the stair treads, but was asked to confirm	B+K & Turner	The plate is structural in that it is part of the load carrying system for this stair. *To be furnished and installed per TC-009-Structural Steel.*
8.	Please confirm the material size requested for the Cane Detection Rail below the Clearing Stair. Reference attachment “A” below which Details 9 & 10/A-503 call it out as 3-5/8" rod and 3-5/8" posts. Product as drawn features MUCH smaller material. The cane rail is supposed to be only 4" in overall height per 9/A-503 so I'm assuming it cannot be made from 3-5/8" if you wish to achieve the style of the product illustrated. Please advise.	KNBA	The note reads as “MTL-3 5/8” ROD, PT-5”. The note’s intent is that the material is “MTL-3” which is Steel (per sheet legend), and the product is a 5/8” rod.

9.	Is there any engineered shoring required? If so, please detail the exact locations and what type of shoring you are looking for. Can the shoring stay in place permanently?	Turner Construction	*Shoring for existing foundations for site excavation by TC-001; shoring for stair opening and all floor openings TC-007;* *Shoring for rear exterior patio TC-008;* *All other shoring for means and methods to be supplied and installed by responsible TC;* *All shoring to have engineering prior to installation.*
10.	Section 057300 - Decorative Railing Is the design intent for Keynote Item #262, 2/A-200 - the guardrail on the new galvanized steel egress stair - to match the decorative galvanized steel guardrail at the parapet wall (1/a-200 and A-700) and the decorative steel interior railing? Not sure which section the egress stair guardrail falls under. Please advise.	KNBA	Parapet wall guardrail is to match decorative guardrail. Exterior guardrail is to be galvanized and painted. Egress stair guardrail (West and East egress stairs) is covered in Section 055000 – Metal Fabrications and is to be painted.
11.	Section 057300 - Decorative Railing What are the finish requirements for the decorative railings noted in Section 057300. Product is steel, finishes noted in the spec section are for aluminum and stainless steel, a steel finish is not listed beyond requiring galvanizing for the exterior railing under miscellaneous materials. Didn't know if we were installing the guardrail as primed only for the interior railing and hot dipped galvanized for the exterior railing with finish paint by others or if you want the fabricator to paint or powder coat the end product? Section 099100 - painting, only lists the types of paint for each material not the scope for who is painting what. Please advise.	KNBA	Please see updated Spec Section 057300, which corrects these paragraphs regarding aluminum and stainless steel (neither products are in the project). Exterior rail is to be galvanized and painted. Interior rail is to be painted.
12.	Specification (201300-5-I-1) for Hydronic Piping (Dual Temperature (DTS) Water) says 4” pipe and smaller to be type L soldered, 6” and larger pipe to be Schedule 40 welded. Under Special Notes (201300-5-I-3-b) it says copper and steel shall not be mixed in mechanical rooms. In some cases, mechanical room piping ranges from 8” down to ½” . Should all mechanical room piping be type L copper or schedule 40 welded steel?	CMTA	Omit Special Note 201300-5-I-3-b. Piping requirements shall be as listed in specification section 201300 for the DTS system. This will be reflected in the final Addendum.
13.	Specification 230800 indicates the commissioning for this project will be procured under separate contract to UK. The Facility	KNBA/UK	This is to be a direct contract with UK. Not in this bid package.

	Commissioning Group holds a per diem with UK for commissioning/engineering and have performed master agreement commissioning services in the past for UK. I was wondering if this would be procured after the project or if we could reach out to the UK project manager to inquire further about providing a proposal for their consideration.		
14.	Section 057300 - Decorative Railing, South Elevation Exterior Egress Stair Can more detail be provided regarding the South Elevation Exterior Egress Stair? Please advise. • type of galvanized steel grating required for stair treads and landing • type of nose on treads • anchors/attachment method for securing to historic masonry wall • overall dimensions required for stair • galvanized materials required for stair & guardrail	KNBA/B+K	Regarding the egress stair on the plan south wall of the adjacent building: See detail E/S415 for support frames, stringers, and anchorage to structure as well as galvanization requirements. See keynote 262 on A-200 for required stair clear width (36”). See Specification Section 055119 – Metal Grating Stairs (Add #1) for requirements for grating, guardrail, etc.
15.	Section 057300 - Decorative Railing scope vs. structural steel scope I understand that the 3-1/2" x 3-1/2" x 3/8" steel angle is the bottom rail supporting the guardrail angled pickets. Is the second 3-1/2" x 3-1/2" x 3/8" steel angle 10" below the guardrail as noted per 9/A-506 considered part of the guardrail assembly or the stair fabrication? If it's considered part of the stair fabrication, is the floor edge stop plate and second 3-1/2" x 3-1/2" x 3/8" steel angle 10" below the guardrail as noted per 4/A-700 at the Center Stairs, the Atrium Openings at the Studio Stair and Forum Balcony also part of the structural steel scope. Please advise.	KNBA/B+K	Where angles attach to an HSS stringer, they are structural. This includes the upper angle that is the base of the railing. The entire shape is to act in a composite manner in the completed construction. Where angles attach to a plate only, as shown in 4/A-700, the plate and both angles are part of the guard rail assembly. The guard rail assembly must resist code mandated guard rail loading, but it is not use for support of other structural building elements. All parts of the upper landing assemblies for the central stair (see sheet S-409) are structural.
16.	Can the following be listed as approved equals for some of our manufactures equipment for the above project: • Ref section 220300- Plumbing Equipment	CMTA	Approved equipment manufacturer listings shall be updated in the final addendum.

	We seek approval for quoting NYLES as approved water to water heat pump manufacturer. We seek approval for quoting NILES as approved domestic hot water storage tank manufacturer. • Ref section 230200-HVAC Equipment & Hydronic Specialties We seek approval for quoting BOSCH/FHP as approved manufacturer for both the water to air and the water to water heat pumps. We seek approval for quoting DUNHAM BUSH as approved Dedicated OA unit manufacturer.		
17.	In Specification Section 231200 6.C. (1) It states, Install Double wall duct in these areas: - Above areas with partial ceilings or clouds - Anywhere ductwork is installed exposed to view in spaces - At all other areas indicated on drawings Please clearly define what duct, if any, needs to be double wall insulated & paint-grip. No duct shown on M200A through M203B or the detail drawing on M400 is shown as double wall, nor does 231200 8. Duct construction schedule address what duct is double wall. Is the supply air double wall? Is the outside air double wall? Is the exhaust air double wall? Is the return air double wall?	CMTA	The required locations of exposed, spiral duct with paint-grip finish shall be clarified in the final addendum. Note that only supply duct shall be dual-wall where required. All exposed return air, exhaust air, and outside air duct shall be single-wall spiral with paint-grip finish, unless noted otherwise in the plans and/or specifications.
18.	a large portion of the south load bearing wall will see the centuries old backfill removed to facilitate a contiguous new foundation replete with buttress walls. Aside from the TC-01 requirement to temporarily support said existing foundation wall to the extend deemed necessary, the new adjoining foundation wall is to be excavated to parent bedrock and refilled with lean concrete as necessary to bottom of the new foundation elevation. Does the existing south foundation segmented stone foundation wall also bear on parent bedrock?	B+K/Turner	Based on limited exploration holes, it is our expectation that the existing building wall in the area adjacent to the new buttresses does extend to bedrock. However, this will have to be verified during construction. It is not our intent to undermine the existing walls. If such case does start to occur, pause work and request further direction from the Design Team.
19.	Have the existing windows been tested for asbestos and lead paint?	UK/Turner	Wood windows at West elevation are positive for asbestos putty in the window glazing.

20.	Is there any requirement of fire rating required for new windows on North Elevation: (between buildings #1 and #2)?	KNBA	No rating is required.
21.	Wood blocking at new windows, does this require fire treated?	KNBA	Fire rated lumber is not required.
22.	Will Bid Package TC-011 be required to furnish dumpster for disposal of existing windows or just use jobsite dumpster?	Turner Construction	General job site dumpsters not containing hazardous materials. Any windows containing hazardous materials will be placed in dumpsters provided by TC-011.
23.	The Elevator specification does not appear to meet UK Elevator Standards, please advise?	KNBA/UK	The elevator requirements should also meet UK Elevator specification standards, attached.
24.	Metal Composite Wall Panels has been specified in section 074220 P2.1B. I am inquiring if Alfrex FR Metal Composite Material for consideration as an acceptable equal to the specified products?	KNBA	Product is acceptable.
25.	In General Work Requirements: #45. K. It says "ten (32) V-MPT-2 compatible trash hoppers. Do you want ten or thirty-two?	Turner	32 carts to be provided.
26.	In General Work Requirements: #46. It says "one (3)" 40 yard dumpster. Do you want one or three? Also, can we establish a certain number of pulls? That way bidders are apples to apples. Example, the 12th Floor Fit-Up job has 150 pulls. This is also a Turner project. Any savings on unused pulls can go back to UK.	Turner	3 dumpsters with normal construction uses.
27.	In General Work Requirements: #50. Are we to assume 48-hour weeks for every week for the duration?	Turner	Yes, for the Yard Boss only.
28.	In General Work Requirements: #61. It says "two (12) 20# fire extinguishers per level". Please confirm quantity.	Turner	12 Fire extinguishers.
29.	In General Work Requirements: #62. It says "three (10)". Please confirm quantity.	Turner	10 Trash cans.
30.	In General Work Requirements: #65. A. It says "one (4) hand washing stations. Please confirm quantity.	Turner	4 hand washing stations.

31.	On this drawing you have noted 1" acoustical panels as you also note in on the other plan drawings. However, the specification calls for a "stretch panel system" or also known as a 'stretch wall system'. I am just asking for a clarification that you do want the 'stretch wall system per specification 097713 and not a wall panel system. Some contractors can get very confused!	KNBA	1" acoustical panels shall be per Specifications.
32.	The Fire Extinguishers are labeled on the Life Safety plans but the condoc note is "FE" which means no cabinet is required. The specs have Fire Extinguisher Cabinets (F.E.C.) mentioned, but none can be located on the plans. Shall we provide extinguishers only with wall brackets?	KNBA	Change plan notes on Life Safety plans to FEC, except for three (3) locations in Lower Level (where FE are located on wood columns). Intent is for Fire Extinguisher Cabinets everywhere except as noted in LL.

SanAir Technologies Laboratory

The Identification Specialists

Analysis Report
prepared for
Chase Environmental Group

Report Date: 6/2/2022

Project Name: U Of K - Reynolds Bldg - Roof

Project #: TBD

SanAir ID#: 22026691

NVLAP TESTING

NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com

SanAir Technologies Laboratory

SanAir ID Number
22026691
FINAL REPORT
6/2/2022 12:22:33 PM

Name: Chase Environmental Group
Address: 11450 Watterson Court
Louisville, KY 40299
Phone: 502-267-1455

Project Number: TBD
P.O. Number: Tommy Taylor
Project Name: U Of K - Reynolds Bldg - Roof
Collected Date: 6/1/2022
Received Date: 6/2/2022 10:45:00 AM

Dear CJS,

We at SanAir would like to thank you for the work you recently submitted. The 15 sample(s) were received on Thursday, June 02, 2022 via UPS. The final report(s) is enclosed for the following sample(s): R-01A, R-01B, R-01C, R-01D, R-02A, R-02B, R-02C, R-03A, R-03B, R-03C, R-03D, R-04A, R-04B, R-04C, R-04D.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:
- 15 samples in Good condition.

SanAir Technologies Laboratory

SanAir ID Number
22026691
FINAL REPORT
6/2/2022 12:22:33 PM

Name: Chase Environmental Group
Address: 11450 Watterson Court
Louisville, KY 40299
Phone: 502-267-1455

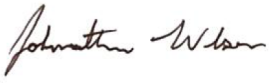
Project Number: TBD
P.O. Number: Tommy Taylor
Project Name: U Of K - Reynolds Bldg - Roof
Collected Date: 6/1/2022
Received Date: 6/2/2022 10:45:00 AM

Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non-fibrous	Asbestos Fibers
R-01A / 22026691-001 Bur - Upper Roof - Membrane (Top Layer) & Foam (2nd Layer), Membrane	White Non-Fibrous Homogeneous		100% Other	None Detected
R-01A / 22026691-001 Bur - Upper Roof - Membrane (Top Layer) & Foam (2nd Layer), Foam	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
R-01B / 22026691-002 Bur - Upper Roof - Membrane (Top Layer) & Foam (2nd Layer), Membrane	White Non-Fibrous Homogeneous		100% Other	None Detected
R-01B / 22026691-002 Bur - Upper Roof - Membrane (Top Layer) & Foam (2nd Layer), Foam	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
R-01C / 22026691-003 Bur - Lower Roof - Membrane (Top Layer) & Foam (2nd Layer), Membrane	White Non-Fibrous Homogeneous		100% Other	None Detected
R-01C / 22026691-003 Bur - Lower Roof - Membrane (Top Layer) & Foam (2nd Layer), Foam	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
R-01D / 22026691-004 Bur - Lower Roof - Membrane (Top Layer) & Foam (2nd Layer), Membrane	White Non-Fibrous Homogeneous		100% Other	None Detected
R-01D / 22026691-004 Bur - Lower Roof - Membrane (Top Layer) & Foam (2nd Layer), Foam	Yellow Non-Fibrous Homogeneous		100% Other	None Detected

Analyst: 
Analysis Date: 6/2/2022

Approved Signatory: 
Date: 6/2/2022

SanAir Technologies Laboratory

SanAir ID Number
22026691
FINAL REPORT
6/2/2022 12:22:33 PM

Name: Chase Environmental Group
Address: 11450 Watterson Court
Louisville, KY 40299
Phone: 502-267-1455

Project Number: TBD
P.O. Number: Tommy Taylor
Project Name: U Of K - Reynolds Bldg - Roof
Collected Date: 6/1/2022
Received Date: 6/2/2022 10:45:00 AM

Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non-fibrous	Asbestos Fibers
R-02A / 22026691-005 Bur - Lower Roof @ Access - Tar & Felt Membrane (Bottom Laye, Tar	Black Non-Fibrous Homogeneous		100% Other	None Detected
R-02A / 22026691-005 Bur - Lower Roof @ Access - Tar & Felt Membrane (Bottom Laye, Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-02B / 22026691-006 Bur - Lower Roof @ Silo - Tar & Felt Membrane (Bottom Layer), Tar	Black Non-Fibrous Homogeneous		100% Other	None Detected
R-02B / 22026691-006 Bur - Lower Roof @ Silo - Tar & Felt Membrane (Bottom Layer), Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-02C / 22026691-007 Bur - Lower Roof @ Parapet - Tar/Membrane/Cellulose, Tar	Black Non-Fibrous Homogeneous		100% Other	None Detected
R-02C / 22026691-007 Bur - Lower Roof @ Parapet - Tar/Membrane/Cellulose, Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-02C / 22026691-007 Bur - Lower Roof @ Parapet - Tar/Membrane/Cellulose, Cellulose	Brown Fibrous Homogeneous	90% Cellulose	10% Other	None Detected
R-03A / 22026691-008 Bur - Upper Roof @ Exhaust - Tar & Felt Layer (Bottom), Tar	Black Non-Fibrous Homogeneous		96% Other	4% Chrysotile
R-03A / 22026691-008 Bur - Upper Roof @ Exhaust - Tar & Felt Layer (Bottom), Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-03B / 22026691-009 Bur - Upper Roof @ Plumbing Vent - Tar & Felt Layer (Bottom), Tar				Not Analyzed

Analyst: Sarah Hogrefe
Analysis Date: 6/2/2022

Approved Signatory: Johnathan Wilson
Date: 6/2/2022

SanAir Technologies Laboratory

SanAir ID Number
22026691
FINAL REPORT
6/2/2022 12:22:33 PM

Name: Chase Environmental Group
Address: 11450 Watterson Court
Louisville, KY 40299
Phone: 502-267-1455

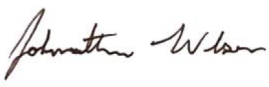
Project Number: TBD
P.O. Number: Tommy Taylor
Project Name: U Of K - Reynolds Bldg - Roof
Collected Date: 6/1/2022
Received Date: 6/2/2022 10:45:00 AM

Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non-fibrous	Asbestos Fibers
R-03B / 22026691-009 Bur - Upper Roof @ Plumbing Vent - Tar & Felt Layer (Bottom), Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-03C / 22026691-010 Bur - Upper Roof @ Roof Access - Tar & Felt Layer (Bottom), Tar				Not Analyzed
R-03C / 22026691-010 Bur - Upper Roof @ Roof Access - Tar & Felt Layer (Bottom), Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-03D / 22026691-011 Bur - Upper Roof @ Parapet - (A) Asphalt Felt (B) Cellulose, Asphalt	Black Non-Fibrous Heterogeneous	30% Cellulose 5% Glass	65% Other	None Detected
R-03D / 22026691-011 Bur - Upper Roof @ Parapet - (A) Asphalt Felt (B) Cellulose, Cellulose	Brown Fibrous Homogeneous	99% Cellulose	1% Other	None Detected
R-03D / 22026691-011 Bur - Upper Roof @ Parapet - (A) Asphalt Felt (B) Cellulose, Tar				Not Analyzed
R-03D / 22026691-011 Bur - Upper Roof @ Parapet - (A) Asphalt Felt (B) Cellulose, Felt	Black Fibrous Homogeneous	65% Cellulose	35% Other	None Detected
R-04A / 22026691-012 Upper Roof - Flashing On Plumbing Vent (Near Roof Access)	Black Non-Fibrous Homogeneous		97% Other	3% Chrysotile
R-04B / 22026691-013 Lower Roof - Flashing On Brick Wall Below SE Parapet				Not Analyzed
R-04C / 22026691-014 Lower Roof - Flashing On SW End Of Parapet				Not Analyzed

Analyst: 
Analysis Date: 6/2/2022

Approved Signatory: 
Date: 6/2/2022

SanAir Technologies Laboratory

SanAir ID Number
22026691
FINAL REPORT
6/2/2022 12:22:33 PM

Name: Chase Environmental Group
Address: 11450 Watterson Court
Louisville, KY 40299
Phone: 502-267-1455

Project Number: TBD
P.O. Number: Tommy Taylor
Project Name: U Of K - Reynolds Bldg - Roof
Collected Date: 6/1/2022
Received Date: 6/2/2022 10:45:00 AM

Analyst: Hogrefe, Sarah

Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Components		
SanAir ID / Description	Appearance	% Fibrous	% Non-fibrous	Asbestos Fibers
R-04D / 22026691-015 Lower Roof @ Upper Roof - Flashing @ SW Edge (Near Gutter)				Not Analyzed

Analyst: Approved Signatory:

Analysis Date: 6/2/2022 Date: 6/2/2022

Disclaimer

This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Results in the report are confidential information intended only for the use by the customer listed on the COC. Neither results nor reports will be discussed with or released to any third party without our client's written permission. The final report shall not be reproduced except in full without written approval of the laboratory to assure that parts of the report are not taken out of context. The information provided in this report applies only to the samples submitted and is relevant only for the date, time, and location of sampling. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample(s) in the condition in which they arrived at the laboratory and information provided by the client on the COC, such as: project number, project name, collection dates, po number, special instructions, samples collected by, sample numbers, sample identifications, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. Samples were received in good condition unless otherwise noted on the report. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. This report does not constitute and shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any other U.S. governmental agencies and may not be certified by every local, state, and federal regulatory agencies.

Samples are held for a period of 60 days. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations.

For NY state samples, method EPA 600/M4-82-020 is performed.

NYELAP Disclaimer:
Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Certifications
NVLAP lab code 200870-0
City of Philadelphia: ALL-460
PA Department of Environmental Protection Number: 68-05397
California License Number: 2915
Colorado License Number: AL-23143
Connecticut License Number: PH-0105
Massachusetts License Number: AA000222
Maine License Number: LB-0075, LA-0084
New York ELAP lab ID: 11983
Rhode Island License Number: PCM00126, PLM00126, TEM00126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia 3333000323
Washington State License Number: C989
West Virginia License Number: LT000616
Vermont License: AL166318
Louisiana Department of Environmental Quality: 212253, Cert 05088

Revision Date: 8/14/2020

SanAir Technologies Laboratory
10501 Trade Ct., Suite 100
N. Chesterfield, VA 23236
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos Chain of Custody

Form 140, Rev 6, 1/26/2022

SanAir ID Number: 1026691

Company: Chase Environmental Group	Project #: TBD	Collected by: CJS
Address: 11450 Watterson Court	Project Name: U of K - Reynolds Bldg. - Roof	Phone #: 502-553-9336
City, St., Zip: Louisville, KY 40299	Date Collected: 6/1/2022	Fax #: -
State of Collection: KY Account#: 2489	P.O. Number: Tommy Taylor	Email: cstovall@chaseenv.com

Bulk

ABB	PLM EPA 600/R-93/116	✓
	Positive Stop ✓	
ABEPA	PLM EPA 400 Point Count	
ABB1K	PLM EPA 1000 Point Count	
ABBEN	PLM EPA NOB**	
ABBCH	TEM Chatfield**	
ABBTM	TEM EPA NOB**	
ABQ	PLM Qualitative	

** Available on 24-hr. to 5-day TAT

Water

ABHE	EPA 100.2	

Air

ABA	PCM NIOSH 7400	
ABA-2	OSHA w/ TWA*	
ABTEM	TEM AHERA	
ABATN	TEM NIOSH 7402	
ABT2	TEM Level II	
Other:		

New York ELAP

ABEPA2	NY ELAP 198.1	
ABENY	NY ELAP 198.6 PLM NOB	
ABBNY	NY ELAP 198.4 TEM NOB	

Soil

ABSE	PLM EPA 600/R-93/116 (Qual.)	

Soil

ABSP	PLM CARB 435 (LOD <1%)	
ABSP1	PLM CARB 435 (LOD 0.25%)	
ABSP2	PLM CARB 435 (LOD 0.1%)	

Dust

ABWA	TEM Wipe ASTM D-6480	
ABDMV	TEM Microvac ASTM D-5755	

Matrix	Other	

Turn Around Times				
	3 HR (4 HR TEM) ■	6 HR (8HR TEM) ☐	12 HR ☐	1 Day ☐
	☐ 2 Days	☐ 3 Days	☐ 4 Days	☐ 5 Days

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
R-01A	BUR - UPPER ROOF - GRAY MEMBRANE (TOP LAYER) & YELLOW FOAM (2ND LAYER)	-	6/1/2022	-	-	-
R-01B	BUR - UPPER ROOF - GRAY MEMBRANE (TOP LAYER) & YELLOW FOAM (2ND LAYER)	-	6/1/2022	-	-	-
R-01C	BUR - LOWER ROOF - GRAY MEMBRANE (TOP LAYER) & YELLOW FOAM (2ND LAYER)	-	6/1/2022	-	-	-
R-01D	BUR - LOWER ROOF - GRAY MEMBRANE (TOP LAYER) & YELLOW FOAM (2ND LAYER)	-	6/1/2022	-	-	-
R-02A	BUR - LOWER ROOF @ ACCESS - BLACK TAR & FELT MEMBRANE (BOTTOM LAYER)	-	6/1/2022	-	-	-
R-02B	BUR - LOWER ROOF @ SILO - BLACK TAR & FELT MEMBRANE (BOTTOM LAYER)	-	6/1/2022	-	-	-
R-02C	BUR - LOWER ROOF @ PARAPET - BLACK TAR / FELT MEMBRANE / CELLULOSE	-	6/1/2022	-	-	-
R-03A	BUR - UPPER ROOF @ EXHAUST - BLACK TAR & FELT LAYER (BOTTOM)	-	6/1/2022	-	-	-
R-03B	BUR - UPPER ROOF @ PLUMBING VENT - BLACK TAR & FELT LAYER (BOTTOM)	-	6/1/2022	-	-	-
R-03C	BUR - UPPER ROOF @ ROOF ACCESS - BLACK TAR & FELT LAYER (BOTTOM)	-	6/1/2022	-	-	-
R-03D	BUR - UPPER ROOF @ PARAPET - (A) BLACK ASPHALT FELT (B) TAN CELLULOSE (C) TAR & FELT	-	6/1/2022	-	-	-
R-04A	UPPER ROOF - BLACK FLASHING ON PLUMBING VENT (NEAR ROOF ACCESS)	-	6/1/2022	-	-	-

Relinquished by	Date	Time	Received by	Date	Time
CJS	6/1/2022	5:00PM			

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of $150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

2202669/ Form 140, Revision 1, 1/20/2017

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start – Stop Time*	
R-04B	LOWER ROOF - BLACK FLASHING ON BRICK WALL BELOW SE PARAPET	-	6/1/2022	-	-	-
R-04C	LOWER ROOF - BLACK FLASHING ON SW END OF PARAPET	-	6/1/2022	-	-	-
R-04D	LOWER ROOF @ UPPER ROOF - BLACK FLASHING @ SW EDGE (NEAR GUTTER)	-	6/1/2022	-	-	-

Special Instructions	

Relinquished by	Date	Time	Received by	Date	Time
CJS	6/1/2022	5:00PM			

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of $150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges. Page _of ____

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N

Comments:

View of the Reynolds Building looking north.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

NW

Comments:

View of the Upper Roof looking northwest.

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N/A

Comments:

View of a roof core sample collected from the Upper Roof.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

E

Comments:

View of a roof core sample collected from the Upper Roof.

Note: *Tar is Asbestos Containing (4%)*

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

NNE

Comments:

View of the Upper Roof and the location of Sample # R-01B & R-03B.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N/A

Comments:

View of the roof core sample shown above.

Note: *Tar is Asbestos Containing (4%)*

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

NW

Comments:

View of the Upper Roof SW parapet and the location of Sample # R-03D.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N/A

Comments:

View of the roof core sample shown above.

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

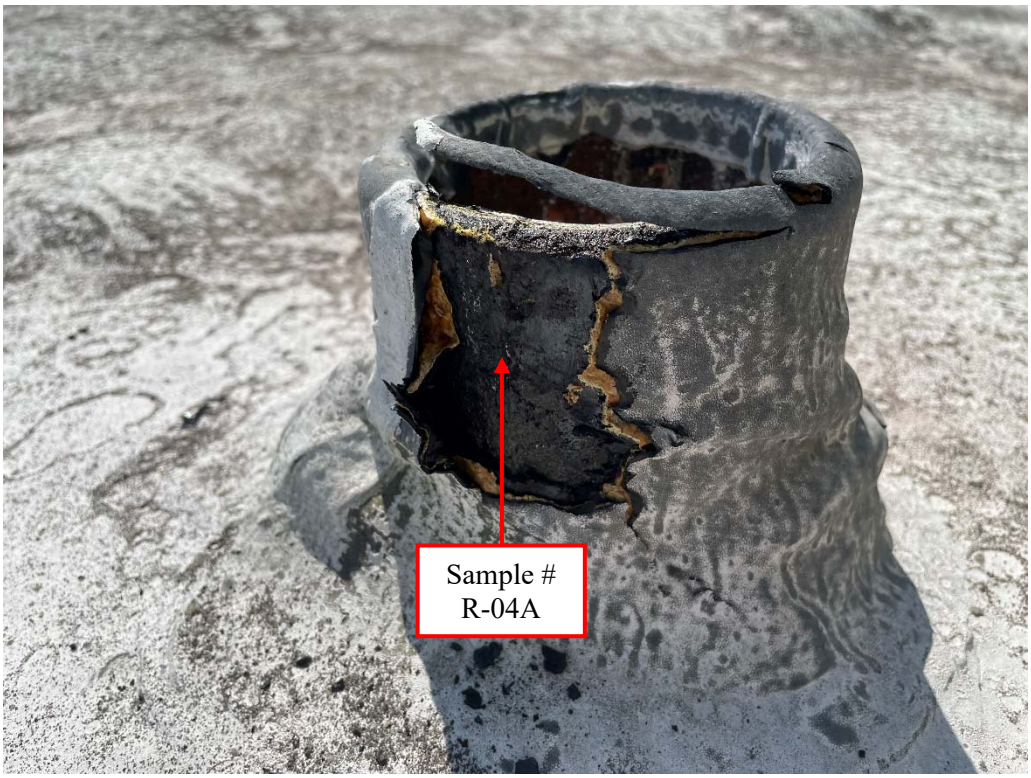
Direction:

N/A

Comments:

View of a plumbing vent located on the Upper Roof showing the black flashing material (R-04A).

Note: *Flashing is Asbestos Containing (3%)*



Photographer:

C. Stovall

Date:

6/1/2022

Direction:

SE

Comments:

View of the Lower Roof looking southeast.

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

E

Comments:

View of the Lower Roof looking east.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

NW

Comments:

View of the Lower Roof Access and the location of Sample # R-01C & R-02A.

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N/A

Comments:

View of the roof core sample shown above.

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

N/A

Comments:

View of the roof core sample located on the SE parapet of the Lower Roof.

Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

Direction:

ESE

Comments:

View of the short parapet located near the silo of the Lower Roof looking east southeast.

Photographer:

C. Stovall

Date:

6/1/2022

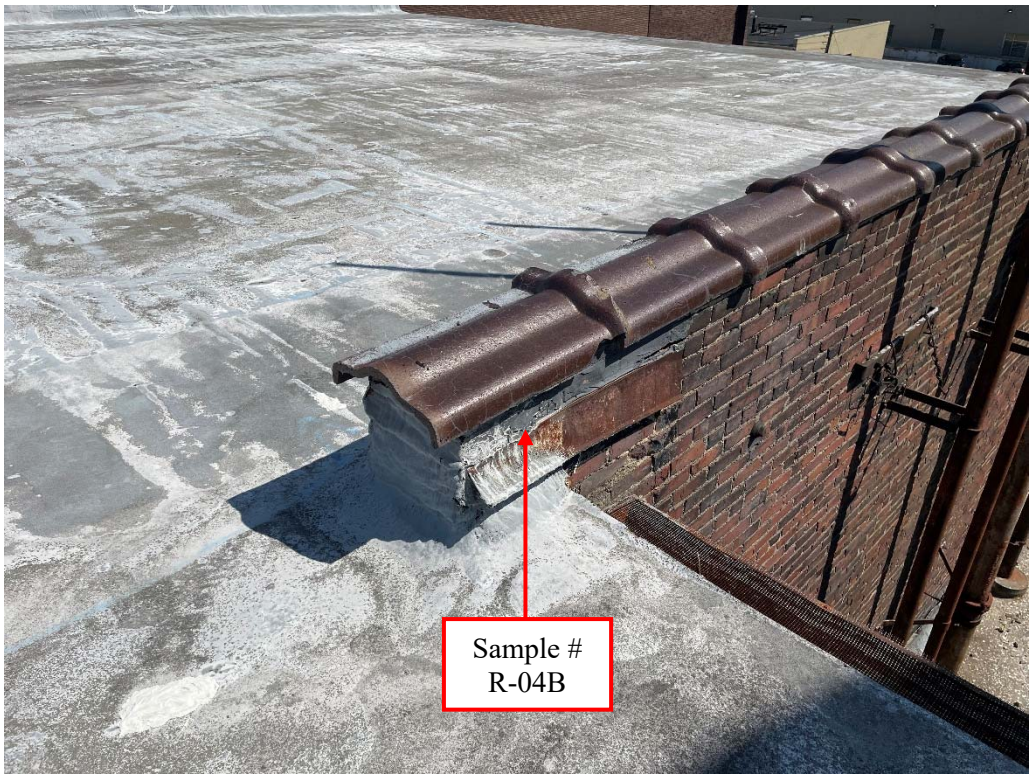
Direction:

N/A

Comments:

View of the short parapet located near the silo of the Lower Roof showing the gray/black original roof flashing.

Note: *Tar is Asbestos Containing (3%)*



Chase Environmental Group, Inc.
Photographic Record

Customer: University of Kentucky (EHS) **Project Number:** F2206009

Site Name: Reynolds Building – Roof **Location:** 349 Scott Street – Lexington (Fayette CO.), KY 40508

Photographer:

C. Stovall

Date:

6/1/2022

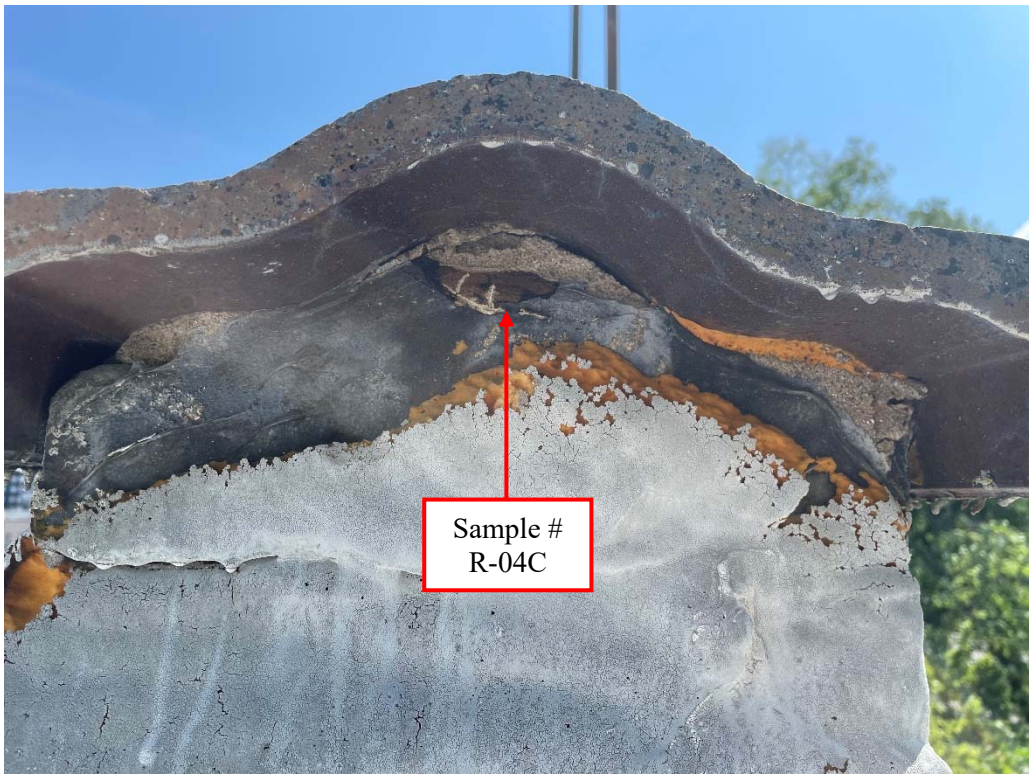
Direction:

N/A

Comments:

End view of the short parapet located near the silo of the Lower Roof showing the gray/black original roof flashing.

Note: *Flashing is Asbestos Containing (3%)*



Photographer:

C. Stovall

Date:

6/1/2022

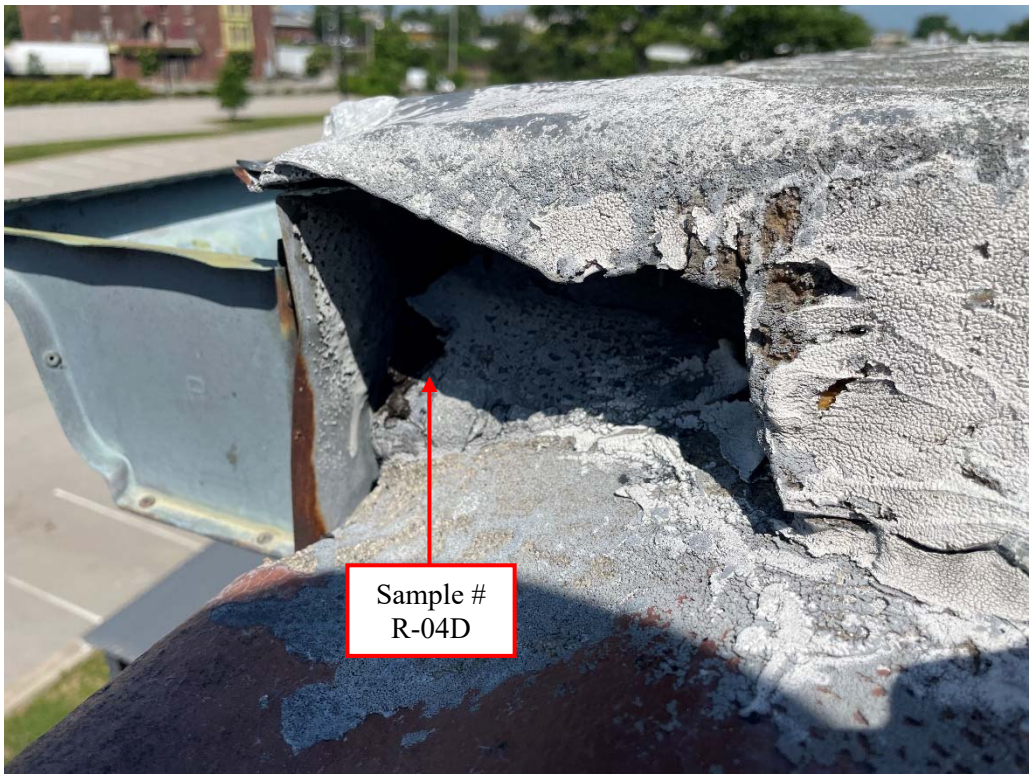
Direction:

NW

Comments:

View of the gray/black original roof flashing located on the Upper Roof / Lower Roof junction
(South Corner of Upper Roof)

Note: *Flashing is Asbestos Containing (3%)*



ADDENDUM #02

TO: All Bidders
Turner Construction Company

FROM: K. Norman Berry Associates Architects

DATE: June 3rd, 2022

RE: **Renew / Modernize Facilities – Reynolds Building #1**
CCK-2632-22
UK project #2511.2
KNBA project: #19-0130

CC: UK Purchasing
CMTA Engineers
Brown + Kubican Engineers
Carman

The following items shall be incorporated into the Contract Documents for the project. Contractors shall acknowledge receipt of this revision in their bids.

1. Sheet G-002 – Mockups: Regarding item (4) Window Mockup, note that the intent of this mockup is that it will be the 1st window off the truck, to review installation.

2. Sheets D-200 and D-202 – Building Elevations (attached) – Demolition: Salvage noted windows in entirety for use by the College of Design. Windows are to be removed and installed into wood frames, maintaining function (moveable sashes) for use as examples in teaching. Hazardous materials are to be removed prior to turning over to the College of Design. Windows are to be delivered to a location on campus (TBD) once removed and installed in frames.

3. Sheet A-001 – Wall Types, door & Frame Types & Details: See amended sheet (attached) to add Frame Type "H" for Doors 114J.3 and 114H

4. Sheet A-002 – Exterior Window Types (attached):
    a. Revise lettering nomenclature of select windows.
        i. Add Window "M" (located on Broadway (West) elevation, and is similar to J, K, and L)
        ii. Change window types M1 and M2 to type "P" and "Q". Windows are in new masonry openings, at the East wall overlooking the Maker Yard. See attached sheets A-306 and A-307 for reference and revised tags. Revise floor plans accordingly.
    b. Window Types "J", "K", "L": revise head & sill section detail tag to 05/A-003. See new vertical muntin detail, 06/A-003.

c. Window operability: All single-hung windows are to be provided with operable function, that can be optional with custodial sash locks. Delete "FIXED" single-hung references for Types A and B. These shall be optionally operable.

5. Sheet A-003 – Exterior Window Details (attached): see revised and additional window details.

6. Sheet A-008 - Door Schedule:
   a. Door 114J.3 - delete reference to an O/H door; Door to be Type 31, frame type "H", with sidelight and transom . Hardware set to be EM01
   b. Door 114H – revise frame type to be "H", with sidelight and transom

7. Architectural Demolition Plans – Sheets D-101A thru D102B:
   a. Add GENERAL note: Demolition of non-structural framing and misc. items at existing wood columns, including misc. conduit, lights, etc., are to be removed, typical. Existing metal corner guards are to remain in place. Any loose corner guards are to be fixed to columns.
   b. Sheet D-101B: Column D-42 on the Middle Level (west): existing wood framing adjacent to and attached to column is to be removed; Protect existing structural column from damage, remove misc. wood framing pieces.

8. Sheet D-100A: Lower Level Plan West Demolition: along South and West walls – remove existing CMU blocks along floor, along base of wall.

9. Sheet A-200 – Exterior Elevations: Drawing 04 – West Elevation – Maker Yard: Add note at joint between Maker Yard brick wall and 3-story building: "Infill and tooth-in brick of Maker Yard wall to repair existing open joint at corner of wall. Install expansion joint between Maker Yard wall and main building wall." See elevation 01/A-307 for reference of location. See Structural drawings.

10. Sheet A-512 – Wood Bench, Drawings 02, 03, 04: Revise all notes that state "Wood Bench w/ salvaged & repurposed beams/columns from existing building", to read as "*Wood Bench with T&G Maple of Various Widths*"

11. Sheet A-513 – Wood Bench Details:
    a. Revise all note, on all drawings on A-513, regarding "Salvaged Wood planed to 5/4"..." to read as *"3/4" Tongue & Groove Maple of Various Widths (3-5"), Finish with same polyurethane finish as floor. Boards are to be blind nailed."*
    b. Where wood is needed for replacement of existing flooring (drawings 01, 02, 03, 07, and 14), thickness shall be (2) layers of ¾" flooring, to match adjacent flooring system. Salvaged existing wood flooring strips are to be used as allowable, from demolished floor areas.
    c. All 2x framing supports are to be min. 16" o.c., and additionally as needed for bench construction.
    d. Include a layer of ¾" plywood under the horizontal bench surface for attachment of finished boards.

e. Wood boards are to run vertical on vertical surfaces, and from front edge to back, on horizontal surfaces.

12. Sheets A-514 – Middle Level Center Stair and A-515 – Forum Stage/Stair + Upper Level Center Stair: Revise all notes, on all drawings on A-514, regarding "Salvaged Wood" or "Salvaged Wood planed to 5/4"…" to read as *"3/4" Tongue & Groove Maple of Various Widths (3-5"), Finish with same polyurethane finish as floor. Boards are to be blind nailed."*

13. Sheet A-603 – Wall Sections: Section 01: Delete reference to 8"CMU infill and delete note "Horiz. Truss Type Reinf at 16" O.C. Vert." at existing masonry opening. Infill to be multi-wythe brick masonry in common bond, matching adjacent wall construction. Tooth-in to adjacent masonry. See Structural drawings.

14. Column corner guards: Existing metal corner guards on wood columns are to remain in place and be prepped for new paint. Reattach any loose guards to columns.

15. Column capitals: Existing metal (steel) column capitals are to be prepped for new paint.

16. Door XE000: Existing door frame at Maker Yard, to exterior / alley. Keep existing door frame, remove existing door. Install new door with designated hardware set, coordinate install with existing metal frame. Revise notation on Door Schedule accordingly.

17. Specification Section 085113 – Historic Aluminum Windows – see attached revised section
    a. Revise Part 2 – Products, 2.1 Manufacturers
    b. Revise 2.2.G. Insect Screens
    c. Modify description of sweep locks, 2.3.E.2
    d. Modify 2.4.I regarding Balances.

End of Addendum #02

SECTION 057300 - DECORATIVE METAL RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel decorative railings with vertical steel pickets and top rail.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Manufacturer's product lines of railings assembled from standard components.
2. Grout, anchoring cement, and paint products.

B. Shop Drawings: Include plans, elevations, sections, and attachment details.

C. Samples: For each type of exposed finish required.

D. Delegated-Design Submittal: For installed products indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 INFORMATIONAL SUBMITTALS

A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.

B. Preconstruction test reports.

C. Evaluation Reports: For post-installed anchors, from ICC-ES.

1.4 QUALITY ASSURANCE

A. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.

1. Build mockups for each form and finish of railing consisting of two posts, top rail, infill area, and anchorage system components.

1.5 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on laboratory mockups. Payment for these services will be made from the testing and inspecting allowance, as authorized by Change Orders. Retesting of products that fail to meet specified requirements shall be done at Contractor's expense.

1. Build laboratory mockups at testing agency facility; use personnel, materials, and methods of construction that will be used at Project site.
2. Test railings according to ASTM E 894 and ASTM E 935.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Product Options: Information on Drawings and in Specifications establishes requirements for system's aesthetic effects and performance characteristics.

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval.

2.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design railings, including attachment to building construction.

B. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails and Top Rails of Guards:

a. Uniform load of 50 lbf/ft. applied in any direction.
b. Concentrated load of 200 lbf applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Infill of Guards:

a. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft.
b. Infill load and other loads need not be assumed to act concurrently.

2.3 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Same metal and finish as supported rails unless otherwise indicated.

2.4 STEEL DECORATIVE RAILINGS

A. Tubing: ASTM A500/A500M or ASTM A513/A513M, Type 5

B. Bars: Hot-rolled, carbon steel complying with ASTM A29/A29M, Grade 1010.

C. Plates, Shapes, and Bars: ASTM A36/A36M.

2.5 FASTENERS

A. Fastener Materials: Unless otherwise indicated, provide the following:
   1. Uncoated Steel Components: Plated-steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating where concealed; Type 304 stainless-steel fasteners where exposed.
   2. Galvanized-Steel Components: Plated-steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
   3. Dissimilar Metals: Type 304 stainless-steel fasteners.

B. Post-Installed Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC193.

   1. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B 633 or ASTM F 1941 Class Fe/Zn 5, unless otherwise indicated.
   2. Material for Exterior Locations and Where Stainless Steel Is Indicated: ASTM F 593 and nuts, ASTM F 594

2.6 MISCELLANEOUS MATERIALS

A. Wood Rails: Clear, straight-grained hardwood rails secured to recessed metal subrail.

   1. Species & Profile: see drawings
   2. Finish: Transparent polyurethane
   3. Staining: As selected by Architect from manufacturer's full range

B. Etching Cleaner for Galvanized Metal: Complying with MPI#25.

C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

D. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.

E. Shop Primer for Galvanized Steel: Water-based galvanized metal primer complying with MPI#134.

F. Intermediate Coats and Topcoats: Provide products that comply with Section 099113 "Exterior Painting." and Section 099123 "Interior Painting." And Section 099600 "High-Performance Coatings."

2.7 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage but not less than that required to support structural loads.

B. Connections: Fabricate railings with welded connections unless otherwise indicated.

C. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. At exposed connections, finish exposed welds to comply with NOMMA's "Voluntary Joint Finish Standards" for Type 1 welds; no evidence of a welded joint.

D. Brazed Connections: Connect copper-alloy railings by brazing. Cope components at connections to provide close fit, or use fittings designed for this purpose. Braze corners and seams continuously.

1. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and brazed surface matches contours of adjoining surfaces.

E. Mechanical Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.

F. Form changes in direction by inserting prefabricated elbow fittings.

G. Bend members in jigs to produce uniform curvature for each configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

H. Close exposed ends of hollow railing members with prefabricated end fittings.

I. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated.

J. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

2.8 STEEL AND IRON FINISHES

A. Galvanized Railings:

1. Hot-dip galvanize **exterior** steel and iron railings, including hardware, after fabrication.
2. Hot-dip galvanize indicated steel and iron railings, including hardware, after fabrication.
3. Comply with ASTM A123/A123M for hot-dip galvanized railings.
4. Comply with ASTM A153/A153M for hot-dip galvanized hardware.

5. Do not quench or apply post-galvanizing treatments that might interfere with paint adhesion.

B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

C. Preparing Galvanized Railings for Shop Priming: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with etching cleaner.

D. For nongalvanized-steel railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves; however, hot-dip galvanize anchors to be embedded in exterior concrete or masonry.

E. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below:

1. Exterior Railings: SSPC-SP 6/NACE No. 3.
2. Railings Indicated To Receive Zinc-Rich Primer: SSPC-SP 6/NACE No. 3.
3. Railings Indicated To Receive Primers Specified in Section 099600 "High-Performance Coatings": SSPC-SP 6/NACE No. 3.
4. Other Railings: SSPC-SP 7/NACE No. 4.

F. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1 for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

G. High-Performance Coating: Apply epoxy intermediate and polyurethane topcoats to prime-coated surfaces. Comply with coating manufacturer's written instructions and with requirements in SSPC-PA 1 for shop painting. Apply at spreading rates recommended by coating manufacturer.

1. Color: Match Architect's sample

PART 3 - EXECUTION

3.1 INSTALLATION

A. Fit exposed connections together to form tight, hairline joints.

B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
2. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1. Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

D. Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout.

E. Form or core-drill holes not less than 5 inches deep and 3/4 inch larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout.

F. Anchor posts to metal surfaces with flanges, angle type, or floor type as required by conditions, connected to posts and to metal supporting members.

G. Anchor railing ends to concrete and masonry with sleeves concealed within brackets on underside of rails connected to railing ends and anchored to wall construction with anchors and bolts.

H. Secure wall brackets and railing end flanges to building construction as follows:

1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
2. For hollow masonry anchorage, use toggle bolts.
3. For wood stud partitions, use hanger or lag bolts set into wood backing between studs. Coordinate with carpentry work to locate backing members.
4. For steel-framed partitions, use hanger or lag bolts set into fire-retardant-treated wood backing between studs. Coordinate with stud installation to locate backing members.
5. For steel-framed partitions, fasten brackets directly to steel framing or concealed steel reinforcements using self-tapping screws of size and type required to support structural loads.
6. For steel-framed partitions, fasten brackets with toggle bolts installed through flanges of steel framing or through concealed steel reinforcements.

I. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

END OF SECTION 057300

SECTION 08 51 13 - HISTORIC ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. The Conditions of the Contract, and all Sections of Division 1, are hereby made a part of this Section.

B. Section Includes: Factory glazed windows complete with insect screens, reinforcing, shims, anchors, and attachment devices.

C. Related Sections:
1. Division 7 Section “Joint Sealants.”
2. Division 8 Section “Glass and Glazing.”

D. Coordinate work with that of all construction contractors affecting or affected by work of this Contract. Cooperate with such contractors to assure the steady progress of the Work.

E. Conduct field testing of windows when specified in Division 1 by an independent lab using AAMA field test procedures.

1.2 SYSTEM DESCRIPTION

A. General: In addition to requirements shown or specified comply with applicable provisions of AAMA/WDMA/CSA 101/I.S.2/A440-08 for design, materials, fabrication and installation of component parts.

B. Window Replacement Requirements:
1. Work Included: Provide labor, materials and equipment necessary to complete the work of the Replacement Window Contract, and without limiting the generality thereof include:
2. Removal of existing sash, fixed glazing, frames and other accessories as required by the proposed replacement system.
3. Removal of other existing work as required for the proper installation and operation of the new units.
4. Removal from site and legal disposal of all removed materials, debris, packaging, banding and all other surplus materials and equipment.
5. Provide new factory glazed, thermally broken, aluminum windows, types as specified herein, together with necessary mullions, panning, trim, expanders, operating hardware, installation hardware and all other accessories as required.
6. Insulated panels and frames as required in selected transoms and other locations.
7. Treated wood blocking, fillers and nailers as required for secure installation. Bidders shall survey conditions of existing sills and jambs prior to bidding. Contractor shall be responsible for providing new blocking for portions of same that are deteriorated.
8. Fiberglass insulation between window frames and adjacent construction.
9. Sealing of all joints within each window assembly.
10. Sealing of entire exterior perimeter of window units after installation.
11. Field observations and measurements of existing openings and conditions.
12. Furnishing and delivering of extra materials as specified.

C. Design Requirements:
   1. Manufacturer/subcontractor is responsible for designing system, including installation instructions and necessary modifications to meet specified requirements and maintain visual design concepts.
   2. Requirements shown by details are intended to establish basic dimension of unit, sight lines and profiles of members.
   3. Provide assemblies free from rattles, wind whistles and noise due to thermal and structural movement and wind pressure.
   4. Installation instructions are to take into account specified site peculiarities and expansion and contraction movements so there is no possibility of loosening, weakening or fracturing connection between units and building structure or between units themselves.
   5. Provide for expansion and contraction due to structural movement without detriment to appearance or performance.
   6. Evacuate water without infiltration to interior from exterior face of wall, water entering joints, and condensation occurring within windows, by drain holes and gutters of adequate size or other acceptable method.
   7. Provide concealed fastening wherever possible.

D. Performance Requirements: Requirements for aluminum windows, terminology and standards of performance, and fabrication and workmanship are those specified and recommended in AAMA/WDMA/CSA 101/I.S.2/A440-08 and applicable general recommendations published by AAMA. Conform to more stringent of specified AAMA standards and following:
   1. Air Infiltration Test: Not exceed 0.25 cubic feet per minute per foot of crack length when tested at a pressure of 6.24 psf. Adjust sash to operate in either direction with a force not exceeding 45 pounds after the sash is in motion. Perform tests in accordance with ASTM E 283 with the sash in a closed and locked position.
   2. Water Resistance Test: Subject window unit to a water resistance test in accordance with ASTM E 331 with no water passing the interior face of the window frame and no leakage as defined in the test method. Mount the glazed unit in its vertical position continuously supported around the perimeter and the sash placed in the fully closed and locked position. When a static pressure of 12 pounds per square foot has been stabilized, apply five gallons of water per square foot of window area to the exterior face of the unit for a period of 15 minutes.
   3. Uniform Load Deflection Test: ASTM E 330 at 50 pounds per square foot: No member deflection more than 1/175 of its span. Maintain test load for a period of 10 seconds resulting in no glass breakage, permanent damage of fasteners, hardware parts, support arms, actuating mechanisms or any other damage causing the window to be inoperable.
   4. Uniform Load Structural Test: Apply a minimum exterior and interior uniform load of 75 pounds per square foot to the entire outside surface of the test unit. Maintain this test load for a period of 10 seconds. Results: No glass breakage, permanent damage of fasteners, hardware parts, support arms, actuating mechanisms, or any other damage causing the window to be inoperable. And no permanent deformation of any frame or vent member in excess of 0.2 percent of its span.
   5. Life Cycle Test: Per AAMA 101 and AAMA 910, provide proof that the product meets the criteria including passing air and water test at the conclusion of the cycle test.
   6. Condensation Resistance Factor: Test in accordance with AAMA 1503 standards and tests of thermal performance resulting in a CRF of no less than 62.

7. "U" Value Tests: (Co-efficient of Heat Transfer): Thermal Transmittance of Conduction with a 15 mph perpendicular dynamic wind: 0.40 BTU/hr/ft^2/F with 1" IG and one coating of low-E and as low as 0.28 BTU/hr/ft^2/F using triple glazing and 1-1/4" IG and multiple layers of Low-E glass.
8. Product Certification: Per AAMA Certification Program, window manufacturer must submit certification that their base window system meets the AW criteria and is certified by AAMA.
9. Testing: Where manufacturer's standard window units comply with requirements and have been tested in accordance with specified AAMA/WDMA/CSA 101/I.S.2/A440-08 tests, provide certification by AAMA certified independent laboratory showing compliance with such tests. Submit copy of the test report signed by the independent laboratory.

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's specifications, recommendations, and standard details for aluminum window units.

B. Shop Drawings: Submit shop drawings, including location floor plans or exterior wall elevations showing all window openings, typical unit elevations at 1/4 inch scale, and half size detail sections of every typical composite member. Show anchors, hardware, operators and other components as appropriate if not included in manufacturer's standard data. Include glazing details and standards for factory glazed units.

C. Samples:
1. Submit one sample of each required aluminum finish, on 3 x 3 inch long sections of extrusion shapes or aluminum sheets as required for window units.
2. Submit additional samples, if and as directed by Architect, to show fabrication techniques, workmanship of component parts, and design of hardware and other exposed auxiliary items.

D. Certifications: Submit certified test laboratory reports by independent laboratory substantiating performance of system. Include other supportive data as required or as necessary including AAMA certification.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Store and handle windows, mullions, panels, hardware, and all pertinent items in strict compliance with the manufacturer's instructions.

B. Protect units adequately against damage from the elements, construction activities and other hazards before, during and after installation.

1.5 WARRANTY

A. Manufacturer's Warrantees: Submit written warrantees from window manufacturer for the following:
1. Windows: Windows furnished are certified as fully warranted against any defects in material or workmanship under normal use and service for a period of ten (10) years from date of fabrication.

2. Finish: The pigmented organic finishes on exposed surfaces of windows and component parts (such as panning, trim, mullions and the like) are certified as complying fully with requirements of AAMA 2605 for pigmented organic coating and fully warranted against chipping, peeling, cracking or blistering for a period of ten (10) years from date of installation.
3. Insulated Glass: Warranted from visual obstruction due to internal moisture for a period of ten (10) years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Series GT2200 Single Hung as manufactured by Graham Architectural Products, York, PA.

B. Efco HX45 historic single hung

C. Kawneer AA 5450 historic single hung

D. St. Cloud SCW 5020 historic single hung

E. Thermal Barrier:
1. Provide a continuous uninterrupted thermal barrier around the entire perimeter of the frame and all sash and not be bridged by any metal conductors at any point.
2. The thermal barrier shall consist of glass reinforced polyamide nylon struts, mechanically crimped in the exterior and interior extrusions.
3. Pour & debridge systems are not allowable.

2.2 MATERIALS

A. Aluminum Extrusions: Alloy and temper recommended by window manufacturer for strength, corrosion resistance and application of required finish, but not less than 22,000 psi ultimate tensile strength, a yield of 16,000 psi. Comply with ASTM B 221.

B. Fasteners: Aluminum, stainless steel, or other materials warranted by manufacturer to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors and other components of window units.
1. Do not use exposed fasteners on exterior except where unavoidable for application of hardware. Match finish of adjoining metal.
2. Provide non-magnetic stainless steel, tamper-proof screws for exposed fasteners, where required, or special tamper-proof fasteners.
3. Locate fasteners so as not to disturb the thermal barrier construction of windows.

C. Anchors, Clips and Window Accessories: Depending on strength and corrosion-inhibiting requirements, fabricate units of aluminum, non-magnetic stainless steel or hot-dip zinc coated steel or iron complying with ASTM A 123.

D. Compression Glazing Strips and Weatherstripping: At manufacturer's option, provide neoprene gaskets complying with ASTM D 2000 Designation 2BC415 to 3BC415, PVC gaskets

complying with ASTM D2287, or expanded neoprene gaskets complying with ASTM C 509, Grade 4.

E. Sliding Weatherstripping: Provide double weatherstripping using silicone coated woven pile with a polypropylene center fin complying with AAMA 701.

F. Sealant:
1. Unless otherwise indicated for sealants required within fabricated window units, provide elastomeric type as recommended by window manufacturer for joint size and movement, to remain permanently elastic, non-shrinking and non-migrating. Provide product complying with AAMA Specification 803 and 808.
2. Refer to Division 7 for perimeter sealants between window units and surrounding construction.

G. Insect Screens: (where noted): Half
1. Fabric: 18 x 16 aluminum charcoal mesh retained in screen frames with vinyl splines that permit easy replacement.
2. Frames: Extruded aluminum sections or steel frames with corners mitered and crimped with corner gussets. Manufacturer’s standard finish.

2.3 WINDOW TYPES (OPERATION)

A. General: Except as otherwise indicated, provide window units complying with requirements of AAMA Classification "AW" grade windows. Windows for this project will be rated a minimum of AW50 for full size test units per AAMA/WDMA/CSA 101/I.S.2/A440-08 to withstand a design pressure of 50 psf minimum.

B. Fixed Aluminum Windows or Panel Frames (F): no operating hardware or equipment is required.

C. Single-Hung Aluminum Windows (SH):
1. Units: One balanced, vertically sliding sash requiring up to four (4) counterbalancing mechanisms complying with AAMA 902 “Sash Balance Specifications”. Lift rail will have nylon end caps to protect the machined ends of the rail. Saw cut or machined edges will not be acceptable. Pull down handle on bottom of meeting rail of upper sash if upper sash is operable.
2. Provide units which have “lift-out” feature permitting easy removal of both sash from inside without special tools.
3. Tilt-in type sash is not acceptable for this project.

2.4 FABRICATION AND ACCESSORIES

A. General: Provide manufacturer's standard fabrication and accessories which comply with specifications. Include complete system for assembly of components and anchorage of window units and provide complete pre-glazing at the factory.

B. Window Material:
1. Windows and Muntin Bars: Aluminum.
2. Secondary Members (friction tabs, shoes, weatherstripping guides, etc.): Aluminum or a material compatible with aluminum.

3. Main Frame and Sash: Nominal thickness of not less than 0.062 inches, except for fin trim either integral or applied.
4. Frame Sill: Nominal thickness of not less than 0.094 inches.
5. Standard wall thickness tolerance: In accordance with the Aluminum Association.

C. Master Frame: Not less than 4 inches in depth.

D. Sash: Hollow extruded horizontal sections and not less than 1-5/8 inches in depth.

E. Hardware:
1. Material: Aluminum, stainless steel, or other non-corrosive materials compatible with aluminum for hardware having component parts which are exposed. Cadmium or zinc-plated steel where used must be in accordance with ASTM Specification B 766 or B 633.
2. Custodial sweep locks, use 2 when unit is over 42 inches wide.
   a. Aluminum automatic head and sill latches, one at head and two at sills over 26 inches, typical.
   b. Provide at all hung windows (both labeled fixed and single hung) are to be furnished with a white bronze custodial sweep lock allowing the Owner to lock down or open up any hung window in any location, at their discretion. Locks are to be operated with an allen key.

F. Thermal Barrier: Provides a continuous uninterrupted dual polyimide strip thermal barrier around the entire perimeter of the frame and all sash members and shall not be bridged by any metal conductors at any point.

G. Construction:
1. Assembly: Fabricate butt joints of the main frame and the sash, coped and joined neatly and secured by means of screws anchored in integral ports. Seal main frame from the back with a narrow joint sealant meeting AAMA 803 specification for narrow joint sealants.
2. Sash: Screwed together construction so that they may be easily repaired.
3. Meeting rails of the top and bottom sash shall interlock in the closed position.
4. Meeting Rail Interlock: Two separate and distinct metal interlocks. Weatherstrip the meeting rail with fin-seal.
5. Fasten the top fixed meeting rail to the frame jamb by a minimum of two screws per jamb.
6. Top Fixed Glass: Inside glazed and of equal site lines to bottom sash.

H. Mullions - Other structural members: When mullion units occur, whether they are joined by integral mullions, independent mullions or by a combination of frame members, the resulting members must be capable of withstanding the load outlined under Uniform Load specified load requirements, without deflecting more than 1/175th of its span. When independent or integral mullions are used to join windows, the mullions shall contain a thermal barrier as specified. Evidence of compliance may be by mathematical calculations.

I. Balances: Size and capacity required to hold both top and bottom sash stationary in any open position. Easily accessible and replaceable in the field without the use of special tools. Spiral balances will not be accepted.
1. High Performance Balances: Meet or exceed Class V performance with a MAF ratio of 0.30 Maximum sash weight not to exceed 100 pounds. High performance balances typically operate with 30 pounds of operating force or less. Allowable is 45 pounds.

Furnish Class V (Ultra-Lift) balances when sash weight exceeds 65 pounds or windows are typically large for the project.

2. Provide Class V balances for all single-hung windows, allowing for future operability.

J. Sash:
1. Join at the corners with screws in integral screw ports.
2. The sash must be easily removed from the frame for either cleaning or repair.

K. Glazing:
1. Pre-glaze all units (except insulated panels as required for installation) at the factory with insulated glass as follows:
   a. Typical Insulated Glass: Typical Insulated Glass: Overall thickness of 3/4 inch – with two lites of 3/16 inch or as size and loading require.
      (1) Triple glazing available with 1/8” lites.
      (2) Primary Sealant: Polyisobutylene applied to the edge of the spacer.
      (3) Secondary Sealant: Silicone.
      (4) Air Spacer: Continuous metal spacer with formed corners and an in-line connector, containing desiccant.

2. Glaze units to allow for glass replacement without the use of special tools.

L. Weather Protection:
1. Provide means of drainage for water and condensation which may accumulate in members of window units.
2. Weatherstripping: Provide sliding weatherstripping for operating sash.

M. Screens: Provide screens on operating sash.

N. Simulated True Muntin: The simulated muntin is a triple muntin system to simulate a true muntin appearance. Align muntins within the windows system and from window to window within an industry acceptable tolerance.
1. Exterior Grids: Hollow extruded aluminum or flat bar, finish to match the window system, or as shown on plans. Attach grids without exposed fasteners. Exterior grid shall be 2” wide trap shape as shown on drawings.
2. Interior Grid: custom 2” wide profiled grid with rounded edges as shown on drawings. Profile must match shape shown on drawings.
3. Muntin In-between Glass: Aluminum muntins in glass to simulate glass perimeter spacer. Note that two muntin grids to be used spaced 2” apart per detail as shown on drawings.

2.5 CASING COVER SYSTEM: (Panning, Trims, Receptors, Mullions, Sills etc.)

A. Exterior Casing Covers (Panning, Receptors, Subsills, Sills): Provide extruded prime alloy aluminum 6063-T5 no less than nominal 0.078 inch wall thickness. Casing covers of less than 2 inches in depth from the window frame may be of 0.062 inch wall thickness. Provide aluminum sections of one piece designed to lock around the entire window frame for a weathertight connection.
1. Secure the casing cover section at the corners with stainless steel screws in integral screw ports with the joints back sealed using a compatible sealant.

2. Exposed screws, fasteners or pop rivets are not acceptable on the exterior of the casing cover system.

B. Interior trim: none required

C. Thermally broken concealed strap anchors required (by window manufacturer) to anchor window at surround conditions beneath new drywall returns. Note radius drywall returns at interior condition at eyebrow head.

D. Interior and exterior aluminum “eyebrow” closure panels: to be furnished in .080 aluminum. Radius to match existing masonry conditions at head. Closure panels to be attached to panning and window in a secure fashion which does not compromise performance of installed window. See details on architectural drawings

2.6 ALUMINUM WINDOW FINISHES

A. Provide manufacturer’s standard 2 coat Fluoropolymer 70% Kynar baked on, electrostatically applied enamel coating. Color to be selected from manufacturer’s standard colors custom non-exotic color as selected by the Architect, applied over manufacturer’s standard substrate preparation including cleaning, degreasing, and chromate conversion coating. Finish shall meet or exceed AAMA 2605.

1. Color: custom color in Dark Gray range

PART 3 - EXECUTION

3.1 PREPARATION

A. Existing Construction:
1. Do not remove existing windows until new replacements are available and ready for immediate installation. Do not leave any openings uncovered at end of working day, during wind-driven precipitation or during excessively cold weather.
2. Remove existing work carefully; avoid damage to existing work to remain.

B. Perform operations as necessary to prepare openings for proper installation and operation of new retrofit units or new construction units.

C. Verify openings are in accordance with shop drawings and Architects Drawings.

3.2 INSTALLATION

A. Comply with manufacturer's specifications and recommendations for installation of window units, hardware, operators and other components of work. In no case shall attachment to structure or to components of the window system be through or affect the thermal barriers of the window units.

B. Set units plumb, level and true to line, without warp or rack of frames or sash. Anchor securely in place. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action.

C. Wedge fiberglass insulation between frames of new windows and construction to remain, or between frames and new receptor as applicable. Compress fiberglass to no less than 50 percent of original thickness.

D. Set sill members and other members in bed of compound as shown, or with joint fillers or gaskets as shown, to provide weathertight construction. Seal units following installation and as required to provide weathertight system.

3.3 ADJUST AND CLEAN

A. Adjust operating sash and hardware to provide tight fit at contact points and at weatherstripping, for smooth operation and weathertight closure.

B. Clean aluminum surfaces promptly after installation of windows, exercising care to avoid damage to protective coatings and finishes. Remove excess glazing and sealant compounds, dirt, and other substances. Lubricate hardware and moving parts.

C. Clean glass promptly after installation of windows. Remove glazing and sealant compound, dirt and other substances.

D. Existing windows and other materials removed from site become property of the Contractor who shall promptly remove same and legally dispose of at no additional cost to the Owner.

E. Comply with all applicable laws, rules and regulations.

3.4 PROTECTION

A. Initiate all protection and other precautions required to ensure that window units will be without damage or deterioration (other than normal weathering) at time of acceptance.

B. Send to Architect, with copy to Owner, written recommendations for maintenance and protection of windows following Substantial Completion of Window Contract.

END OF SECTION

Autex Acoustics®

Frontier™ Acoustic Fins Data Sheet

Product overview

Frontier™ is a modular acoustic baffle system designed to communicate with interior spaces via an adjustable channel and clip system—giving you complete control over the height, spacing, and placement of each individual component. Lightweight yet solid in appearance, Frontier Acoustic Fins and Raft are made from 100% polyester fiber and cut to form elegant 2D and 3D shapes. Frontier is designed to be 'tuned' to interior spaces, offering tailored acoustic absorption across a wide range of frequencies.

Panel fixing system patent

US Patent 10,113,312

Sustainable material

- Carbon neutral product
- Zero carbon manufacturing
- Recycled content
  - >60% recycled material
- Low VOC and CDPH compliant
  - <0.092 mg/m3 (7 days)
- Zero waste manufacturing initiative
- Sustainable supply chain and anti-modern slavery

Environmental certifications

- EPD – compliant with ISO 14025 and ISO 15804
- Declare – Red List free (third party verified)
- ISO 14001 Certified Environmental Management
- Health Product Declaration
- CDPH Standard

Certifying your green building

Autex Acoustics products meet criteria for WELL, LEED, Green Star, and BREEAM building rating systems, helping you achieve certification for your project. For support and guidance on available rating system points please visit www.autexglobal.com, or speak with your Autex Acoustics account manager.

Specification

Acoustic absorption system shall be Frontier (_) as compiled by Autex www.autexglobal.com

Acoustic absorber Frontier™ Acoustic Fins (94.5"/custom) length x (12" nominal / Axis 6") depth x (1/2"/1") gauge, spaced at (_)"centers. Color (_), sound absorption: 4"/8" centers Class B, 12" centers Class C, Fire rating ISO 9705: Classification: Group 1-S, AS ISO 9705 – 2003 Classification: Group 1, 1/2" BS EN 13501-1:2018: B - s2, d0, 1" BS EN 13501-1:2018: B - s2, d2.

Supplied with Frontier Connector Clips, Frontier Channel, Frontier Fins. Fix with 0.2 oz countersink fastener appropriate for the substrate. Install as per Frontier Install Instructions.

Product specifications

Product name	Frontier™ Acoustic Fins
Composition	Fin: 100% polyester fiber (PET) aluminium channel
Fin length	94.5"
Tolerance	(+- 0.02")
Thickness	1"
Tolerance	(+/- 6%)

Installation
Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website.

Acoustic performance

Frontier Acoustic Fins are specifically designed to reduce and control reverberated noise and echo in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
Frontier Fins 1" (11.8" deep 4" centers)	0.35	0.70	0.95	1.25	1.35	1.30	1.05
Frontier Fins 1" (11.8" deep 8" centers)	0.25	0.55	0.70	1.10	1.30	1.30	0.90
Frontier Fins 1" (11.8" deep 12" centers)	0.20	0.45	0.60	1.00	1.25	1.20	0.85

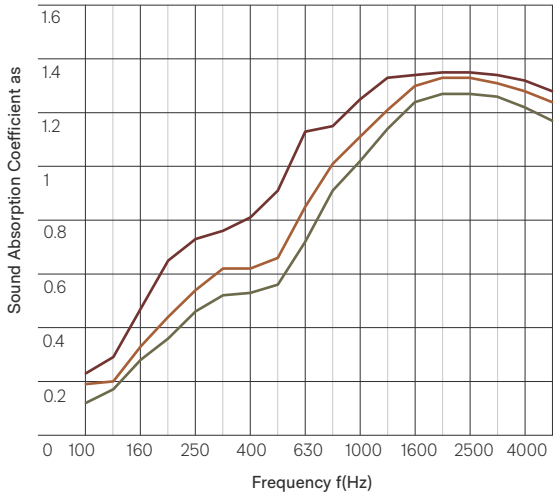
Table presents the practical sound absorption coefficients as according to ISO 11654. Graph presents third octave sound absorption coefficients (according to ISO 354 measurement of sound absorption in a reverberation room). The NRC rating is determined as the arithmetic average of the absorption coefficients measured by one-third octave bands centered on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

Sound Absorption Coefficients According to ISO 354.
University of Auckland Testing Service

Frontier Fins 1"
(11.8" deep 4" centers) - Test No: T1812-4

Frontier Fins 1"
(11.8" deep @ 8" centers) - Test No: T1812-5

Frontier Fins 1"
(11.8" deep @ 8" centers) - Test No: T1812-6



Product specifications

Product name	Frontier™ Acoustic Fins
Composition	Fin: 100% polyester fibre (PET) aluminium channel
Dimensions	Fin length: 94.5"
Tolerance	(+- 0.02")
Thickness	1/2"
Tolerance	(+/- 6%)

Installation
Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website.

Acoustic performance

Frontier Acoustic Fins are specifically designed to reduce and control reverberated noise and echo in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
Frontier Axis 1/2" (5.9" deep 12" centers)	0.20	0.50	0.75	0.65	0.90	1.05	0.70
Frontier Fins 1/2" (5.9" deep 4" centers)	0.30	0.65	0.80	1.20	1.45	1.60	1.00
Frontier Fins 1/2" (11.8" deep 8" centers)	0.30	0.60	0.70	1.00	1.30	1.50	0.90
Frontier Fins 1/2" (11.8" deep 12" centers)	0.25	0.50	0.60	0.80	1.10	1.25	0.75

Table presents the practical sound absorption coefficients as according to ISO 11654. Graph presents third octave sound absorption coefficients (according to ISO 354 measurement of sound absorption in a reverberation room). The NRC rating is determined as the arithmetic average of the absorption coefficients measured by one-third octave bands centered on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

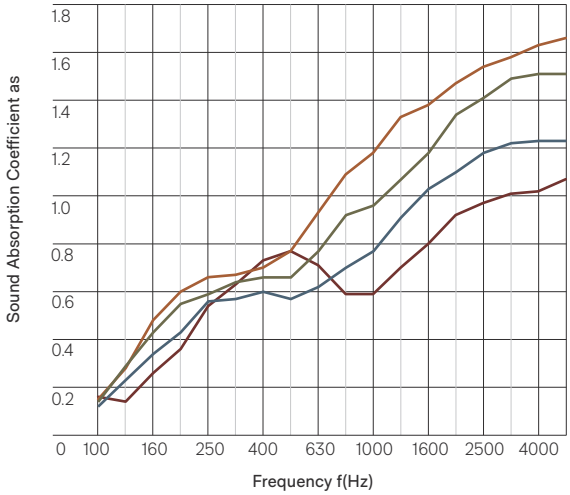
Sound Absorption Coefficients According to ISO 354. University of Auckland Testing Service

Frontier Axis 1/2"
(5.9" deep 12" centers) - Test No: T1525-12

Frontier Fins 1/2"
(11.8" deep @ 4" centers) - Test No: T1525-18

Frontier Fins 1/2"
(11.8" deep @ 8" centers) - Test No: T1525-16

Frontier Fins 1/2"
(11.8" deep @ 12" centers) - Test No: T1525-17



Product specifications

Fire rating

Frontier is made from Cube as the base material. Cube has been evaluated using the following test methods:

ISO 9705: 1993
Classification: Group 1-S
Smoke production rate: <5.0m²/s
As required by NZBC C/VM2

AS ISO 9705 - 2003
Classification: Group 1
(SMOGRArc): <100m²/s2
Assessed using methodology AS ISO 9705:2003 in accordance with AS 5637.1:2015, as required by BCA Specification C1.10-4
FI 4974
FAR 4055

BS EN 13501-1:2018
Wall applications
Classification: B-s2,d0
(Cube™ 1/2")
Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 15102:2007 + A1:2011. EUI-20-000268-A

Ceiling applications
Classification: B-s2,d0
(Cube™ 1/2")
Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 13964:2014.
EUI-20-000268-B

Wall applications
Classification: B-s2,d2
(Cube™ 1")
Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 15102:2007 + A1:2011.
EUI-21-000135-G-A

Ceiling applications
Classification: B-s2,d2
(Cube™ 1")
Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 13964:2014.
EUI-21-000135-G-B

ASTM E-84-15a
Class A, FS:0 - SD:45
(Cube™ 1/2")
RJ4479-2
Class A, FS:0 - SD:65
(Cube™ 1")
RJ4479-1

Water vapor sorption

ASTM C1104 / C1104M-13a Test conditions: 49°C, 95%RH Water vapor absorbed and adsorped after 4 days: 0.4% by weight.

Microbial resistance

ASTM G21-15 Growth rating: 0 (No growth) Frontier does not promote the growth of mold and mildew.

Color fastness to light

Frontier is suitable for indoor use only. Light fastness is depenent on use and exposure. Frontier has been evaluated to the following standard:
ISO 105-B02:2014
Rating: 6 (Highest = 7)

Color fastness to rubbing

ISO 105-X12:2016
Dry rating: 4-5 (Highest = 5)
Wet rating: 4-5 (Highest = 5)

Pattern repeat

Non-woven. No pattern repeat but product has directional grain. Product may vary from samples and batch to batch due to fibre blending and lay-up, which is an inherent feature of this product.

Fabric care

Blot spills from fabric quickly. Wipe with a damp cloth. Avoid rubbing and excessive amounts of water as this will affect the finish. Use carpet or upholstery shampoo as directed. Blot with a clean dry cloth after each application of solution.

Custom printed Frontier requires the services of a specialist cleaning company. Refer to the Frontier Care and Maintenance Guide for more information.

Service

For further information about Frontier, Cube, or any other Autex Acoustics product, please contact your account manager or visit our website.

Light reflectance values by color

Frontier Acoustic Fins is suitable for indoor use only. LRVs were measured in accordance with BS 8493:2008+A1:2010

Pavilion	80
Opera	49
Savoye	46
Senado	45
Rosada	44
Acros	40
Falling Water	34
Parthenon	33
Beehive	33
Bosco	29
Flatiron	24
Zenith	23
Galaxy	15
Lotus	14
Ironbank	13
Cavalier	12
Muralla	9
Gherkin	8
Empire	5
Sargazo	4
Pinnacle	3
Tree House	3
Petronas	2

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142000S02 Hydraulic and Traction Elevators

I. GENERAL

A. ELEVATOR STANDARD - UPDATES AND REVISIONS

This standard is to be used for design, installation, construction, and/or renovation of elevators for and in University of Kentucky buildings. It is a living document; therefore, updates will be made as conditions and/or new regulations require. Further, when a user of this standard perceives the need for revisions, additions, deletions, and/or other changes, a request for revision should be put in writing to the Campus Physical Plant Director for consideration. A request for a revision may not necessarily result in the Elevator Standard being revised.

B. TERMS

1. University Project Manager

"University Project Manager" means the individual from the Capital Project Management Division (CPMD), the Campus *Physical Plant Division* (CPPD), or the Medical Center *Physical Plant Division* who is designated to be in charge of the Project.

2. Consultant

"Consultant" means the individual, the Elevator Consultant, the Engineer, and/or the Architect who is responsible for the design of the elevator system. The consultant may be an employee of the University of Kentucky Facilities Management Division.

3. Contractor

"Contractor" means the successful bidder/firm to whom the contract to construct the elevator system has been awarded.

4. "Owner"

When used, "Owner" shall mean the University of Kentucky *and/or one of the Facilities Management Divisions*.

C. DEPARTMENT SPECIFIC CONDITIONS

This University of Kentucky Elevator Standard applies to a variety of conditions and types of elevators. Some specific peripheral requirements may differ between the Lexington Campus elevators and those for service in the Medical Center and/or other University Departments; however, the basic requirements of this standard shall be used in any elevator design or renovation.

D. CODES AND REGULATOR AGENCIES

Refer to University of Kentucky Official Design Standards for General Conditions and Special Conditions for code and regulatory compliance requirements. However, it must be understood that all codes and requirements of Federal, State, and Local regulatory agencies are to be applied to all elevator purchases, installations, maintenance, and construction projects in University of Kentucky buildings. Some of the conditions following make reference to these; however, such limited references do not exclude University departments, the Consultant, or the contractor from fully applying all codes and regulatory requirements to University of Kentucky situations.

E. INTENT

It is the intent of these standards to provide guidelines in developing vertical transportation systems that:

1. Provide acceptable levels of elevator service as related to the Average Interval and Handling Capacity.

2. Provide safe and convenient transport of passengers and material.
3. Provide systems that meet the highest level of accessibility for people with disabilities.
4. Incorporate specifically identified standardized parts for easy maintenance and rapid repair and/or replacement.
5. Provide reliability and achieve desired lifecycle service and cost, and
6. Provide for standardized control systems and other identified equipment as chosen by the University of Kentucky thereby eliminating the installation of manufacturer proprietary equipment*, parts,* and controls.

F. NON-PROPRIETARY EQUIPMENT*, PARTS,* AND CONTROLS

The University of Kentucky does not have in-house maintenance personnel and therefore relies upon contractor(s) to maintain the equipment. The maintenance contractor is acquired through a bid process and is not necessarily the original equipment manufacturer or installer. Therefore, it is required that, for specific items indicated in this standard, University of Kentucky approved and non-proprietary equipment*, parts,* and controls *items (including circuit boards, chips, diagnostic tools, etc.)* be bid and installed. Approved and acceptable non-propriety equipment, parts, and controls are listed in the sections following. Further, all non-propriety controls, tools, passwords, equipment*, parts,* and training necessary to service the elevator be provided to the University of Kentucky by the *manufacturer* and/or the Contractor.

Note: (Revised 02/14/2014): An elevator manufacturer and/or their suppliers may bid for and if successful furnish and install their as-designed elevator systems for installation in University of Kentucky buildings or construction projects. With their bid documents there must be submitted a statement that there are no proprietary parts or equipment in the elevator system(s) and that they are meeting the intent of this standard (i.e. that any and/or all parts, materials, maintenance drawings, maintenance tools, circuit boards, etc. will be available to the University and/or its elevator service provider(s) at the prevailing wholesale market prices at the time of need. The following statement will be part of elevator bid requests to satisfy the requirement of this item.

"The undersigned bidder/company hereby agrees that no proprietary situations will be imposed as to the providing to the University's elevator service providers any maintenance drawings, equipment, part, or control items (including circuit boards, chips, diagnostic tools, etc.), etc. required for the maintenance and upkeep of the elevators provided on this project. Further, the items will be sold to the University's elevator service providers at current wholesale costs and without undue delay."

G. REQUIRED Design Criteria

The Consultant shall use and/or obtain and use the following in the design of a new elevator installation including elevators in and for building renovations and/or additions and/or for elevator modernization and upgrades.

1. Elevators shall be installed in buildings that are two stories and higher. The design shall provide direct service to all floors in the building, including floors where mechanical rooms are located.
2. Elevators shall be given an individual numbering identity. The number shall be the University *4*-digit number followed by an alpha digit assigned to the individual elevator and shown on the construction documents. If the building has only one elevator the number would be

XXXX-A; if two elevators the numbers would be XXXX-A and XXXX-B, etc.

Note: When a building addition is undertaken and additional elevator are added, the new elevators must be numbered consecutively after the existing elevators. If existing elevators are numbered xxxx-A and xxxx-B the next elevator added shall be "xxxx-C" etc. The reason being that the existing elevators are already listed as such in the State Elevator Inspector's files and there can be no duplicates.

3. All elevator design must be done with consideration of and for the existing University of Kentucky elevator maintenance agreements. Copies of the contracts are available from the departments and/or the Purchasing Division.
   a. The maintenance agreements for different *Facilities Divisions* may not be identical having area-specific or use-specific deviations.
   b. *At the end of the contractual obligation (warranty period) of any new elevator installation, the new elevator will be maintained under the service agreements then in existence.*
   c. The *end-of-warranty* maintenance contract for a new elevator installation will be awarded through existing Purchasing Division procedures.

H. PRE-DESIGN ANALYSIS *(NEW CONSTRUCTION)*
For each individual project and/or system, the Consultant shall, including but not limited to, provide traffic analysis for all buildings, especially high-rise and/or complex use buildings and identify the type, size, and capacities of proposed elevator(s).

I. SPECIAL REQUIREMENTS BY UK FIRE MARSHAL
   1. When emergency power is provided *for the elevator system*, the elevator(s) shall be tested under a FULL load on the generator. This would include all emergency lighting and other emergency loads connected to the generator.
   2. Fireman's Service shall be tested under emergency power conditions.
   3. *For Fireman Service priority floor designations,* the UK Fire Marshal's office shall be consulted as to which floors will become Priority 1 and Priority 2 for emergency return situations.
   4. Provide a lockable secure storage box on the Priority 1 floor for the firemen's service key(s). The Consultant shall request storage box keying information from the UK Fire Marshal.

II. ELEVATOR EQUIPMENT

A. TRACTION ELEVATORS
   1. Geared traction elevators shall be used for all medium-duty and heavy-duty applications that exceed 45 feet of travel or four stops.
   2. Geared traction elevators shall be used in parking ramps regardless of

travel or number of stops.

3. Unless specified otherwise *or emergency power is not available*, emergency power for one elevator in each group must be provided.
4. Elevator equipment must include hall floor indicators on every level.
5. Controllers:
   a. *Non-proprietary controllers:*
      - *Virginia Controls, Inc. (http://www.vacontrols.com*
      - *Smartrise Engineering, Inc. www.smartrise.us*
      - *G. A. L. Manufacturing Corp. www.gal.com)*
   b. The controller shall be capable of continuous operation in ambient temperatures between 65 degrees F and 90 degrees F.

   c. Specialized diagnostic devices used to check the operation of the microprocessor and not permanently attached to the controller, shall be provided as part of the contract and shall become university property.
   d. Diagnostic tools or devices requiring “reloading” or “recharging” by the manufacturer shall not be used on a University of Kentucky project.
6. Car Speed:
   Minimum 200 feet per minute (The Consultant may require and/or propose a higher speed for high-rise or group systems)
7. Rise:
   Any elevator utilizing more than four openings in line, or having abnormally tall floor heights (more than 12 feet), must be reviewed for speed requirements.

B. HYDRAULIC ELEVATORS

Note: As the current 2004 code requires a PVC jack casing and oil monitoring, vegetable oil for use in the University of Kentucky elevators is not to be specified unless there is a specific requirement for such.

1. Hydraulic passenger elevators shall be used for light-duty applications. They shall be limited to a maximum travel of 45 feet or four stops.
2. Hydraulic freight elevators shall be limited to a maximum travel of 60 feet.
3. Unless specified otherwise *or emergency power is not available*, emergency power for one elevator in each group must be provided.
4. Elevator equipment must include hall floor indicators on every level.
5. Controllers:
   a. *Non-proprietary controllers:*
      - ☐ VAC’s MH series for group (3 or more car) operation applications.
      - *Smartrise Engineering, Inc. www.smartrise.us*
      - *G. A. L. Manufacturing Corp. www.gal.com)*
   b. The controller shall be capable of continuous operation in ambient temperatures between 65 degrees F and 90 degrees F.
   c. *Use non-proprietary mechanical or solid-state starter systems*. Proprietary manufacturer’s starter systems are prohibited.

   d. Specialized diagnostic devices used to check the operation of the microprocessor not permanently attached to the controller shall be provided as part of the contract, and shall become university property.

e. Diagnostic tools or devices requiring “reloading” or “recharging” by the manufacturer shall not be used on a University of Kentucky project.

6. A battery operated lowering device for emergency use in the event of a main power supply failure *shall be installed if required by codes.*
7. Speeds:
   a. Typical car speed is 125-150 feet per minute.
   b. Two-stop applications may successfully use 100-125 fpm.
8. Rise:
   Where the building rise is more than 45 feet, or the elevator requires staggered openings on either end of the car, use traction system.
9. Power Units:
   Submersible and non-submersible units are acceptable.
10. Control Valves:
    a. Elevator Equipment Corporation (EECO) control valves www.elevatorequipment.com (1-888-577-33260)
    b. Maxton Manufacturing Co control valves www.maxton valve.com (1- (775) 782-1700)
    c. Vertical Xpress I-2 control valves www.verticalxpress.com (1-866-448-3789)
11. Hydraulic Tank:
    Provide internal tank heater for elevators in parking garages, unheated buildings, or where exposed to extremely cold and/or freezing temperatures.

C. MACHINEROOMLESS ELEVATORS

Machineroomless elevators will be considered for use on a case-by- case basis. Primarily, these should be considered only for low to moderate traffic installations where a cost comparison to other type elevators proves acceptable.

D. HOLELESS ELEVATORS

Holeless elevators will be considered for use on a case-by-case basis; however, these type elevators are discouraged from being installed on the University of Kentucky unless specific requirements dictate such use.

E. CHAIR AND PLATFORM LIFTS

Chair and platform lifts shall be chosen and approved on a case-by- case basis.

F. PUSHBUTTON FIXTURES

1. Provide vandal resistant pushbutton fixtures with tamper proof screws as manufactured by:
   a. Innovation Industries, Inc. www.innovationind.com
   b. GAL Manufacturing Corp. www.gal.com., *or*
   c. Elevator manufacturer tamper-proof push-button system. Refer to “ NON-PROPRIETARY EQUIPMENT, PARTS, AND CONTROLS” elsewhere in this Standard.
2. Locate digital car position indicators on each floor in the elevator lobby over the door opening, adjacent to the hoist way door entrance, or contained within the hall pushbutton fixture.
3. Use vandal resistant car direction indicators located on the elevator car to indicate direction of travel and visual arrows for car direction.
4. Provide arrival gongs at each elevator lobby.
5. Provide the Fire Service key switch at the main fire-recall lobby pushbutton.

a. Provide a lighted jewel to indicate Fire Service Operation.
b. Engrave, etch, or emboss fire service instructions on the fixture cover in accordance with *ASME* A17.1a.
c. Provide etched, embossed, or engraved Fire Service Signage located on each hall pushbutton cover.
*d. All Campus (CPPD) Fireman Service Keying requirements shall be for key number **FEOK1** (Barrel shaped Key). Other Facilities Management Divisions will specify their keying options in specifications if different.*

6. Push button designation numbering shall match the architectural room numbering designation i.e. if architectural drawing calls the lowest floor "Ground Floor" the elevator floor designation shall not be "Basement" etc.
7. Surface applied signage is prohibited.

G. POWER DOOR OPERATOR EQUIPMENT

1. Passenger Elevators
For passenger elevators, use only door operator equipment that includes drive operator, hangers, locks, closures, etc. as manufactured by GAL manufacturing Corp. (www.gal.com) 1-877-425-3538.

a. Door operators and related equipment for passenger elevator and freight elevators with bi-parting doors shall be by GAL Corp. model MOVFR with VVVF drive.
- Use low speed operators up to three-stop elevators.
- Use high-speed operators at all other locations.

2. Freight Elevators
Freight elevators having bi-parting horizontal doors, equipment shall be by EMS Group, St. Louis, MO (800-489-4889 or 314-381-0500).

III. CARS

A. CAR DESIGN

1. Interiors:
a. The car enclosure shall meet the requirements required by *ASME* A17 for smoke development and flame spread.
b. Car platforms shall be standard manufacturer sizes unless the University specifically requests a non-standard platform size.
c. Standard interior walls shall be small-patterned Rimex Metals 5WL Stainless Steel.

Note: For a new building project where the atmosphere of the building design will require an exceptionally refined interior, the architect may design the interior to suit the features and use of the building and present the design for review and approval.

d. The *Contractor/manufacturer* shall provide to the *Owner/Consultant* for review, car interior designs, and finish selections.
e. Install moving pad hooks in all elevator cars.
f. When moving pads are specified, provide a locked fireproof cabinet in the elevator equipment room for hanging storage of the pads.
g. *Install ADA compliant handrails in the car.*
h. For all medical facilities and buildings in which cart usage is anticipated or are to be used, bump rails shall be installed 4 to 6

inches above the floor level.

i. Car Flooring:
- For all medical facilities, flooring shall be terrazzo.
- ***All other buildings will have water resistant flooring of black radial rubber flooring unless otherwise approved*.**

j. Carpet is prohibited inside of elevator cars.

2. Indicators:
   a. Locate the car digital position indicator over the transom or within the car-operating panel.
   b. Place the Car Direction Indicators in the car doorframe where they will visible from the vicinity of the hall pushbutton.
   c. Every car direction indicator must be visible from the immediate vicinity of the hall pushbutton.

3. In-car lighting:
Each elevator car shall have an aesthetic ceiling structure that properly supports the installation of the number of lamp holders using LED low watt bulbs to appropriately laminate the interior of the car to system and code standards. Replacement of the lamps shall be easy access from the interior of the car.

B. CONTROL PANEL

1. Keys and switches:
   a. *Provide switches for lights, service or inspection*. *Keys should be removable for lights in all positions; keys should be removable only in the normal positions for temporary use functions. Use Best small format cylinders with removable core for CPPD and 7-pin small format Yale cylinders with removable core for MPPD. Other Facilities Management Divisions will specify their keying options in specifications.*
   b. Provide a two-speed fan switch*; key should be removable in all positions; use Best Cylinder with removable core for CPPD and 7-pin Yale with removable core for MPPD)*
   c. Provide each car-operating panel with an emergency stop key switch*, key should be removable in all positions;* use Best Cylinder with removable core for CPPD and 7-pin Yale with removable core for MPPD).
      - Position the cylinder near the bottom of the pushbuttons with the key removable in either position and with one set of normally closed contacts.
      - Mark the switch with etched, engraved, or embossed “ON” and “OFF.”
   d. Where special key switches *or card readers and/or other devices are* used to lock out particular floor and/or functions:
      - Wire controls so as not to interfere with Fire Service operation.
      - Provide inactive push buttons for each floor even if a key switch, *card reader, and/or other devices are* required.

   e. Where there is a Penthouse mechanical room, provide lock-out keyed switch on the Penthouse push button (the push button is to be activated by the keyed switch); ***key shall not be removable*** *in the activation position. (Use Best Cylinder with removable core for CPPD and 7-pin*

Yale with removable core for MPPD).

*f. For unrestricted elevator service to the penthouse, provide a keyed switch to over-ride the Penthouse mechanical room keyed button lock-out switch; **key shall be removable** in all positions (Use Best Cylinder with 7-pin small format removable core). Place this over-ride switch in the top area of the car panel.*

2. *Fireman Service Controls*

In-car Fireman Service Controls shall be in a reachable, recessed, and in a locked panel in the control panel and at the top portion of the panel.

a. Engrave, etch, or emboss fire service instructions inside the fixture cover in accordance with ASME A17.1a.

*b. Key number shall be **FEOK1** (Barrel shaped Key) for campus (CPPD) buildings. Other Facilities Management Divisions will specify their keying options in specifications if different.*

3. Provide each car-operating panel with special language etched, engraved, or embossed pertaining to the posting of the Elevator Permit and the Capacity of the elevator.

C. *TWO-WAY COMMUNICATIONS*

1. The device shall consist of a single pushbutton, automatic dialer with appropriate indicator lights, and all other essential features necessary to comply with ADA.

*2. **The emergency phone shall be mounted flush on the back of a hinged door at the bottom portion of the in-car control panel and locked with a straight bit key.***

*3. **The communication device shall be as manufactured by Ramtel model RR833OEM to match the existing elevator emergency communication system including remote location indicator and other existing features now in use.***

4. A stand-alone flush box-type device is not to be used without approval of the Owner.

5. The face plate shall have, including but not necessarily limited to:

EMERGENCY PHONE
UNIVERSITY OF KENTUCKY

*(include **UK** logo* - Contact UK Public Relations for most recent logo updates*)*

Other information and instructions on the faceplate are as provided by the Ramtec/Ramtel communication device.

IV. PIT, HOISTWAY, AND WELL HOLES A.

PIT AND HOISTWAY

1. Pit Access:
   a. Provide a metal ladder from each pit floor starting 12" above the pit floor and extending to 48” above the lowest landing floor level.
   b. Locate the ladder at strike jamb side of hoistway when single panel or two speed doors are used.
   c. Where center opening doors are used, locate the ladder on the nearest sidewall.

2. Sump Pit:
   a. Provide a sump pit with easily removable sump pump and approved cover below normal pit grade for all elevators.
   b. Pipe the sump pump discharge into an open gap drain connected to nearest sanitary sewer.
   c. Furnish the sump pump with integral oil sensor so that pump will not operate if hydraulic fluid is contaminating the water. Products are available from SEEWATER, Inc. (www.seewaterinc.com) 1-888-733-9283 or (EECO) www.elevatorequipment.com (1-888-577-33260).
   d. Provide a high-water alarm and connect it to the building's Energy Management System (unless connection is specified to be connected by others).
3. Hoistway Entrances:
   a. Provide nickel silver or chrome plated cast iron sill plate at entrance threshold as manufactured by Plymouth Engineering Shapes of Hopkinsville, Kentucky www.plymouth.com/ or approved substitute. Grout sills in place with using a non-shrink, non-metallic grout.
   b. Set entrances in vertical alignment with car openings and aligned with plumbed hoist way lines. Use ¼" clearances around frame and doors as standard. Fill or slush hoist way doorframes.
   c. Provide dust covers at hoist way entrances that conceal the hoist way door tracks and interlocks. Provide covers no less than the width of the door opening plus 12". Mount covers securely to the header by use of metal screws with keyhole openings. The cover shall be capable of being removed without need of removing screws entirely.
   d. Provide sight guards permanently fastened to the hoist way door and of the same color or finish as the hoist way door. There shall be no holes in the guards other than those used to fasten the guard to the door.
   e. Provide a means of emergency access for each hoist way door as selected by the Owner.
   f. *Provide stainless steel hoistway doors and entrances with brushed stainless steel finish.*
   g. Provide an approved automatic fire detection system (smoke detector) that will respond to visible or invisible particles of combustion connected to building fire alarm system at elevator lobbies *and top of the hoistway*.
   h. Provide hoistway venting as may be required by the KENTUCKY BUILDING CODE Section 3004.
   i. Provide car door protective device extending the full height. This device will be designed to sense an obstruction in its path while the doors are closing and automatically cause the car and hoistway door to return to the open position. The doors will remain open until the expiration of a time interval and then close automatically. Device shall be Janus Pana40 Plus 3D.
4. Maintain hoistway temperature between 50 to 90 degrees F.
5. Piping, conduit, and other Items unrelated to the elevator are prohibited in the hoistway or pit.

B. FIRE PROTECTION
   1. If the building is fully sprinkled, it is required to have sprinklers in the top of the shaft and in the pit.

a. All codes associated with a hoistway as to life safety, fire alarm, and sprinkler installation shall be applied.

b. There shall be a sump provided in the pit with a sump pump satisfying all conditions for sump pump installations as described in this standard.

Note: Hoistway exemption allowed by the KBC (2007):
If the Hoistway is of noncombustible construction (concrete or concrete block) and the car enclosure meets the requirements of *ASME* A17.1 for smoke development and flame spread, the sprinkler in the top of the shaft may be omitted (also found in NFPA 13 code rule 8.14.5.5). (Always check current codes before applying this exemption.)

2. For fully sprinkled building, the pit shall always be sprinkled. The pit sprinkler shall be a sidewall sprinkler type with down-direction spray and the *head must be located within 2' of the pit floor* not requiring a shunt trip breaker.

C. WELL HOLES, CASINGS & CYLINDERS

1. Use steel cased holes for hydraulic applications sized properly for each set of circumstances. Place hydraulic cylinders in the pre-drilled casing and use a *jack aligning disk light* to align the cylinder in the presence of the Consultant.
2. Enclose hydraulic cylinders in PVC to prevent corrosion and electrolysis. Cap the bottom of the PVC liner extend it upward to a point higher than the pit floor.
3. Back fill the cylinder with dry sand from the bottom of the cylinder to the pit floor to prevent the bottom of the casing from moving. Provide a minimum of four (4) inches of concrete at the top of the cylinder to finish the pit floor.
4. Fasten top of cylinder so as to prevent unit from moving during operation. The elevator shall operate without the piston rubbing, bumping or otherwise contacting the inside wall of the cylinder during operation.

V. ELEVATOR EQUIPMENT ROOMS

A. ELEVATOR EQUIPMENT ROOM

1. Design:
   a. Integrate the elevator penthouses into the overall building architectural design to create a unified and compatible appearance from the exterior.
   b. Provide approved stairs for access to elevator equipment rooms. Ship's ladders and alternating tread stairs are prohibited.
   c. Equipment, piping, conduit, etc. unrelated to the elevator are prohibited in the elevator equipment room.
2. Fire Protection:
   a. If the building is fully sprinkled, it is required to have sprinklers in the equipment room.

   Note: Equipment Room Exemption allowed by the KBC (2007): If the equipment room is two-hour rated, the sprinklers may be omitted. (Always check current codes before applying this exemption.)

   c. Provide fire-resistant labeled door with closer and Storeroom function mortise lockset.

d. Provide a fire extinguisher in machine room mounted on the wall near the entrance door. A cabinet for the fire extinguisher is not required.
e. Provide an approved automatic fire detection system (smoke detector) that will respond to visible or invisible particles of combustion connected to building fire alarm system.

3. Emergency Power (When available):
Emergency power will be required for all lighting and general power requirements of the machine rooms, cars, hoistways, sump pumps, and pits. This emergency power requirement must satisfy all codes and have the approval of the Kentucky State Electrical Inspector.

- *Furnish and install a Square D 120/208V 3-Φ emergency power panel board located in the Equipment Room sized for the elevator system general power and lighting requirements for the machine room, hoistway(s), sump pump(s), and pit(s).*
- *The panel board may only be used for general power and lighting loads related to the elevator system.*
- *The panel board shall be clearly labeled as "For Elevator Circuits Only."*
- *For each 110/120 VAC car light system, provide a lockable circuit breaker in the panel board.*
- *Use only code-sized rigid conduit in the elevator Equipment Room for main power equipment. Minimum ¾ inch.*
- *Provide GFI duplex receptacles on emergency power in the elevator pit and one in the elevator equipment room.*
- *The contractor shall connect the sump pump to an emergency panel –* ***do not use GFI breakers on outlets for the sump pump.***

3. Climate Control:
   a. Maintain temperature between 50 to 90 degrees F.
   b. Check all codes and Owner requirements to determine if emergency power is required or provided to elevators and for machine room venting.
4. Data/Communications:
   a. Furnish data line terminated in a telephone jack in each elevator equipment room (only if specified and/or required on the specific project).
   b. Furnish two (2) telephone lines in each elevator equipment room. One line is to be used for the emergency call system and one line is to be used for a remote monitoring system. The University will be responsible for activation of the *telephone* lines.
   c. *For Medical Center installations, the elevator is to be connected to the existing Tridium Building Automation System. All associated hardware, software, cabling and conduit for a complete connection to the system is to be included as part of the elevator contract. Connection is to be made via BacNet/IP, BacNet/MSTP or Modbus protocols*.
5. Sound Control:
   If elevator equipment room is adjacent to an occupied space, provide drop seal and sound gaskets on door with sound batten insulation in walls. The Consultant is responsible for determining if additional sound absorbing materials are needed inside of the elevator equipment room to meet program requirements *such as pipe isolators, submersed pumps, etc..*
6. *Equipment* Room Security:
   - CPPD – Key to building mechanical room system; *Owner to supply information.*
   - MPPD – Install card reader to match building system.

- Other Departments – Key to department instructions.

7. Equipment room signage:
The contractor shall provide and install a sign on the door stating that "Combustible storage prohibited by Fire Codes." The sign shall match the signage in the building and prior to installation shall have the approval of the Owner. Adhesive applied signs are disallowed.

B. WIRING AND LIGHTING

1. Elevator Equipment Room:

a. For each elevator, provide properly sized main line disconnect mounted on the wall adjacent to machine room door.

b. Provide a separate panel board with *manufacturer internal installed breakers* located in the machine room near the main line disconnect.

- This panel board may be used for other loads related *only* to the elevator and elevator machine room.
- For each 110/120 VAC car light *circuit*, provide a lockable circuit breaker in the panel board.

c. Use only rigid conduit in the elevator machine room for main power equipment. *Minimum conduit size of ¾".*

- EMT may be used for low-voltage control wiring.
- Provide adequate machine room fluorescent lighting, especially at controller and around equipment.
- Locate lighting to avoid conflict with installation of equipment such as motors and cables.

d. Where codes require and building emergency power is not available for the elevator car power system (lighting, duplex outlets, and fan), provide emergency backup battery lighting systems for cab interior fluorescent lighting as manufactured by the BODINE Company, Model B30 (www.bodine.com) 1-800-223-5728.

e. Provide a hoist way lighting system for every elevator as follows:

- Provide a light at the top of the hoist way.
- Provide 4-way *switch control system for the lights* in the elevator pit, at the top of the hoist way, and in the elevator equipment room. In the elevator equipment room, use a pilot light or lighted toggle to indicate an "on" circuit.
- Locate Pit light switch next to pit ladder and located 42" above lobby floor level.

f. Provide 13W florescent lamps with integral ballasts and porcelain fixture with cover.

g. Provide minimum one GFI duplex receptacle in each elevator pit and in the elevator equipment room.

VI. MANUFACTURERS, SUPPLIERS, AND INSTALLERS

A. The following Elevator Manufacturing Companies are approved; including, but not limited to:

1. CemcoLift, Inc.
   (Manufacturer of Traction and Hydraulic Elevators)
   a. 2801 Township Line Road
   b. Hatfield, PA 19440-0500
   c. Toll Free: (800) 962-3626
   d. Phone: (215) 799-2900
   e. Fax: (215) 703-0358
   f. www.cemcolift.com2. Canton Elevator Incorporated (Manufacturer of Hydraulic Elevators only)

   a. 647 Third Street N.W.
   b. Massillon, Ohio 44647 c.
      Ph. (330) 833-3600
   d. Fax (330) 833-0229
   e. www.cantonelevator.com

3. ThyssenKrupp Elevator Company
   (Manufacturer of Traction and Hydraulic Elevators)
   a. 7217 East 87th Street, 46256
   b. Indianapolis, IN
   c. Ph. (317) 595-1125
   d. www.thyssenkruppelevator.com

4. Kone, Inc.
   (Manufacturer of Traction and Hydraulic Elevators)
   a. 5201 Park Emerson Dr., Suite E,
   b. Indianapolis, IN 46203
   c. Ph. (317) 788-0061 d.
      www.kone.com

5. Schindler Elevator Corporation
   (Manufacturer of Traction and Hydraulic Elevators)
   a. 1761 North Sherman Drive, Suite E,
   b. Indianapolis, IN 46218
   c. Ph. (317)486-0906
   d. www.us.schindler.com

6. Global-Tardif Elevator Manufacturing Group Inc.
   a. 120 De Naples Saint-Augustine-de-Desmaures
   b. Quebec, Canada G3A 2Y2
   c. Ph: (800) 661-6316
   d. Fax: (418) 878-1595
   e. www.globaltardif.com

7. Otis Elevator Company
   a. 1901 Production Drive
   b. Louisville, KY 40299
   c. Phone: (502)491-3636

d. Fax: (502)491-8611

B. The following Elevator Installing Companies may supply and install elevator equipment purchased from third party manufacturers but must meet the requirements of this standard and be approved by the University Project manager; including, but not limited to:

1. DC Elevator
   (Supplier and installer of Traction and Hydraulic Elevators)
   a. 124 Venture Court- Suite 1
   b. Lexington, KY 40511
   c. Ph. (859) 254-8224
   d. Fax (859) 231-8740

2. The Murphy Elevator Co., Inc.
   (Supplier and installer of Traction and Hydraulic Elevators)
   a. 128 East Main Street,
   b. Louisville, KY 40202
   c. PH. (800)321-1527
   d. www.murphyelevator.com

3. Oracle Elevator Company
   (Supplier and installer of Traction and Hydraulic Elevators)
   a. 4523 Knopp Avenue,
   b. Louisville, KY 40213
   c. PH. (502)363-9300
   d. www.oracleelevator.com

End - University of Kentucky Elevator Standard

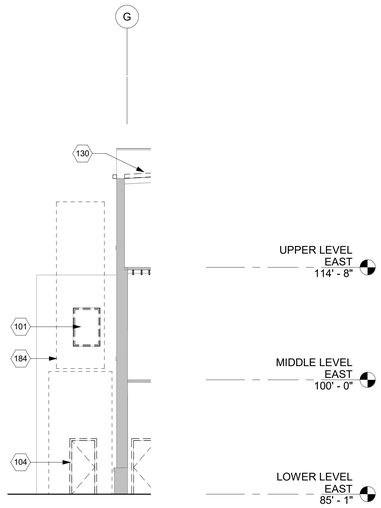
For inquiries, questions, and/or interpretations, call:
Work Control Center
Physical Plant Division
859-257-3844

Refer to Section I. General; Paragraph A. Updates and Changes
To present corrections and/or request changes to this standard.

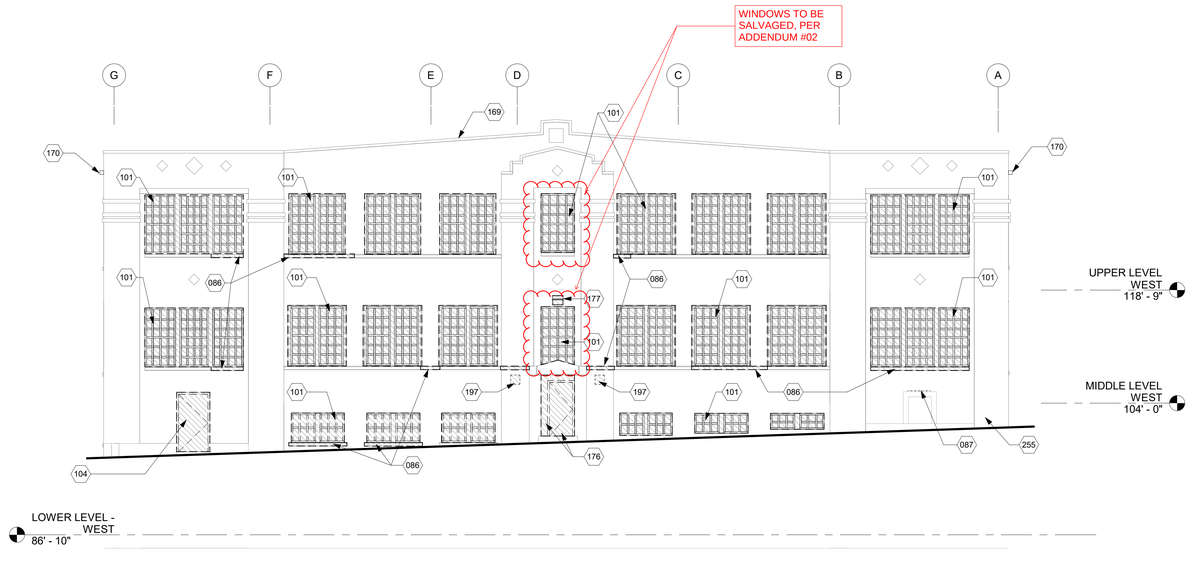
KEYNOTES	
KEY	DESCRIPTION
076	REMOVE EXISTING STEEL POSTS, PREPARE FOR MASONRY INFILL.
086	REMOVE BROKEN SILL AND PREP FOR REPLACEMENT.
087	REPLACE EXISTING DETERIORATED STEEL LINTEL.
088	REMOVE STEEL COAL ELEVATOR, COAL TIPPLE TO REMAIN. SEE STRUCTURAL DRAWINGS.
101	REMOVE EXISTING WINDOW AND FRAME IN ENTIRETY, INCLUDING SCREENS AND/OR METAL BARS OR GRILLES. PROTECT EXISTING MASONRY JAMB, HEAD, AND SILL CONDITIONS. STOP WORK AND NOTIFY ARCHITECT IMMEDIATLY IF EXIST. LINTEL CONDITION APPEARS DETERIORATED OR UNSOUND.
104	REMOVE EXISTING DOOR AND FRAME.
114	REMOVE EXISTING METAL ROOF AND STRUCTURE. REMOVE ANY RESIDUE, TAR, PAINT, ETC. FROM MASONRY. PATCH MASONRY.
117	REMOVE BRICK INFILL IN MASONRY OPENING FOR NEW WINDOW.
130	REMOVE EXISTING FOAM ROOF SYSTEM TO EXISTING WOOD DECK.
158	REMOVE SITE FENCING AND METAL BRIDGE. SEE CIVIL DWGS.
169	REMOVE AND SALVAGE EXISTING LIMESTONE CAP FOR NEW FLASHING AND REINSTALLATION.
170	REMOVE EXISTING GUTTERS AND DOWNSPOUTS.

KEYNOTES	
KEY	DESCRIPTION
171	REMOVE AND SALVAGE EXISTING TERRACOTTA CAP FOR NEW FLASHING AND REINSTALLATION.
176	REMOVE EXISTING DOOR, FRAME, AND INFILL CMU WALL. PROTECT SURROUNDING BRICK WORK AND STONE PEDIMENT DURING DEMOLITION AND CONSTRUCTION ACTIVITY.
177	REMOVE EXISTING LIGHT FIXTURE AND PATCH MASONRY.
178	REMOVE WOOD DOORS.
179	REMOVE METAL DOORS.
180	REMOVE LIGHT FIXTURE AND ASSOCIATED CONDUIT, TYP.
181	REMOVE CONCRETE ROOF STRUCTURE OVER FORMER BOILER ROOM.
184	REMOVE EXISTING STEEL STRUCTURE AND CLAY KILN. PATCH MASONRY AS REQ. WHERE STEEL IS REMOVED. PROTECT PIPING TO METAL ARTS BUILDING. SEE MEP DRAWINGS.
187	REMOVE EXISTING MASONRY FOR NEW OPENING. SEE STRUCTURAL DRAWINGS.
197	REMOVE TILE PANELS AND ANY BACKING MATERIAL. PREP FOR INSTALLATION OF BRICK INFILL.
255	EXISTING FIRE DEPARTMENT CONNECTION.

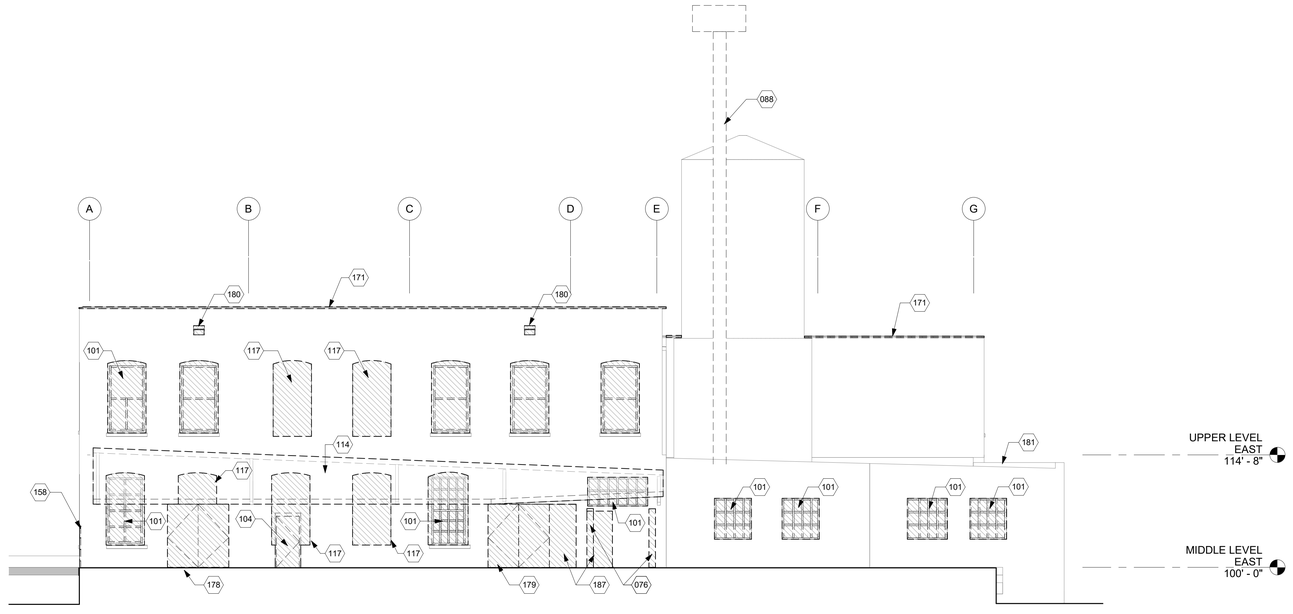
GENERAL DEMOLITION NOTES	
A.	LOCATIONS AND DIMENSIONS OF EXISTING CONDITIONS ARE FROM AVAILABLE RECORD DRAWING INFORMATION SUPPLIED BY THE OWNER. THE CONTRACTOR SHALL VERIFY ALL ACTUAL CONDITIONS AND DIMENSIONS IN THE FIELD DURING BIDDING. ANY ERRORS, AMBIGUITIES AND OMISSIONS IN THE DRAWINGS AND SPECIFICATIONS SHALL BE REPORTED TO K. NORMAN BERRY ASSOCIATES PLLC FOR CORRECTION DURING THE BIDDING PERIOD.
B.	MAKE ALL DEMOLITION CLEAN AND COMPLETE IN A MANNER SUITABLE FOR NEW FINISHES AND SURFACES.
C.	COORDINATE REMOVAL OF PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING AND WIRING WITH PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
D.	REFER TO CIVIL DRAWINGS FOR SCOPE OF SITE RELATED DEMOLITION.
E.	REFER TO SPECIFICATIONS FOR ASBESTOS ABATEMENT SCOPE.
F.	ALL DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED.
G.	REMOVE ALL EXISTING HVAC EQUIPMENT AND DUCTWORK THROUGHOUT THE BUILDING.
H.	REMOVE ALL EXISTING LIGHTING AND ELECTRICAL WIRING, CONDUIT, AND ASSOCIATED PANELS THROUGHOUT BUILDING.
I.	REMOVE ALL EXISTING SPRINKLER PIPING RUNS. COORDINATE DEMO WITH NEW SPRINKLER SERVICE.
J.	REMOVE ALL EXISTING PLUMBING PIPING AND FIXTURES THROUGHOUT BUILDING.
K.	ALL EXISTING ORIGINAL T&G WOOD FLOORING TO REMAIN IS TO BE PROTECTED. CAREFULLY REMOVE ANY OTHER FLOORING INDICATED (CARPET, VCT, ETC.) TO PROTECT ORIGINAL T&G WOOD FLOORING.
L.	REMOVE ALL EXISTING SURFACE MOUNTED FIXTURES AND CONDUIT FROM ALL EXTERIOR FACADES.



3 West Elevation - Boiler Room - Demolition
1/8" = 1'-0"



2 West Elevation - Demolition
1/8" = 1'-0"



1 East Elevation - Demolition
1/8" = 1'-0"

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

N

KEY PLAN

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

Design Architect:
STUDIO GANG
1520 W. Division St
Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
220 Lexington Green Circle, Suite 600
Lexington, KY 40503
859.253.0892

Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
CARMAN
310 Old Vine St., #200
Lexington, KY 40507
859.254.9803

Acoustics Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
1841 Ft. Henry Drive
Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Building Elevations - Demolition

Project Number	19.0130
Drawn By	KH, KS
Approved By	CY
Date	04-15-2022

Revisions:
-
-
-
-

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

D-200

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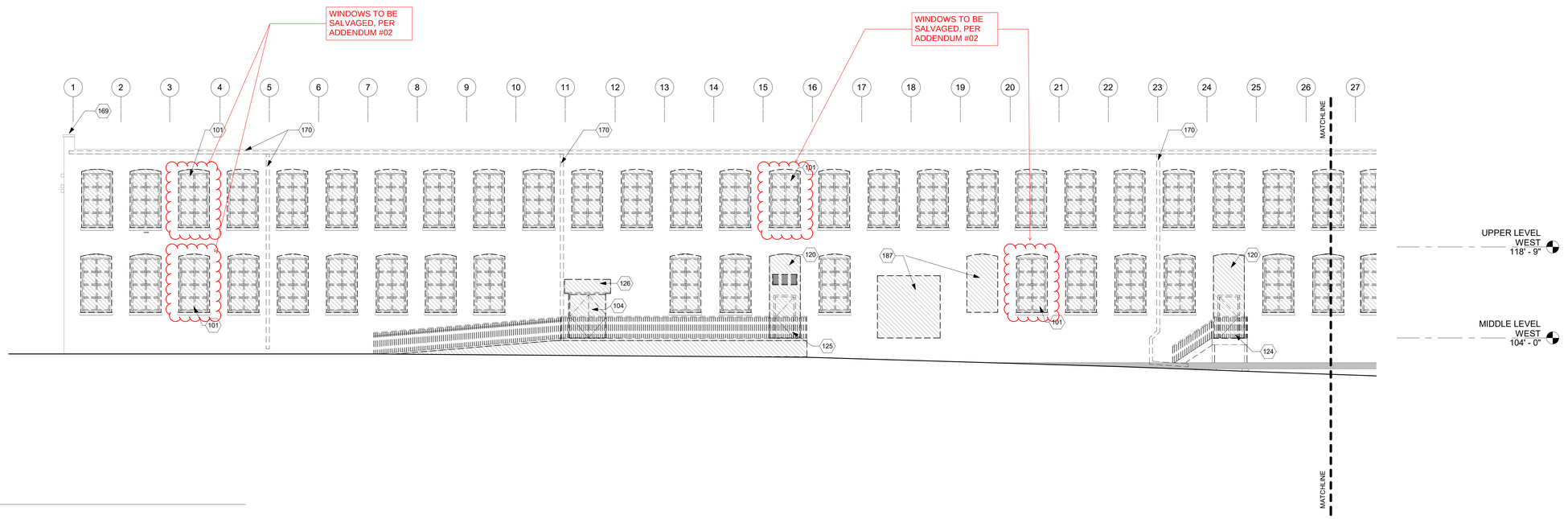
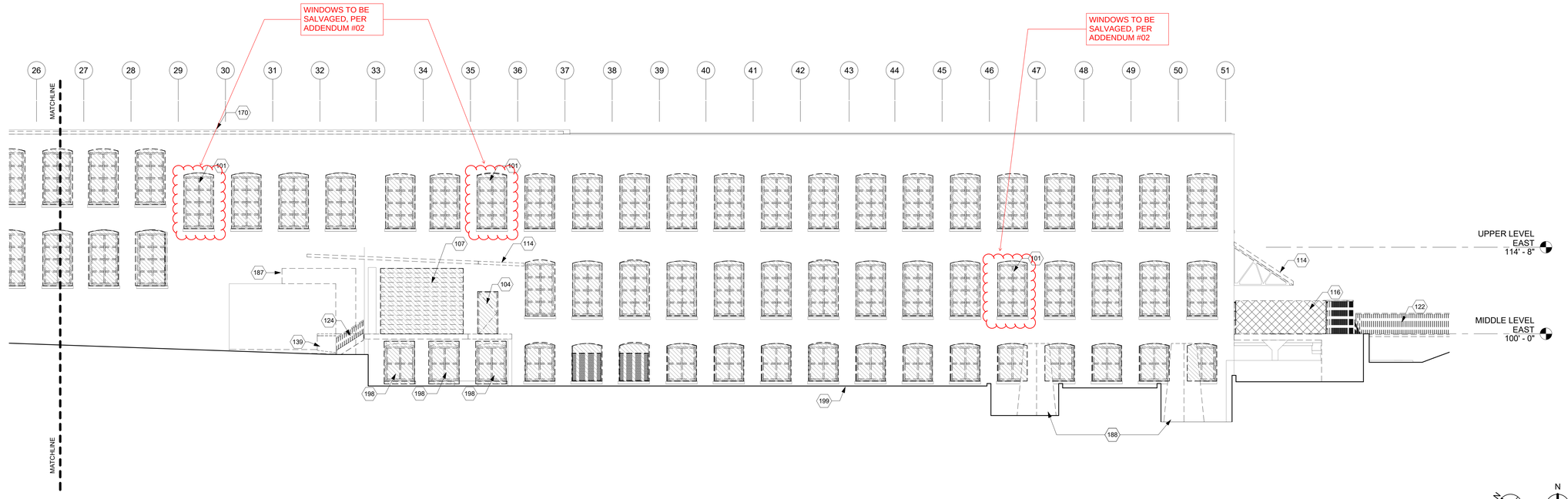
KEYNOTES	
KEY	DESCRIPTION
101	REMOVE EXISTING WINDOW AND FRAME IN ENTIRETY, INCLUDING SCREENS AND/OR METAL BARS OR GRILLES. PROTECT EXISTING MASONRY JAMB, HEAD, AND SILL CONDITIONS. STOP WORK AND NOTIFY ARCHITECT IMMEDIATLY IF EXIST. LINTEL CONDITION APPEARS DETERIORATED OR UNSOUND.
104	REMOVE EXISTING DOOR AND FRAME.
107	REMOVE EXISTING OVERHEAD DOOR.
114	REMOVE EXISTING METAL ROOF AND STRUCTURE. REMOVE ANY RESIDUE, TAR, PAINT, ETC. FROM MASONRY. PATCH MASONRY.
116	REMOVE EXISTING CHAIN LINK FENCE.
120	REMOVE BRICK INFILL, DOOR, FRAME, AND ANY FIXTURES OR LOUVERS IN ENTIRETY. PREP FOR NEW WORK.
122	REMOVE EXISTING FENCING.
124	REMOVE EXISTING METAL STAIR.
125	REMOVE EXISTING CONCRETE RAMP AND RAILING.
126	REMOVE EXISTING METAL CANOPY AND ASSOCIATED STRUCTURE.
139	REMOVE EXISTING LOADING DOCK AND ASSOCIATED STRUCTURE.
169	REMOVE AND SALVAGE EXISTING LIMESTONE CAP FOR NEW FLASHING AND REINSTALLATION.
170	REMOVE EXISTING GUTTERS AND DOWNSPOUTS.
187	REMOVE EXISTING MASONRY FOR NEW OPENING. SEE STRUCTURAL DRAWINGS.
188	REMOVE CONCRETE PIERS. SEE SITE/CIVIL DRAWINGS.
198	REMOVE EXISTING WINDOWS AND INFILL WITH CMU.
199	REMOVE EXISTING RETAINING WALL AND ASSOCIATED BUTRESSES. SEE CIVIL AND STRUCTURAL DRAWINGS.

GENERAL DEMOLITION NOTES	
A.	LOCATIONS AND DIMENSIONS OF EXISTING CONDITIONS ARE FROM AVAILABLE RECORD DRAWING INFORMATION SUPPLIED BY THE OWNER. THE CONTRACTOR SHALL VERIFY ALL ACTUAL CONDITIONS AND DIMENSIONS IN THE FIELD DURING BIDDING. ANY ERRORS, AMBIGUITIES AND OMISSIONS IN THE DRAWINGS AND SPECIFICATIONS SHALL BE REPORTED TO K. NORMAN BERRY ASSOCIATES PLLC FOR CORRECTION DURING THE BIDDING PERIOD.
B.	MAKE ALL DEMOLITION CLEAN AND COMPLETE IN A MANNER SUITABLE FOR NEW FINISHES AND SURFACES.
C.	COORDINATE REMOVAL OF PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING AND WIRING WITH PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
D.	REFER TO CIVIL DRAWINGS FOR SCOPE OF SITE RELATED DEMOLITION.
E.	REFER TO SPECIFICATIONS FOR ASBESTOS ABATEMENT SCOPE.
F.	ALL DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED.
G.	REMOVE ALL EXISTING HVAC EQUIPMENT AND DUCTWORK THROUGHOUT THE BUILDING.
H.	REMOVE ALL EXISTING LIGHTING AND ELECTRICAL WIRING, CONDUIT, AND ASSOCIATED PANELS THROUGHOUT BUILDING.
I.	REMOVE ALL EXISTING SPRINKLER PIPING RUNS, COORDINATE DEMO WITH NEW SPRINKLER SERVICE.
J.	REMOVE ALL EXISTING PLUMBING PIPING AND FIXTURES THROUGHOUT BUILDING.
K.	ALL EXISTING ORIGINAL T&G WOOD FLOORING TO REMAIN IS TO BE PROTECTED. CAREFULLY REMOVE ANY OTHER FLOORING INDICATED (CARPET, VCT, ETC.) TO PROTECT ORIGINAL T&G WOOD FLOORING.
L.	REMOVE ALL EXISTING SURFACE MOUNTED FIXTURES AND CONDUIT FROM ALL EXTERIOR FACADES.



2 South Elevation - Demolition West
1/8" = 1'-0"



1 South Elevation - Demolition East
1/8" = 1'-0"

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

KEY PLAN

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

Design Architect:
STUDIO GANG
1520 W. Division St
Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
220 Lexington Green Circle, Suite 600
Lexington, KY 40503
859.253.0892

Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
CARMAN
310 Old Vine St., #200
Lexington, KY 40507
859.254.9803

Acoustics Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
1841 Ft. Henry Drive
Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Building Elevations - Demolition

Project Number	19.0130
Drawn By	KH, KS
Approved By	CY
Date	04-15-2022
Revisions:	

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

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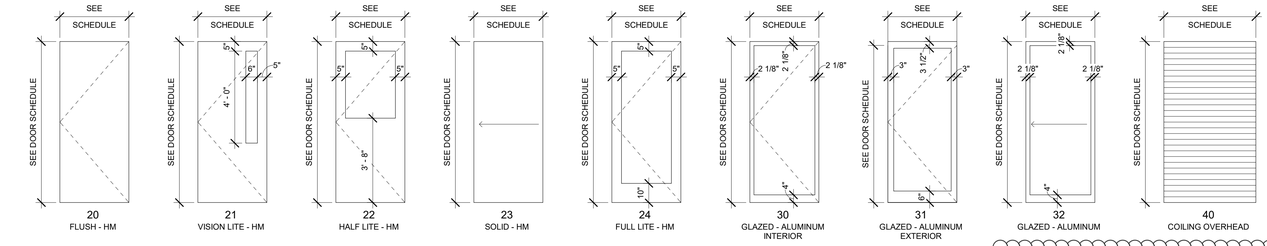
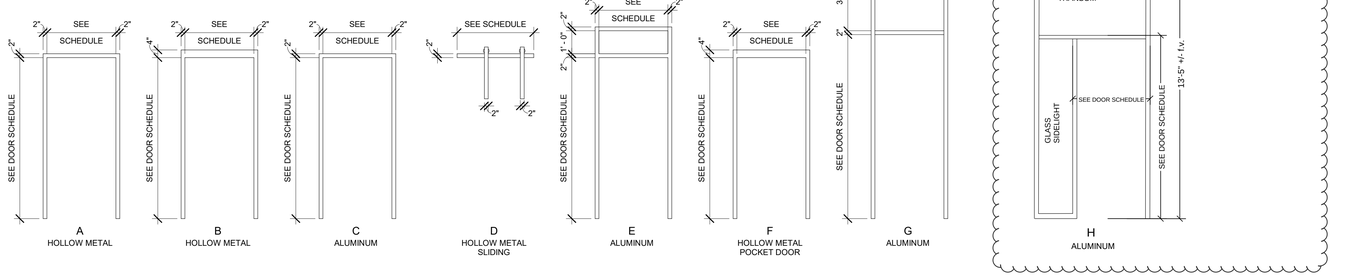
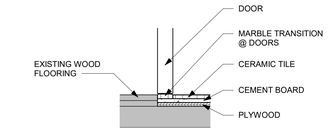
DOOR AND FRAME TYPES:







3 TYPICAL WOOD TO TILE TRANSITION
1 1/2" = 1'-0"

WALL NAMING CONVENTION:

S 4 A

SUBSTRATE / FRAME / BACKUP
S = STEEL STUD
M = MASONRY
F = FURRING

NOMINAL SUBSTRATE WIDTH
1 = 1 1/2"
2 = 2 1/8"
3 = 2 1/2"
4 = 4 1/4"
5 = 4 7/8", 5 1/4"
6 = 6 1/8"
7 = 7 1/8", 7 1/4"
8 = 7 5/8"
9 = 9 1/8"
12 = 11 5/8"

WALL CHARACTERISTIC MODIFIER
A = ACOUSTICALLY IMPROVED (SOUND BATT INSULATION)
H = HOMASOTE FINISH MATERIAL (1 SIDE)
1 = 1 HR FIRE RATED
2 = 2 HR FIRE RATED

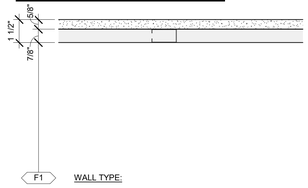
WALL HEIGHTS TO DECK:

LEVEL	HEIGHT TO DECK ABOVE
LOWER WEST	15'-10"
LOWER EAST	14'-7"
MIDDLE WEST	14'-5"
MIDDLE EAST	14'-6"
UPPER WEST	12'-6 1/2" (TO BOTTOM OF TRUSS), MIN. 15'-1" - MAX. 19'-3 5/8" (TO DECK)
UPPER EAST	MIN. 11'-7 5/8" - MAX. 17'-3 1/8" (SLOPES N/S)

NOTE:
- ALL WALLS EXTEND TO DECK UNLESS OTHERWISE NOTED.

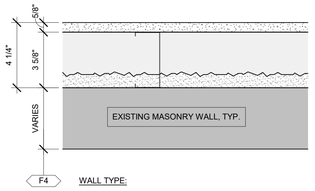
NOTE: BLOCKING REQ'D FOR ALL SHELVING: ON EACH WALL BETWEEN OFFICES, INCLUDING FACULTY SPECIAL PROJECT ROOMS. INCLUDE CONTINUOUS 2X BLOCKING MOUNTED AT 30", 48", 60", 72", AND 84" A.F.F. ON TWO WALLS OF EACH ROOM.

WALL TYPES:



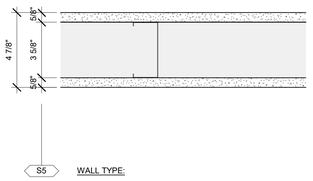
F1 WALL TYPE:

- (1) LAYERS 5/8" GYP. BD.
- 7/8" METAL FURRING



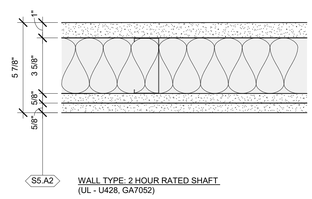
F4 WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- 1" CLOSED CELL SPRAY FOAM INSULATION IN STUD CAVITY



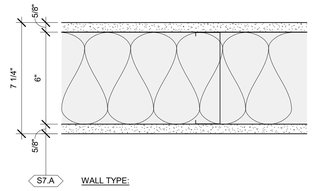
S5 WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- (1) LAYER 5/8" GYP. BD.



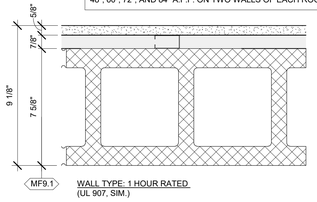
S5.A2 WALL TYPE: 2 HOUR RATED SHAFT
(UL - U428, GA7052)

- (1) 1" GYP. LINER PANEL (SLX)
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- SOUND BATT INSULATION
- (2) LAYERS 5/8" GYP. BD. (SCX)



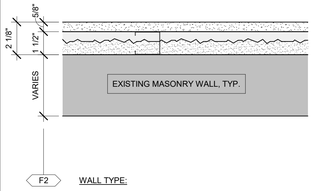
S7.A WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 6" METAL STUD FRAMING at 16" O.C.
- SOUND BATT INSULATION
- (1) LAYER 5/8" GYP. BD.



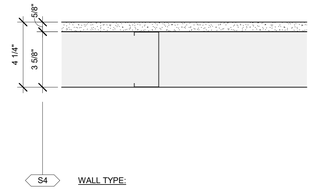
MF9.1 WALL TYPE: 1 HOUR RATED
(UL 907, SIM.)

- (1) LAYER 5/8" GYP. BD.
- 7/8" METAL FURRING
- 8" CMU



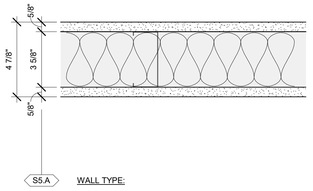
F2 WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- 1" CLOSED CELL SPRAY FOAM INSULATION IN STUD CAVITY



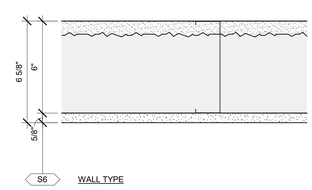
S4 WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD FRAMING at 16" O.C.



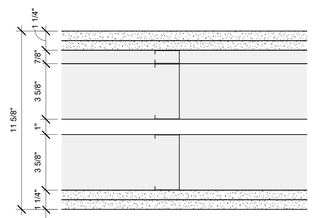
S5.A WALL TYPE:

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- SOUND BATT INSULATION
- (1) LAYER 5/8" GYP. BD.



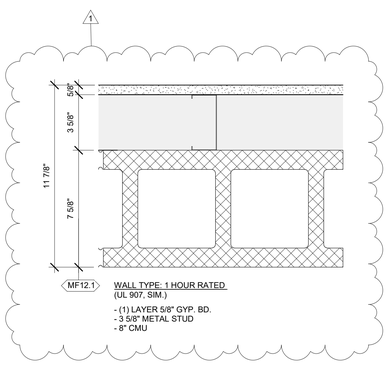
S6 WALL TYPE

- 1" CLOSED CELL SPRAY FOAM INSULATION IN STUD CAVITY
- 6 1/8" METAL STUD FRAMING at 16" O.C.
- (1) LAYERS 5/8" GYP. BD.



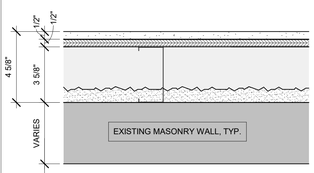
S12 WALL TYPE:
(STC RATED)

- (2) LAYERS 5/8" GYP. BD.
- 7/8" METAL FURRING
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- 1" AIR GAP
- 3 5/8" METAL STUD FRAMING at 16" O.C.
- (2) LAYERS 5/8" GYP. BD.
(ACOUSTIC SEALANT AT FLOOR AND DECK)



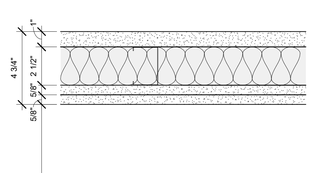
MF12.1 WALL TYPE: 1 HOUR RATED
(UL 907, SIM.)

- (1) LAYER 5/8" GYP. BD.
- 3 5/8" METAL STUD
- 8" CMU



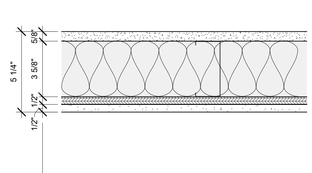
F3.H WALL TYPE:

- 1/2" HOMASOTE
- 1/2" PLYWOOD
- 3 5/8" METAL STUD FRAMING at 16" O.C.
(1" CLOSED CELL SPRAY FOAM INSULATION IN STUD CAVITY)



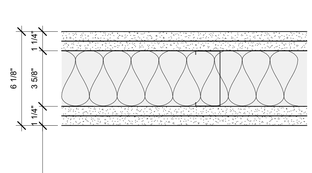
S4.A2 WALL TYPE: 2 HOUR RATED SHAFT
(UL - U428, GA7052)

- (1) 1" GYP. LINER PANEL (SLX)
- 2 1/2" METAL STUD FRAMING at 16" O.C.
- SOUND BATT INSULATION
- (2) LAYERS 5/8" GYP. BD. (SCX)



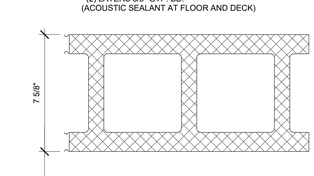
S5.AH WALL TYPE:

- 1 LAYER 5/8" GYP. BD.
- 3 5/8" METAL FURRING
- 1/2" PLYWOOD
- 1/2" HOMASOTE



S6.A2 WALL TYPE: 2 HOUR RATED, WHERE NOTED ON PLANS
(STC RATED, GA - WP1510, UL - U428, GA7052)

- (2) LAYERS 5/8" GYP. BD.
- 3 5/8" METAL FURRING
- (2) LAYERS 5/8" GYP. BD.



M8.1 WALL TYPE (UL 907): 1 HOUR RATED

- 8" CMU

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

06/03/22	ADDENDUM 02
05/23/22	ADDENDUM 01
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

Design Architect:
STUDIO GANG
1520 W. Division St
Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
220 Lexington Green Circle, Suite 600
Lexington, KY 40503
859.253.0892

Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
Lexington, KY 40505
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Civil Engineer/Landscape Architect:
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310 Old Vine St., #200
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Acoustics Consultant:
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1841 Ft. Henry Drive
Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Wall Types, Door & Frame Types, & Details

Project Number	19.0130
Drawn By	KH, ES
Approved By	CY
Date	04-15-2022

Revisions:

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

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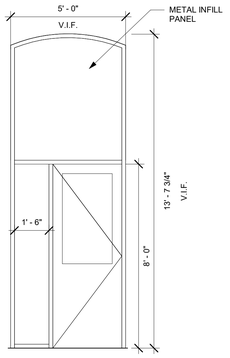
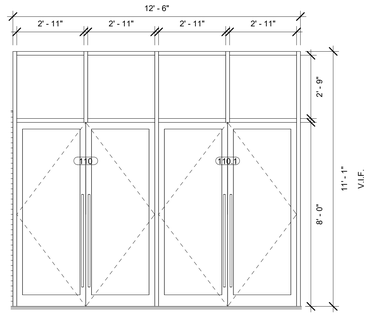


WINDOW TYPE - MM

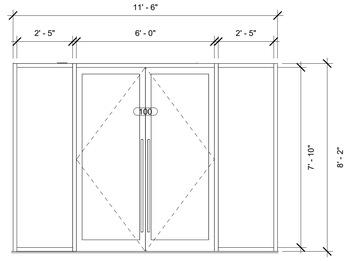
HM
FABRICATION DOCK
(2 TOTAL UNITS)



INSTALL WITH LOW-IRON CLEAR INSULATED GLAZING ("STARPHIRE ULTRA CLEAR" OR EQUAL)

WINDOW TYPE - LL

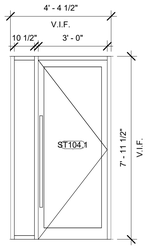
FIXED ALUM. WINDOW
MAIN ENTRY
(1 TOTAL UNITS)



INSTALL WITH LOW-IRON CLEAR INSULATED GLAZING ("STARPHIRE ULTRA CLEAR" OR EQUAL)

WINDOW TYPE - KK

FIXED ALUM. WINDOW
EAST ENTRY
(1 TOTAL UNITS)



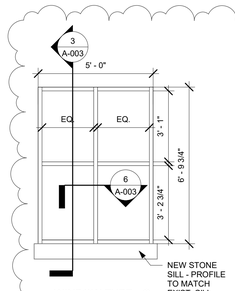
INSTALL WITH LOW-IRON CLEAR INSULATED GLAZING ("STARPHIRE ULTRA CLEAR" OR EQUAL)

WINDOW TYPE - JJ

FIXED ALUM. WINDOW
BROADWAY ENTRANCE
(1 TOTAL UNITS)

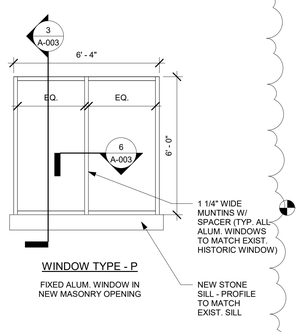
WINDOW TYPES:

3/8" = 1'-0"



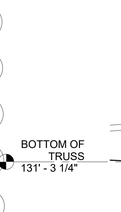
WINDOW TYPE - Q

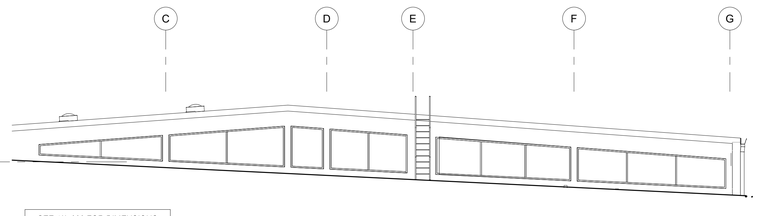
FIXED ALUM. WINDOW IN NEW MASONRY OPENING



WINDOW TYPE - P

FIXED ALUM. WINDOW IN NEW MASONRY OPENING

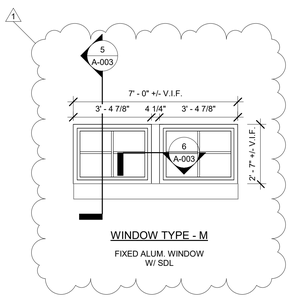




SEE 1/A-608 FOR DIMENSIONS

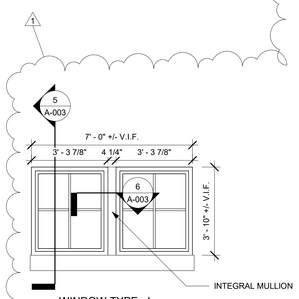
WINDOW TYPE - N

FIXED ALUM. WINDOW CLERESTORY
(1 TOTAL)



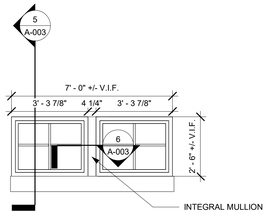
WINDOW TYPE - M

FIXED ALUM. WINDOW W/ SDL



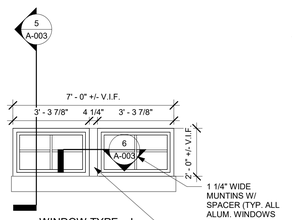
WINDOW TYPE - L

FIXED ALUM. WINDOW W/ SDL



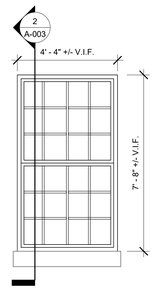
WINDOW TYPE - K

FIXED ALUM. WINDOW W/ SDL



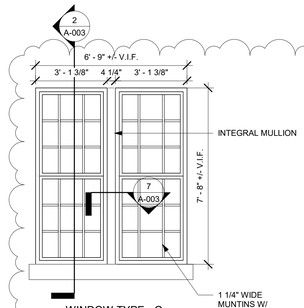
WINDOW TYPE - J

FIXED ALUM. WINDOW W/ SDL



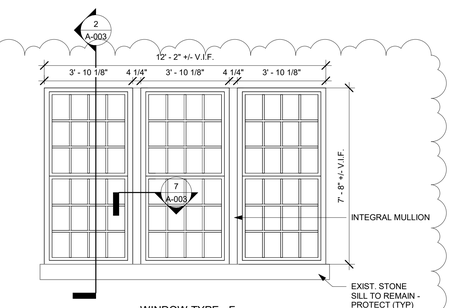
WINDOW TYPE - H

OPERABLE SINGLE-HUNG ALUM./CLAD WINDOWs W/ SDL AND SCREENS



WINDOW TYPE - G

OPERABLE SINGLE-HUNG ALUM./CLAD WINDOWs W/ SDL AND SCREENS

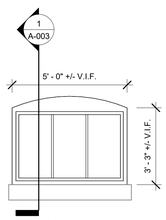


WINDOW TYPE - F

OPERABLE SINGLE-HUNG ALUM./CLAD WINDOWs W/ SDL AND SCREENS

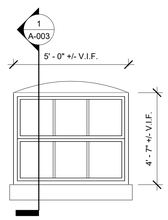
WINDOW TYPE - E

NOT USED



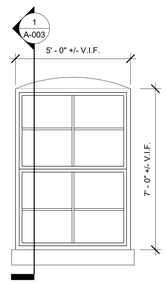
WINDOW TYPE - D

FIXED ALUM. WINDOW W/ SDL



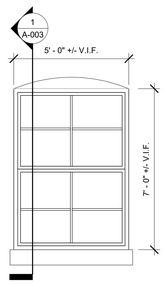
WINDOW TYPE - C

FIXED SINGLE-HUNG ALUM. WINDOW W/ SDL



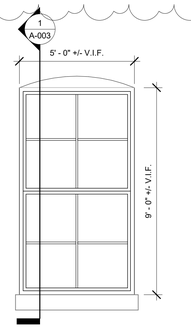
WINDOW TYPE - B1

OPERABLE SINGLE-HUNG ALUM. WINDOW W/ SDL AND SCREEN



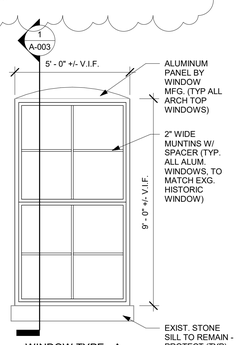
WINDOW TYPE - B

FIXED SINGLE-HUNG ALUM. WINDOW W/ SDL



WINDOW TYPE - A1

OPERABLE SINGLE-HUNG ALUM. WINDOW W/ SDL AND SCREEN



WINDOW TYPE - A

FIXED SINGLE-HUNG ALUM. WINDOW W/ SDL

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K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

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01/07/21	100% CDS FOR ESTIMATING - N.F.C.
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08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

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Louisville, KY 40202
502.582.2500

Design Architect:
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Chicago, IL 60642
773.384.1212

Engineer:
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Lexington, KY 40503
859.253.0892

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Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Exterior Window Types

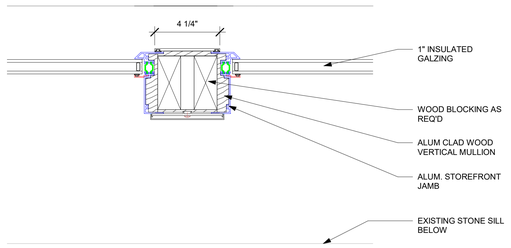
Project Number	19.0130
Drawn By	KH
Approved By	CY
Date	04-15-2022

Revisions:

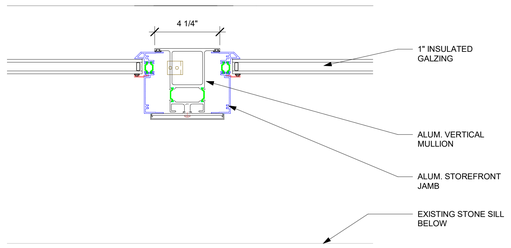
A-002

5/27/2022 11:47:24 AM

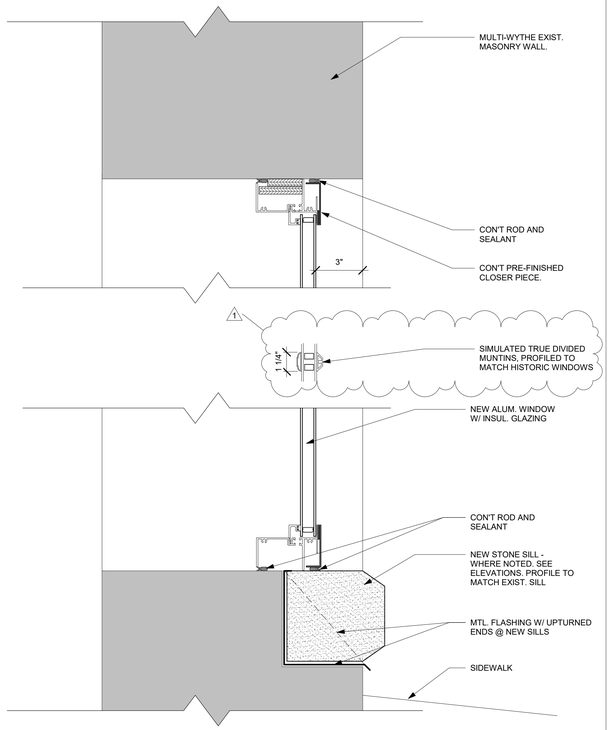
04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING



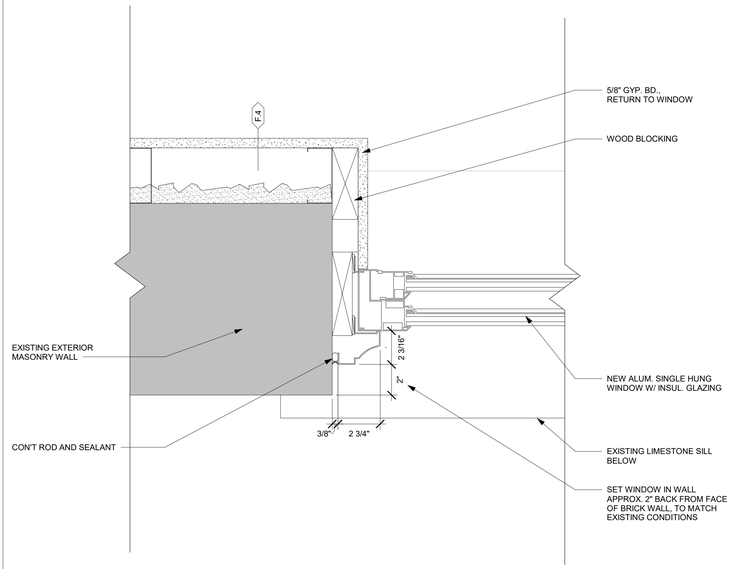
7 VERTICAL MULLION ALUM CLAD DETAIL
(F, G)
3" = 1'-0"



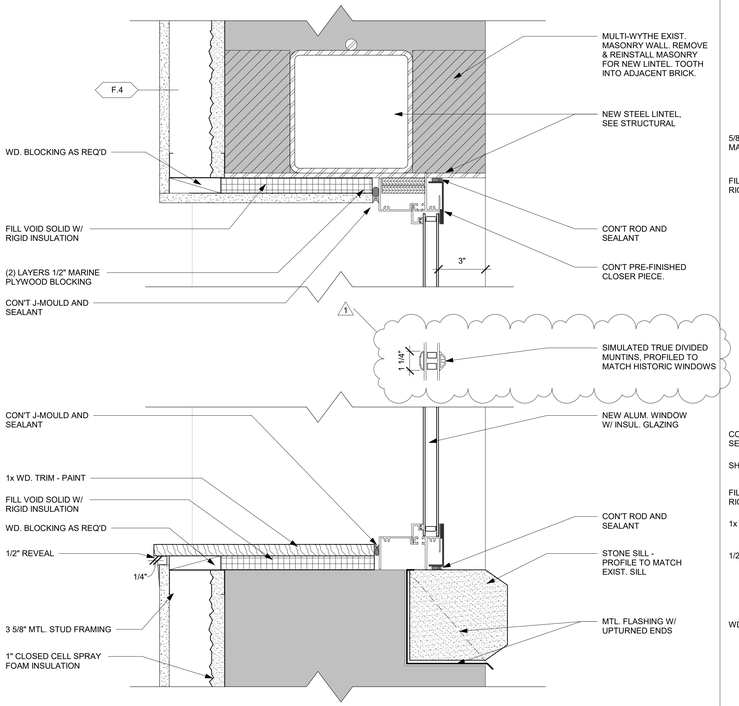
6 VERTICAL MULLION ALUM DETAIL
(J, K L, M, P, Q)
3" = 1'-0"



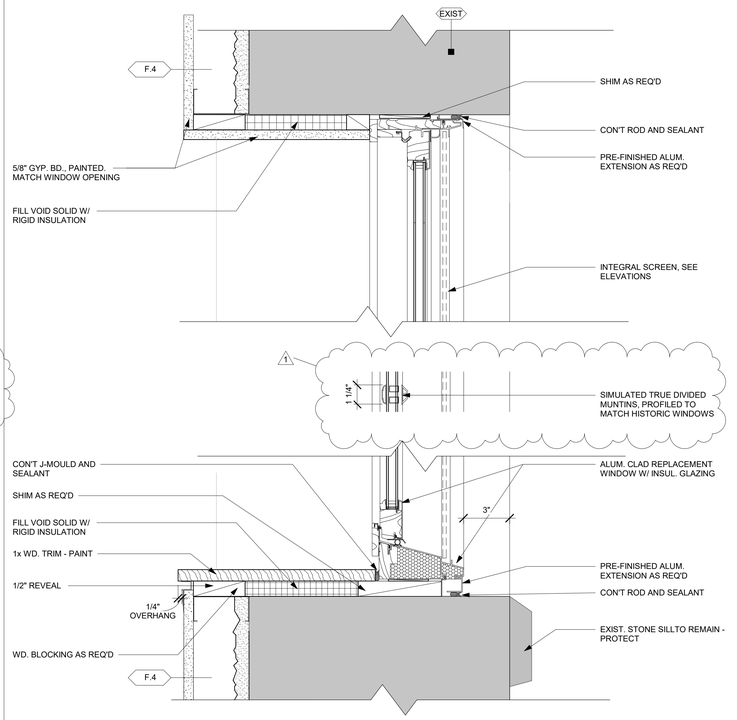
5 TYP. ALUM. WINDOW IN EXISTING
OPENING SILL (J, K, L, M) (F Sim.)
3" = 1'-0"



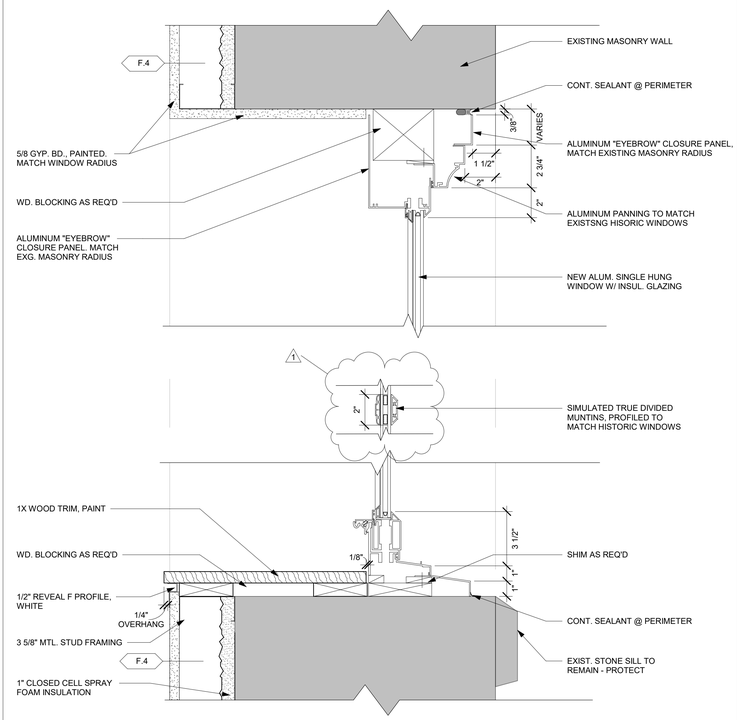
4 TYP. ALUM. WINDOW JAMB DETAIL
(A, A1, B, B1, C, D)
3" = 1'-0"



3 TYP. ALUM. WINDOW IN NEW OPENING
SILL (P, Q)
3" = 1'-0"



2 TYP. ALUM. / CLAD WINDOW HEAD / SILL
(F, G, H)
3" = 1'-0"



1 TYP. ALUM. WINDOW HEAD / SILL
(A, A1, B, B1, C, D)
3" = 1'-0"

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Sheet Title:
Exterior Window Details

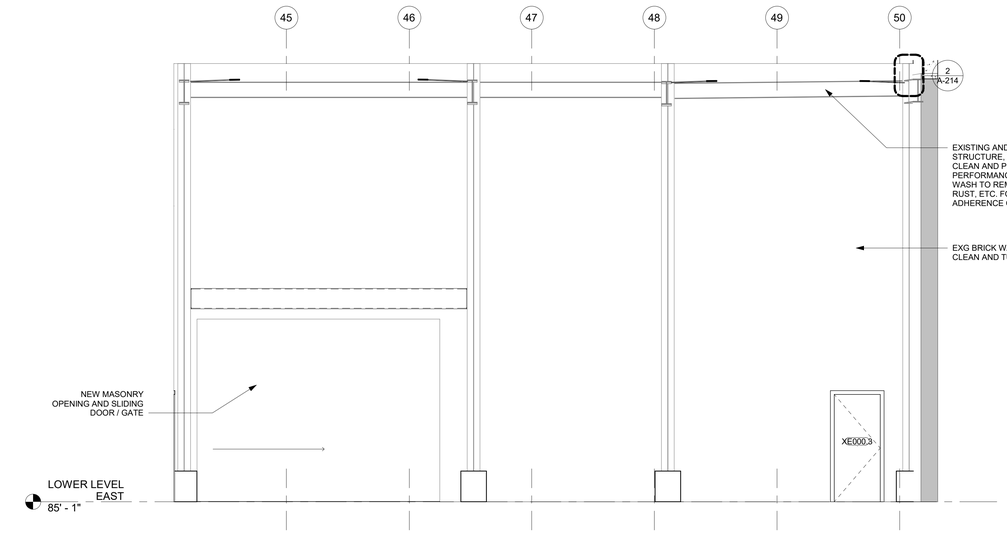
Project Number	19.0130
Drawn By	KH, BC
Approved By	CY
Date	04-15-2022

Revisions:

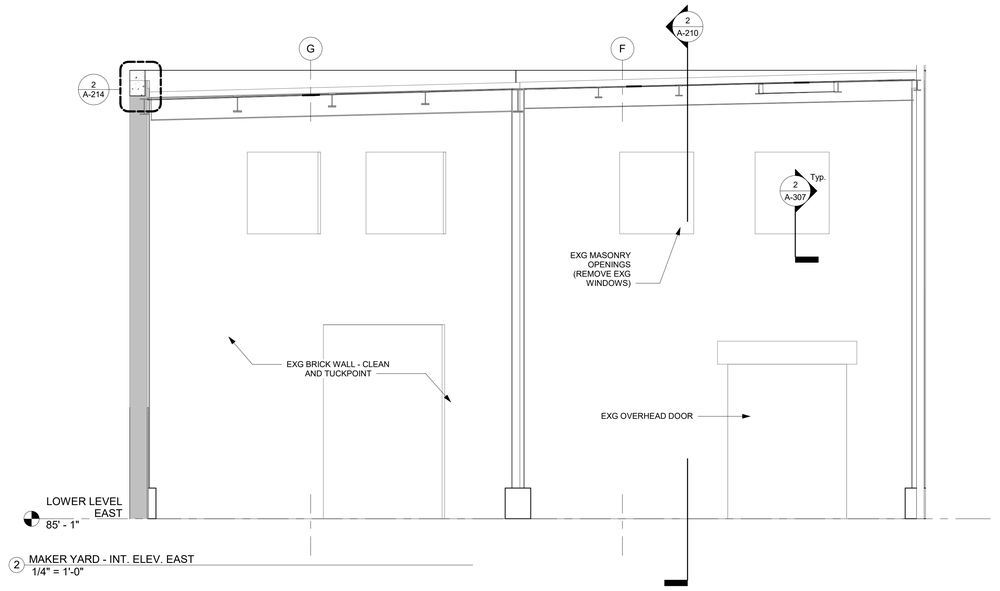
04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

A-003

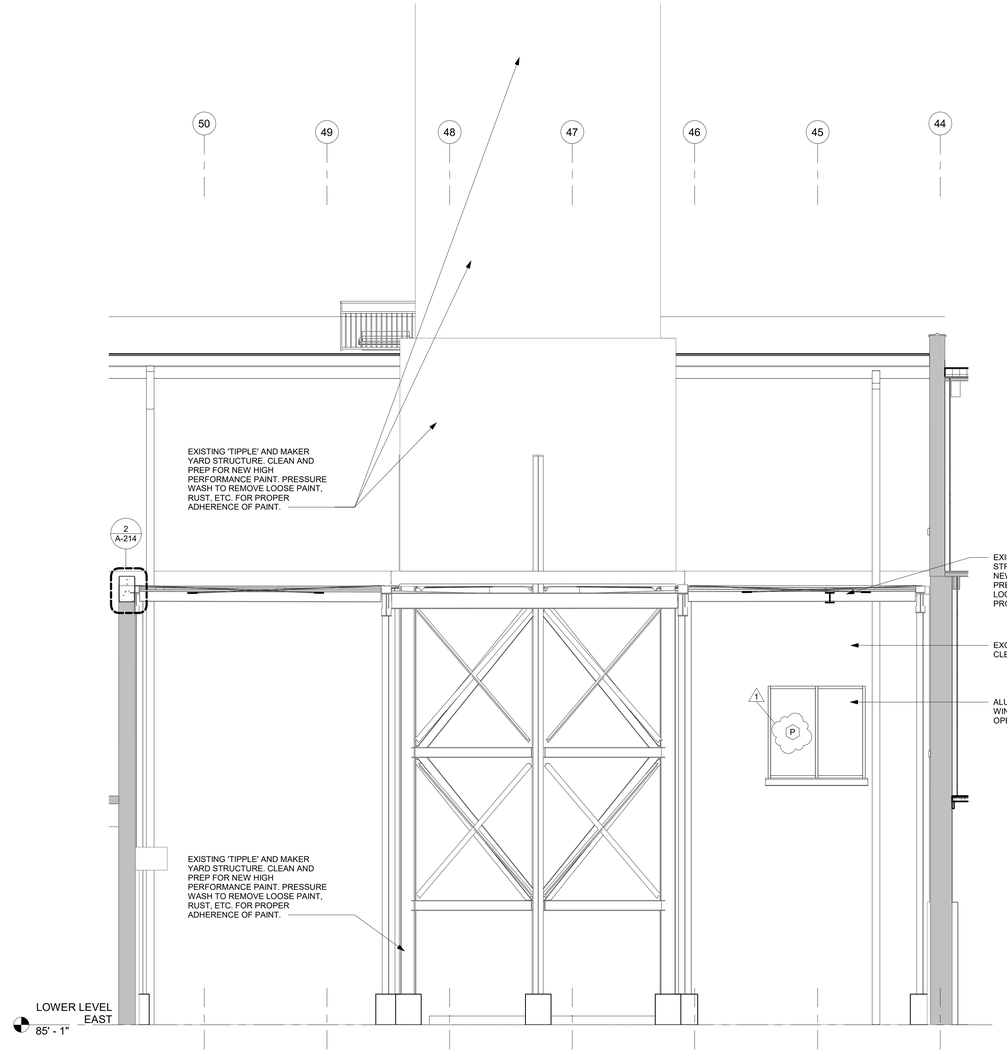
5/27/2022 11:47:26 AM



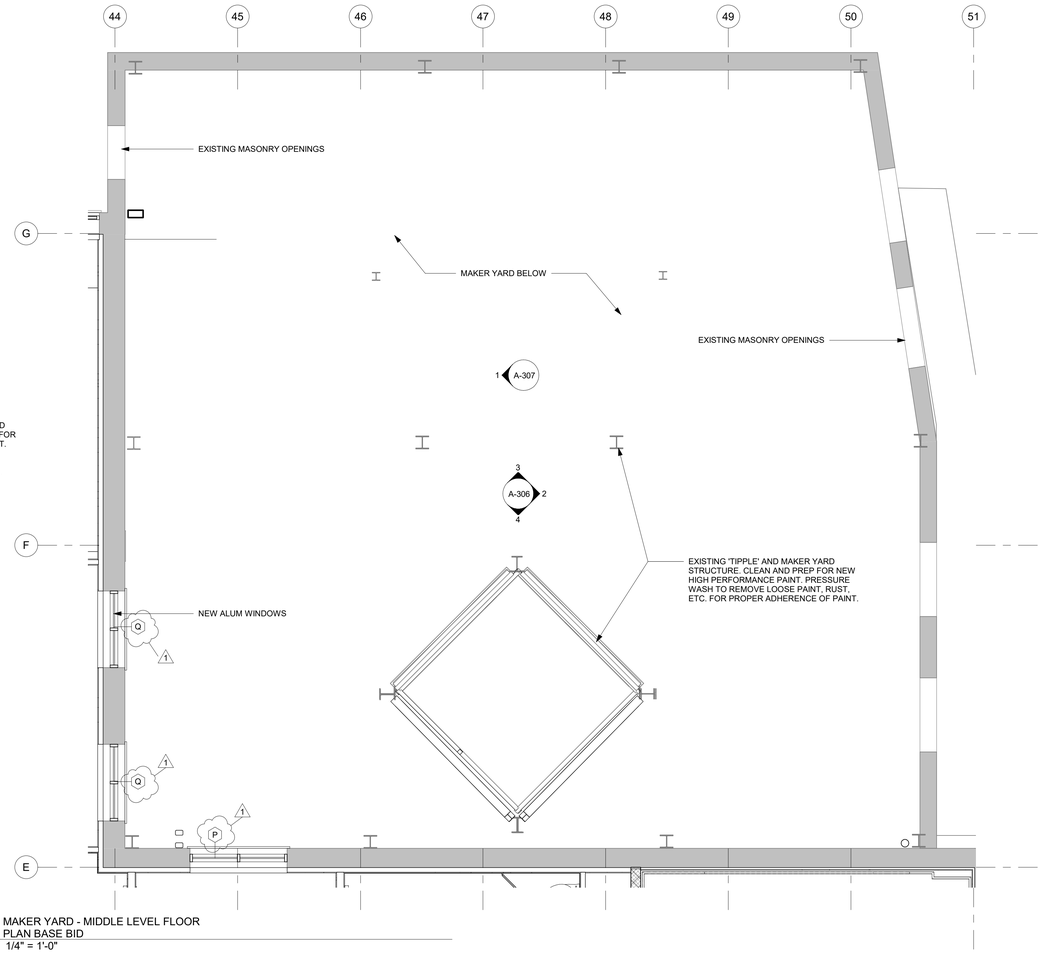
3 MAKER YARD - INT. ELEV. NORTH
1/4" = 1'-0"



2 MAKER YARD - INT. ELEV. EAST
1/4" = 1'-0"



4 MAKER YARD - INT. ELEV. SOUTH
1/4" = 1'-0"



1 MAKER YARD - MIDDLE LEVEL FLOOR PLAN BASE BID
1/4" = 1'-0"

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Lighting Consultant:
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389 Clementina Street
San Fransisco, CA 94103
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Sheet Title:
Maker Yard

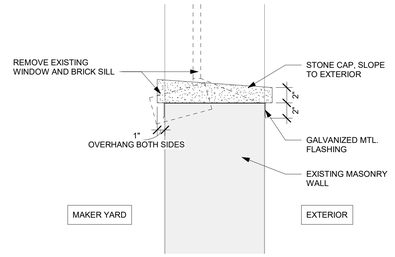
Project Number	19.0130
Drawn By	KH
Approved By	CY
Date	04-15-2022

Revisions:

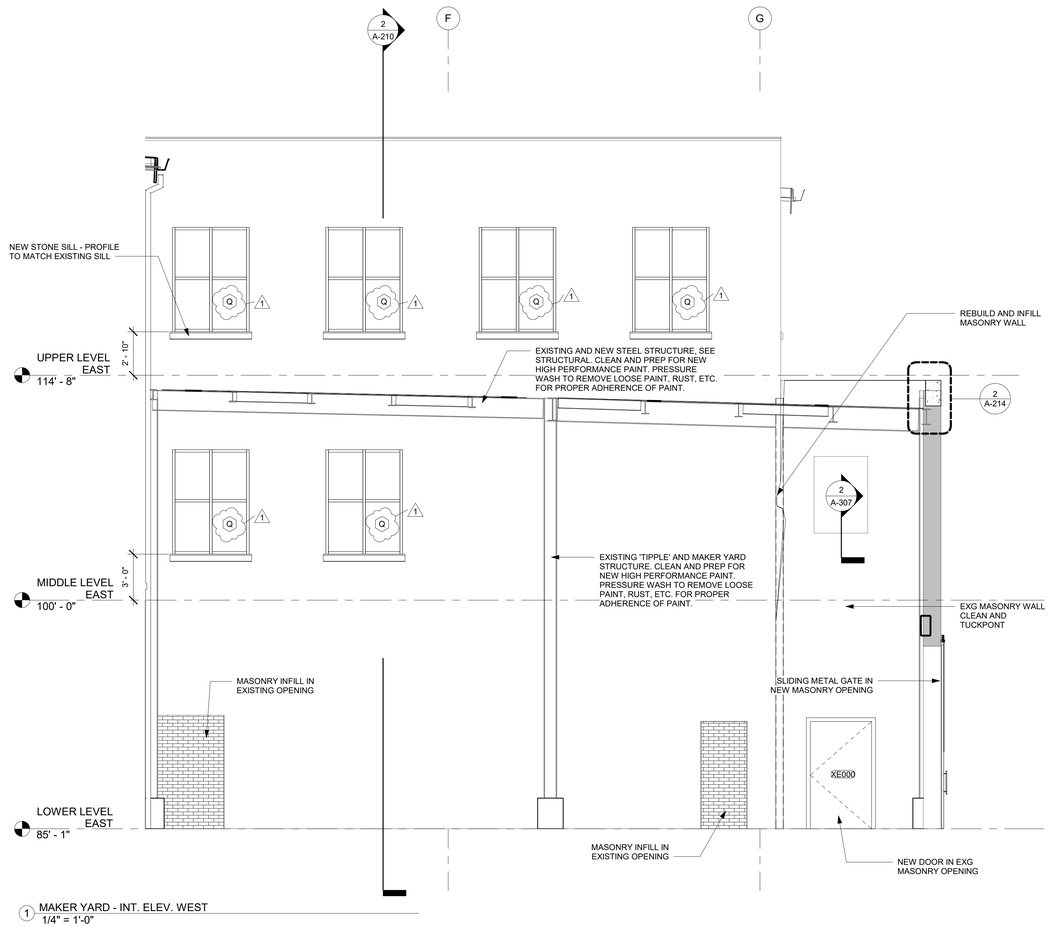
04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

A-306

5/27/2022 11:47:31 AM



2 Maker Yard Existing Window Opening - Typ. Sill Detail
1 1/2" = 1'-0"



1 MAKER YARD - INT. ELEV. WEST
1/4" = 1'-0"

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San Fransisco, CA 94103
415.323.5540

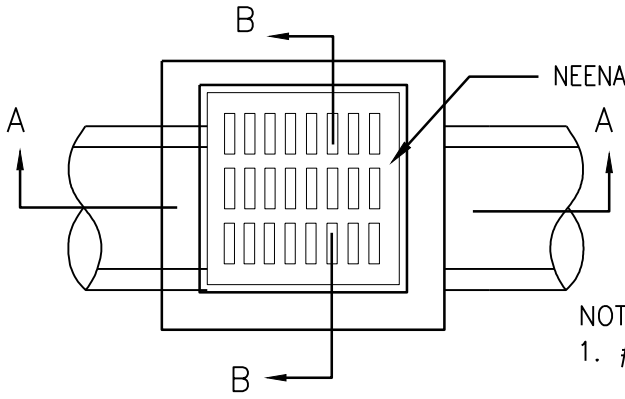
Sheet Title:
Maker Yard

Project Number	19.0130
Drawn By	KH
Approved By	CY
Date	04-15-2022
Revisions:	

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

A-307

5/27/2022 11:47:34 AM

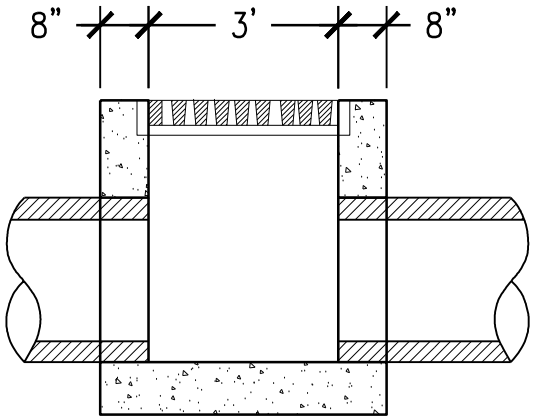


NEENAH R-4859C INLET GRATE AND FRAME OR EQUAL

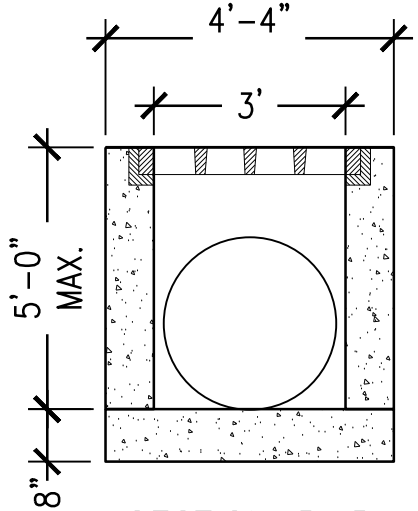
NOTES:

1. #5 BARS TO BE USED THROUGHOUT ON 12" CENTERS.
2. ALL STELL SHALL HAVE 2" MIN. COVER TO ANY CONCRETE FACE.
3. ALL VERTICAL STEEL SHALL EXTEND 4" INTO BOTTOM SLAB.

PLAN VIEW



SECTION A–A



SECTION B–B

10	36" SQUARE CATCH BASIN	D C/403

CARMAN

LANDSCAPE ARCHITECTURE
URBAN PLANNING
CIVIL ENGINEERING

ADDENDUM #2

UK REYNOLDS

NORTH:

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

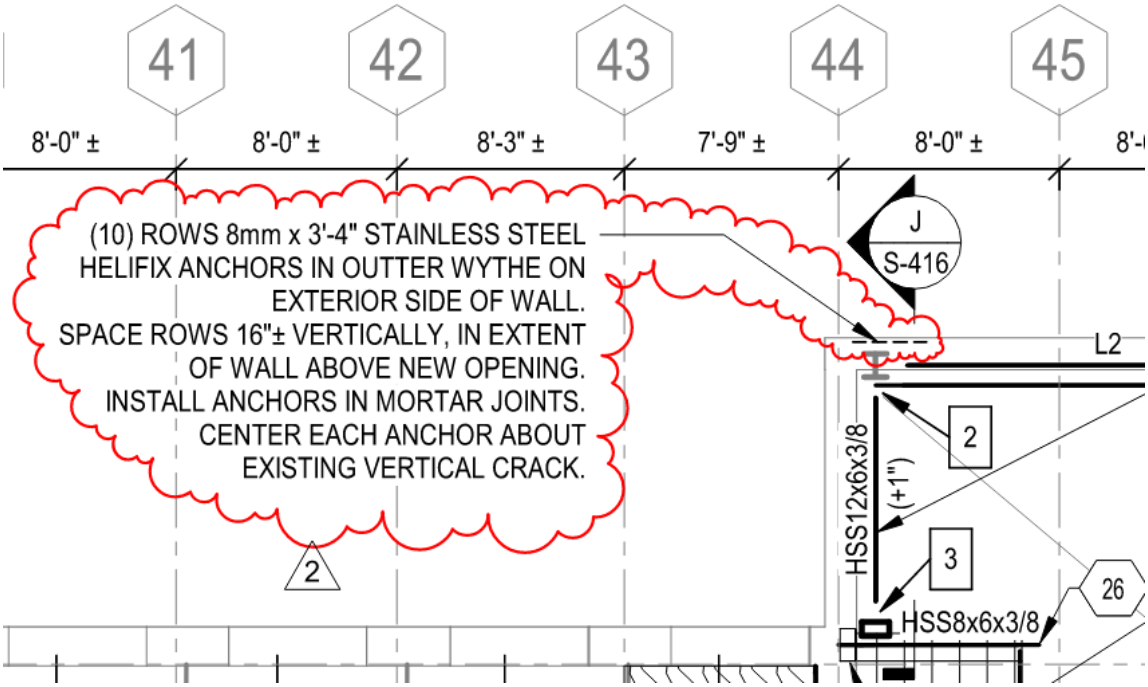
CARMAN#: 19-131

DATE: 6-01-22

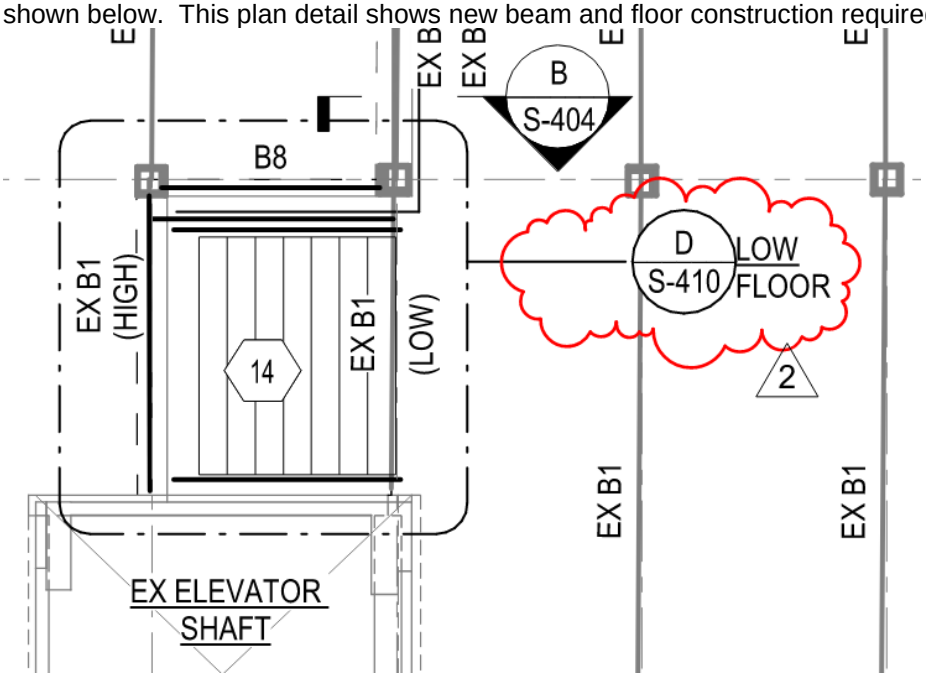
ADDENDUM ITEMS (STRUCTURE):

See previous Addendum for Items S1 through S21.

ITEM NO. S22
Refer to sheet S-101B: At northwest corner of rear Maker Yard, add note calling for Helifix anchors in mortar joints across an existing vertical crack as follows:



ITEM NO. S23
Refer to sheet S-101B: At stair adjacent to existing elevator shaft, add callout reference to D/S-410 as shown below. This plan detail shows new beam and floor construction required below the stair.



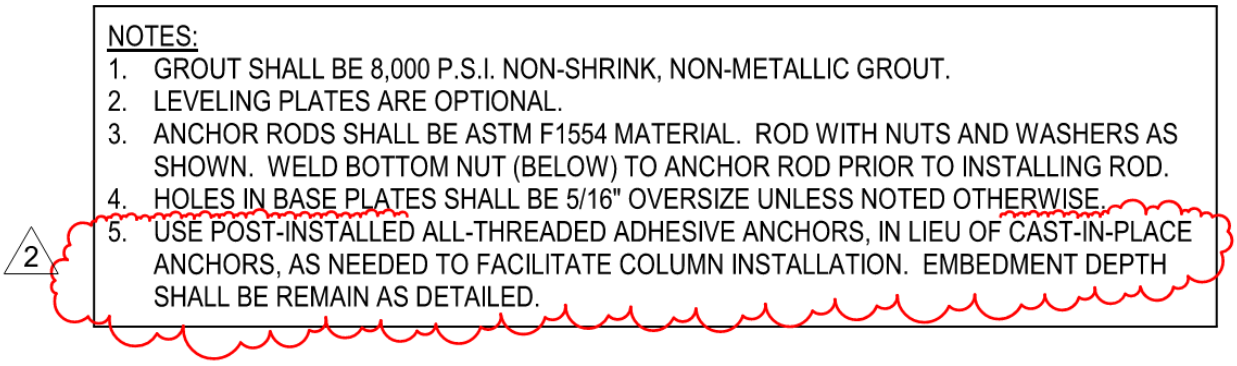
ITEM NO. S24

Refer to sheet S-102B: Replace with new sheet S-102B attached to this addendum. All Addendum revisions are clouded and tagged. Revisions current to this Addendum are as follows:

- Add reference to detail F/S-410 at stair adjacent to elevator shaft.
- Add reference to detail E/S-404 along grid 30 between grids E and F.
- Along grids 29 and 31, from grid D toward plan north revise beam to be continuous over columns at grid E. Beams will cantilever to opening edge beam. Revise these beams to have steel plate between wood plies.
- Along grid 32, from grid E to cantilever just plan south of grid D, revise beam type to be 2-ply wood beam with steel plate between wood plies.
- Along grid D, between grids 31 and 33 clarify that C8 is to be two-span continuous.

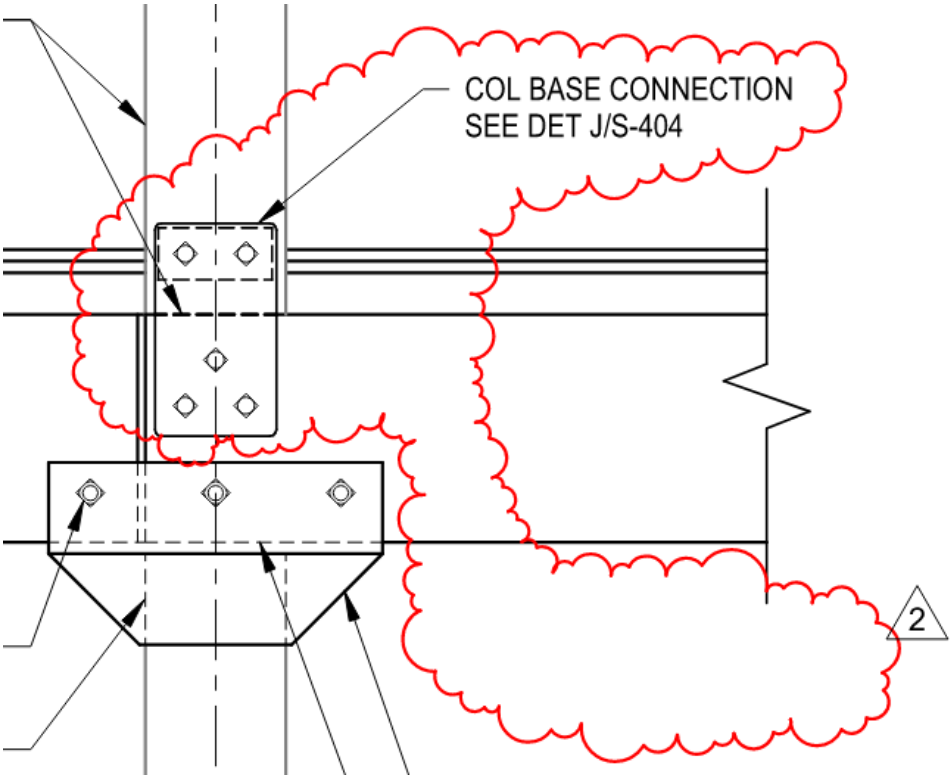
ITEM NO. S25

Refer to sheet S-303: View L/S-303. Add note 5. to the text notes box as follows:

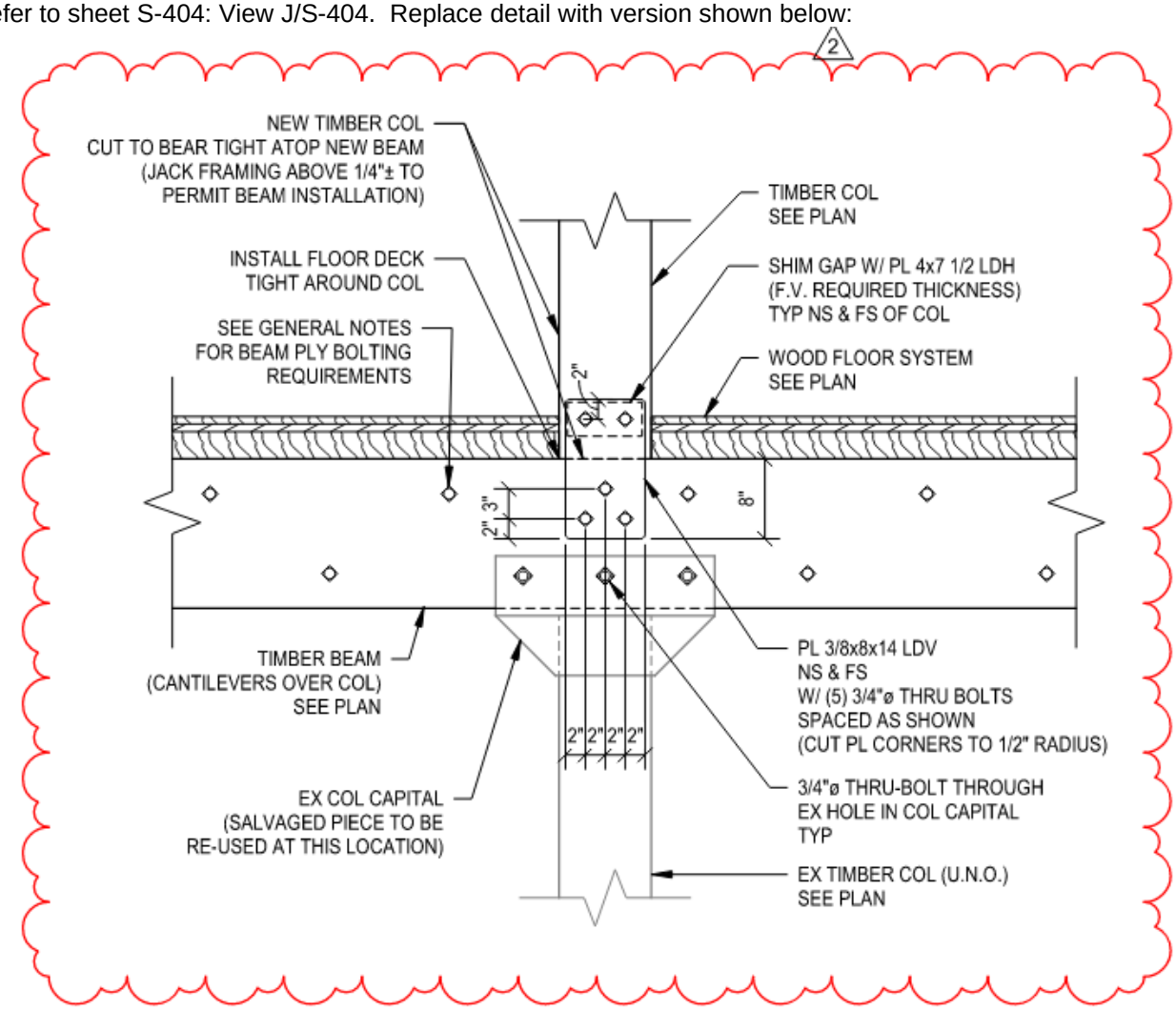


ITEM NO. S26

Refer to sheet S-404: View H/S-404. Delete notes regarding base connection of upper column. Point to base connection with note as follows:

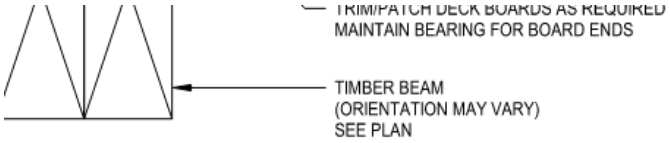


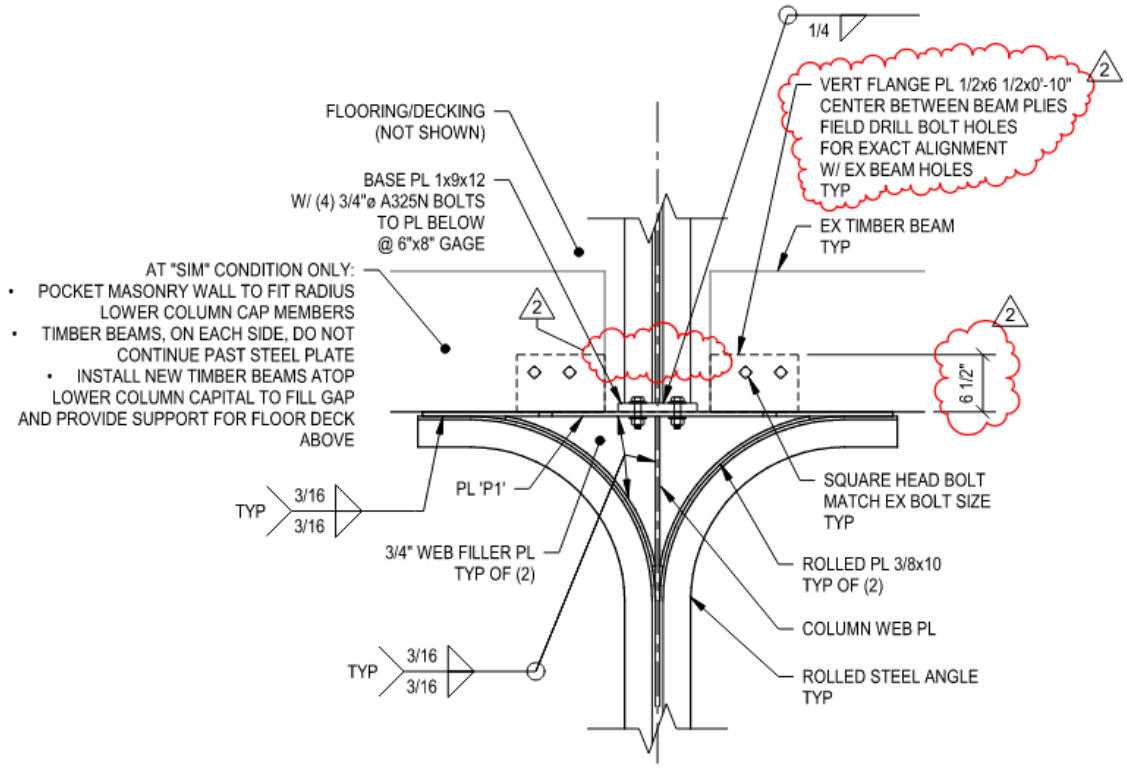
ITEM NO. S27
Refer to sheet S-404: View J/S-404. Replace detail with version shown below:



J
S-404
SECTION
3/4" = 1'-0"

ITEM NO. S28
Refer to sheet S-408: View K/S-408. Replace detail with version shown on the following page. (Edits are to connection plate occurring between plies and commentary on installation procedures.)



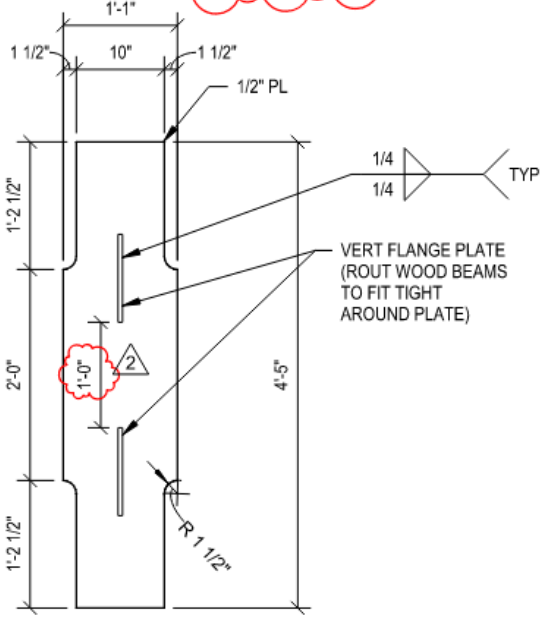


K
S-408

SECTION

3/4" = 1'-0"

NOTE:
TO FACILITATE INSTALLATION OF PLATES BETWEEN EXISTING BEAM PLIES, CONTRACTOR MAY HAVE TO INSTALL COLUMN FROM BELOW, SHORE IN PLACE, AND THEN POUR SUPPORTING COLUMN FOUNDATION PIECE. (OTHER OPTIONS, SUCH AS FIELD WELDING CAP PLATE TO COLUMN AFTER INSTALLATION MAY ALSO BE ACCEPTABLE. THE FINAL DETAILING MUST BE AS INDICATED.)



'P1' PLATE PLAN DETAIL

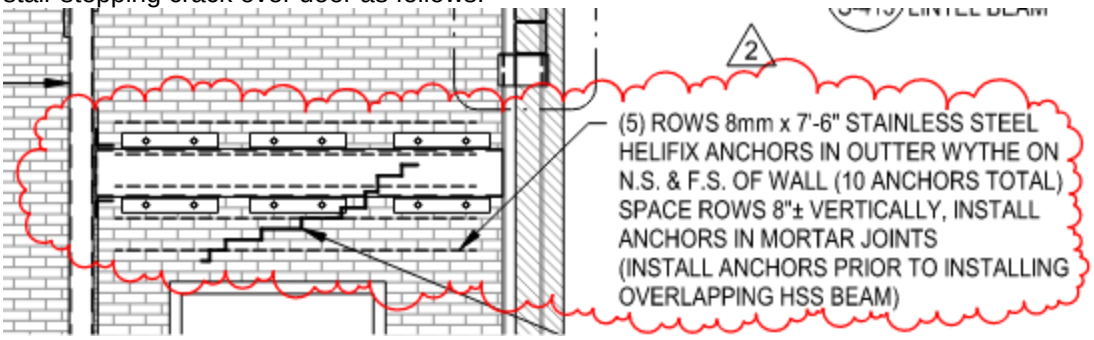
ITEM NO. S29

Refer to sheet S-410: Replace with new sheet S-410 attached to this addendum. All Addendum revisions are clouded and tagged. Revisions current to this Addendum are as follows:

- Added Plan Detail D/S-410 calling out flooring and framing below stair adjacent to the existing elevator shaft at the Middle Level. View also references new detail with stringer support detailing.
- Revised notes in section E/S-410.
- Added section F/S-410 with stair stringer detailing and support connection information.
- Added section G/S-410 clarifying end supports for new timber beam spanning from existing column face to existing elevator shaft wall as shown in D/S-410.
- Added section H/S-410 clarifying edge detailing along stair adjacent to elevator shaft at the Middle Level.

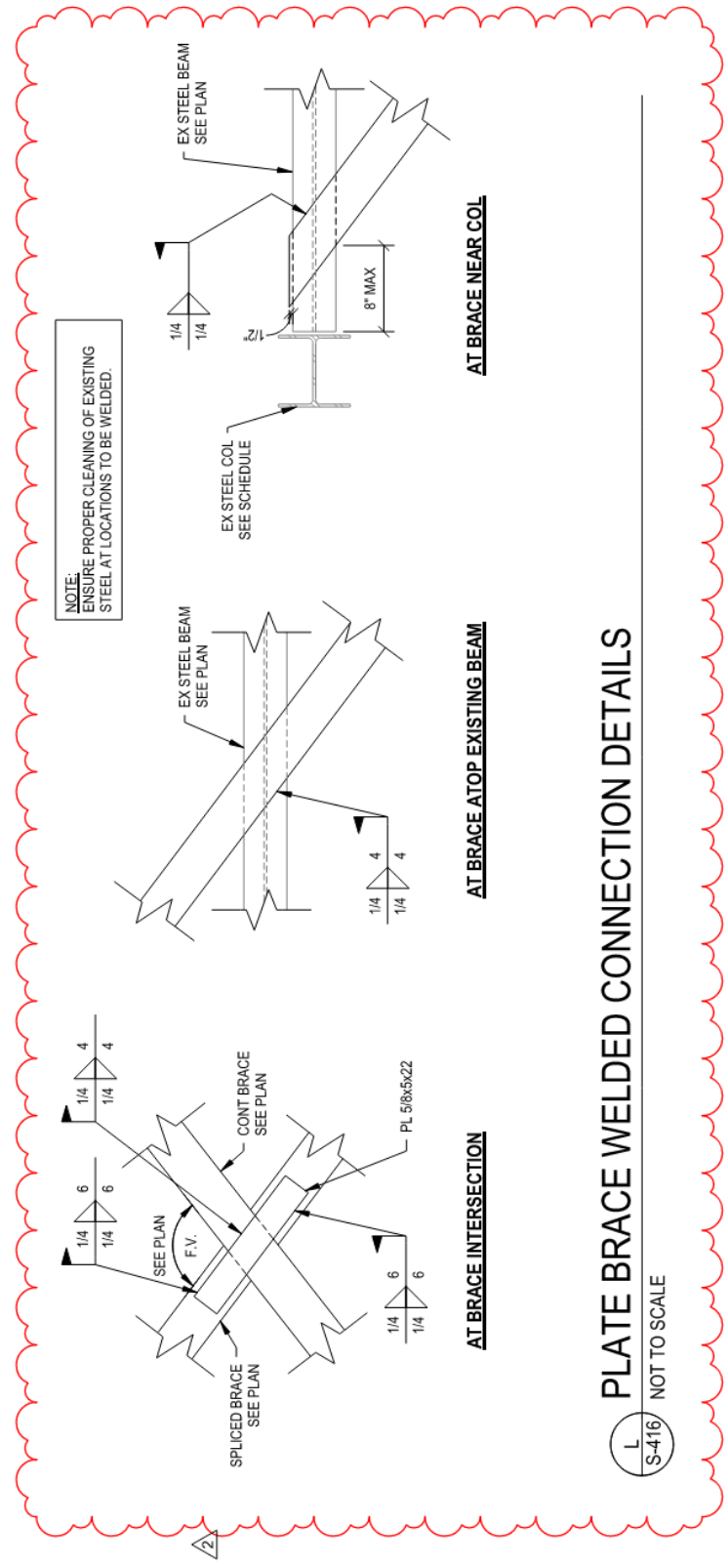
ITEM NO. S30

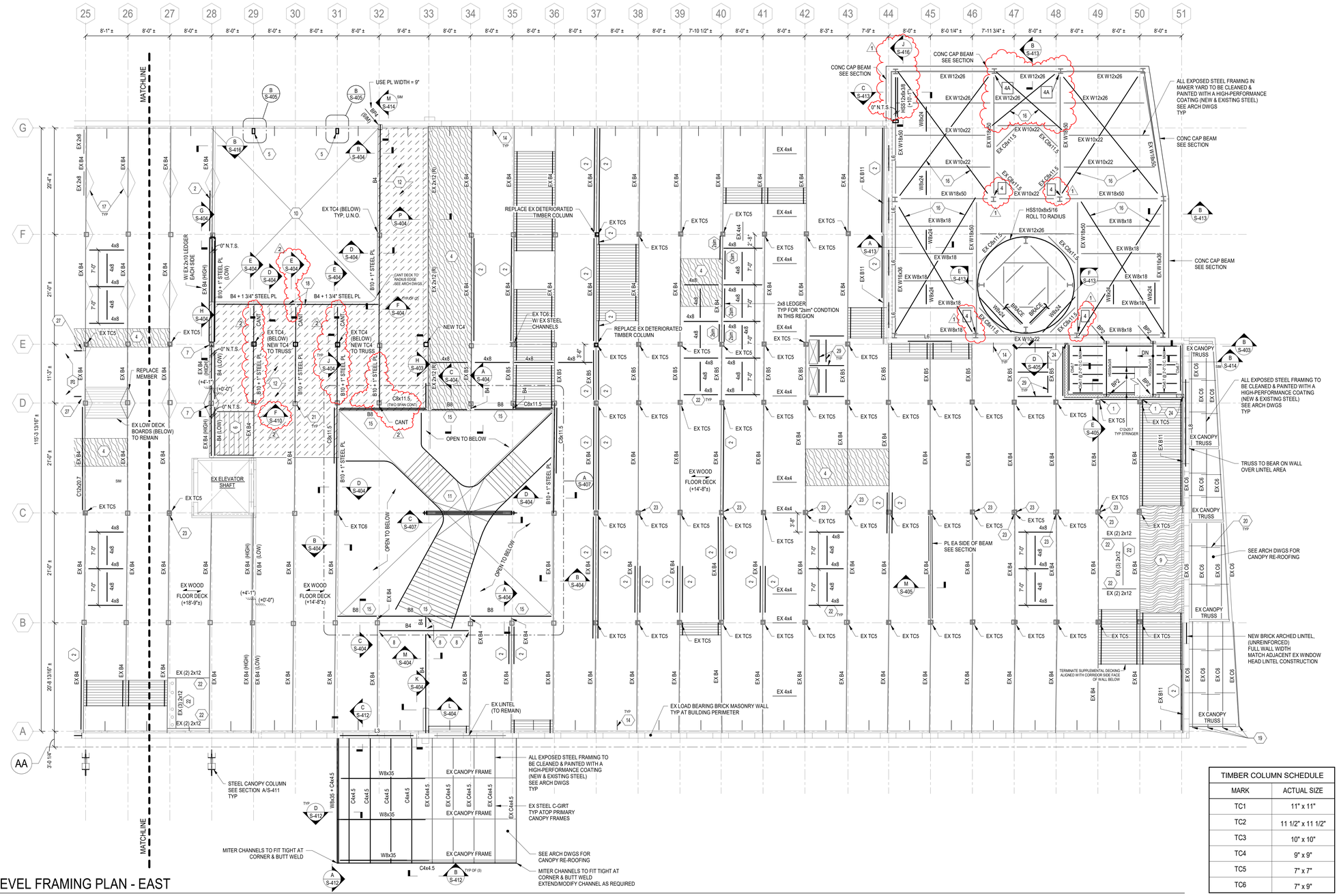
Refer to sheet S-416: View J/S-416: Add note calling for Helifix anchors in mortar joints across an existing stair stepping crack over door as follows:



ITEM NO. S31

Refer to sheet S-416: View L/S-416: Add detailing as follows:





A S-102B UPPER LEVEL FRAMING PLAN - EAST
1/8" = 1'-0"

TIMBER COLUMN SCHEDULE	
MARK	ACTUAL SIZE
TC1	11" x 11"
TC2	11 1/2" x 11 1/2"
TC3	10" x 10"
TC4	9" x 9"
TC5	7" x 7"
TC6	7" x 9"

FRAMING PLAN NOTES

1. ALL STRUCTURE SHOWN SHALL BE CONSIDERED NEW CONSTRUCTION UNLESS LABELED AS EXISTING.
2. ELEVATIONS SHOWN ARE REFERENCED FROM FINISHED MIDDLE LEVEL EAST FLOOR REFERENCE ELEVATION (0'-0"). SEE SECTIONS FOR ELEVATIONS NOT SHOWN ON PLAN.
3. FINISHED MIDDLE LEVEL ELEVATION AT WEST END OF BUILDING (+4'-0"±) U.N.O. FINISHED MIDDLE LEVEL ELEVATION AT EAST END OF BUILDING (+0'-0") U.N.O. FINISHED UPPER LEVEL ELEVATION AT WEST END OF BUILDING (+18'-9"±) U.N.O. FINISHED UPPER LEVEL ELEVATION AT EAST END OF BUILDING (+14'-8±") U.N.O. SEE PLAN FOR ELEVATION STEP LOCATION.
4. TOP OF BEAM = 4 1/4"± BELOW TOP OF FLOOR DIRECTLY ABOVE BEAM U.N.O.
5. SEE DWG S-003 FOR GENERAL NOTES.
6. SEE DWG S-004 FOR SPECIAL INSPECTIONS.
7. SEE DWG S-401 & S-402 FOR TYPICAL FRAMING DETAILS.
8. COORDINATE STRUCTURAL CONSTRUCTION WORK WITH DEMOLITION DRAWINGS.
9. SPACE BEAMS EVENLY THROUGHOUT BAY U.N.O.
10. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL REPAIRS TO EXISTING MASONRY BEARING WALLS.
11. TEMPORARILY SHORE FLOOR/ROOF BEAMS AND OTHER FRAMING TO REMAIN AS REQUIRED TO REMOVE/REPLACE/MODIFY EXISTING STRUCTURAL COMPONENTS.

FRAMING LEGEND

EX WOOD FLOOR DECK = EXISTING LAYERED FLOOR SYSTEM. TYPICALLY CONSISTING OF 3x6 NOMINAL STRUCTURAL WOOD DECK SLATS, GROOVED FOR SPLINE, SPANNING DIRECTION INDICATED OVERLAIN WITH 1x6 NOMINAL DIAGONAL WOOD SLATS TOPPED WITH ARCHITECTURAL WOOD FLOOR FINISH. ISOLATED LOCATIONS MAY VARY. TYPICAL TOTAL SYSTEM THICKNESS = 4 1/4"±.

EX WOOD ROOF DECK = EXISTING WOOD SLATS (SIZES VARY) OVERLAIN WITH EXISTING PLYWOOD SHEATHING.

W12x19 (15k) = STEEL BEAM SIZE. SERVICE LOAD REACTION (KIPS) EACH END.

(±0'-0") = TOP OF MEMBER ELEVATION REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").

= C.M.U. WALL REINFORCED W/ #5@24" O.C. VERT CENTERED IN CORE.

= NEW INFILL MASONRY WALL.

= CONCRETE WALL.

= WALL BELOW DECK.

BP1 = STEEL BEARING PLATE ON WALL. SEE DETAIL E/S-401.

1 = SPECIAL STEEL CONNECTION DETAIL. SEE DETAIL K/S-416.

CANT = CANTILEVER BEAM END.

L1 = STEEL LINTEL. SEE DETAIL F/S-401.

ML8 = MASONRY LINTEL. SEE DETAIL D/S-401.

(+4'-0") (0'-0") = EXTENT OF FLOOR STEP. DEPTH MEASURED FROM ADJACENT TOP OF FLOOR.

12 5/8"± = APPROXIMATE ROOF SLOPE.

RD FD = ROOF DRAIN / FLOOR DRAIN (AS APPLICABLE). SEE DET H/S-402 FOR FRAMING REQUIREMENTS. SEE ARCH DWGS FOR LOCATIONS.

= BID AREA OF DETERIORATED EXISTING STRUCTURAL WOOD FLOOR/ROOF DECKING TO BE REMOVED & REPLACED. (REPLACEMENT INCLUDES ALL WOOD LAYERS OF THE FLOOR SYSTEM.) CONTRACTOR SHALL IDENTIFY AND REPLACE ALL AREAS OF EXCESSIVELY DETERIORATED OR ROTTED EXISTING WOOD DECK. AREAS TO BE DEMOLISHED SHALL BE IDENTIFIED IN THE FIELD BY THE CONTRACTOR AND BE APPROVED BY THE ARCHITECT OR ENGINEER PRIOR TO DEMOLITION. (REPLACEMENT SYSTEM TO MATCH ADJACENT FLOOR/ROOF CONSTRUCTION. TYPICALLY FINISHED ARCHITECTURAL WOOD FLOOR OVER DIAGONAL WOOD SLATS OVER TONGUE & GROOVE STRUCTURAL DECK BOARDS. TOP ARCHITECTURAL WOOD LAYER DOES NOT OCCUR AT ROOF.) SEE DETAIL D/S-402.

= NEW 3x6 (NOMINAL) TONGUE & GROOVE STRUCTURAL WOOD DECK BOARDS INSTALLED TIGHT TO THE UNDERSIDE OF THE EXISTING STRUCTURE. SUPPORT VIA LEDGER AT EACH END SEE DETAIL G/S-402.

TIMBER BEAM SCHEDULE	
MARK	ACTUAL SIZE (WIDTH x DEPTH)
B1	(2) 7x16 1/2
B2	(2) 6x16
B3	(2) 6x12
B4	(2) 5x15
B5	(2) 5x10 1/2
B6	7x11
B7	7x13
B8	5x15
B9	(2) 5x12
B10	(2) 4 1/2x15
B11	5x9

TAG NOTES - UPPER LEVEL

1. CUT EXISTING TIMBER BEAM AND SUPPORT CUT END ON STAIR SHAFT WALL. SEE DETAIL E/S-405.
2. 2x6 SOUTHERN PINE NO. 1 TIMBER LEDGER BELOW IMPAIRED DECK ENDS. SEE DETAIL E/S-402.
3. ALTERNATE: EXPOSED STEEL STAIR STRUCTURE (A.E.S.S. 4). BUILT-UP STRINGERS CONSISTING OF HSS14x4x3/8 + (3) L3 1/2x3 1/2x3/8 PER DETAIL D/S-414. BENT STEEL PLATE TREADS PER DETAILS G/S-407 & D/S-408. 7/8" STEEL PLATE AT LANDINGS WELDED TO SUPPORT PER DETAIL F/S-407 (SIM).
4. SEE FRAMING LEGEND FOR DECK REPLACEMENT NOTES.
5. HSS12x6x1/2 POST (FOR WIND BEAM SUPPORT) FROM MIDDLE LEVEL FLOOR TO UNDERSIDE OF ROOF TRUSS. ANCHOR POST TO EXISTING FLOOR STRUCTURE AT BASE (C/S-405.). TO TRUSS AT TOP (E/S-414.). AND TO WALL ALONG POST LENGTH (B/S-405.).
6. EXPOSED STEEL STAIR STRUCTURE (A.E.S.S. 4). BUILT-UP STRINGERS PER DETAIL D/S-407. BENT STEEL PLATE TREADS PER DETAILS G/S-407 & D/S-408.
7. CUT EXISTING COLUMN AND SUPPORT LOW BEAM/S WITH SALVAGED EXISTING COLUMN CAPITAL (FROM COLUMNS DEMOLISHED IN FORUM SPACE). SEE DETAIL H/S-404.
8. SUPPORT BEAM END WITH BOLTED METAL HANGER BRACKET PER DETAIL F/S-414.
9. INFILL FLOOR AT OPENING (OPENING MAY OCCUR AT EXISTING STAIR THAT IS TO BE DEMOLISHED). INFILL TO BE WOOD FLOOR CONSTRUCTION TO MATCH ALL LAYERS OF ADJACENT EXISTING FLOOR. INFILL SHALL EXTEND BEYOND EXISTING OPENING FOOTPRINT AS REQUIRED TO SPAN TO CENTERLINE OF PRIMARY BEAM SUPPORTS. SEE DETAIL D/S-402.
10. OPEN AREA FLOOR. (TWO-STORY SPACE.) REMOVE EXISTING COLUMNS F-29, F-30, AND F-31 FROM TOP OF MIDDLE LEVEL UPWARD.
11. CUT NEW FLOOR OPENING & REMOVE EXISTING WOOD GIRDER BEAMS WITHIN THE OPENING EXTENTS. NEW FEATURE STAIR WITHIN OPENING , ALL STEEL A.E.S.S. 4.
12. FLOOR REGION HATCHED WITH DASH PATTERN IS TO BE NEW BEAM AND FLOOR CONSTRUCTION AT THE PLAN EAST FLOOR ELEVATION I(4'-0"±) LOWER THAN THE EXISTING FLOOR IN THIS REGION). RE-USE EXISTING HIGH BEAMS AT NEW LOW FLOOR ELEVATION TO EXTENT POSSIBLE.
13. RESET COLUMN IN EXISTING CAST-IRON COLUMN CAPITAL.
14. STEEL BRACKET ON UNDERSIDE OF WOOD FLOOR FOR FLOOR DIAPHRAGM TO WALL REINFORCEMENT. BRACKET SHALL OCCUR BETWEEN EACH TIMBER BEAM ON NORTH AND SOUTH BUILDING WALLS. SEE DETAIL C/S-402.
15. UTILIZE BEAM OF SIZE REQUIRED SALVAGED FROM BUILDING DEMOLITION.
16. PL1/2x6 (FLATWISE) BRACING. WELD TO TOP SIDE OF EACH BEAM AND TO COLUMN AT EACH END OF BRACE. SEE DET L/S-416 FOR TYP CONNECTIONS.
17. EXISTING "V" SHAPED 2x LEDGER FRAMING FASTENED TO BEAM (TO REMAIN).
18. STEEL PLATE WITHIN TWO INDICATED BEAMS SHALL BE CONTINUOUS FOR THE SPAN OF BOTH BEAMS (ONLY THE WOOD PORTION OF BEAM IS SPLICED NEAR MID-SPAN).
19. REPAIR CHANNEL BEARING ON TRUSS PER DETAIL A/S-403.
20. EXISTING SAG RODS BETWEEN EXISTING CHANNELS.
21. INSTALL BEAM END IN EXISTING LOW COLUMN CAPITAL.
22. ADD SIMPSON FACE MOUNT HANGER TO EACH END OF MULTI-PLY 2x MEMBER. SEE DETAIL F/S-402.
23. REPAIR/PATCH EXCAVATED FACE (DIVET) IN EXISTING WOOD COLUMN ON SIDE/S INDICATED WITH STRUCTURAL EPOXY WOOD FILLER. CONDITION OCCURS 4'-6"± ABOVE FLOOR LINE.
24. CONNECT NEW C.M.U. TO EXISTING MASONRY PER DETAIL H/S-401.
25. NEW MULTI-WYTHE BRICK ARCH MASONRY LINTEL. MATCH ADJACENT EXISTING WINDOW LINTEL CONSTRUCTION.
26. OPEN EXPLORATORY HOLE ON INSIDE FACE OF WALL AND NOTIFY ENGINEER OF EXISTING LINTEL SIZE PRIOR TO ORDERING NEW STEEL LINTEL. (MODIFICATIONS TO, OR ELIMINATION OF, NEW STEEL LINTEL MAY OCCUR BASED ON FIELD VERIFIED CONDITIONS.)
27. SUPPORT BEAM END PER DETAIL C/S-416.
28. SUPPORT BEAM END PER DETAIL D/S-416. COORDINATE ORIENTATION OF CONNECTION WITH PLAN TO AVOID CONFLICT WITH RAILING.
29. FRAME MECHANICAL OPENING/S PER DETAIL H/S-402. (OPENINGS MAY INCLUDE DUCTS, GROUPED CONDUITS, PLUMBING LINES, SHAFTS, ET CETERA. COORDINATE POSITIONS WITH M.E.P. AND ARCH DWGS.)

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K NORMAN BERRY ASSOCIATES ARCHITECTS

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2224 Young Drive | Lexington, KY 40505
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BRIAN McMILLAN 29837 LICENSED PROFESSIONAL ENGINEER

WEST | EAST

KEY PLAN

N

06/03/22	ADDENDUM 2
05/23/22	ADDENDUM 1
04/15/22	100% CD'S FOR BIDDING
01/07/21	100% CD'S FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
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859.253.0892

Structural Engineer:
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Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
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859.254.9803

Acoustics Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
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859.240.1350

Lighting Consultant:
PRITCHARD PECK
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Sheet Title:
Upper Level Framing Plan East

Project Number	19.0130
Drawn By	AJ/SP/PE
Approved By	BSM
Date	04-15-2022

Revisions:
- Date 2 Revision 2

04-15-2022 - 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

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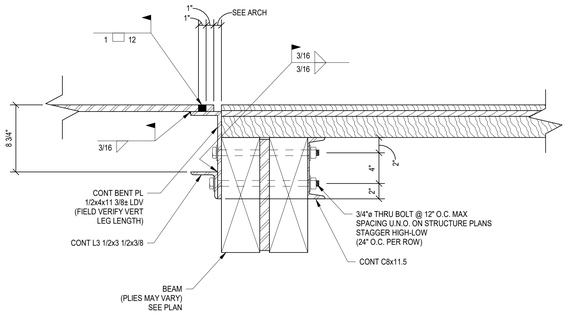
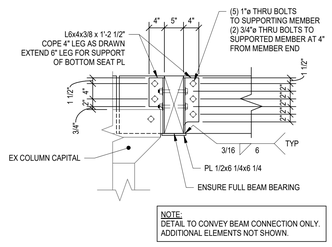
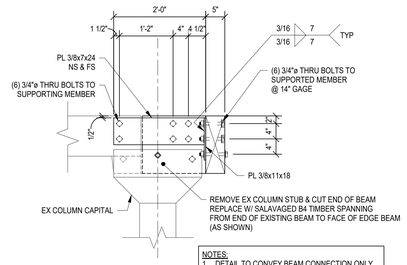


A S-410 SECTION
1 1/2" = 1'-0"



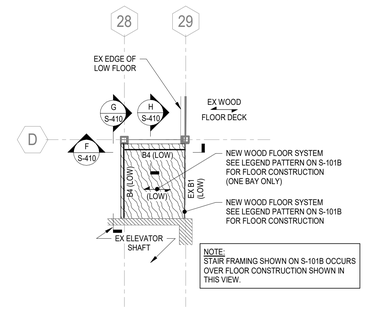
NOTE:
DETAIL TO CONVEY BEAM CONNECTION ONLY.
ADDITIONAL ELEMENTS NOT SHOWN.

B S-410 SECTION
3/4" = 1'-0"



NOTES:
1. DETAIL TO CONVEY BEAM CONNECTION ONLY. ADDITIONAL ELEMENTS NOT SHOWN.
2. AT "SIM" CONDITION BEAM OVER COLUMN CAPITAL IS CONTINUOUS. SEE PLANS.
3. AT "SIM" CONDITION BOLTS INTO EDGE BEAM ARE NOT COUNTERSUNK AND PASS THROUGH BENT STEEL PLATE ALONG OUTSIDE FACE OF BEAM AND THROUGH CHANNEL WEB ON INSIDE FACE OF BEAM. SEE PLANS.

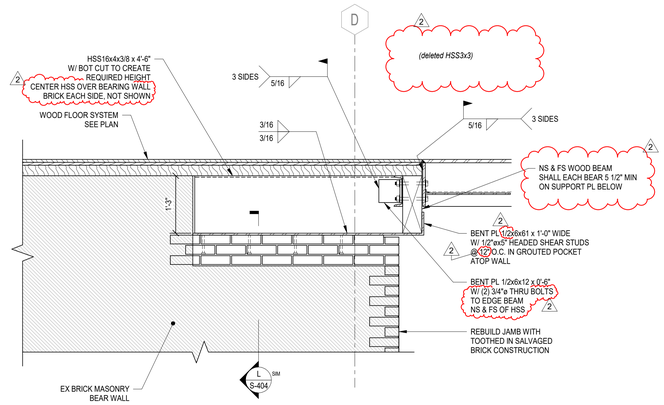
C S-410 SECTION
3/4" = 1'-0"



NOTE:
STAIR FRAMING SHOWN ON S-101B OCCURS OVER FLOOR CONSTRUCTION SHOWN IN THIS VIEW.

MIDDLE LEVEL FRAMING PLAN - EAST - LOW FLOOR AT STAIR ADJACENT TO EXISTING ELEVATOR

D S-410 1/8" = 1'-0"



E S-410 SECTION
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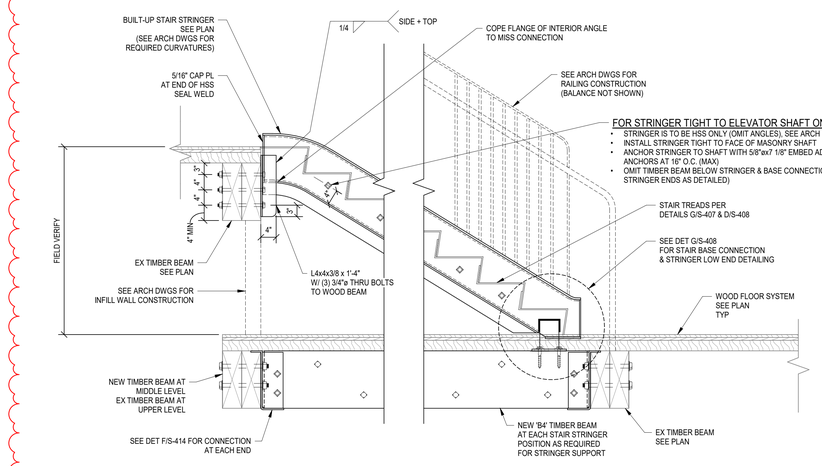
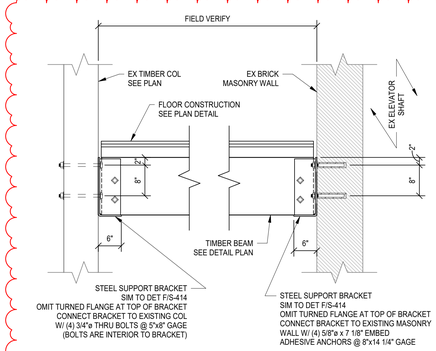
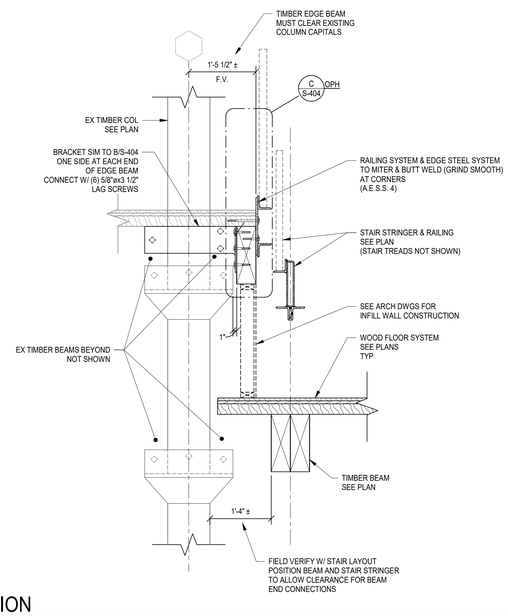


F S-410 TYPICAL STAIR ADJACENT TO ELEVATOR SHAFT
3/4" = 1'-0"
(STAIR UP TO STAGE IS SIMILAR)



G S-410 SECTION
3/4" = 1'-0"



H S-410 SECTION
3/4" = 1'-0"

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BRIAN McMILLAN 29837 LICENSED PROFESSIONAL ENGINEER

DATE	DESCRIPTION
06/03/22	ADDENDUM 2
05/23/22	ADDENDUM 1
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Architect of Record:
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415.323.5540

Sheet Title:
Central Stair Framing Sections

Project Number	19.0130
Drawn By	AJ/SP/PE
Approved By	BSM
Date	04-15-2022

Revisions:
- Date 2 Revision 2

S-410

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04-15-2022 - 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

University of Kentucky – Reynolds Building #1
ADDENDUM # 2 - MEP June 3, 2022

Item #1 Refer to the Mechanical Specifications, Section 220300

A. Refer to subsection 5, "Sump Pumps". To clarify, this list of approved manufacturers shall also apply to sewage ejector pumps.

Item #2 Refer to the Mechanical Specifications, Section 201300

A. Refer to subsection 5.H.
   i. Add the following verbiage:
   "(2) Victaulic 607 or engineer approved equivalent mechanical grooved pipe couplings and fittings may be used in lieu of solder. For potable water, product shall utilize grade "P" EPDM gasket rated from +0ºF to +180ºF for improved resistance to chlorine, chloramine and other typical potable water disinfectants. Victaulic 608N may be utilized with copper groove system."

B. Refer to subsection 5.I.
   i. Omit line 5.I(3)b.
   ii. Add the following verbiage:
   "(4) Schedule 40 Victaulic 107V mechanical grooved pipe couplings and fittings with 125# rating minimum may be used. Install gaskets as recommended by the manufacturer. Piping system shall be rated for minimum of 250°F water temperature. Mechanical grooved piping may not be used if system water temperature exceeds 250°F."

Item #3 Refer to the Mechanical Specifications, section 230200

A. Add "Bosch/FHP" as an acceptable water-source heat pump manufacturer.
B. Add "Bosch/FHP" as an acceptable water-to-water heat pump manufacturer.
C. Add "Dunham Bush" as an acceptable dedicated outdoor air unit (OA-1) manufacturer.

Item #4 Refer to the Mechanical Drawings, all Air Distribution Sheets (M-200A, M-200B, M-201A, M-201B, M-202A, M-202B)

A. Refer to updated sheets for ductwork material requirements, including locations of exposed spiral duct with paint-grip finish. Note that in the areas indicated to have spiral duct with paint-grip finish, only supply air exposed ductwork systems shall be double-wall. All other systems (return, exhaust, outside air) shall be single wall.

Item #5 Refer to the Mechanical Drawings, sheet M-201A, and to the Mechanical Specifications, section 231200

A. To clarify, all exhaust duct connected to the dust collection system DC-1 shall comply with the requirements of subsection 8.c(3) – "Ducts Connected to Dust Collection System".

Item #6 Refer to the Mechanical Drawings, Sheet M-201A

A. Refer to updated sheet for revised dust collection system installation requirements.

Item #7 Refer to the Mechanical Drawings, Sheet M-400

A. Refer to the Typical Heat Pump Closet at Studio enlarged plan, elevation, and isometric view. The contractor shall provide a full mock-up of one closet installation, including heat pumps, ductwork, piping, grilles/diffusers, filter clearances, disconnects, etc. for review by the design team and the Owner prior to permanent construction of remaining closets.

Item #8 Refer to the Mechanical Drawings, Sheet M-601

A. Refer to updated Dust Collection System Schematic.

Item #9 Refer to the Mechanical Drawings, sheet M-801

A. Refer to the Water-to-Water Heat Pump Schedule. Delete "BACNET" from Remark #2.
B. Refer to the updated Dust Collection System Schedule and associated remarks.

Item #10 Refer to the Plumbing Drawings, sheet P-501

A. Refer to detail 1. Revise detail name to be "Sewage Ejector Pump Detail." This detail applies to the sewage ejector pump shown in room Mechanical 028 on sheet P200-A.

Item #11 Refer to Plumbing Drawings, Sheet P-100A

A. Existing 8" sanitary main exiting the building is to be demoed back out of the new staircase. Tag note P82 was added.

Item #12 Refer to Plumbing Drawings, Sheet P-200A

A. Added new sanitary connection in Corridor 000D to existing 8" line. New sanitary line penetrates wall before entering new staircase. Refer to plans for exact location. Tag note P41 was added.
B. Increased domestic cold water pipe to 1" for spark extinguisher system.

Item #13 Refer to Plumbing Drawings, Sheet P-201A

A. Increased domestic cold water pipe in room wood shop 114J to 1" for spark extinguisher system.
B. New 1" domestic cold water line in room Wood Shop 114J to spark extinguisher system. Tag note P84 was added.
C. Sanitary piping in room Men's RR 122 was adjusted from lavatories on the floor above.

Item #14 Refer to Plumbing Drawings, Sheet P-202A
A. Adjusted sanitary and vent piping in room Men's RR from new enlarged chase behind water closets.
B. Adjusted sanitary and vent piping in room Men's RR for new lavatory locations.

Item #15 Refer to Plumbing Drawings, Sheet P-300
A. Adjusted sanitary and vent piping in room Men's RR 222 from new enlarged chase behind water closets.
B. Adjusted sanitary and vent piping in room Men's RR 222 for new lavatory locations.
C. Sanitary piping in room Men's RR 122 was adjusted from lavatories on the floor above.

Item #16 Refer to Plumbing Drawings, Sheet P-400
A. Adjusted sanitary and vent piping from new enlarged chase behind water closets.
B. Adjusted sanitary and vent piping for new lavatory locations.

Item #17 Refer to the Plumbing Drawings, Sheet P-600
A. Refer to the Water Heater Schedule. Acceptable manufacturers shall include Lochinvar, AO Smith, Nyle.
B. Refer to the Storage Tank Schedule. Acceptable manufacturers shall include Lochinvar, AO Smith, Nyle.

Item #18 Refer to Plumbing Drawings, Sheet UP-100
A. Added new route for 8" sanitary main exiting the building and connecting to existing manhole. Tag note P80, P81, and P83 were added.

Item #19 Refer to the Electrical Specification, Section 260900 – Electric Power Monitoring
A. Specification section added.

Item #20 Refer to the Electrical Drawing, sheet EP-100B – Lower Level East – Power Plan
A. Revised Main Electrical room layout for clarity. Moved information to enlarged plan EP-400.

Item #21 Refer to the Electrical Drawing, sheet EP-101B – Middle Level East – Power Plan
B. Added notes to coordinate device install with fabric panel walls.

Item #22 Refer to the Electrical Drawings, sheet EP-400 – Electrical Enlarged Views – Electrical Rooms
A. Elec room 011B & 011C Enlarged Plan: added circuiting information for the electrical metering system.
B. Lower Level West Power Enlarged Comm Room 015: added information to rack receptacles

Item #23 Refer to the Electrical Drawing, sheet EP-600 – Electrical One-Line
A. Added CT locations and information for the electrical metering.

Item #24 Refer to the Electrical Drawing, sheet EP-601 – Electrical One-Line
A. Added electrical meter system network diagram and information
B. Added panel STLE2 to the electrical one-line.

Item #25 Refer to the Electrical Drawing, sheet IT-100B – Lower Level East Systems Plan
A. Added data drops in main electrical room for electrical metering.
B. Added data drop in MDP for main electrical meter.

Item #26 Refer to the Electrical Drawing, sheet FA-101B – Middle Level East – Fire Alarm
A. Added notes to coordinate device install with fabric panel walls.

Item #27 Refer to the Audiovisual Drawing, sheet AV-301 – Audiovisual Elevations
A. Added information regarding projection screen mounting, projection screen components and architectural coordination with projection screen in Forum 111.

Item #28 Refer to the Audiovisual Drawing, sheet AV-302 – Audiovisual Elevations
A. Added information regarding projection screen mounting, projection screen components and architectural coordination with projection screen in Classroom 209.

END OF ADDENDA ITEMS

SECTION 260900 ELECTRICAL POWER MONITORING
PART 1.0 - GENERAL

1.1 DOCUMENTS

1. Please note: that this section of the Specifications forms part of the Contract Documents and is to be read, interpreted, and coordinated with all other parts listed by the appropriate parties below.
2. 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.
3. Each Electrical Contractor's attention is directed to Section 260501 - General Provisions, Electrical, and all other Contract Documents as they apply to his work.
4.

1.2 SYSTEM DESCRIPTION

1. The products specified herein are intended to provide a complete sub-metering solution. This solution shall be utilized to measure and monitor various meters and monitors throughout the building as shown on the drawings or required herein. System will also allow for compliance with national and local energy codes and provide equipment needed to meet specific energy monitoring objectives.

1.3 SECTION INCLUDES

1. Electrical sub-metering equipment, data collection systems, and data management software systems including:
    a. Multi-point electrical sub-meters
    b. Data collection hubs
    c. Open protocol data communication network
    d. Wireless communication devices
    e. Energy monitoring software

1.4 STANDARDS

1. Provide equipment of this Section in full compliance with the following applicable portions of the latest revisions of the following standards:
    a. ANSI C12.1 & C12.20 at 0.5 Accuracy Class
    b. UL Certified to IEC/EN/UL/CSA 61010-1 2nd Edition.
    c. UL916:
        i. These requirements cover energy management equipment and associated sensing devices rated 600 volts or less and intended for installation in accordance with the National Electrical Code, NFPA 70.
    d. NEMA -ESM-1

1.5 SHOP DRAWINGS

1. Installation and Shop Drawings to include the following:

a. Manufacturer's literature and specification
b. Component connection wiring diagrams
c. Communications system specification

1.6 INSTALLATION, OPERATION, AND MAINTENANCE MANUALS

1. Submit installation, operation, and maintenance manuals for the electrical sub-metering components.

1.7 TECHNICAL PERFORMANCE

1. Minimum measured technical performance of each piece of installed equipment shall meet the specifications published by the manufacturer.

2. Optimize technical performance of all systems to produce the highest achievable technical performance to the satisfaction of consultant and/or client.

3. Any deficiencies in the system, particularly information communication errors or operational deficiencies, shall be cause for rejection. All CT readings shall be field verified in the presence of the engineer. The attached form shall be utilized to field verify the system components. Rectify any such deficiencies prior to calling for substantial completion review.

1.8 WARRANTY

1. Manufacturer shall provide a comprehensive warranty for all products.

2. All electrical sub-meters included in this specification to be free from defects in materials and workmanship from the date of substantial completion for a period of 5 Years.

3. All data collection system components included in this specification to be free from defects in materials and workmanship from the date of substantial completion for a period of 5 Years.

PART 2.0 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

1. Acceptable Manufacturers: Leviton Manufacturing Co. Inc, Obvius Acquisuite Ally, Dent PowerScout 48 HD

2. Basis of Design: Obvius Acquisuite Ally

3. Substitutions Not Permitted:

a. Provide Manufacturer's reference list.

b. Clearly delineate all propose substitutions as such and submit in writing for approval by the engineer a minimum of 10 working days prior to the bid date

c. Prior to rough-in, provide complete engineered shop drawings, including power wiring, with deviations for the original design highlighted in an alternate color, to the engineer for review and approval.

d. By using pre-approved substitutions, the contractor accepts responsibility and associated costs for all required modifications to circuitry, devices, and wiring.

2.2 METERS AND CURRENT TRANSFORMERS

1. Multipoint metering devices: Obvius AMC48-MD

2. Solid or split core current transformers with full scale output 0.333v

3. Rogowski coil current transformers.

4. Solid Core current transformers available for 100-400A and split core current transformers available from 50A -.800A

5. Current transformer secondary conductor wires can be extended:

   a. 300' for 0.333V CT's
   b. 20' for Rogowski Coil CT's

2.3 SYSTEM DESCRIPTION – SINGLE POINT METERING DEVICES

1. Provide single point metering devices capable of metering 1PH/2W, 2PH/3W, 3PH/3W, and/or 3PH/4W loads.

2. Meters must be capable of directly metering North American 120/208/240v,277/480V and 347/600V.

3. Metering units must be capable of metering loads between 50A and 4000A. Provide meters specific to each project as indicated on construction drawings.

4. Must meet all ISO 9001 standards for quality control where all meters test to a minimum of +/- 0.2% or 0.5% accuracy, dependent on stated accuracy class.

5. The system shall be as described below:

    a. To consist of electronic meters with embedded communications capability, and solid core, split-core or Rogowski coil current transformer technology. The current transformers shall have a full scale output of.333v and secondary voltage clamps for safety purposes.

    b. Meters to be used for Energy Monitoring applications

    c. The meters will be capable of remote communication from each metering device.

    d. Advanced meters shall transmit data via one of the following communication protocols:

        i. BACNet IP
        ii. BACNet MS/TP

    e. Failure of the building electrical normal power system shall not result in loss of data and will not require manual restarting of the metering system

6. The electronic energy monitoring system shall be fully automated microprocessor-based electrical energy measurement system for Measurement and Verification purposes. The system shall incorporate complete metering, communications, reporting functions; energy monitoring and threshold limit capabilities.

2.4 SYSTEM DESCRIPTION – MULITPOINT METERING DEVICES

1. The system shall be as described below:

    a. To consist of electronic multiple point meters with embedded communications capability, and solid core, split-core or Rogowski coil current transformer technology. The current transformers shall have a full-scale output of.333v A/C outputs and secondary voltage clamps for safety purposes.

    b. Meters to be used for Energy Monitoring applications

    c. Meters shall be capable of external mounting in a NEMA 1 enclosure or internal mounting in electrical panels or switchgear.

    d. The meters will be capable of remote communication from each metering device. Each device shall have IP sockets and RS-485 terminals to accommodate data transmission via BACNet MS/TP, BACNet IP and standard Ethernet. Data shall be transmitted by

one or a combination of the following:

i. Standard Ethernet interface
ii. Ethernet connection to PC or laptop via crossover cable.
iii. RS-485 Network-Modbus BACNet MS/TP

e. Systems to have backup storage power to key components so no data is lost during power outages. The system shall continue to function after resumption of power.

f. Failure of the building electrical normal power system shall not result in loss of data and will not require manual restarting of the metering system.

2. The electronic energy monitoring system shall be fully automated microprocessor-based electrical energy measurement system for Measurement and Verification. The system shall incorporate the following:
   a. Complete metering
   b. Communications
   c. Reporting functions
   d. Energy monitoring
   e. Threshold limits capabilities.

3. Meters must be capable of directly metering on board, North American 120/208/240V, 277/480V and 347/600V.

4. Meters may be capable of two distinct and independent reference voltage inputs to allow for monitoring two separate electrical systems. Meter must allow any CT input to be referenced against either input voltage channel.

5. Metering Units may also be configured with individual input channels for CT's secondary wires.

6. Must meet all ISO 9001 standards for quality control where all meters test to a minimum of +/- 0.2% or 0.5% accuracy, dependent on accuracy class.

7. Large Metering unit (s) must be configurable to meter 48 single pole circuits, 16 two pole circuits or 16 three-pole circuits.

10. Small Metering unit (s) must be configurable to meter 12 single pole circuits, 4 two-pole circuits or 4 three-pole
circuits.

2.5 SYSTEM MEASUREMENTS – MULITPOINT METERING DEVICES

1. Meters to be complete with a Liquid Crystal Display (LCD) to access energy measurements and phase diagnostics when needed.

2. Energy Parameters:

a. kWh real energy consumption
b. kW instantaneous power
c. kVAh apparent consumption
d. kVA apparent power
e. kVARh reactive consumption
f. kVAR reactive power

3. Phase Diagnostics: Parameters to be displayed for each individual phase of each metered load:

a. Voltage Phase to neutral or phase to phase
b. Amps Instantaneous amperage for each phase
c. kW Instantaneous power
d. PF Power factor
e. PA Phase angle
f. kVA Instantaneous apparent energy
g. KVAR Instantaneous reactive energy
h. THD Total Harmonic Distortion-Theta

2.6 METER DATA COLLECTION AND COMMUNICATION

1. Data acquisition sever: Obvius Acquisuite A8810
2.

2.7 SYSTEM DESCRIPTION - METER COMMUNICATIONS AND DATA COLLECTION

1. The system shall be as described below:

a. To consist of energy management hubs (data acquisition server), pulse modules, and software used to transmit, collect, and display data provided by sub-metering equipment used to capture measurements from utilities that include, but are not limited to, electrical, gas, water, and steam.

b. System to allow all data collected to be connected to IP based applications including Third Party Billing Companies/Software, Enterprise Energy Management Software, Demand Response, and Smart Grid Collection for use in power measurement and tenant billing.

c. Data collection system shall be all non-proprietary and compatible with industry standard M&V software applications. Open protocols such as Modbus, pulse outputs, analog, resistive inputs, etc. shall be utilized. No proprietary or manufacturer specific protocols between meter and data collectors shall be accepted.

2.8 PRODUCT REQUIREMENTS - DATA AQUISITION SERVER

Provide data acquisition servers that measure and verify data from electrical meters

1. Server shall comply with the following codes and standards:
    a. FCC CFR 47 Part 15, Class A
    b. EN 610000
    c. EN 61326
    d. CE

2. Server shall be equipped with an ARM7 embedded CPU, an ARM7 I/O co-processor, 32MB of onboard RAM, 16MB of NOR flash memory, and a USB expansion port. Provide and install 1GB USB storage expansion.

3. Server shall operate under the following conditions:
    a. 32°F to 122°F (0°C to 50°C), 0-90% RH, non-condensing
    b. 41°F to 104°F (5°C to 40°C), 0-90% RH, non-condensing

4. Server shall have the capability to collect and log information at intervals from one (1) to sixty (60) minutes.

5. Server shall timestamp all acquired data and store it in a non-volatile memory.

6. Server shall use modem and/or Ethernet connections for internet access allowing either static IP (internet protocol) or DHCP (Dynamic Host Control Protocol) addressing.

7. Server shall communicate with metering data points via wired connections over the following protocols:
    a. Wired communications:
        i. Pulse
        ii. Ethernet-Modbus TCP/IP
        iii. RS-485-Modbus RTU
            a. Modbus devices to be connected via Belden 1120A or equivalent 18g twisted shielded pair.
8. Server shall communicate with external devices via -wired over the following protocols:
    a. Wired communications:
        i. Ethernet LAN (Local Area Network) or WAN (Wide Area Network)
        ii. TCP/IP
        iii. PPP
        iv. HTTP/HTML
        v. FTP
        vi. NTP
        vii. XML

viii. SNMP
ix. BACnet-Optional Downloaded Module

c. Server shall upload data at user selectable scheduled intervals via HTTP or FTP and download data in XML or custom formats.

9. Server shall generate alarms for data points including SNMP (Simple Network Management Protocol) traps.

10. Server shall have the following input and output connections:
    a. Input:
        i. RS485 Modbus serial input capable of supporting 32 external devices. Input to be expandable at owner's option.
        ii. Eight (8) Flex I/O inputs configurable for the following modes:
        iii. 0-10VDC
        iv. 4-20mA
        v. Resistive
        vi. Standard KYZ pulse modes for A or C dry contact relay outputs
        vii. Status

    b. Output:
        i. Two (2) opto-FET dry contact relays rated at 30VDC and 150mA maximum

2.

2.16

PART 3.0 – EXECUTION

3.1 WIRING AND CONNECTIONS

1. All wiring must meet and or exceed local electrical code.

2. Metering points show on submitted drawings only to be connected or installed

3. Install all wiring in conduit.

4. Provide a non-dedicated or Ethernet drop for remote meter reading and diagnostics of the system

5. Perform all necessary system calibration, testing, commissioning, and demonstrations as required. Utilize attached form to submit testing/calibration information. Verification shall be performed with Engineer present.

6. Prepare and submit record drawings and installation, operation and maintenance manuals for the energy metering system as required.

3.2 TESTING AND COMMISSIONING (ECO)

1. Perform final testing, adjustment, and commissioning of the systems, report results to the Architect/Engineer, and include the results in the installation, operation, and maintenance manuals. Provide qualified technicians for testing and commissioning.

2. Perform sufficient technical and operational tests to ensure the technical performance of the system meets the intent of the Contract Documents. Typical testing to include but not be limited to:
    a. Verification of meter readings and proper installation of meter equipment (utilize attached form for recording system verification) shall be in the presence of the project engineer.
    b. Communication system connectivity

3. Provide functional testing including end to end verification that all meters are operating properly.

4. Demonstrate the operation of the system to the Owner at a time suitable to them.

3.3 FIELD VERIFICATION, ACCEPTANCE, AND TRAINING

1. Provide all “AS BUILT” DRAWINGS and data showing each meter, serial number, IP address, MAC address, cross reference, load and CT ratio prior to field verification.

2. Manufacturer’s representative shall verify, adjust and test the system. Verification of the energy monitoring system is to be carried out with the assistance of an electrical contractor at all times and in the presence of the project engineer. Upon completion, the manufacturer shall issue a “Commissioning Report” to the owner, electrical consultant, contractor and client.

3. Manufacturer’s representative shall demonstrate operation of the system as follows:

    a. Local and remote meter readings

b. Phase diagnostics
c. Provide manual of the installed system
d. Ensure system is connected to the cloud as required to communicate with software servers.

3.4 FIELD QUALITY CONTROL

1. Submit a detailed testing and commissioning procedure to the Consultant and Client for review and approval prior to undertaking this Work. The procedure shall indicate all test equipment required and acceptance criteria.

2. Upon completion of all testing and commissioning, submit a copy of the test results and certify the system as acceptable for revenue metering purposes.

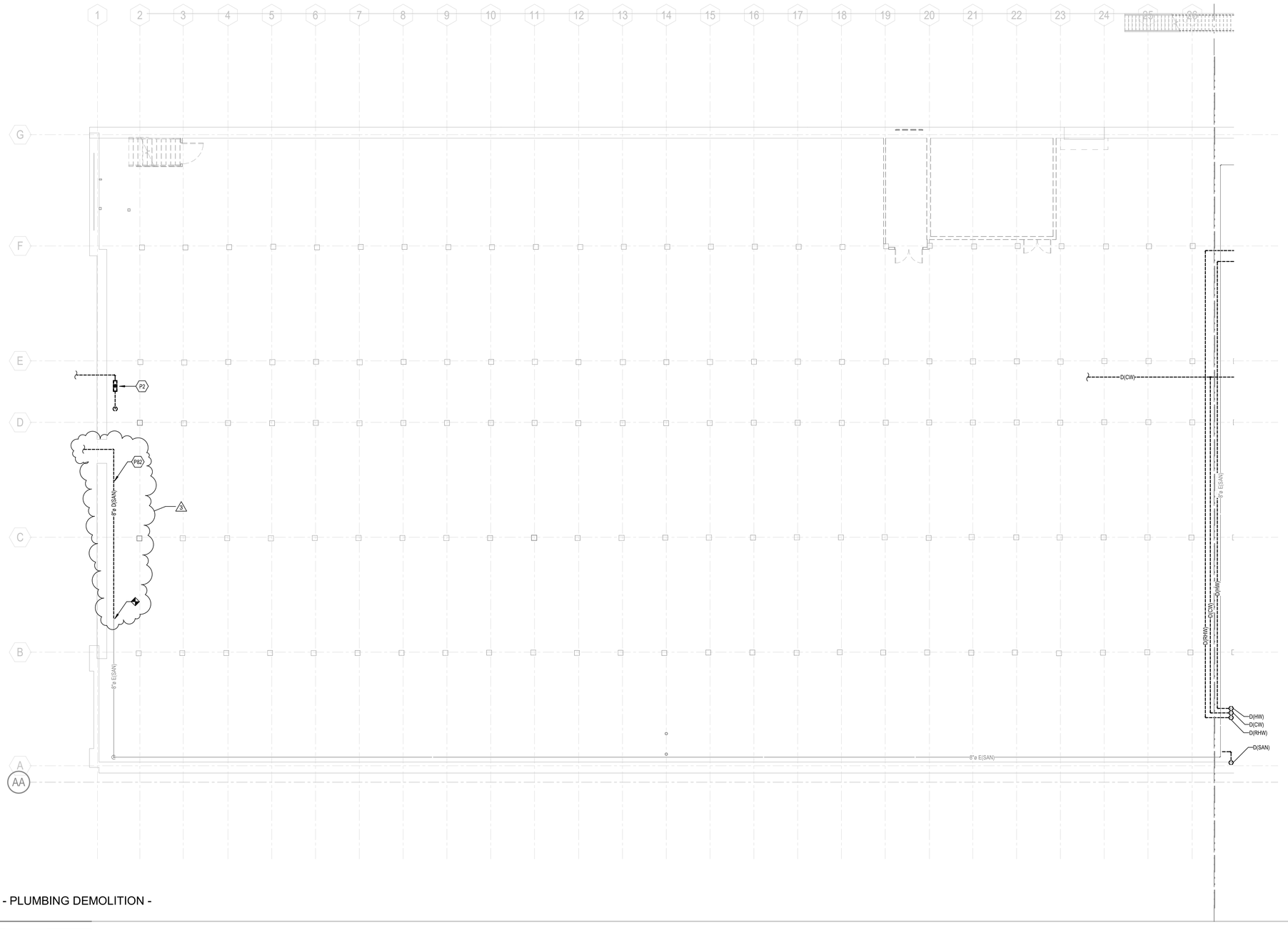
3. Undertake the testing and commissioning Work with the manufacturer's factory representative(s) and project engineer.

End of Section

TAGGED NOTES

P2 EXISTING WATER PIPING TO BE DEMOLISHED. ALL ASSOCIATED PUMPS, VALVES, ETC SHALL BE DEMOLISHED. DEMOLISH BACK TO MAIN AND CAP. ALL UNDERGROUND WATER PIPING INSIDE BUILDING SHALL BE CAPPED AND ABANDONED.

P82 DEMOLISH SANITARY PIPE TO EXISTING MANHOLE OUTSIDE OF THE BUILDING. PATCH AND REPAIR WALL TO MATCH EXISTING.



LOWER LEVEL - PLUMBING DEMOLITION - WEST

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

0 2' 4' 8' 16' 24' 32'

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NORTH PROJECT NORTH

University of Kentucky
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349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY · KE · EUGA 28967 · LICENSED PROFESSIONAL ENGINEER

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KEY PLAN

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
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502.582.2500

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Structural Engineer:
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Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
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859.254.9803

Acoustics Consultant:
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859.240.1350

Lighting Consultant:
PRITCHARD PECK
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San Fransisco, CA 94103
415.323.5540

Sheet Title:

Lower Level - Plumbing Demolition - West

Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

P-100A

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MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.

2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.

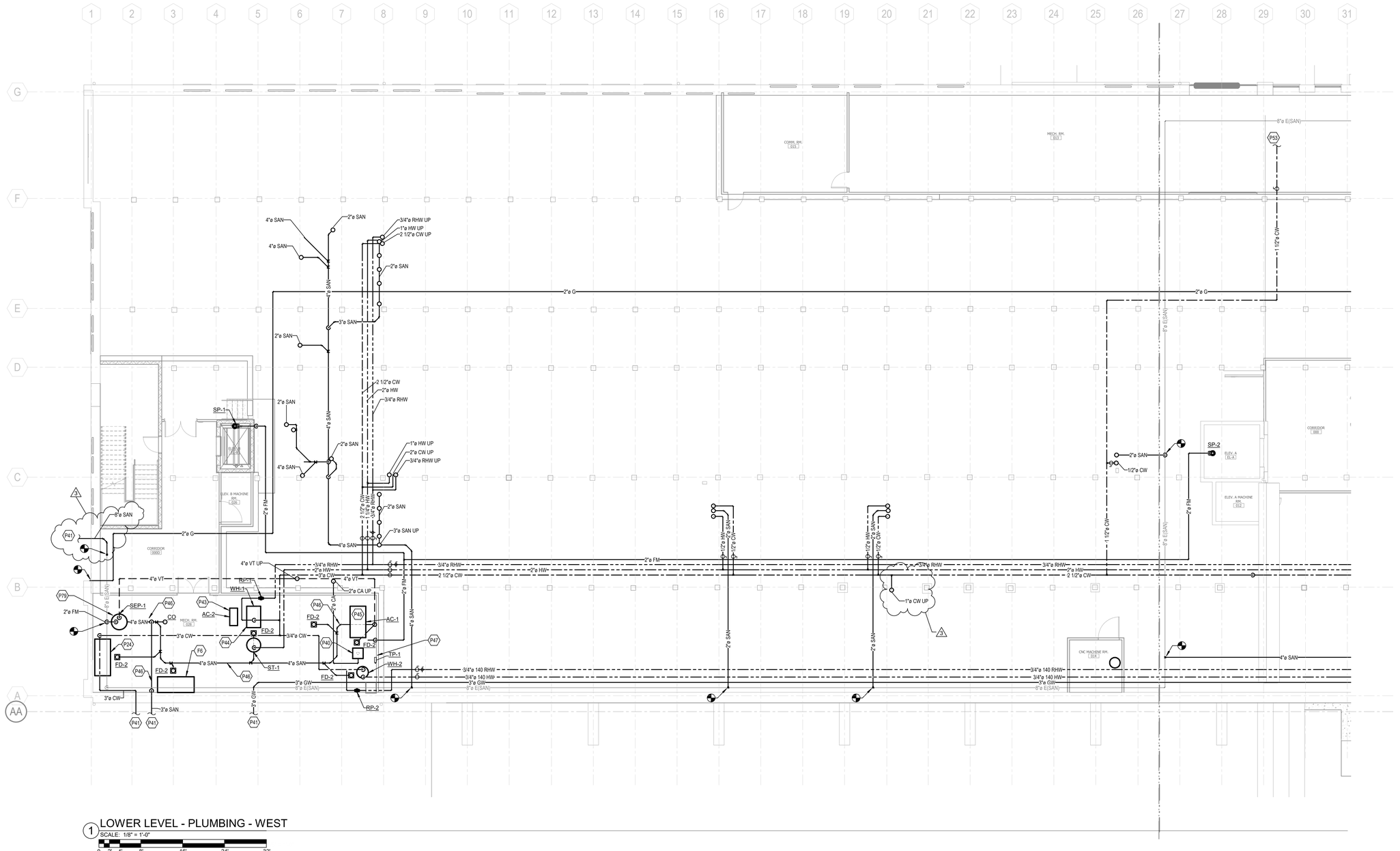
3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

TAGGED NOTES

(##)

- F6 NEW FIRE SPRINKLER SYSTEM ENTRANCE AND BACKFLOW PREVENTER.
- P24 NEW COLD WATER ENTRANCE AND BACKFLOW PREVENTER. REFER TO DETAIL ON SHEET P-500.
- P40 REFRIGERATED DRYER - PIPE CONDENSATE TO NEARBY FLOOR DRAIN.
- P41 REFER TO SHEET UP-100 - PLUMBING SITE PLAN FOR CONTINUATION.
- P43 DRY VALVE AIR COMPRESSOR. REFER TO DETAIL ON SHEET FP-300.
- P44 DOMESTIC WATER HEATER. REFER TO DOMESTIC HOT WATER HEATER PIPING SCHEMATIC ON SHEET P-500.
- P45 SHOP AIR COMPRESSOR. REFER TO AIR COMPRESSOR SCHEMTIC ON SHEET P-500.
- P46 PIPING IN UNDERSLAB.
- P47 PROVIDE ELECTRICAL WALL MOUNTED TRAP PRIMER. PROVIDE MAKE-UP WATER SUPPLIES TO TRAP PRIMER CONNECTION OF ALL FLOOR DRAINS IN MECHANICAL ROOM 028.
- P53 PROVIDE 1-1/2" COLD WATER LINE TO AIR SEPERATOR. REFER TO DUAL TEMPERATURE SYSTEM HYDRONIC PIPING SCHEMATIC ON SHEET M-700 FOR CONTINUATION AND CONNECTION.
- P79 SEWAGE EJECTOR PUMP STATION. REFER TO SHEET P-501 FOR DETAIL.



1 LOWER LEVEL - PLUMBING - WEST
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

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Sheet Title:
Lower Level - Plumbing - West

Project Number	XCOD19
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Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

P-200A

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MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.

2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.

3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

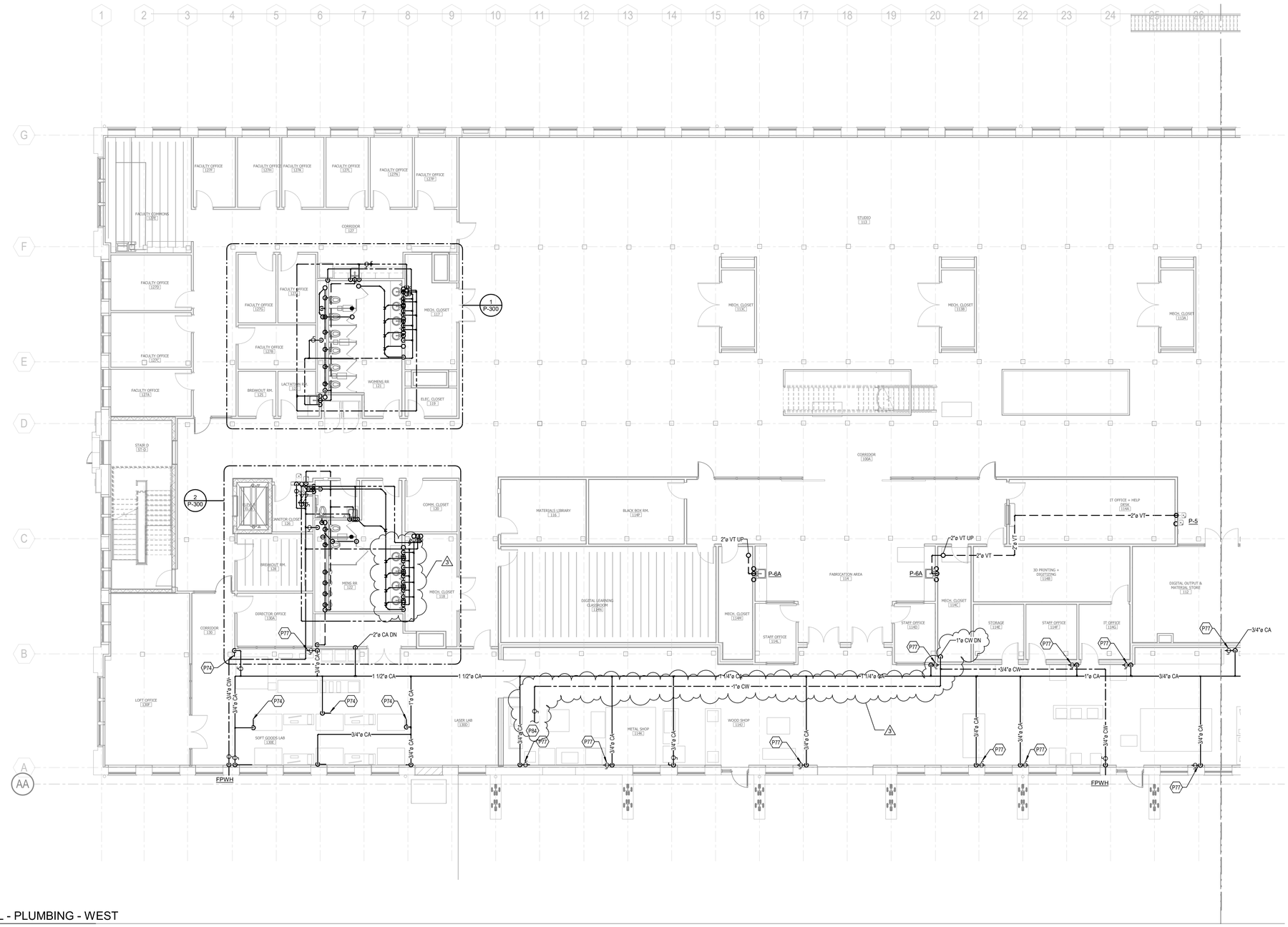
4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

TAGGED NOTES

P74 OVERHEAD 3/4" COMPRESSED AIR DROP. PROVIDE IN VERTICAL PORTION OF PIPING A SHUT-OFF VALVE AND 6" CAPPED DRIP LEG. PROVIDE IN HORIZONTAL PIPING A 3/4" BALCRANK, MODEL NO. 3260-057 COMPRESSED AIR FILTER, REGULATOR, LUBRICATOR UNIT. CONNECT TO EQUIPMENT PER MANUFACTURER REQUIREMENTS. ALL AIR DROPS SHALL BE FIELD COORDINATED WITH THE OWNER BEFORE INSTALLED.

P77 OVERHEAD 3/4" COMPRESSED AIR DROP. PROVIDE IN VERTICAL PORTION OF PIPING A SHUT-OFF VALVE AND 6" CAPPED DRIP LEG. PROVIDE IN HORIZONTAL PIPING A 3/4" BALCRANK, MODEL NO. 3260-057 COMPRESSED AIR FILTER, REGULATOR, LUBRICATOR UNIT. PROVIDE A PARKER - 20 SERIES, PNEUMATIC QUICK COUPLING. ALL AIR DROPS SHALL BE FIELD COORDINATED WITH THE OWNER BEFORE INSTALLED.

P84 CONNECT TO SPARK EXTINGUISHER SYSTEM INSTALLED ON DUST COLLECTION DUCKWORK. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTIONS AND VALVES.



1 MIDDLE LEVEL - PLUMBING - WEST
SCALE: 1/8" = 1'-0"
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NORTH

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KEY PLAN

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

Design Architect:
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Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
200 Lexington Green Cir., Suite 600
Lexington, KY 40503
859.253.0892

Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
CARMAN
310 Old Vine St., #200
Lexington, KY 40507
859.254.9803

Acoustics Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
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Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Middle Level - Plumbing - West

Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

P-201A

6/1/2022 3:07:16 PM

TAGGED NOTES

P49 2" VENT UP TO 3" VTR.

MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.

2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.

3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

1 UPPER LEVEL - PLUMBING - WEST
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

N
NORTH
PROJECT NORTH

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

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N

KEY PLAN

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04/24/20	100% SCHEMATIC DESIGN
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Lighting Consultant:
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415.323.5540

Sheet Title:

Upper Level - Plumbing - West

Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

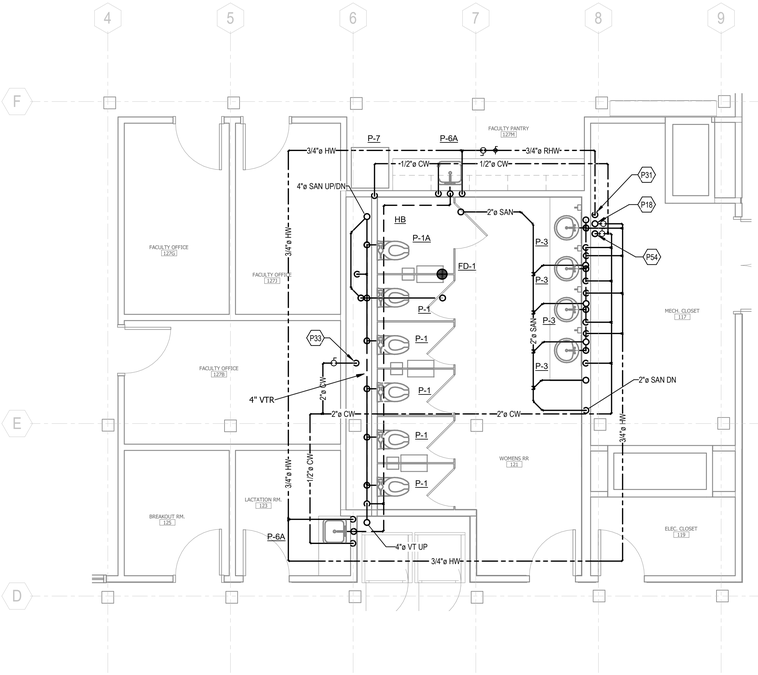
04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

P-202A

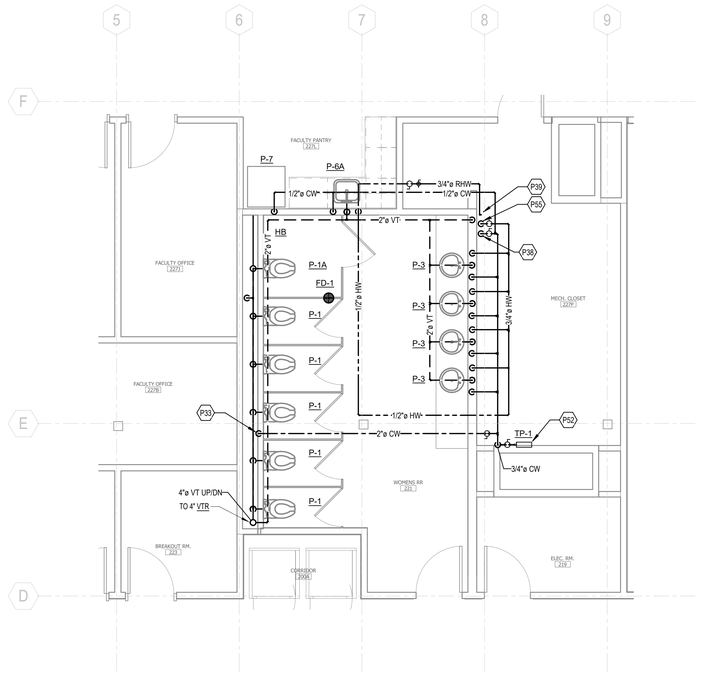
6/1/2022 3:07:25 PM

TAGGED NOTES

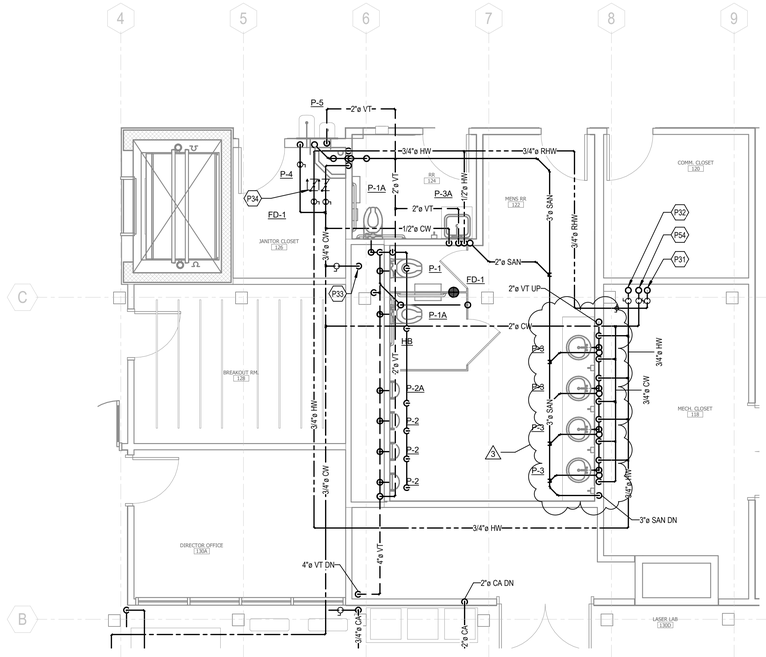
P18 2" COLDWATER PIPE UP AND DOWN.
P31 3/4" RHW UP AND DOWN.
P32 1" HOT WATER UP AND DOWN.
P33 2" COLD WATER LINE DOWN IN CHASE. CONNECT TO PLUMBING FIXTURES PER FIXTURE SCHEDULE.
P34 PROVIDE CHECK VALVES ON DOMESTIC WATER LINES SERVING MOP BASINS.
P38 2" COLD WATER DOWN.
P39 3/4" RHW DOWN.
P52 PROVIDE ELECTRICAL WALL MOUNTED TRAP PRIMER. PROVIDE MAKE-UP WATER SUPPLIES TO TRAP PRIMER CONNECTIONS OF ALL FLOOR DRAINS IN UPPER AND MIDDLE RESTROOM FLOOR DRAINS.
P54 2" COLD WATER UP AND 2-1/2" COLD WATER DOWN.
P55 1" HOT WATER DOWN.



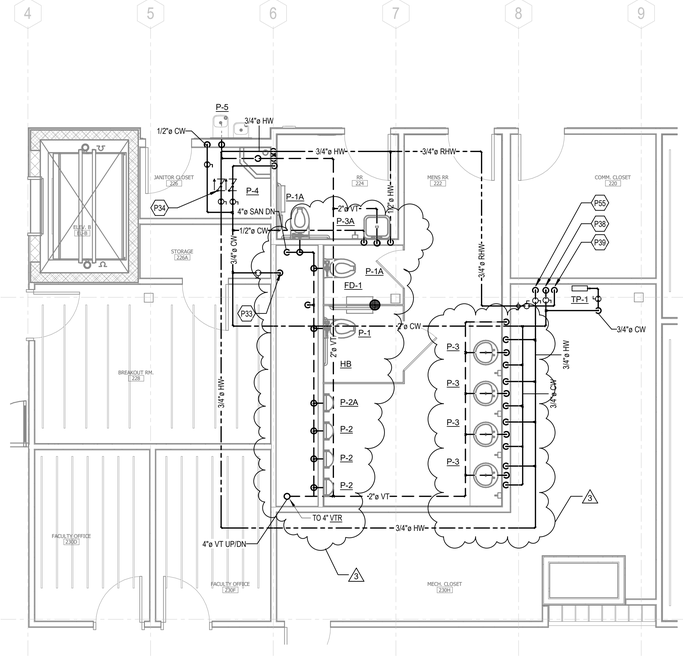
1 / 1 P-201A
ENLARGED WOMENS RR 121 - PLUMBING PLAN
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



4 / 1 P-202A
ENLARGED WOMENS RR 221 - PLUMBING PLAN
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



2 / 1 P-201A
ENLARGED MENS RR 122 - PLUMBING PLAN
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



5 / 1 P-202A
ENLARGED MENS RR 222 - PLUMBING PLAN
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'

University of Kentucky
Reynolds Building #2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

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Lighting Consultant:
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San Fransisco, CA 94103
415.323.5540

Sheet Title:
Enlarged Plumbing Plans

Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2
-
-
-

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

P-300

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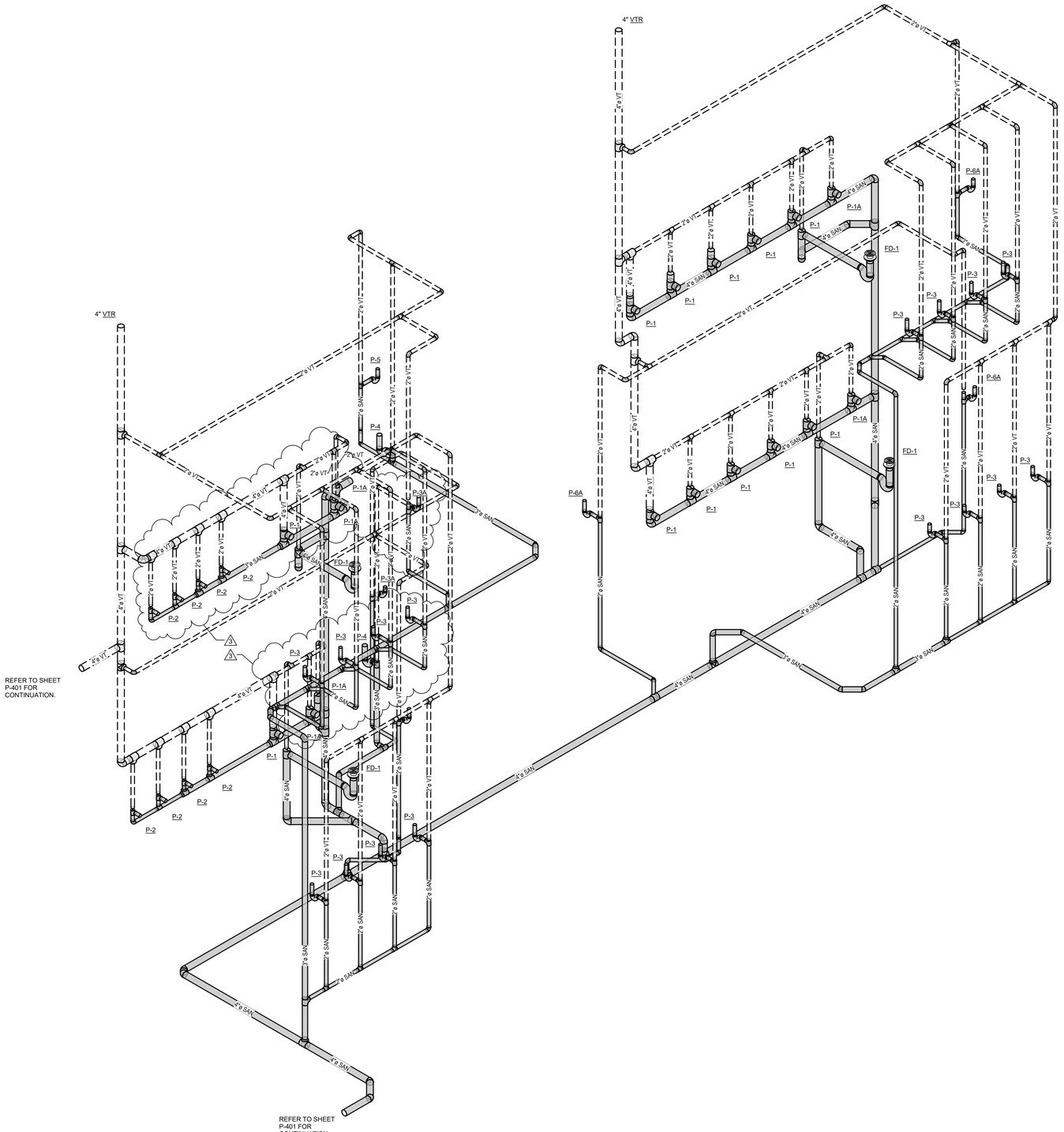

1 SANITARY WASTE AND VENT RISER - 1
SCALE: NONE

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349 Scott Street
Lexington, KY 40508

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Lighting Consultant:
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Sheet Title:
Plumbing Risers

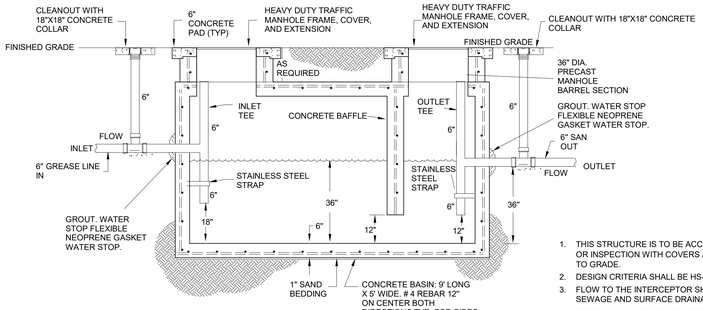
Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

P-400

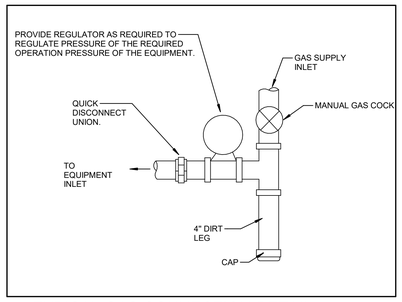
6/1/2022 3:08:01 PM

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

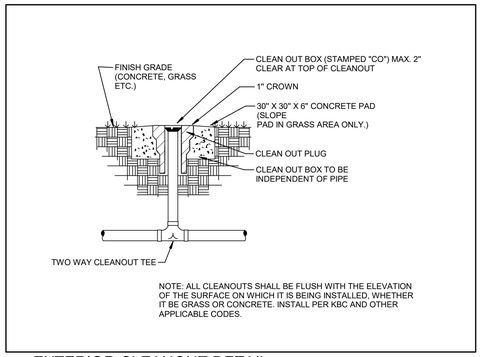


1. THIS STRUCTURE IS TO BE ACCESSIBLE FOR MAINTENANCE OR INSPECTION WITH COVERS AND CLEANOUTS BROUGHT TO GRADE.
2. DESIGN CRITERIA SHALL BE HS-20 LOADING.
3. FLOW TO THE INTERCEPTOR SHALL EXCLUDE SANITARY SEWAGE AND SURFACE DRAINAGE.
4. DESIGN AND CAPACITY OF GREASE INTERCEPTOR TO BE CERTIFIED BY ENGINEER IN ACCORD WITH KENTUCKY STATE PLUMBING CODE AND REVIEWED FOR CAPACITY BY THE DIVISION OF ENGINEERING PRIOR TO CONSTRUCTION.
5. MULTIPLE COMPARTMENT INTERCEPTORS ARE REQUIRED.
6. PIPE CLEANOUT TEE SHALL BE THE SAME SIZE AS THE PIPE AND B WITHIN 6" OF THE GREASE INTERCEPTOR ON THE OUTLET LINE.
7. MANUFACTURE WILL PROVIDE GREASE TRAP WITH TWO ACCESS POINTS AS SHOWN. PLUMBING CONTRACTOR TO INSTALL FIXTURES AS SHOWN.
8. THE MINIMUM CAPACITY OF INTERCEPTORS IS 1000 GALLONS.

2 1000 GALLON GREASE TRAP DETAIL
SCALE: NONE

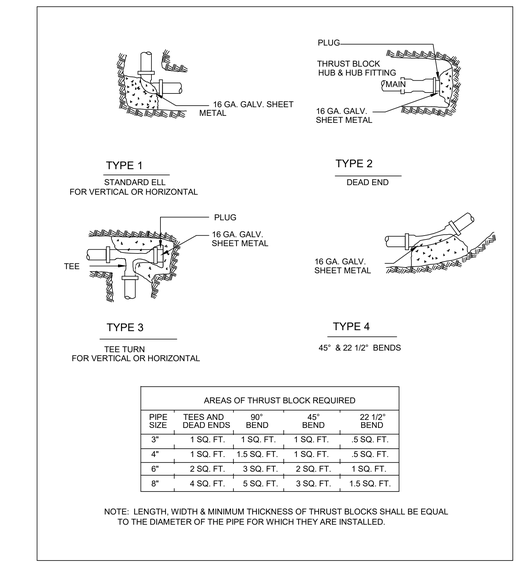


3 TYPICAL GAS CONNECTION DETAIL
SCALE: NONE



NOTE: ALL CLEANOUTS SHALL BE FLUSH WITH THE ELEVATION OF THE SURFACE ON WHICH IT IS BEING INSTALLED, WHETHER IT BE GRASS OR CONCRETE. INSTALL PER KBC AND OTHER APPLICABLE CODES.

4 EXTERIOR CLEANOUT DETAIL
SCALE: NONE

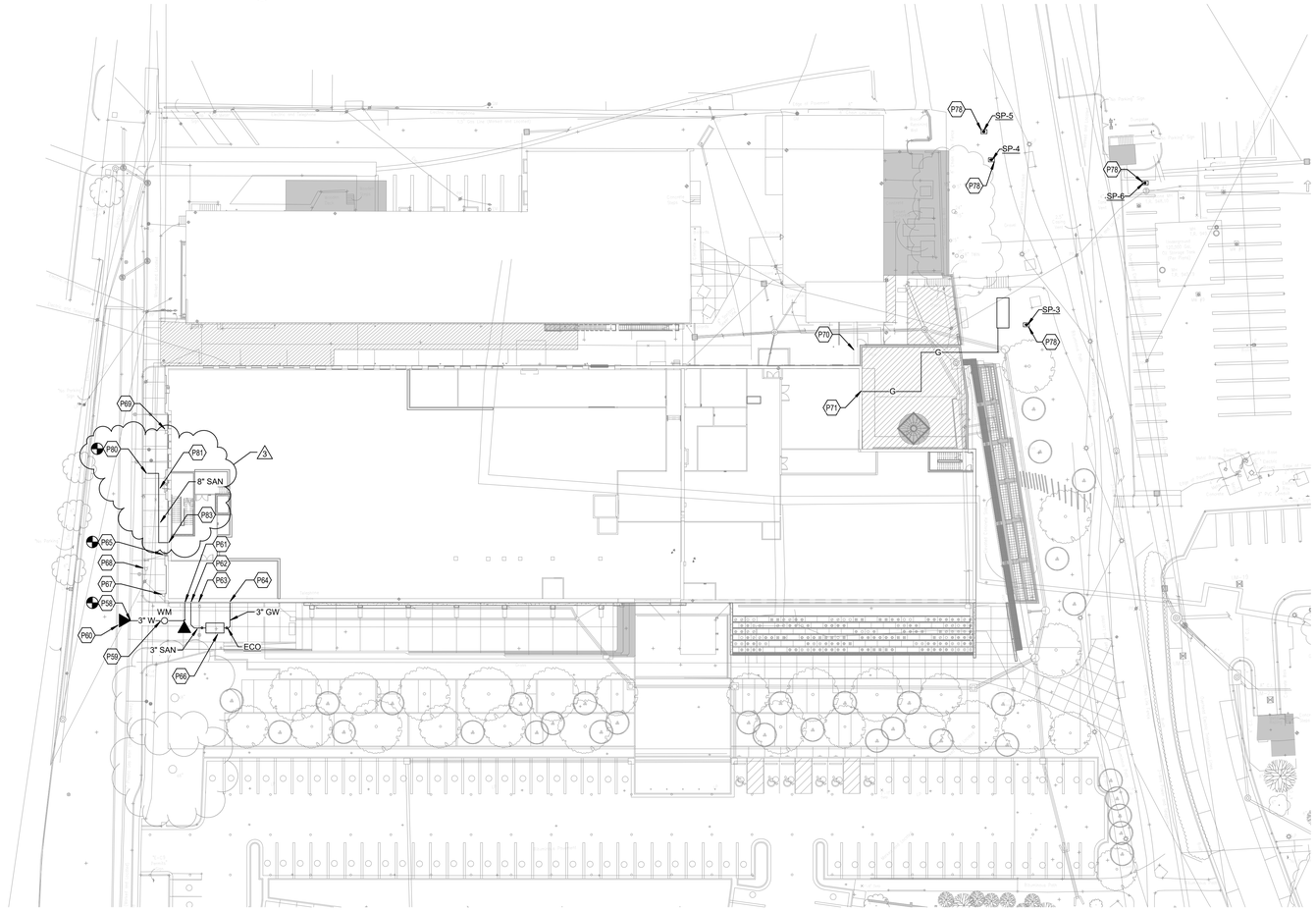


AREAS OF THRUST BLOCK REQUIRED

PIPE SIZE	TEES AND DEAD ENDS	90° BEND	45° BEND	22 1/2° BEND
3"	1 SQ. FT.	1 SQ. FT.	1 SQ. FT.	.5 SQ. FT.
4"	1 SQ. FT.	1.5 SQ. FT.	1 SQ. FT.	.5 SQ. FT.
6"	2 SQ. FT.	3 SQ. FT.	2 SQ. FT.	1 SQ. FT.
8"	4 SQ. FT.	5 SQ. FT.	3 SQ. FT.	1.5 SQ. FT.

NOTE: LENGTH, WIDTH & MINIMUM THICKNESS OF THRUST BLOCKS SHALL BE EQUAL TO THE DIAMETER OF THE PIPE FOR WHICH THEY ARE INSTALLED.

5 THRUST BLOCK DETAILS FOR DOMESTIC WATER
SCALE: NONE



1 PLUMBING SITE PLAN
SCALE: 1" = 30'-0"

0 15' 30' 60' 90' 120'

NORTH PROJECT NORTH

TAGGED NOTES

- P58 CONNECT NEW WATER LINE TO EXISTING WATER MAIN.
- P59 PROVIDE WATER METER IN METER BOX. COORDINATE WITH LOCAL WATER COMPANY FOR METER SIZE.
- P60 PROVIDE THRUST BLOCK. REFER TO DETAIL ON THIS SHEET. TYPICAL.
- P61 DOMESTIC WATER SERVICE INTO BUILDING. REFER TO SHEET P-200A FOR CONTINUATION.
- P62 SANITARY LINE FROM GREASE TRAP. REFER TO SHEET P-200A FOR CONTINUATION.
- P63 EXISTING FIRE PROTECTION ENTRANCE AND PEDESTAL PIV. REPLACE PIV BUT PIPING TO REMAIN.
- P64 GREASE WASTE EXITING TO GREASE TRAP. REFER TO SHEET P-200A FOR CONTINUATION.
- P65 EXISTING GAS METER TO BE REPLACED. GAS COMPANY WILL PROVIDE NEW GAS METER. GAS METER SHALL BE SET TO DELIEVER 2,220,000 BTU AT 2 PSI. PROVIDE NEW PIPING FROM METER TO RUN INSIDE BUILDING. REFER TO SHEET P-200A FOR CONTINUATION.
- P66 1000 GALLON GREASE TRAP. REFER TO DETAIL THIS SHEET.
- P67 EXISTING FIRE DEPARTMENT CONNECTION TO REMAIN.
- P68 EXISTING FIRE HYDRANT TO REMAIN.
- P69 EXISTING FIRE DEPARTMENT CONNECTION TO BE DEMOLISHED. REFER TO ARCHITECTURAL PLANS FOR PATCHING MASONRY WALLS.
- P70 EXISTING HOT AND COLD PIPES OVERHEAD CROSSING BETWEEN REYNOLDS BUILDING AND METAL BUILDINGS TO REMAIN.
- P71 GAS EXISTING BUILDING AND RUNNING UNDERGROUND TO GENERATOR. REFER TO SHEET P-200B FOR CONTINUATION.
- P78 PROVIDE SUMP PUMP IN ELECTRICAL MANHOLE. RUN DISCHARGE PIPING FROM PUMP TO GRADE. REFER TO DETAIL ON SHEET P-501.
- P80 CONNECT NEW SANITARY LINE TO EXISTING SANITARY MANHOLE.
- P81 ROUTE 8" SANITARY TO CONNECT TO EXISTING SANITARY MANHOLE. COORDINATE NEW SANITARY LINE WITH EXISTING UTILITIES. FIELD VERIFY EXACT LOCATION OF ALL UTILITIES.
- P83 SANITARY PIPE EXITING BUILDING. REFER TO SHEET P-200A FOR CONTINUATION.

University of Kentucky
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#2511.2
349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

KEY PLAN

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Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Plumbing Site Plan

Project Number	XCOD19
Drawn By	JAC/CMC
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

UP-100

6/1/2022 3:08:03 PM

3

GENERAL NOTES:

1. REFER TO CEILING SECTION FOR ROUTING OF ALL UTILITIES, SHEET A-413.
2. ALL SUPPLY DUCTWORK, UNLESS OTHERWISE NOTED, SHALL BE DOUBLE WALL SPIRAL DUCTWORK WITH A PAINT GRIP FINISH. ALL RETURN, EXHAUST AND OUTSIDE ARE DUCTWORK SHALL BE SINGLE WALL SPIRAL CONSTRUCTION WITH A PAINT GRIP FINISH.

MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.

2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.

3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
E-1	6" DIA.
E-2	8" DIA.
E-4	14"x14"
E-5	16"x14"
E-6	18"x18"
E-7	20"x20"
E-8	8"X8"
L-1	-
R-1	6" DIA.
R-2	8" DIA.
R-3	10" DIA.
RG-1	6"X6"
RG-2	8"X8"
RG-3	12"X10"
RG-4	24"x14"
RG-5	36"X14"
RG-6	24"x10"
RG-7	24"X24"
RG-8	18"X10"
RG-9	36"X18"
RG-10	16"X16"

R,G,D RUNOUT SCHEDULE

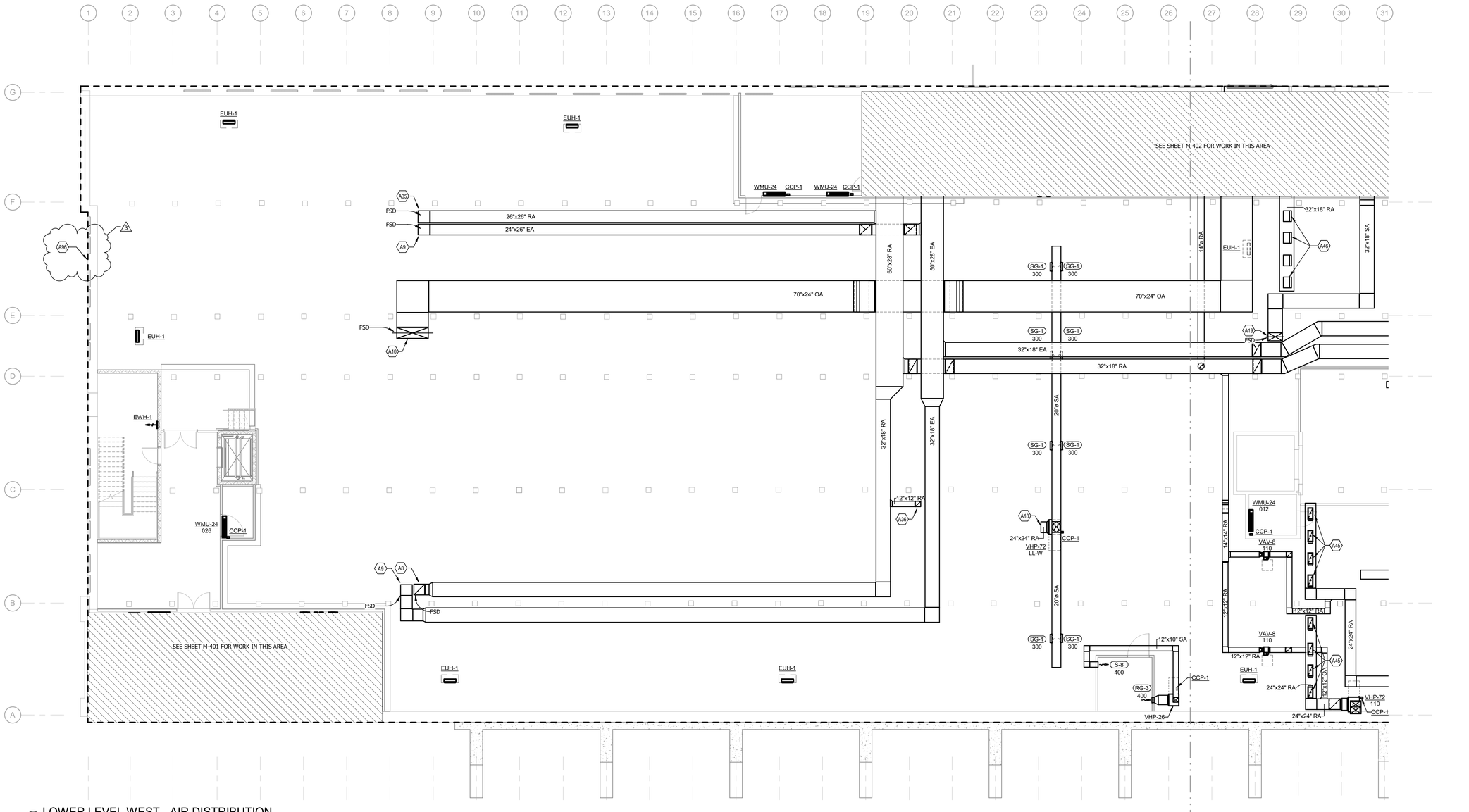
MARK	BRANCH DUCT SIZE
RG-11	22"X10"
RS-1	60"X3"
S-1	6" DIA.
S-2	8" DIA.
S-3	10" DIA.
S-5	48"X42"
S-6	6"X6"
S-7	12"X8"
S-8	12"X10"
S-9	18"X12"
S-S	30"X12"
SD-1	48"X3"
SD-2	8"X4"
SD-3	60"X3"
SG-1	-
SG-2	-
SG-3	-
T-1	24"X12"
T-2	14"x14"
T-3	16"x14"
T-4	18"x18"
T-5	20"x20"

TAGGED NOTES

##

- A8 24X24 OA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A9 26X24 EA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A10 70X24 OA FROM ROOF TO LOWER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A18 PROVIDE OPEN-ENDED DUCT WITH FILTER RACK.
- A19 18x32 SA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A35 26X26 OA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A36 12X12 OA FROM LOWER LEVEL TO MIDDLE LEVEL.
- A45 10X24 RETURN DUCT UP TO GRILLE IN FLOOR ABOVE. SEE SHEET M-201B FOR CONTINUATION.
- A46 14X24 RETURN DUCT UP TO GRILLE IN FLOOR ABOVE. SEE SHEET M-201B FOR CONTINUATION.
- A96 ALL DUCTWORK IN THE OUTLINED AREA SHALL BE SINGLE-WALL DUCTWORK. SUPPLY DUCTWORK SHALL USE EXTERNALLY INSULATED WRAP.

3



1 LOWER LEVEL WEST - AIR DISTRIBUTION

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

0 2' 4' 8' 16' 24' 32'

N NORTH

N PROJECT NORTH

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08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

Design Architect:
STUDIO GANG
1520 W. Division St
Chicago, IL 60642
773.384.1212

Engineer:
CMTA, Inc.
200 Lexington Green Cir., Suite 600
Lexington, KY 40503
859.253.0892

Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
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Civil Engineer/Landscape Architect:
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Acoustics Consultant:
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1841 Ft. Henry Drive
Fort Wright, KY 41011
859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:

Lower Level West - Air Distribution Plan

Project Number	XCOD19
Drawn By	KS
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

M-200A

6/1/2022 4:48:53 PM

GENERAL NOTES:

1. REFER TO CEILING SECTION FOR ROUTING OF ALL UTILITIES, SHEET A-413.
2. ALL SUPPLY DUCTWORK, UNLESS OTHERWISE NOTED, SHALL BE DOUBLE WALL SPIRAL DUCTWORK WITH A PAINT GRIP FINISH. ALL RETURN, EXHAUST AND OUTSIDE ARE DUCTWORK SHALL BE SINGLE WALL SPIRAL CONSTRUCTION WITH A PAINT GRIP FINISH.

MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.

2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.

3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
E-1	6" DIA.
E-2	8" DIA.
E-4	14"x14"
E-5	16"x14"
E-6	18"x18"
E-7	20"x20"
E-8	8"X8"
L-1	-
R-1	6" DIA.
R-2	8" DIA.
R-3	10" DIA.
RG-1	6"x6"
RG-2	8"X8"
RG-3	12"X10"
RG-4	24"x14"
RG-5	36"X14"
RG-6	24"x10"
RG-7	24"X24"
RG-8	18"X10"
RG-9	36"X18"
RG-10	16"X16"

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
RG-11	22"X10"
RS-1	60"X3"
S-1	6" DIA.
S-2	8" DIA.
S-3	10" DIA.
S-5	48"X42"
S-6	6"X6"
S-7	12"X8"
S-8	12"X10"
S-9	18"X12"
S-S	30"X12"
SD-1	48"X3"
SD-2	8"X4"
SD-3	60"X3"
SG-1	-
SG-2	-
SG-3	-
T-1	24"X12"
T-2	14"x14"
T-3	16"x14"
T-4	18"x18"
T-5	20"x20"

TAGGED NOTES

##

A11 8X8 EA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT FLOOR PENETRATION.

A18 PROVIDE OPEN-ENDED DUCT WITH FILTER RACK.

A19 18x32 SA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.

A21 10X18 SA FROM LOWER LEVEL TO MIDDLE LEVEL.

A22 10X18 RA FROM LOWER LEVEL TO MIDDLE LEVEL.

A23 32X16 SA FROM LOWER LEVEL TO MIDDLE LEVEL.

A37 48X14 EA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT FLOOR PENETRATION.

A38 38X14 OA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL PENETRATION.

A39 16X12 OA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.

A45 10X24 RETURN DUCT UP TO GRILLE IN FLOOR ABOVE. SEE SHEET M-201B FOR CONTINUATION.

A46 14X24 RETURN DUCT UP TO GRILLE IN FLOOR ABOVE. SEE SHEET M-201B FOR CONTINUATION.

A52 8X8 EA FROM LOWER LEVEL TO UPPER LEVEL.

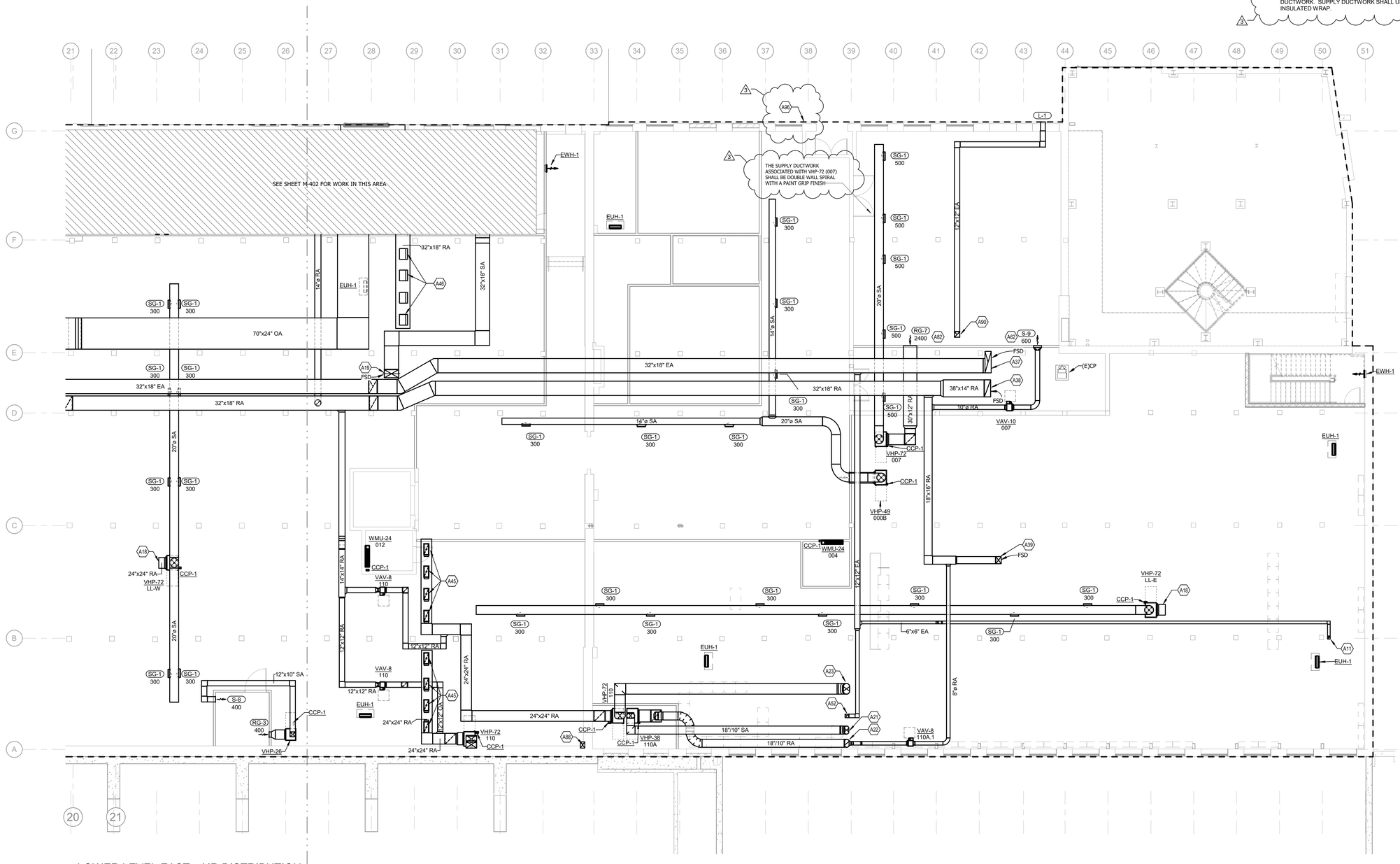
A62 MOUNT GRILLE 12'0" FROM FLOOR TO THE CENTER OF THE GRILLE.

A82 MOUNT GRILLE 10'6" FROM FLOOR TO THE CENTER OF THE GRILLE.

A88 10X14 IN. SA DUCT FROM LOWER LEVEL TO MIDDLE LEVEL.

A90 CONNECT 12"X12" EXHAUST DUCT TO EXISTING HOOD (TO BE RELOCATED)

A96 ALL DUCTWORK IN THE OUTLINED AREA SHALL BE SINGLE-WALL DUCTWORK. SUPPLY DUCTWORK SHALL USE EXTERNALLY INSULATED WRAP.



1 LOWER LEVEL EAST - AIR DISTRIBUTION
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KEY PLAN

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R,G,D RUNOUT SCHEDULE

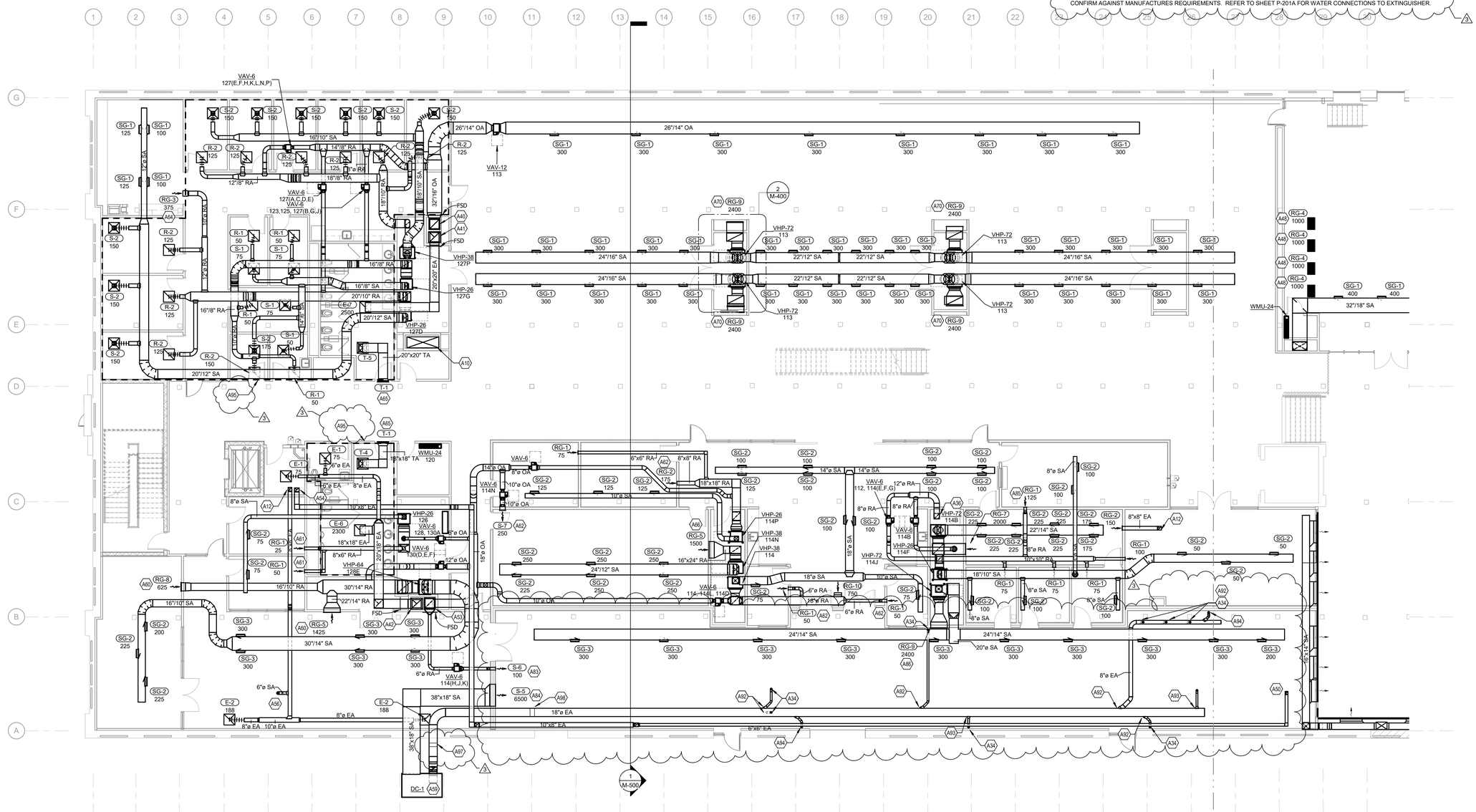
MARK	BRANCH DUCT SIZE
E-1	6" DIA.
E-2	8" DIA.
E-4	14"x14"
E-5	16"x14"
E-6	18"x18"
E-7	20"x20"
E-8	8"X8"
L-1	
R-1	6" DIA.
R-2	8" DIA.
R-3	10" DIA.
RG-1	6"x6"
RG-2	8"X8"
RG-3	12"X10"
RG-4	24"x14"
RG-5	36"X14"
RG-6	24"x10"
RG-7	24"X24"
RG-8	18"X10"
RG-9	36"X18"
RG-10	16"X16"

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
RG-11	22"X10"
RS-1	60"X3"
S-1	6" DIA.
S-2	8" DIA.
S-3	10" DIA.
S-5	48"X42"
S-6	6"X6"
S-7	12"X8"
S-8	12"X10"
S-9	18"X12"
S-S	30"X12"
SD-1	48"X3"
SD-2	8"X4"
SD-3	60"X3"
SG-1	-
SG-2	-
SG-3	-
T-1	24"X12"
T-2	14"x14"
T-3	16"x14"
T-4	18"x18"
T-5	20"x20"

TAGGED NOTES

A10 70X24 OA FROM ROOF TO LOWER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
A12 8X8 EA DUCT UP TO UPPER LEVEL. SEE SHEET M-202A FOR CONTINUATION.
A34 4" DIAMETER EXHAUST DROP TO FUTURE SHOP EQUIPMENT. TERMINATE DUCTWORK 6'0" ABOVE THE FINISHED FLOOR. PROVIDE 4' LONG FLEX THERMOPLASTIC FABRIC WITH REINFORCED SPRING STEEL WIRE DESIGNED FOR LIGHT/MEDIUM WEIGHT MATERIAL TRANSFER. WALL THICKNESS BETWEEN STEEL SPIRALS SHALL BE 0.03" AND CAPABLE OF TEMPERATURES RANGING FROM -60F TO 275F.. FINAL SHOP EQUIPMENT CONNECTION TO BE MADE BY OTHERS.
A36 12X12 OA FROM LOWER LEVEL TO MIDDLE LEVEL.
A40 20X20 OA DUCT UP FROM LOWER LEVEL. ROUTE 20X20 OA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
A41 24X26 EA DUCT UP FROM LOWER LEVEL. ROUTE 20X20 EA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
A42 26X24 EA DUCT UP FROM LOWER LEVEL. ROUTE 20X18 EA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
A48 RETURN GRILLE MOUNTED IN FLOOR BELOW BENCH/STAGE.
A50 6X6 EA DROP TO ROBOT.
A53 24X24 OA DUCT UP FROM LOWER LEVEL TO MIDDLE LEVEL. ROUTE 20X20 OA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
A54 10X8 EA DUCT UP TO FAN ON ROOF. SEE SHEET M-202A FOR CONTINUATION.
A56 8" DIAMETER EA DUCT DOWN TO LASER.
A59 NEW DUST COLLECTION SYSTEM, TO BE INSTALLED ON LOADING DOCK/OUTDOOR FABRICATION AREA. REFER TO DETAIL 9/M601 AND SCHEDULE REMARKS FOR INSTALLATION REQUIREMENTS. ROUTE SUPPLY AND EXHAUST DUCTS THROUGH PREVIOUS WINDOW OPENING. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR WALL PENETRATION REQUIREMENTS.
A60 MOUNT GRILLE 11'8" FROM FLOOR TO THE CENTER OF THE GRILLE.
A61 MOUNT GRILLE 11'11" FROM FLOOR TO THE CENTER OF THE GRILLE.
A62 MOUNT GRILLE 12'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
A64 MOUNT GRILLE 12'8" FROM FLOOR TO THE CENTER OF THE GRILLE.
A65 MOUNT GRILLE 12'5" FROM FLOOR TO THE CENTER OF THE GRILLE.
A66 MOUNT GRILLE 12'3" FROM FLOOR TO THE CENTER OF THE GRILLE.
A70 MOUNT GRILLE 5'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
A83 MOUNT GRILLE 11'2" FROM FLOOR TO THE CENTER OF THE GRILLE.
A84 MOUNT GRILLE 10'9" FROM FLOOR TO THE CENTER OF THE GRILLE.
A85 MOUNT GRILLE 13'6" FROM FLOOR TO THE CENTER OF THE GRILLE.
A86 MOUNT GRILLE 20'-" FROM FLOOR TO THE CENTER OF THE GRILLE.
A92 PROVIDE TAP AT A 45DEG ANGLE OFF THE MAIN DUCT. INSTALL BLAST GATE FOR BALANCING AT THE TAKE OFF. BLAST GATES SHALL BE MADE OF 3/16" THICK CAST ALUMINUM WITH 18 GA. GALVANIZED STEEL BLADE.
A93 DO NOT INSTALL BLAST GATES IN THIS LOCATION.
A94 PROVIDE FLOOR SWEEP, COORDINATE WITH FINAL SHOP EQUIPMENT LOCATION. FLOOR SWEEPS SHALL BE 20 GA. GALVANIZED STEEL CONSTRUCTION WITH AN DEBRIS INLET SCREEN. PROVIDE A BLAST GAGE AT HAND HEIGHT TO OPEN/CLOSE THE AIRFLOW TO THE FLOOR SWEEP.
A95 ALL DUCTWORK IN THE OUTLINED AREA IS ABOVE A CEILING AND SHALL BE SINGLE-WALL DUCTWORK. SUPPLY DUCTWORK SHALL USE EXTERNALLY INSULATED WRAP.
A97 PROVIDE NO RETURN VALVE IN DUST COLLECTION DUCTWORK IN THIS LOCATION ON THE EXTERIOR OF THE BUILDING.
A98 SPARK EXTINGUISHER SYSTEM TO BE INSTALLED IN DUST COLLECTION DUCTWORK PER MANUFACTURERS SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE FIRE PROTECTION CONTRACTOR FOR ALL NECESSARY CONNECTIONS AND REQUIRED VALVES. 17'-25' BETWEEN ELBOW AND SPARK DETECTION SYSTEM REQUIRED PER MANUFACTURES SPECIFICATIONS. 30' FROM SPARK DETECTION SYSTEM TO THE FIRST TAP REQUIRED. CONTRACTOR SHALL COORDINATE AND CONFIRM AGAINST MANUFACTURES REQUIREMENTS. REFER TO SHEET P-201A FOR WATER CONNECTIONS TO EXTINGUISHER.



1 MIDDLE LEVEL WEST - AIR DISTRIBUTION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

NORTH PROJECT NORTH

University of Kentucky
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KEITH EUGA 28967 LICENSED PROFESSIONAL ENGINEER

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KEY PLAN

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A21 10X18 SA FROM LOWER LEVEL TO MIDDLE LEVEL.
A22 10X18 RA FROM LOWER LEVEL TO MIDDLE LEVEL.
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A55 24X16 SA DUCT FROM LOWER LEVEL TO MIDDLE LEVEL.
A58 PROVIDE BLANK SLOT DIFFUSER TO MATCH ADJACENT TO ACHIEVE CONTINUOUS SLOT APPEARANCE.
A62 MOUNT GRILLE 12'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
A68 MOUNT GRILLE 11'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
A73 MOUNT GRILLE 12'4" FROM FLOOR TO THE CENTER OF THE GRILLE.
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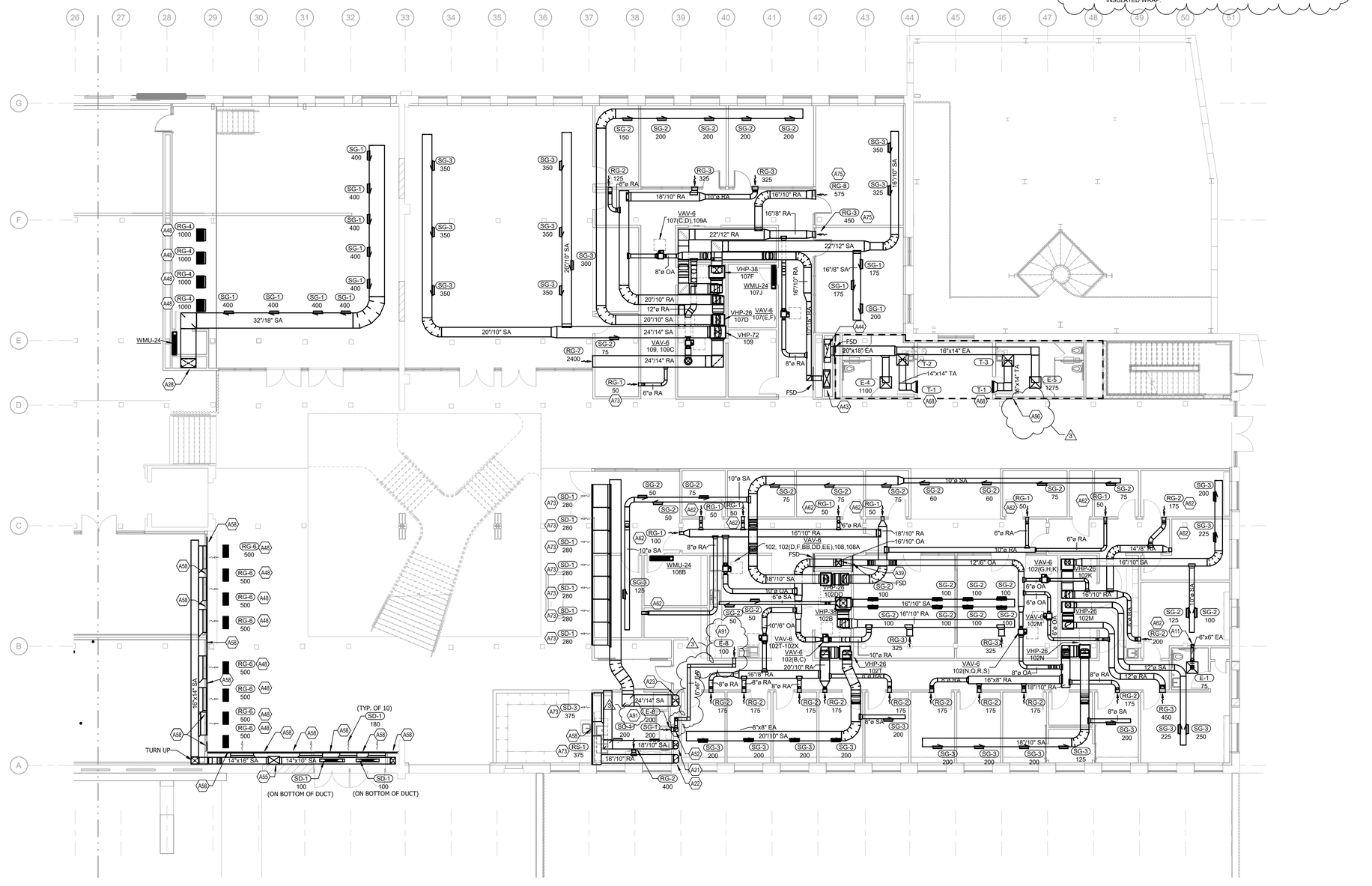

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MEP UTILITY SUPPORTS - GENERAL NOTES:

1. THE EXISTING FLOOR PLANKS ARE CAPABLE OF SUPPORTING 5.5 POUNDS/SQUARE FOOT FOR HANGING OF UTILITIES. WHERE THE WEIGHT OF MEP ITEMS EXCEEDS THIS VALUE, THESE UTILITES SHALL BE SUPPORTED FROM THE EXISTING TIMBER BEAMS OR FROM NEW SUPPORTS SPANNING THE EXISTING TIMBER BEAMS.
2. THE APPLIED LOADING TO THE EXISTING FLOOR PLANK FROM ANY INDIVIDUAL HANGER SHALL NOT EXCEED THE CAPACITY OF THE FLOOR DECK AT THAT LOCATION. ADD ADDITIONAL SUPPORTS WHERE NECESSARY.
3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.
4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
E-1	6" DIA.
E-2	8" DIA.
E-4	14"x14"
E-5	16"x14"
E-6	18"x18"
E-7	20"x20"
E-8	8"X8"
L-1	-
R-1	6" DIA.
R-2	8" DIA.
R-3	10" DIA.
RG-1	6"x6"
RG-2	8"X8"
RG-3	12"X10"
RG-4	24"x14"
RG-5	36"X14"
RG-6	24"x10"
RG-7	24"X24"
RG-8	18"X10"
RG-9	36"X18"
RG-10	16"X16"

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
RG-11	22"X10"
RS-1	60"X3"
S-1	6" DIA.
S-2	8" DIA.
S-3	10" DIA.
S-5	48"X42"
S-6	6"X6"
S-7	12"X8"
S-8	12"X10"
S-9	18"X12"
S-S	30"X12"
SD-1	48"X3"
SD-2	8"X4"
SD-3	60"X3"
SG-1	-
SG-2	-
SG-3	-
T-1	24"X12"
T-2	14"x14"
T-3	16"x14"
T-4	18"x18"
T-5	20"x20"

TAGGED NOTES

A10 70X24 OA FROM ROOF TO LOWER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.

A27 8X10 EA FROM UPPER LEVEL UP TO FAN ON ROOF. SEE SHEET M-203A FOR FAN LOCATION.

A40 26X26 OA DUCT UP FROM LOWER LEVEL. ROUTE 20X20 OA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.

A41 24X26 EA DUCT UP FROM LOWER LEVEL. ROUTE 20X20 EA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.

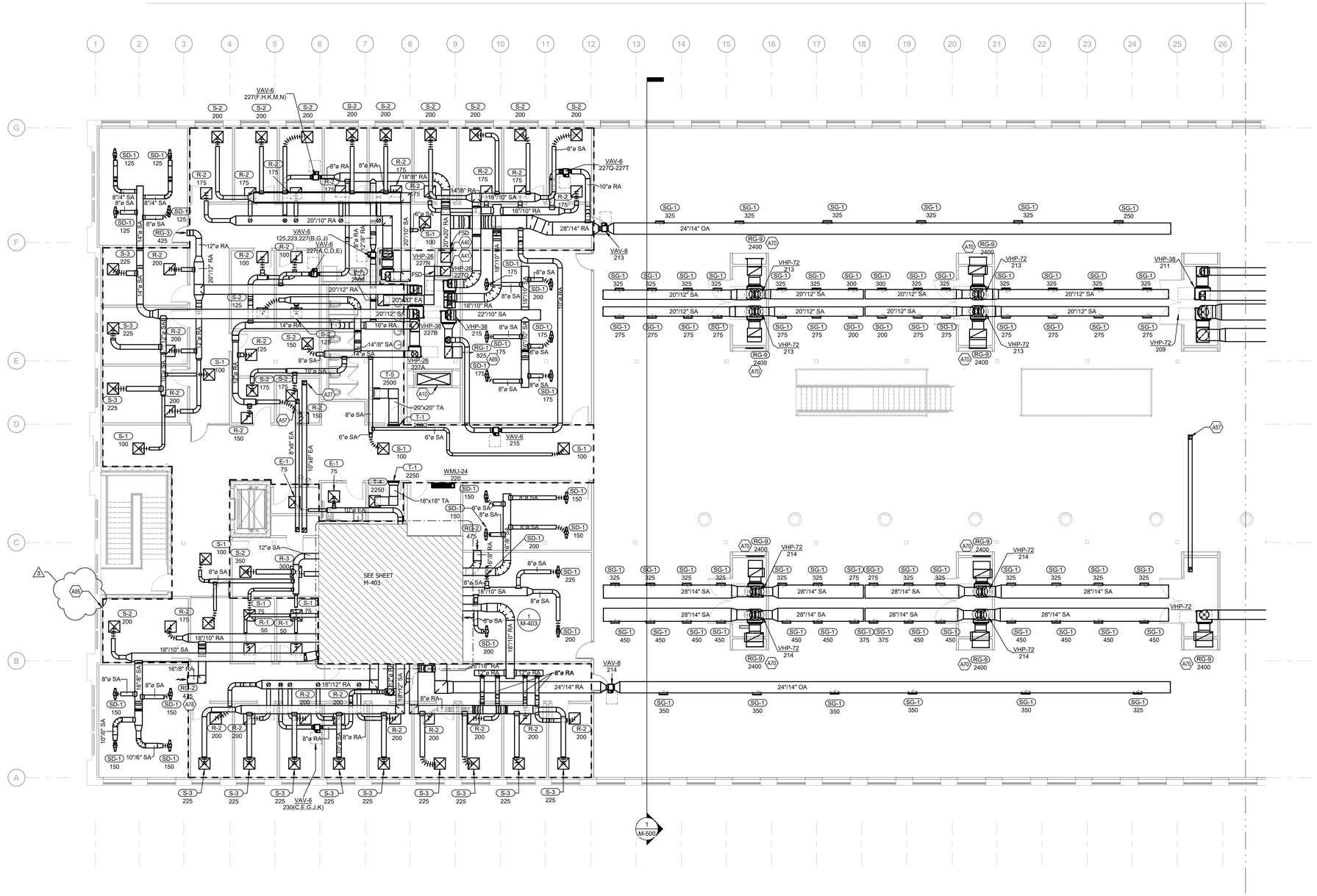
A57 8X8 EA FROM UPPER LEVEL UP TO FAN ON ROOF. SEE SHEET M203A FOR FAN LOCATION.

A69 MOUNT GRILLE 11'6" FROM FLOOR TO THE CENTER OF THE GRILLE.

A70 MOUNT GRILLE 9'0" FROM FLOOR TO THE CENTER OF THE GRILLE.

A78 MOUNT GRILLE 13'5" FROM FLOOR TO THE CENTER OF THE GRILLE.

A95 ALL DUCTWORK IN THE OUTLINED AREA IS ABOVE A CEILING AND SHALL BE SINGLE-WALL DUCTWORK. SUPPLY DUCTWORK SHALL USE EXTERNALLY INSULATED WRAP.



1 UPPER LEVEL WEST - AIR DISTRIBUTION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

N
NORTH
N
PROJECT NORTH

University of Kentucky
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349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

KEY PLAN

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
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08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
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Structural Engineer:
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859.543.0933

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Lighting Consultant:
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389 Clementina Street
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415.323.5540

Sheet Title:
Upper Level West - Air Distribution Plan

Project Number	XCOD19
Drawn By	KS
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

M-202A

6/1/2022 4:49:07 PM

GENERAL NOTES:

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3

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3. ANCHORS TO THE WOOD DECKING SHALL PENETRATE 2-1/2" INTO THE WOOD DECKING.

4. REFER TO THE STRUCTURAL DRAWINGS FOR REQUIRED FRAMING AROUND PENETRATIONS OF THE EXISTING FLOOR DECK.

R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
E-1	6" DIA.
E-2	8" DIA.
E-4	14"x14"
E-5	16"x14"
E-6	18"x18"
E-7	20"x20"
E-8	8"X8"
L-1	12"X8"
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R-2	8" DIA.
R-3	10" DIA.
RG-1	6"x6"
RG-2	8"X8"
RG-3	12"X10"
RG-4	24"x14"
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RG-6	24"x10"
RG-7	24"X24"
RG-8	18"X10"
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R,G,D RUNOUT SCHEDULE

MARK	BRANCH DUCT SIZE
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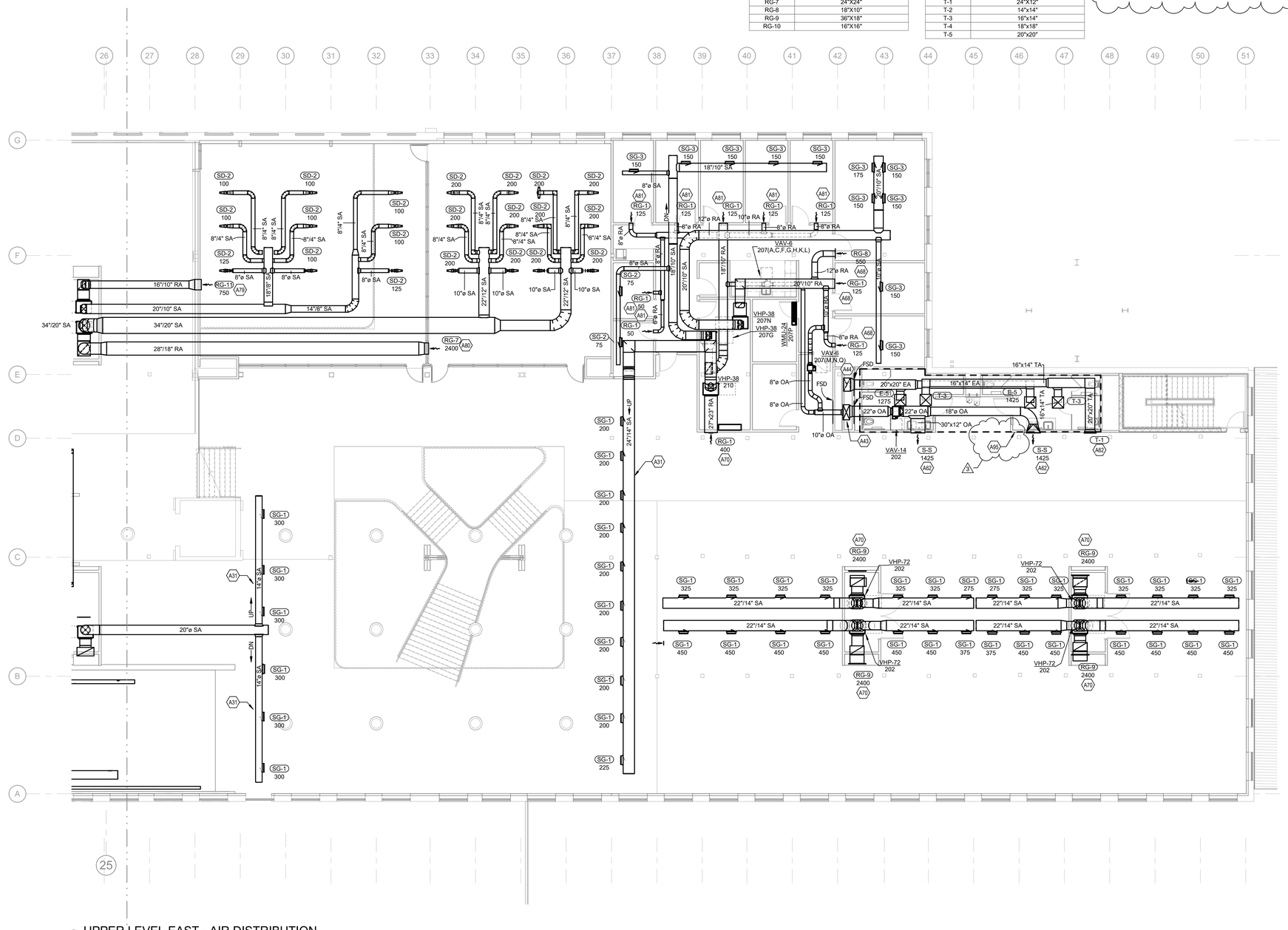
RS-1	60"X3"
S-1	6" DIA.
S-2	8" DIA.
S-3	10" DIA.
S-5	48"X42"
S-6	6"X6"
S-7	12"X8"
S-8	12"X10"
S-9	18"X12"
S-S	30"X12"
SD-1	48"X3"
SD-2	8"X4"
SD-3	60"X3"
SG-1	-
SG-2	-
SG-3	-
T-1	24"X12"
T-2	14"x14"
T-3	16"x14"
T-4	18"x18"
T-5	20"x20"

TAGGED NOTES

(#)

- A8 24X24 OA FROM LOWER LEVEL TO MIDDLE LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SECOND LEVEL FLOOR PENETRATION.
- A31 MATCH SLOPE OF DUCT WITH SLOPE OF THE ROOF.
- A43 38X14 OA FROM LOWER LEVEL TO MIDDLE LEVEL. ROUTE 32X14 OA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
- A44 48X14 EA FROM LOWER LEVEL TO MIDDLE LEVEL. ROUTE 24X14 EA DUCT UP TO UPPER LEVEL. PROVIDE FIRE/SMOKE DAMPER AT SHAFT PENETRATION.
- A62 MOUNT GRILLE 12'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
- A68 MOUNT GRILLE 11'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
- A70 MOUNT GRILLE 5'0" FROM FLOOR TO THE CENTER OF THE GRILLE.
- A79 MOUNT GRILLE 33'2" FROM STAGE FLOOR TO THE CENTER OF THE GRILLE.
- A80 MOUNT GRILLE 15'5" FROM FLOOR TO THE CENTER OF THE GRILLE.
- A81 MOUNT GRILLE 9'-0" FROM FLOOR TO THE CENTER OF THE GRILLE.
- A95 ALL DUCTWORK IN THE OUTLINED AREA IS ABOVE A CEILING AND SHALL BE SINGLE-WALL DUCTWORK. SUPPLY DUCTWORK SHALL USE EXTERNALLY INSULATED WRAP.

3



1 UPPER LEVEL EAST - AIR DISTRIBUTION

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

0 2' 4' 8' 16' 24' 32'

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K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY · KEITH · EUGA · 28967 · LICENSED PROFESSIONAL ENGINEER

N

KEY PLAN

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415.323.5540

Sheet Title:

Upper Level East - Air Distribution Plan

Project Number	XCOD19
Drawn By	KS
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

N NORTH

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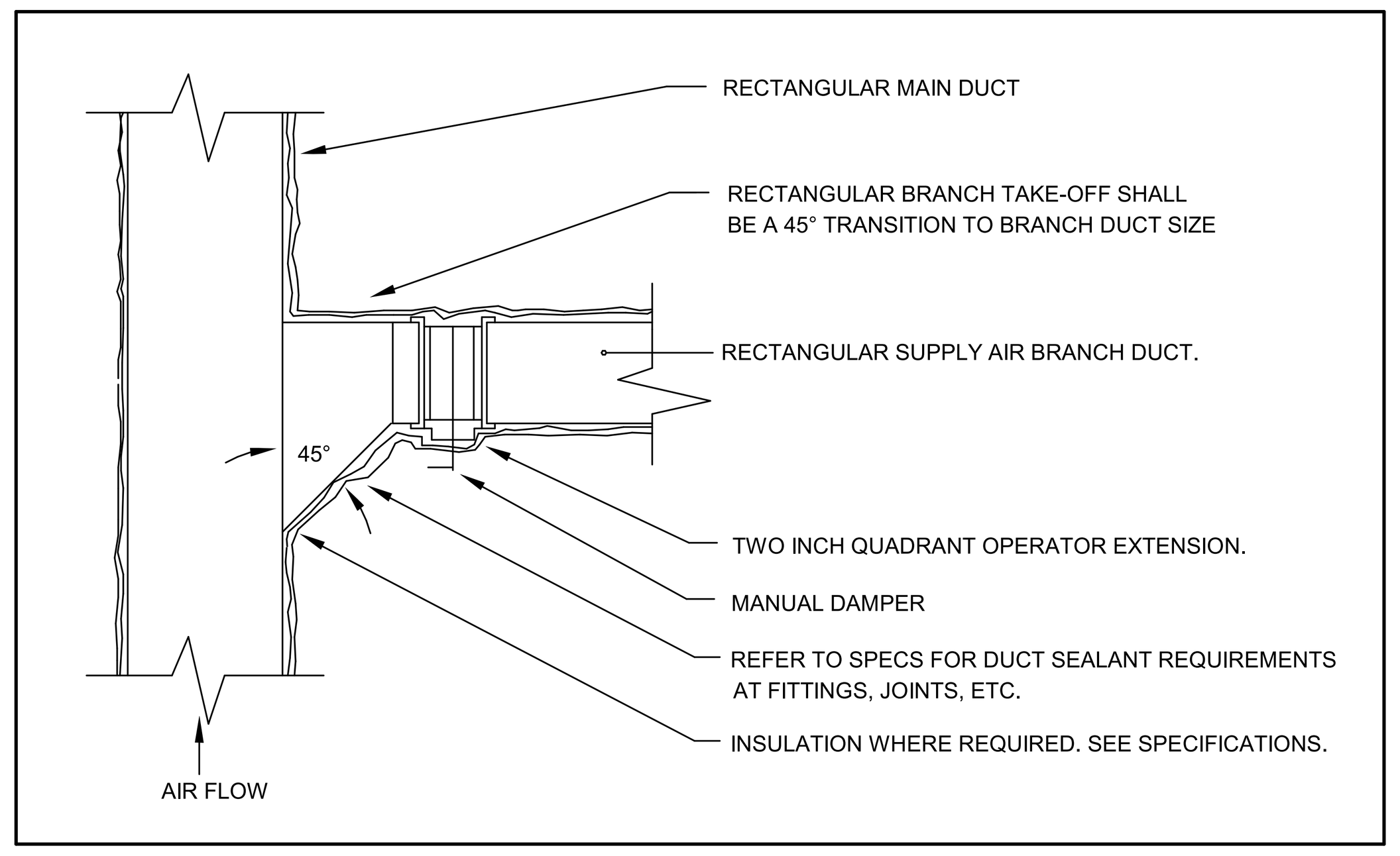
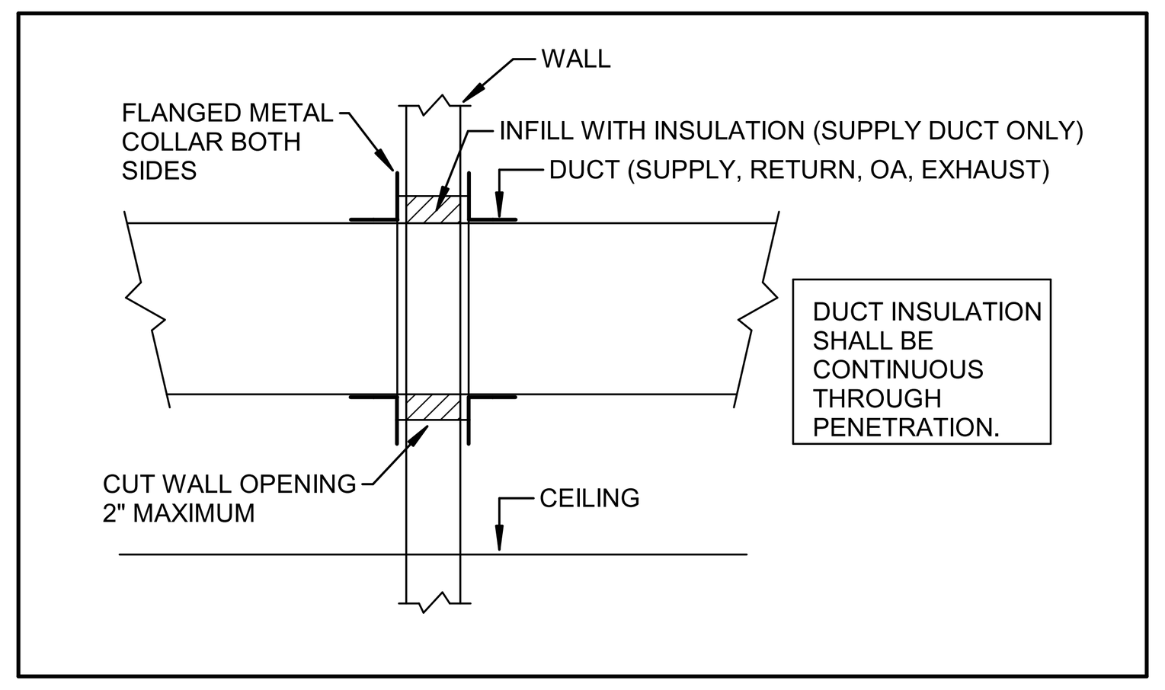
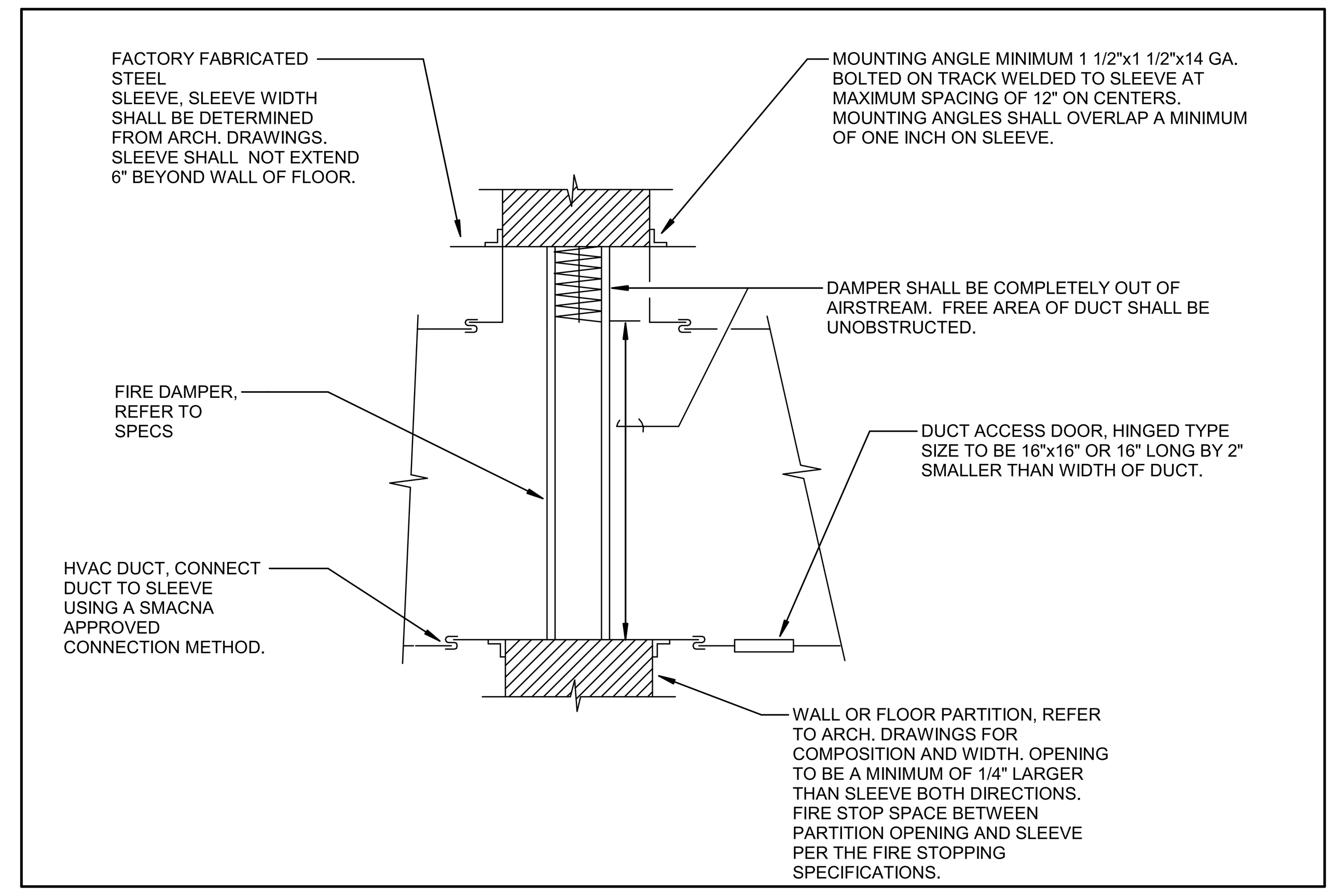


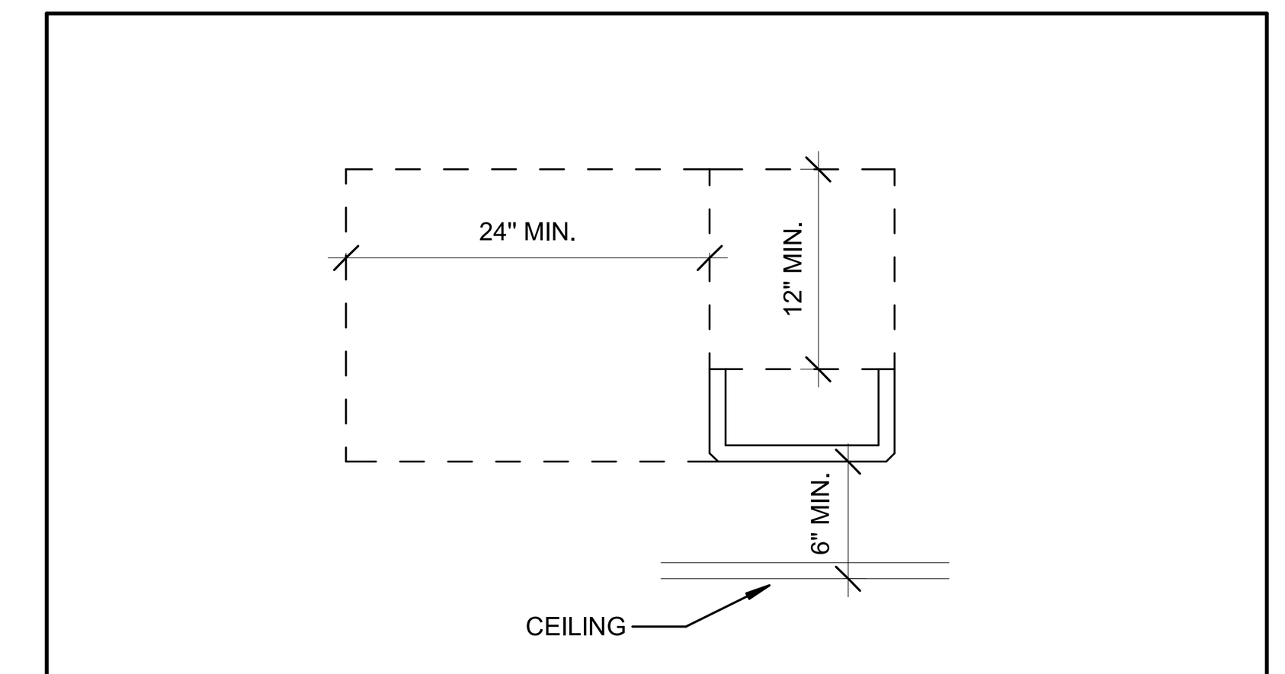
1 TYPICAL RECT. BRANCH DUCT TAKE OFF
SCALE: NONE



4 DUCT PENETRATION THROUGH NON-RATED WALL DETAIL
SCALE: NONE

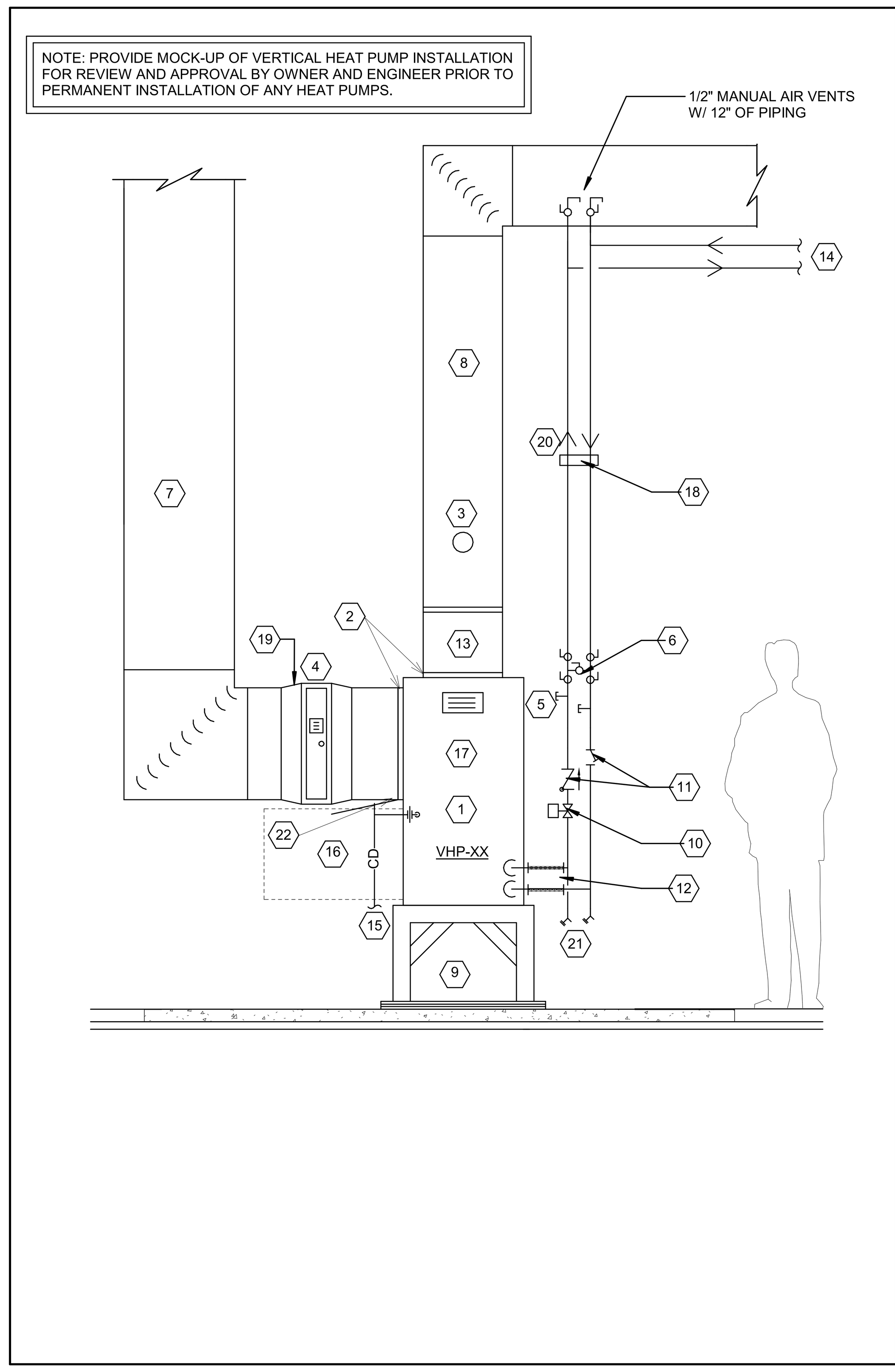


3 FIRE DAMPER DETAIL
SCALE: NONE



NOTES:
- ALL PIPING DUCTWORK, ETC., TRAVELING PARALLEL TO THE CABLE TRAY SHALL MAINTAIN REQUIRED CLEARANCES.
- MAINTAIN REQUIRED CLEARANCES AROUND CABLE TRAY. REFER TO UK ITS REQUIREMENTS.
- 24" SIDE ACCESS REQUIRED ON ONE SIDE MINIMUM.

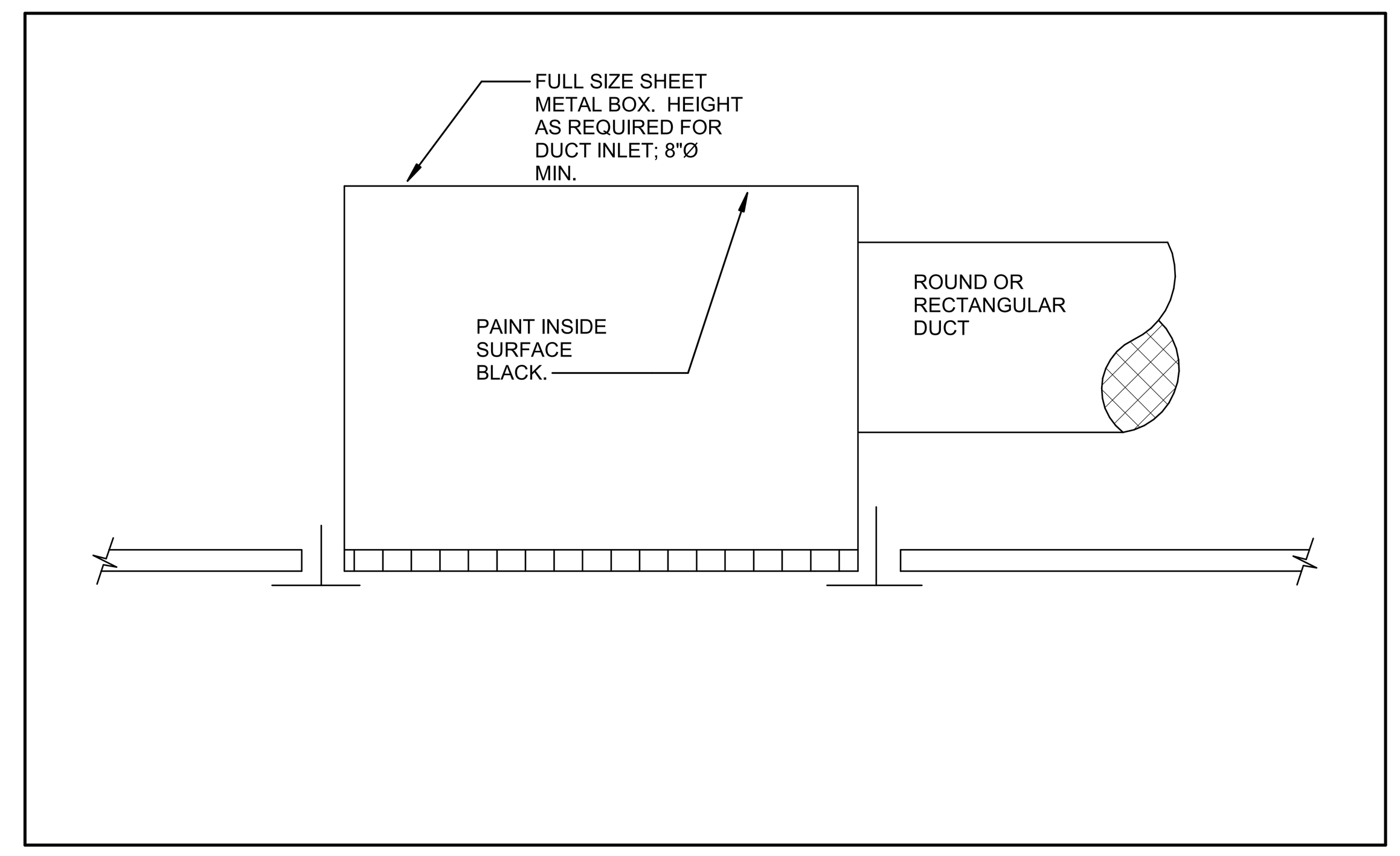
8 CABLE TRAY COORDINATION CLEARANCE DETAIL
SCALE: NONE



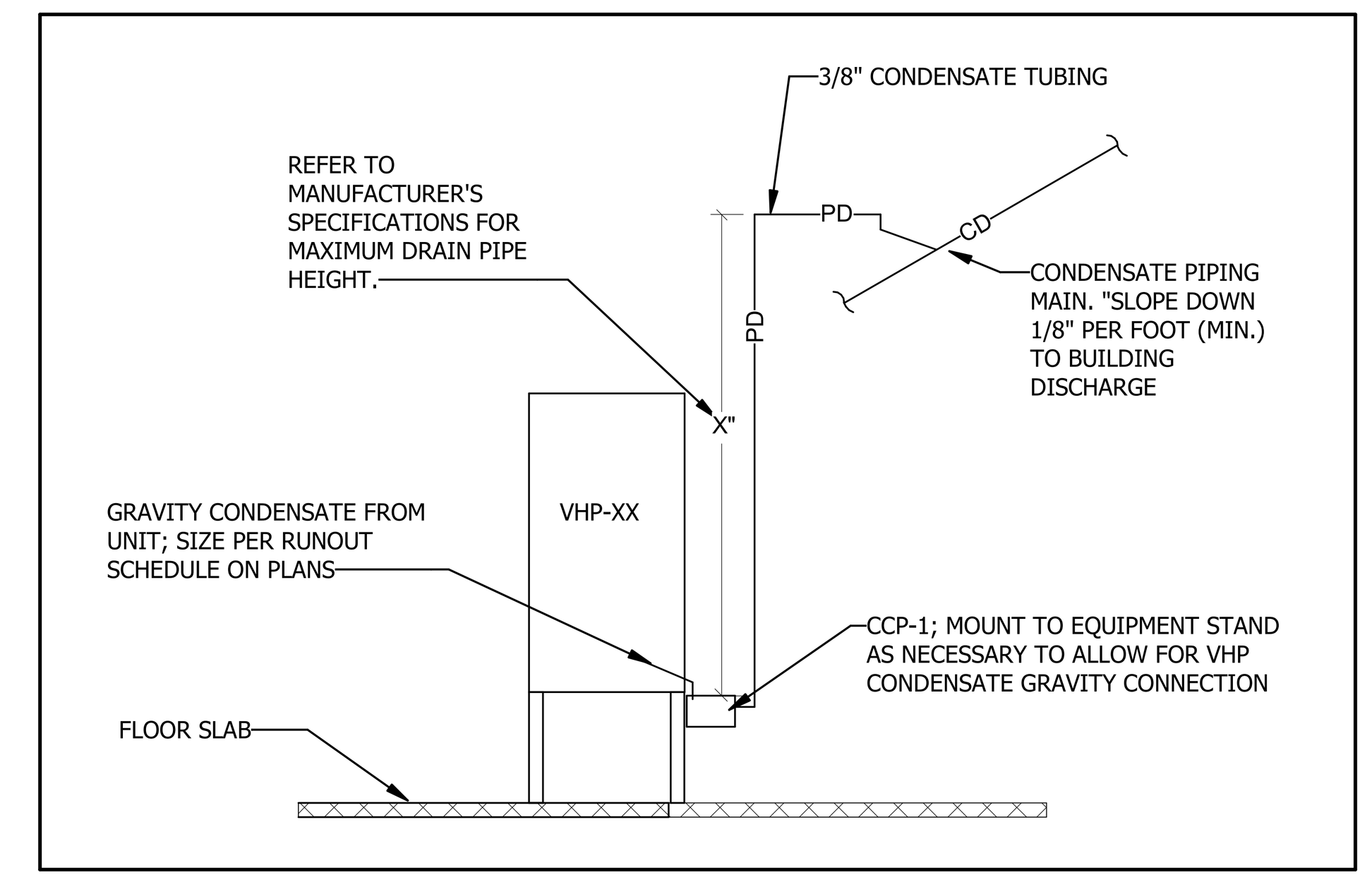
HEAT PUMP DETAIL TAG NOTES: X

1. VERTICAL HEAT PUMP UNIT. DO NOT BLOCK ACCESS PANEL FOR HEAT PUMP UNIT WITH ANY OBJECT. MAINTAIN MIN. 3' CLEARANCE FOR ACCESS PANEL.
2. PROVIDE FLEXIBLE CANVAS CONNECTIONS AT UNIT CONNECTION. TRANSITION DUCTWORK TO UNIT OPENING AS NEEDED.
3. 4" FACE DIAL THERMOMETER(TYP.) DWYER SERIES BT ADJUSTABLE BIMETAL THERMOMETER WITH 0-200°F RANGE AND 6" STEM LENGTH.
4. PRE-MANUFACTURED SIDE ACCESS FILTER RACK WITH HINGED DOOR. ONLY 2" 24" X 24" MERV 13 FILTERS WILL BE ACCEPTABLE. PROVIDE PERMANENT PLACARD AT FILTER RACK INDICATING FILTER SIZES, QUANTITY, MANUFACTURER/MODEL NO., TOTAL DESIGN AIRFLOW, AND CLEAN PRESSURE DROP. PROVIDE MAGNAHELIC GAUGE TAPS UPSTREAM AND DOWNSTREAM OF FILTER FOR DIFFERENTIAL PRESSURE MONITORING VIA MANUAL/PORTABLE GAUGE. RACK MAY BE INSTALLED VERTICALLY OR HORIZONTALLY; REFER TO PLANS.
5. PROVIDE PETE'S PLUG ON GS & GR PIPING.
6. PROVIDE FULLSIZE BYPASS CONNECTION FROM GS TO GR PIPING WITH BALL VALVE FOR FLUSHING AND AIR REMOVAL. CLOSE BYPASS VALVE UPON COMPLETION OF FLUSHING AND PURGING. FLUSH PRIOR TO OPERATION. DO NOT CONNECT ANY UNITS UNTIL FLUSHING IS COMPLETE.
7. RETURN DUCTWORK. REFER TO DRAWINGS FOR DUCT SIZE. PROVIDE 10' OF 2" THICK INTERNAL DUCT LINER.
8. SUPPLY DUCTWORK. REFER TO DRAWINGS FOR DUCT SIZE.
9. MOUNT UNIT ON 24" TALL PAINTED ANGLE IRON STAND. PROVIDE MOUNTING BRACKETS WITH VIBRATION ISOLATING GROMMETS TO SECURE UNIT TO STAND. BOLT STAND TO FLOOR SLAB (OR CONCRETE PAD WHERE INDICATED ON FLOOR PLANS.) PROVIDE NEOPRENE VIBRATION ISOLATION PAD RATED FOR 0.25" DEFLECTION AT CORNERS BETWEEN BOTTOM OF UNIT AND STAND.
10. CONTROL VALVE.
11. LINE-SIZED CHECK VALVE (GR PIPING) AND STRAINER (GS PIPING).
12. FLEXIBLE HOSE KITS, HOSE KITS SIZE SHALL MATCH PIPE RUN OUT SIZE SCHEDULED. TRANSITION DOWN AT UNIT AS REQUIRED. REFER TO SPECIFICATION SECTION 234200 FOR FURTHER REQUIREMENTS.
13. TRANSITION FROM FULL SIZE OF UNIT OUTLET TO DUCT SIZE INDICATED ON THE DRAWINGS.
14. REFER TO DRAWINGS FOR CONTINUATION OF GS/GR PIPING. REFER TO THE PIPING RUNOUT SCHEDULE FOR SIZING.
15. ROUTE CONDENSATE DRAIN AS INDICATED ON PLANS. REFER TO PIPING RUNOUT SCHEDULE FOR SIZING. ENSURE ALL CONDENSATE PIPING IS INSTALLED SO AS NOT TO CREATE A TRIP HAZARD. CONDENSATE TRAPS SHALL BE INTEGRAL TO THE EQUIPMENT. STRAP/SECURE PIPING TO FLOOR/WALL AS REQUIRED. FOR UNITS REQUIRING CONDENSATE PUMPS (AS INDICATED ON PLANS) REFER TO DETAIL 6/M601.
16. MAINTAIN CLEARANCE ON SIDE OF HEAT PUMP TO ALLOW FOR ACCESS TO COMPRESSOR PER MANUFACTURER REQUIREMENTS.
17. ENGRAVED LAMACOID IDENTIFICATION PLACARD; THE PLACARD SHALL INCLUDE THE UNIT SIZE, AREA SERVED, ELECTRIC PANEL AND CIRCUIT NUMBER FEEDING EQUIPMENT
18. GS/GR PIPING RUNOUTS TO HEAT PUMP. RUNOUTS SHALL BE SIZED PER RUNOUT PIPING SCHEDULE ON PLANS; RUNOUTS SHALL BE ROUTED FULL-SIZE PER SCHEDULE TO TRANSITION AT UNIT PIPING CONNECTION.
19. TRANSITION DUCT FROM 24"X24" FILTER RACK TO DUCT SIZE INDICATED ON PLANS.
20. SECURELY SUPPORT PIPING ON UNITSTRUT PIPING STAND WITH RUBBER COATED RING CLAMPS AND THREADED ROD (TYPICAL). UTILIZE VIBRATION ISOLATION SUPPORTS AT PIPING SUPPORT.
21. PROVIDE BOILER DRAIN AT BOTTOM OF GS & GR PIPE DROPS TO UNIT.
22. TRANSITION RETURN DUCT FROM UNIT OPENING TO 24"X24" AT FILTER RACK.
23. CONTRACTOR SHALL PROVIDE FULL MOCKUP OF ONE COMPLETE HEAT PUMP STUDIO HUB CLOSET FOR REVIEW.

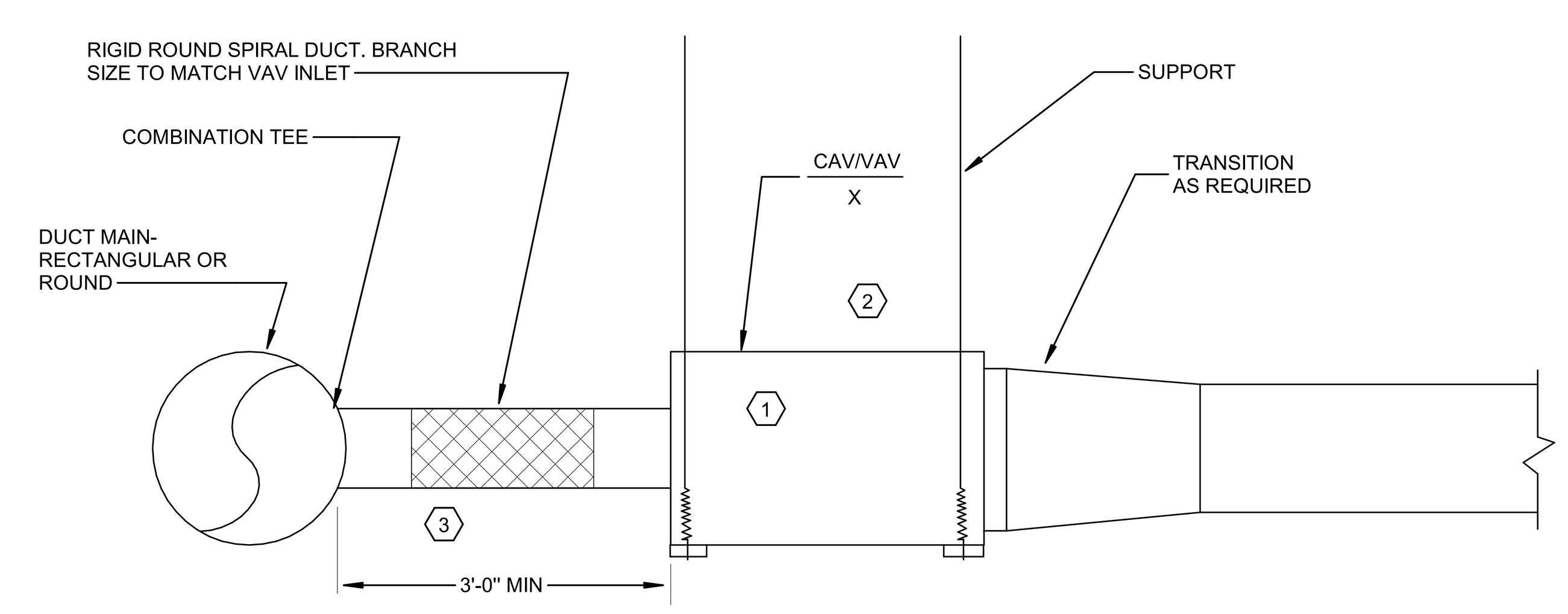
2 VERTICAL HEAT PUMP INSTALLATION DETAIL
SCALE: NONE



5 TRANSFER AIR GRILLE DETAIL
SCALE: NONE



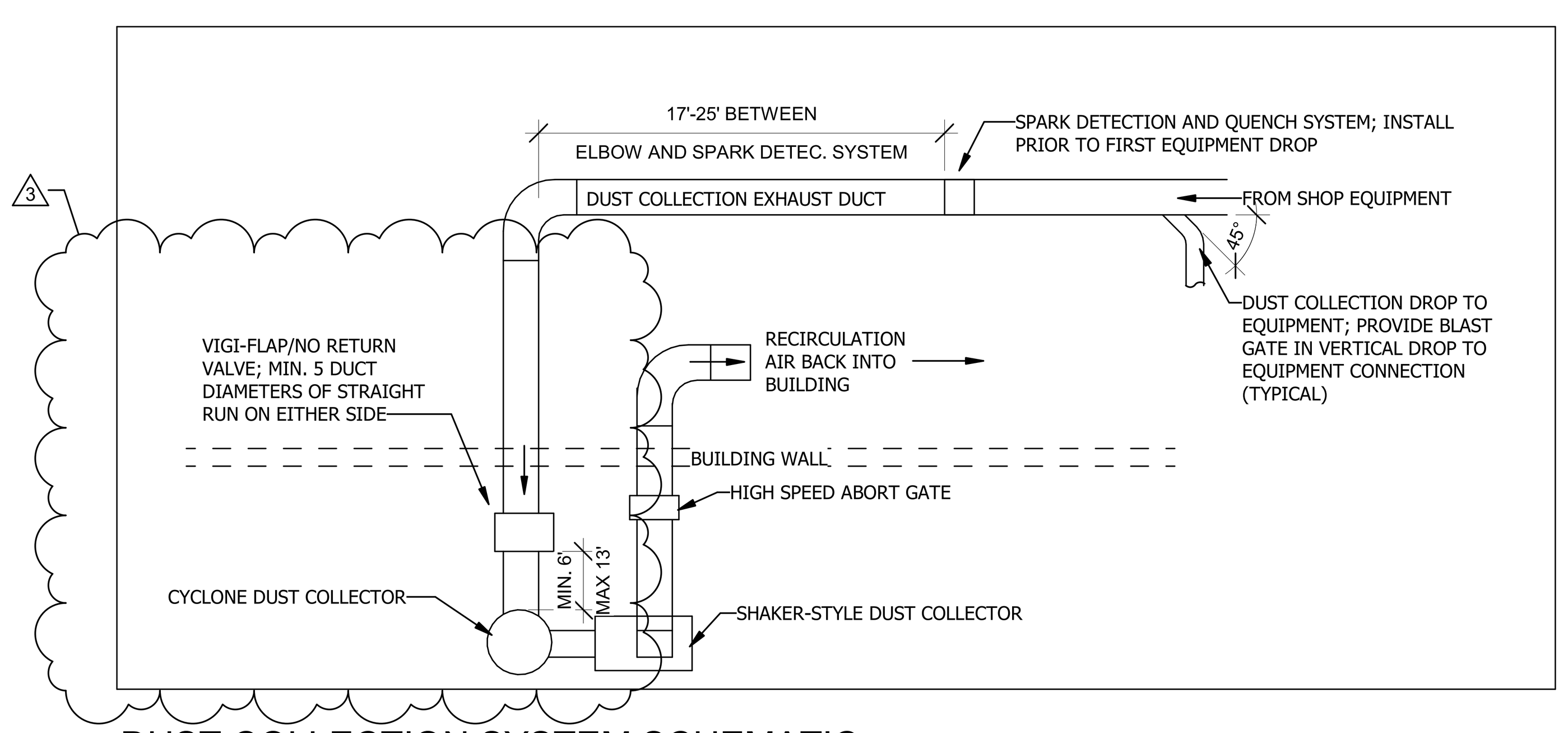
6 BASEMENT HEAT PUMP CONDENSATE PUMP PIPING DETAIL
SCALE: NONE



1. SUBMITTAL AND SHEET METAL SHOP DRAWINGS SHALL SHOW PHYSICAL SIZE OF UNIT. AIR FLOW CONTROLS AND ACCESS PANELS. SHOP DRAWINGS SHALL ALSO SHOW ELEVATION OF INSTALLED TERMINAL UNITS.
2. DAMPER AND AIR FLOW CONTROLS MUST BE ACCESSIBLE FOR ADJUSTMENT AND MAINTENANCE. DUCTWORK, CONDUIT OR MAIN CEILING GRIDS SHOULD BE LOCATED ACCORDINGLY.
3. SUPPLY DUCT SHOULD NOT MAKE ANY TRANSITIONS OR TURNS 3 FEET PRIOR TO CONNECTING TO THE TERMINAL UNIT. THESE UNITS HAVE AIR FLOW MEASURING DEVICES THAT REQUIRE STRAIGHT, LAMINAR AIR FLOW ENTERING FOR GOOD CONTROL. FLEXIBLE DUCT IS NOT ALLOWED.

MAINTAIN A MINIMUM OF 24" CLEAR SPACE AROUND THE CV DEVICE TO ACCESS DAMPERS.

7 CAV/VAV BOX DETAIL
SCALE: NONE



9 DUST COLLECTION SYSTEM SCHEMATIC
SCALE: NONE

University of Kentucky
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K NORMAN BERRY ASSOCIATES ARCHITECTS
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STATE OF KENTUCKY KEVIN J. EUGA 28967 LICENSED PROFESSIONAL ENGINEER

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Sheet Title:
Mechanical Details

Project Number	XCOD19
Drawn By	KS
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

M-601

6/1/2022 4:49:12 PM

WATER-TO-WATER HEAT PUMP SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	COOLING MODE						HEATING MODE						DIMENSIONAL DATA		ELECTRICAL				REMARKS
				GS/GR EWT/LWT	GS/GR GPM/WPD	DUAL TEMP LOOP EWT/LWT	DUAL TEMP GPM/WPD	COOLING CAP. (MBH)	EER	GS/GR EWT/LWT	GS/GR GPM/WPD	DUAL TEMP EWT/LWT	DUAL TEMP GPM/WPD	HEATING CAP. (MBH)	COP	SIZE (LxWxH)	WEIGHT (LB)	VOLTAGE	PHASE	MCA	MOCP	
WWHP-1	CLIMATEMASTER	TMW-360	DUAL TEMPERATURE LOOP	85/95	90/9.6	42/52	90/9.6	392	16.5	40/34	90/9.6	95/103	90/9.6	370	4.3	33X55X65	1400	460 V	3	57 A	80 A	ALL
WWHP-2	CLIMATEMASTER	TMW-360	DUAL TEMPERATURE LOOP	85/95	90/9.6	42/52	90/9.6	392	16.5	40/34	90/9.6	95/103	90/9.6	370	4.3	33X55X65	1400	460 V	3	57 A	80 A	ALL

REMARKS:
1. PROVIDE WITH SINGLE-POINT POWER CONNECTION AND DISCONNECT.
2. PROVIDE TERMINAL STRIP FOR CONNECTION TO BACNET INTERFACE FOR INTEGRATION INTO BUILDING AUTOMATION SYSTEM.

VFD SCHEDULE

MARK	SERVICE	HP	VOLTAGE	PHASE	HZ	REMARKS
VFD P-1A	P-1A	15	460	3	60 Hz	ALL
VFD P-1B	P-1B	15	460	3	60 Hz	ALL
VFD P-2A	P-2A	2	460	3	60 Hz	ALL
VFD P-2B	P-2B	2	460	3	60 Hz	ALL

REMARKS:

1. PROVIDE WITH DISCONNECT AND BYPASS.
2. PROVIDE BACNET/MSTP INTERFACE FOR INTEGRATION INTO BAS.
3. PROVIDE WITH SOFT-START CAPABILITIES.

EXPANSION TANK SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SERVICE	TANK VOLUME	ACCEPTANCE VOLUME	DIMENSIONAL DATA	
							DIAMETER	HEIGHT
ET-1	BELL & GOSSETT	B-200	PRE-CHARGED BLADDER TANK	GEOTHERMAL LOOP	53	53	24"	37"
ET-2	BELL & GOSSETT	B-200	PRE-CHARGED BLADDER TANK	GEOTHERMAL LOOP	53	53	24"	37"

AIR SEPARATOR SCHEDULE

MARK	MANUFACTURER	MODEL	INLET/OUTLET SIZE	GPM	MAX WPD (PSIG)	REMARKS
AS-1	BELL & GOSSETT	RL-5F	5"	200	0.5	ALL
AS-2	BELL & GOSSETT	RL-8F	8"	750	0.5	ALL

REMARKS:

1. PROVIDE WITHOUT STRAINER.

HYDRONIC PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SERVICE	GPM	HEAD (FT)	VFD	HP	BRAKE HP	EFFICIENCY(%)	RPM	VOLTAGE	PHASE	FREQUENCY	REMARKS
P-1A	BELL & GOSSETT	E-1531 4BD	BASE MOUNTED END SUCTION	GEOTHERMAL LOOP	750	60	YES	15	13	81.4	1800	480 V	3	60	1,2,3
P-1B	BELL & GOSSETT	E-1531 4BD	BASE MOUNTED END SUCTION	GEOTHERMAL LOOP	750	60	YES	15	13	81.4	1800	480 V	3	60	1,2,3
P-2A	BELL & GOSSETT	E-80	INLINE CENTRIFUGAL	DUAL TEMPERATURE LOOP	175	30	YES	2	1.8	71.0	1800	480 V	3	60	ALL
P-2B	BELL & GOSSETT	E-80	INLINE CENTRIFUGAL	DUAL TEMPERATURE LOOP	175	30	YES	2	1.8	71.0	1800	480 V	3	60	ALL

REMARKS:

1. PROVIDE DISCONNECT AND SINGLE POINT POWER CONNECTION.
2. PROVIDE SHAFT GROUNDING RINGS.
3. PROVIDE SUCTION DIFFUSER, CHECK VALVE AND SHUT-OFF VALVE.

COOLING CONDENSATE PUMP SCHEDULE

MARK	MANUFACTURER	MODEL #	PUMPS				RECEIVER CAPACITY (GALS)	DISCHARGE PIPE SIZE	REMARKS
			GPH	HP	VOLTAGE	PHASE			
CCP-1	LITTLE GIANT	VCMA-15	65	0.02	120 V	1	0.5	3/8"	ALL

REMARKS:

1. PROVIDE WITH 20' OF TUBING, BRASS CHECK VALVE, AND BARBED HOSE CONNECTION.
2. PUMP SHALL BE FURHISHED WITH INTERNAL OVERFLOW DETECTION SWITCH WITH CONNECTION TO SHUT DOWN EQUIPMENT.
3. PROVIDE 6' CORD WITH 3 PRONGED PLUG.

DUST COLLECTOR SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	TYPE	AIRFLOW (CFM)	E.S.P.	DRIVE	FAN HP	ELECTRICAL DATA			REMARKS
									VOLTAGE	PHASE	HZ	
DC-1	DONALDSON TORIT	UMA-750 (SHAKER) & CYC-36 (CYCLONE)	WOOD SHOP	SHAKER WITH CYCLONE	6500	11.00	YES	30	460 V	3	60	ALL

REMARKS:

1. PROVIDE SHAKER AND CYCLONE UNITS EACH WITH A SINGLE HOPPER WITH HOPPER ACCESS PANEL AND SEALED DRUM KIT RATED FOR COMBUSTIBLE DUST.
2. PROVIDE SHAKER AND CYCLONE UNITS EACH WITH QTY 1 55GALLON DRUM FOR DUST COLLECTION
3. CONTRACTOR SHALL MAINTAIN ALL MANUFACTURER REQUIRED CLEARANCES
4. PROVIDE WITH SPARK DETECTION SYSTEM. SYSTEM SHALL DETECT AND EXTINGUISH (BOSS PRODUCTS EM-FCS-PWE OR EQUAL). INSTALL PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE WITH SAFETY AFTER FILTER ASSEMBLY. PROVIDE MERV8 PREFILTERS WITH 95% ASHRAE FINAL FILTERS. PROVIDE WEATHER CAP AND MAGNEHELIC GAUGES. AFTER FILTER ASSEMBLY SHALL BE 2 FILTERS HIGH BY 2 FILTERS WIDE (APRROX 4FTX4FT). REFER TO PLANS FOR LOCATION.
6. PROVIDE SHAKER AND CYCLONE UNITS EACH WITH EXPLOSION RELIEF DOOR/PANEL.
7. PROVIDE WITH INLET ISOLATION VALVE (BOSS PRODUCTS VIGI-FLAP OR EQUAL) INCLUDING REQUIRED SENSORS AND CONTROLS TO COMPLY WITH NFPA AND LOCAL GUIDELINES. DUCTWORK BETWEEN NRV AND COLLECTOR SHALL BE OF SAME PRESSURE RATING AS COLLECTOR. REFER TO PLANS FOR LOCATION.
8. PROVIDE WITH HIGH SPEED ABORT GATE (BOSS PRODUCTS HSAG) INCLUDING REQUIRED SENSORS AND CONTROLS TO COMPLY WITH NFPA AND LOCAL GUIDELINES. LOCATE HSAG AFTER COLLECTOR AND BEFORE SAFETY AFTER FILTER ASSEMBLY. REFER TO PLANS FOR LOCATION.
9. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION TO EACH UNIT.
10. PROVIDE SHAKER UNIT WITH FACTORY WIRED NEMA12 CONTROL ENCLOSURE FOR CONTROLLER, INCLUDE MAGNETIC STARTERS FOR BLOWER AND SHAKER MOTOR.
11. PROVIDE UNIT WITH 30HP VFD AND DONALDSON-TORIT AIRFLOW CONTROLLER (OR EQUAL) TO MAINTAIN CONSTANT TRANSPORT VELOCITIES THROUGHOUT THE FILTER LIFE OF THE SYSTEM.
12. ACCEPTABLE MANUFACTURERS INCLUDE DONALDSON TORIT, UAS, AND AAF.
13. FACTORY TECHNICIAN START-UP AND SYSTEM VERIFICATION IS REQUIRED
14. SHAKER DIMENSIONS: 90"WX150"HX48"D
15. CYCLONE DIMENSIONS: 152"H (WITH 55 GAL DRUM) X 36" DIAMETER.

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	CFM	SIZE	FREE AREA (FT^2)	VELOCITY (FPM)	P.D. (IN)	REMARKS
L-1	RUSKIN	EME520DDE	CASTING LAB	225	12"X12"	0.28	800	.13	ALL

REMARKS:

1. PROVIDE WITH BACKDRAFT DAMPER
2. PROVIDE WITH BIRD AND INSECT SCREEN
3. FINISH AND COLOR TO BE SELECTED BY THE ARCHITECT.

STEAM CONDENSATE PUMPS AND RECEIVER SCHEDULE

MARK	MANUFACTURER	MODEL #	PUMPS						RECEIVER CAPACITY (GALS)	INLET SIZE	REMARKS
			GPM	DISCHARGE PRESSURE (PSI)	HP	RPM	PHASE	VOLTAGE			
CP-1	BELL & GOSSETT	120CBE90-15	90	15.00	1.5	3500	3	460 V	120.0	4	ALL

REMARKS:

1. DUPLEX CONDENSATE PUMP WITH CAST IRON RECEIVER.
2. PROVIDE CONTROL PANEL WITH BACNET INTERFACE.

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Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY · KE YIN · EUGA 28967 · LICENSED PROFESSIONAL ENGINEER

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
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08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
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859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Mechanical Schedules

Project Number	XCOD19
Drawn By	KS
Approved By	KE
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

M-801

6/1/2022 4:49:21 PM

STRUCTURAL BEAMS AND COLUMNS SHALL NOT BE CUT, NOTCHED, DRILLED THROUGH, OR OTHERWISE DAMAGED FOR PASSAGE OF M.E.P. ITEMS UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER ON A CASE-BY-BASIS OR UNLESS SHOWN AS BEING MODIFIED IN THE STRUCTURAL DOCUMENTS (S-SERIES SHEETS).

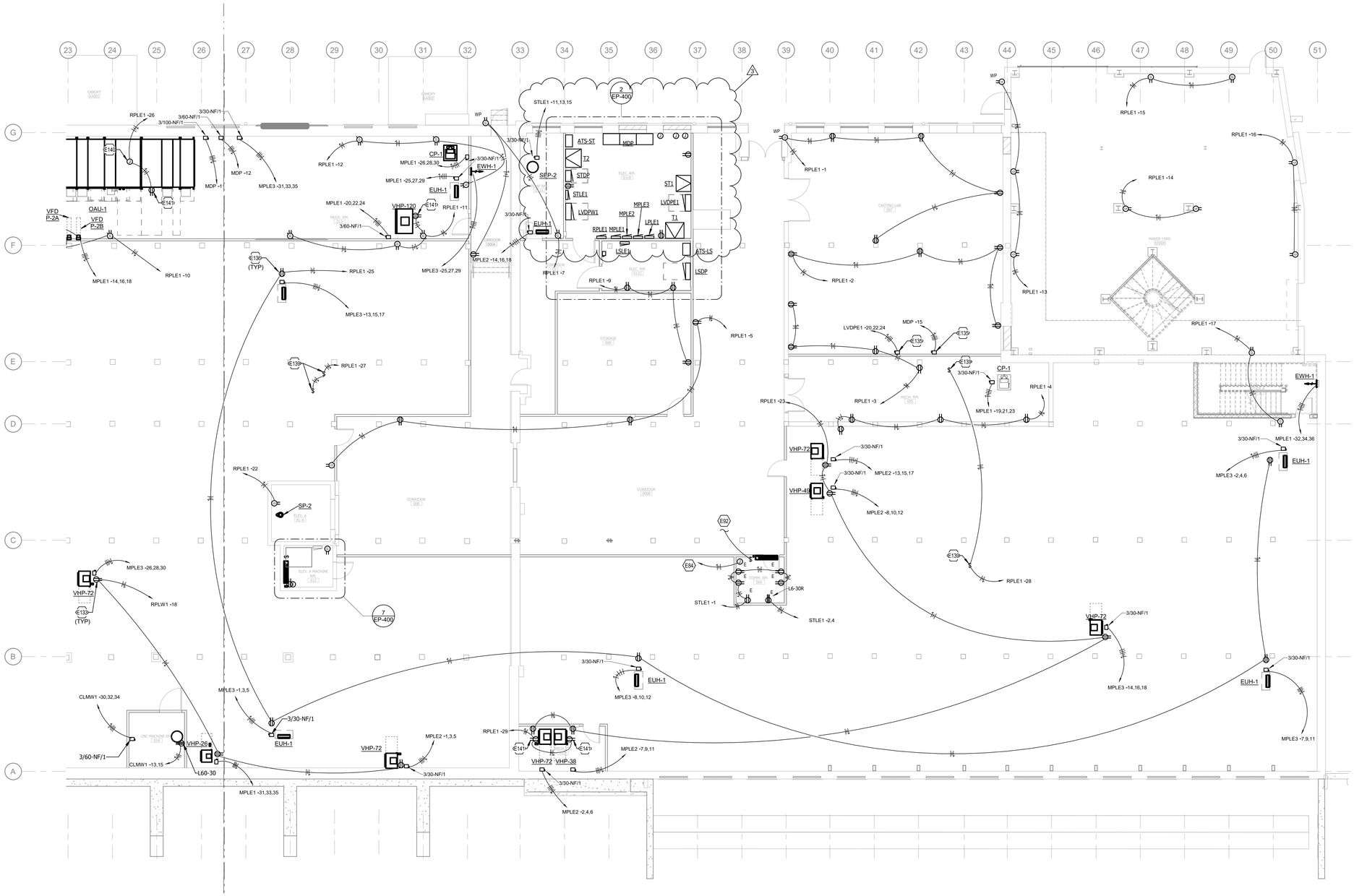
TAGGED NOTES

(##)

- E84 120V/20A CIRCUIT FOR SECURITY ACCESS PANEL. COORDINATE WITH SECURITY CONTROL PANELS FOR LOCATION BEFORE ROUGH-IN.
- E92 INDOOR UNIT POWER FED FROM EXTERIOR CU. COORDINATE POWER WITH UNIT INSTALLER PRIOR TO ROUGH-IN.
- E133 MOUNT RECEPTACLE NEXT TO DISCONNECT FOR CONNECTION TO CONDENSATE PUMP. RECEPTACLE SHALL BE PROVIDED FOR ALL HEAT PUMPS IN LOWER LEVEL.
- E135 NEW 60A FUSED DISCONNECT FOR RELOCATED HOOD.
- E136 MOUNT RECEPTACLE ADJACENT TO DISCONNECT FOR THE EUH.
- E139 FIRE SMOKE DAMPER CONNECTION. COORDINATE WITH DAMPER INSTALLER PRIOR TO ROUGH-IN.
- E140 OAU LIGHTING CONNECTION COORDINATE WITH MECHANICAL PRIOR TO ROUGH IN
- E141 CONDENSATE PUMP RECEPTACLE CORRDINATE WITH PUMP LOCATION

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.



1 LOWER LEVEL EAST- POWER
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

NORTH

N
PROJECT NORTH

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349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY
GREGORY M. BRUMAGEN
26077
LICENSED PROFESSIONAL ENGINEER

N

KEY PLAN

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859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Lower Level East - Power Plan

Project Number	XCOD19
Drawn By	ILA
Approved By	GMB
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

EP-100B

6/1/2022 4:14:20 PM

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- E84 120V/20A CIRCUIT FOR SECURITY ACCESS PANEL. COORDINATE WITH SECURITY CONTROL PANELS FOR LOCATION BEFORE ROUGH-IN.
- E91 COORDINATE QUAD RECEPTACLES WITH DDC PANEL PRIOR TO ROUGH IN.
- E92 INDOOR UNIT POWER FED FROM EXTERIOR CU. COORDINATE POWER WITH UNIT INSTALLER PRIOR TO ROUGH-IN.
- E97 POWER CONNECTION FOR SOLAR SHADES. COORDINATE LOCATION WITH SOLAR SHAEDS PRIOR TO ROUGH-IN.
- E105 RECEPTACLE TO BE MOUNTED TO SIDE OF COLUMN, ROUTE CONDUIT UP FROM BELOW FLOOR TO RECEPTACLE LOCATION. KEEP CONDUIT ROUTE AS TIGHT TO COLUMN AS POSSIBLE.
- E106 COORDINATE RECEPTACLE LOCATION WITH SCREEN MOUNTING LOCATION PRIOR TO ROUGH IN. RECEPTACLE TO BE MOUNTED INSIDE DISPLAY WALL BOX. REFER TO AV PLANS FOR MORE INFORMATION. REFER TO AV EQUIPMENT SCHEDULE FOR ROUGH IN REQUIREMENTS AND AV DETAILS AND ELEVATIONS FOR ROUGH IN HEIGHTS AND LOCATIONS.
- E115 RECEPTACLES SHALL BE RECESSED IN EXISTING BRICK WALL. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- E116 QUADS TO BE MOUNTED IN CASEWORK FOR CHECK-IN DESK. REFER TO ARCHITECTURAL CASEWORK DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE LOCATION WITH CASEWORK INSTALLER PRIOR TO ROUGH-IN.
- E117 AUTOMATIC DOOR OPENER POWER CONNECTION. COORDINATE WITH HARDWARE INSTALLER PRIOR TO ROUGH-IN.
- E125 PROVIDE DEDICATED 120V CIRCUITS FOR AV RACK TO SUPPORT THIS AREA. COORDINATE EXACT PLACEMENT WITH AUDIOVISUAL CONTRACTOR PRIOR TO ROUGHIN.
- E126 PROVIDE (1) 1-1/2" CONDUIT TO AV RACK IN MECH CLOSET BEHIND FORUM, STUB OUT ABOVE AV RACK. PROVIDE (1) 1-1/2" CONDUIT TO HIGH IN STAIR B FOR SPEAKER CABLING, STUB OUT WITH PLASTIC BUSHING AND LABEL.
- E127 PROVIDE POWER TO MOTORIZED PROJECTION SCREEN. COORDINATE EXACT PLACEMENT WITH AV CONTRACTOR PRIOR TO ROUGH IN.
- E128 PROVIDE RECEPTACLE FOR PROJECTOR, COORDINATE EXACT LOCATION AND REQUIREMENTS WITH AV CONTRACTOR PRIOR TO ROUGH IN.
- E129 PROVIDE 2 GANG BACK BOX WITH 1" CONDUIT TO AV RACK IN CLOSET ON STAGE OF FORUM.
- E138 MOUNT IN FRONT PANEL OF STAGE.
- E139 FIRE SMOKE DAMPER CONNECTION. COORDINATE WITH DAMPER INSTALLER PRIOR TO ROUGH-IN.
- E149 COORDINATE DEVICE INSTALL WITH FABRIC WALL PANEL. PROVIDE BOX DEPTH, EXTENSION RING AS NECESSARY FOR COORDINATION.

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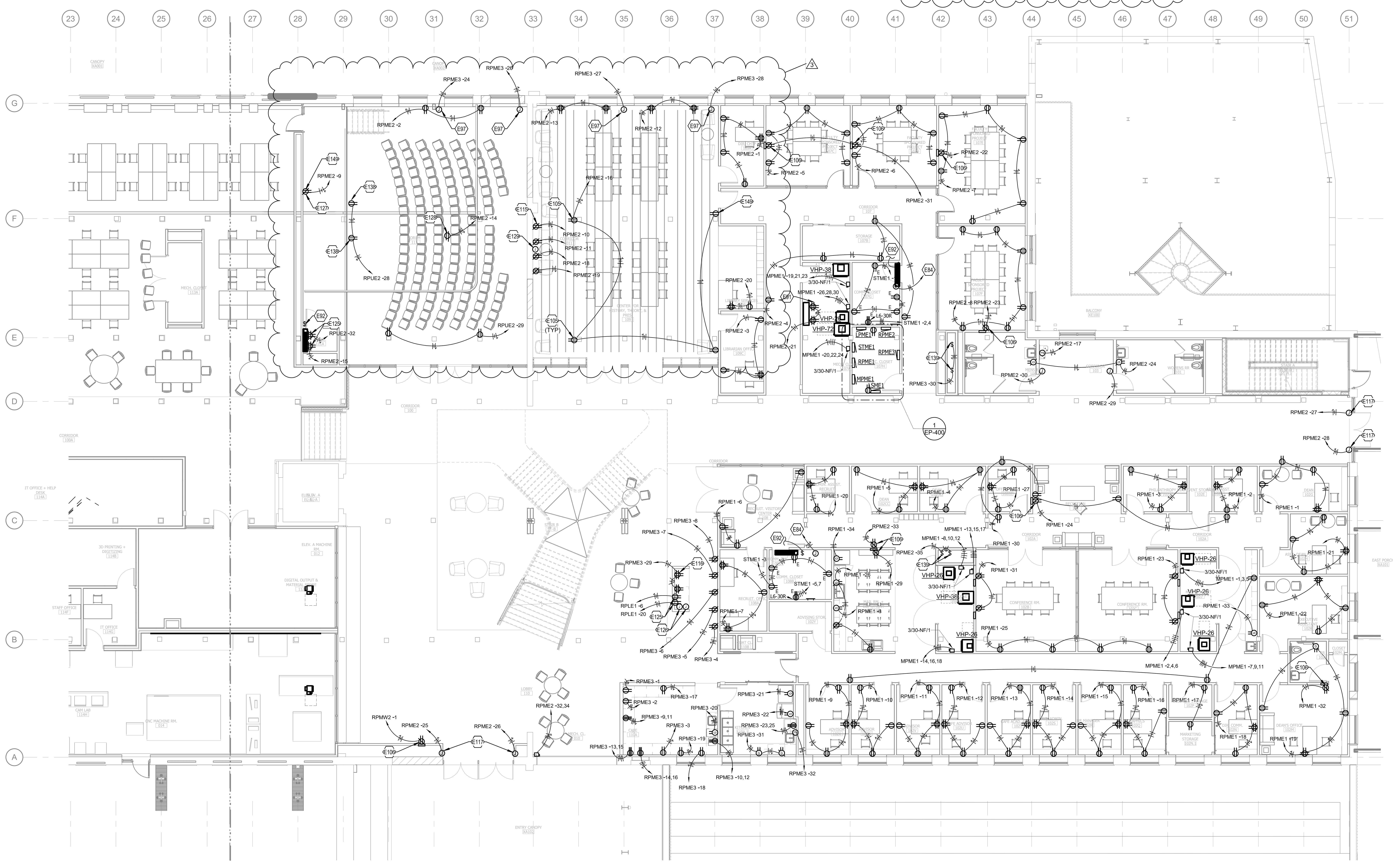

1 MIDDLE LEVEL EAST- POWER

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

0 2' 4' 8' 16' 24' 32'

NORTH

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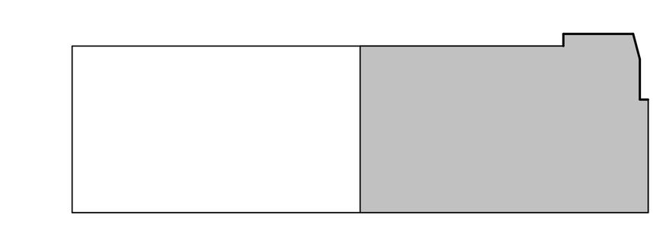

KEY PLAN

N

DATE	DESCRIPTION
06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
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04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

Sheet Title:
Middle Level East - Power Plan

Project Number	XCOD19
Drawn By	ILA
Approved By	GMB
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

EP-101B

6/1/2022 4:14:25 PM

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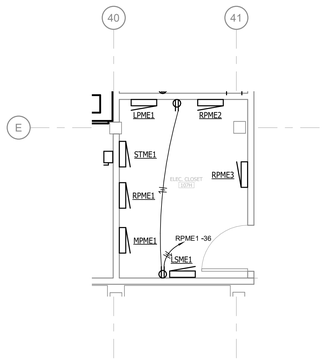
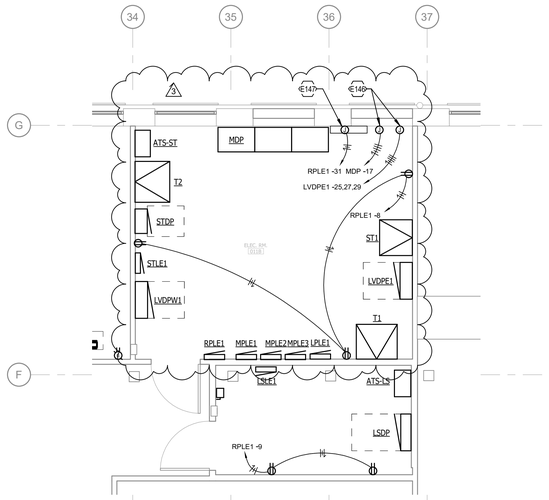


1 ELEC CLOSET 107H - ENLARGED PLAN
SCALE: 1/4" = 1'-0"
0 2' 4' 8' 16' 24' 32'



2 ELEC ROOM 011B & 011C - ENLARGED PLAN
SCALE: 1 : 60
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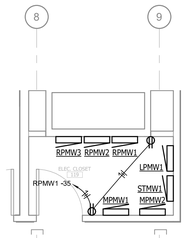

3 ELEC CLOSET 119 - ENLARGED PLAN
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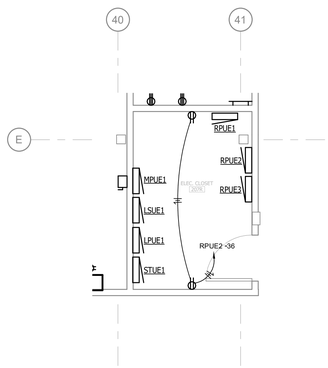

4 ELEC CLOSET 207R - ENLARGED PLAN
SCALE: 1/4" = 1'-0"
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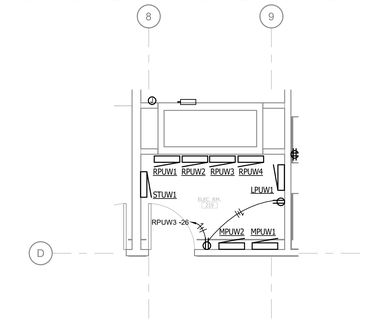
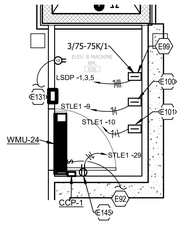
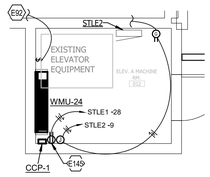


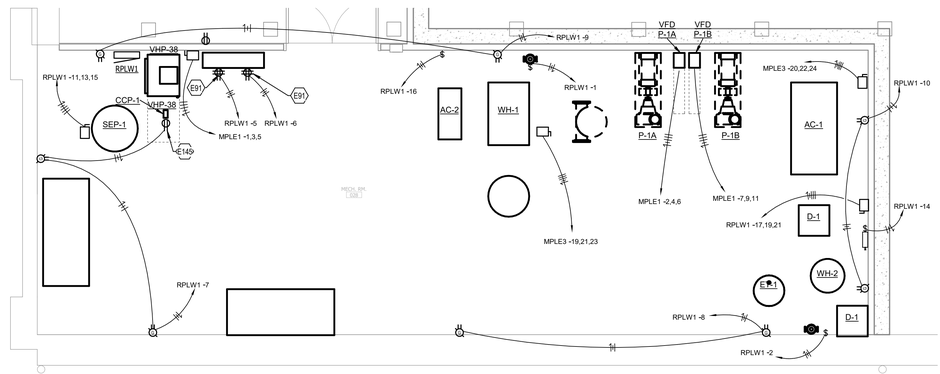
5 ELEC CLOSET 219 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"
0 2' 4' 8' 16' 24' 32'

TAGGED NOTES

E91	COORDINATE QUAD RECEPTACLES WITH DDC PANEL PRIOR TO ROUGH IN.
E92	INDOOR UNIT POWER FED FROM EXTERIOR CU. COORDINATE POWER WITH UNIT INSTALLER PRIOR TO ROUGH-IN.
E99	ENCLOSED SHUNT TRIP BREAKER FOR ELEVATOR CONTROLLER. COORDINATE LOCATION WITH ELEVATOR INSTALLER.
E100	ENCLOSED CIRCUIT BREAKER FOR POWER TO ELEVATOR CAR LIGHTS, RECEPTACLES, AUXILARY LIGHTING POWER SOURCE AND VENTILATION. BREAKER SHALL BE CAPABLE OF BEING LOCKED IN OPEN POSITION. COORDINATE LOCATION WITH ELEVATOR INSTALLER.
E101	ENCLOSED CIRCUIT BREAKER FOR POWER TO ELEVATOR CAR HVAC UNIT. COORDINATE LOCATION WITH ELEVATOR INSTALLER.
E131	REFER TO OVERALL PLAN FOR CONTINUATION.
E145	MOUNT RECEPTACLE NEXT TO CONSATE PUMP
E146	ADVANCED METER CABINETS MM1 AND MM2 TO BE LOCATED ON THIS WALL NEXT TO MDP. COORDINATE REFERENCE VOLTAGE CONNECTIONS WITH METERING DEVICES.
E147	INSTALL QUADUPLEX RECEPTACLE IN MAIN METERING CABINET. COORDINATE WITH ENCLOSURE LOCATION PRIOR TO ROUGH-IN.
E148	COORDINATE RACK RECEPTACLES WITH RACK LOCATION PRIOR TO ROUGH IN.

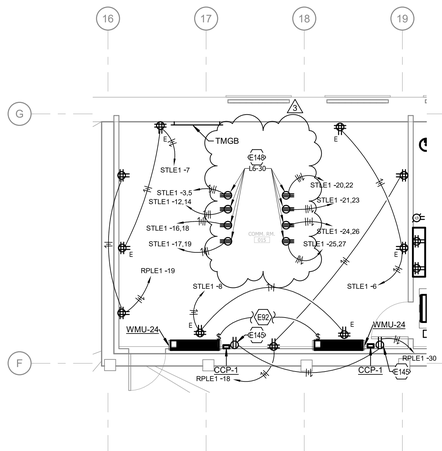






LOWER LEVEL WEST- ELEVATOR ROOM - POWER
6 SCALE: 1/4" = 1'-0"
0 2' 4' 8' 16' 24' 32'

LOWER LEVEL - EAST - ELEVATOR ROOM - POWER
7 SCALE: 1/4" = 1'-0"
0 2' 4' 8' 16' 24' 32'



LOWER LEVEL WEST- POWER - ENLARGED COMM ROOM 015
9 SCALE: 1 : 60
0 1' 2' 4' 8' 12' 16'

LOWER LEVEL WEST- POWER - ENLARGED MECH RM 028
8 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'

CONTRACTOR SHALL COORDINATE ALL ELEVATOR POWER REQUIREMENTS WITH ELEVATOR MANUFACTURERS AND MAKE ALL NECESSARY POWER SERVICE CHANGES THAT MAY APPLY.

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K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY GREGORY M. BRUMAGEN 26077 LICENSED PROFESSIONAL ENGINEER

DATE	DESCRIPTION
06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN

Architect of Record:
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815 W. Market Street, Ste. 502
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Design Architect:
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1520 W. Division St
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Engineer:
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Structural Engineer:
BROWN + KUBICAN, PSC.
2224 Young Dr.
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859.254.9803

Acoustics Consultant:
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859.240.1350

Lighting Consultant:
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389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Electrical Enlarged Views - Electrical Rooms

Project Number	XCOD19
Drawn By	ILA
Approved By	GMB
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

EP-400

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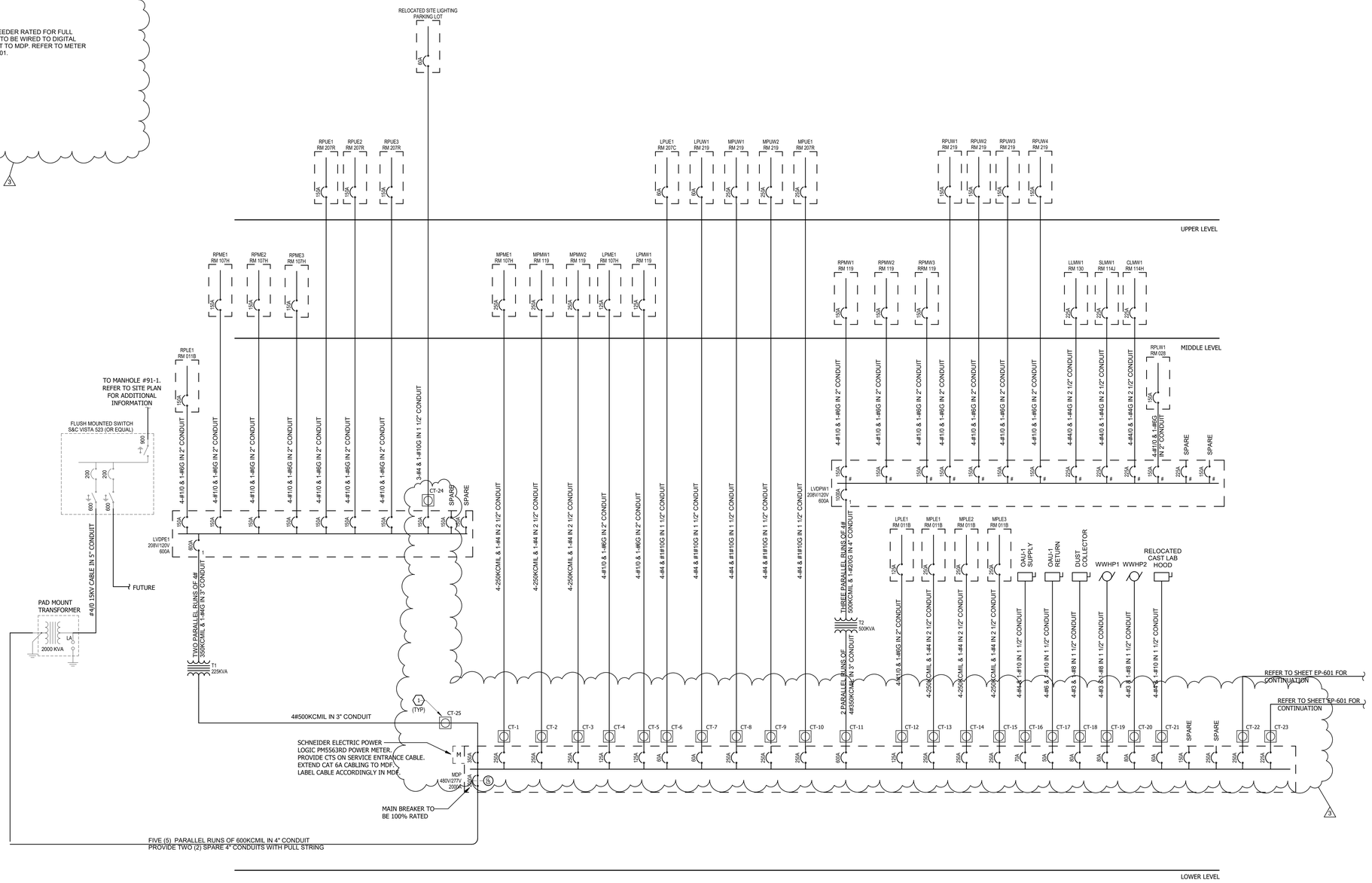
KEYNOTES:

1.) INSTALL CT'S ON FEEDER RATED FOR FULL BREAKER RATING. CT TO BE WIRED TO DIGITAL METER LOCATED NEXT TO MDP. REFER TO METER RISER ON SHEET EP-601.



1 ONE-LINE DIAGRAM
SCALE: SCALE: NO SCALE
0 2' 4' 8' 16' 24' 32'

University of Kentucky
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349 Scott Street
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K NORMAN BERRY ASSOCIATES ARCHITECTS

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29077
LICENSED PROFESSIONAL ENGINEER

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Sheet Title:
Electrical One - Line

Project Number	XCOD19
Drawn By	ILA
Approved By	GMB
Date	04-15-2022

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04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

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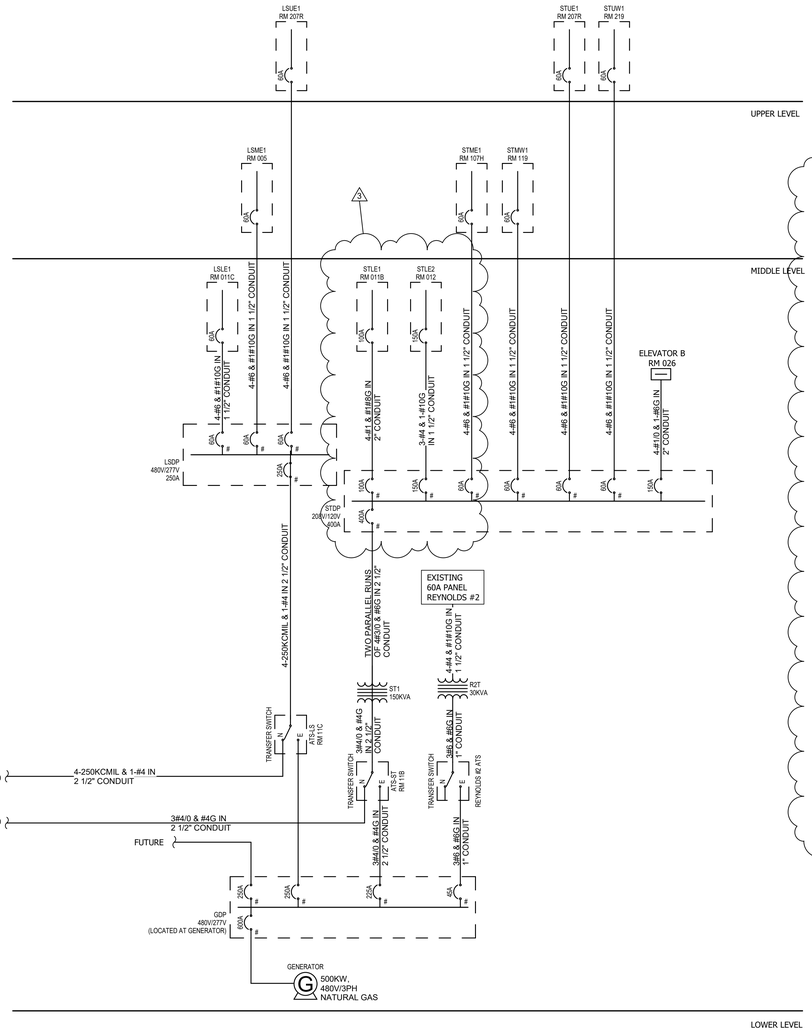
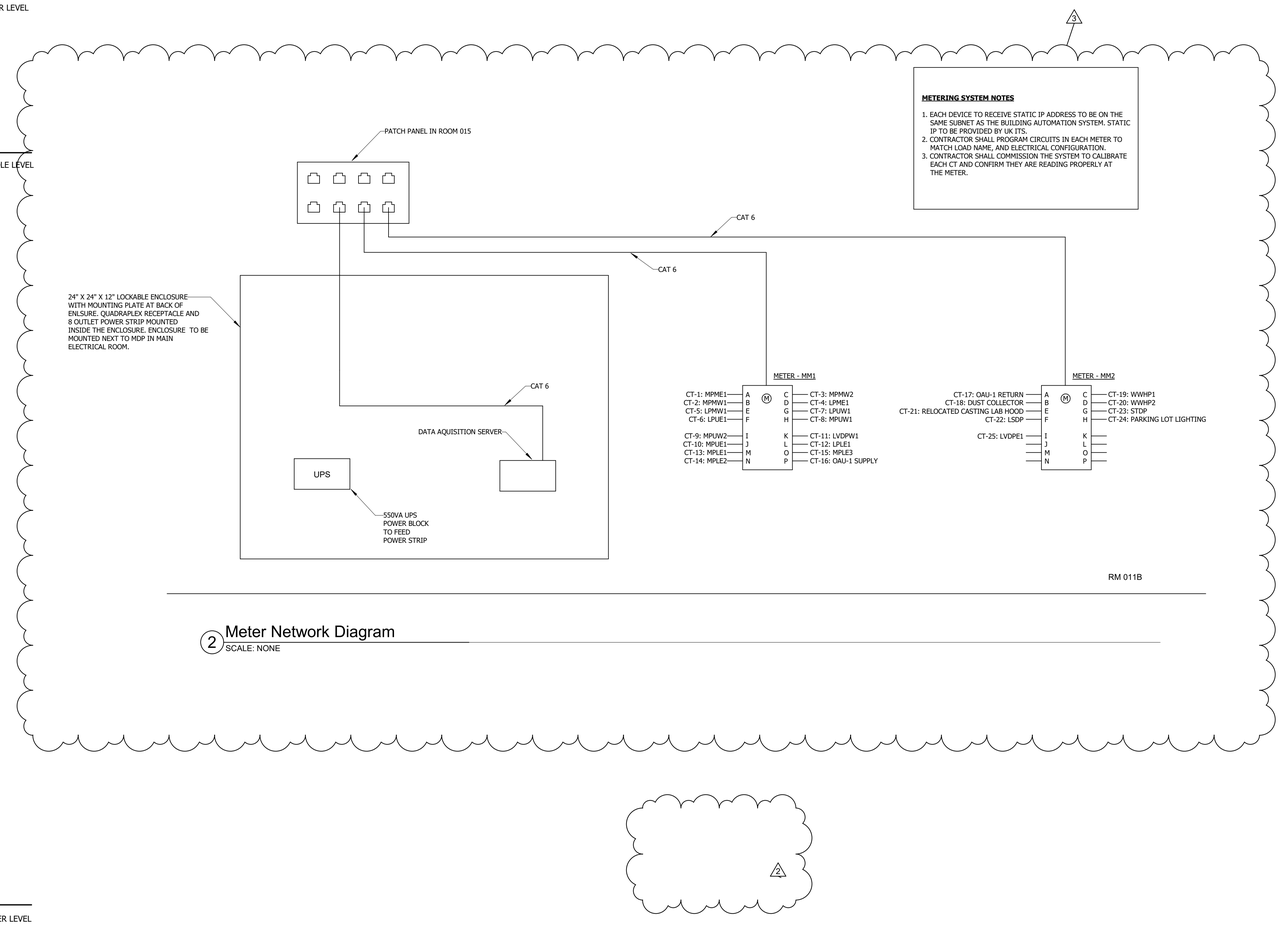


1 ONE-LINE DIAGRAM CONTINUED
SCALE: NONE



2 Meter Network Diagram
SCALE: NONE

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Sheet Title:
Electrical One - Line

Project Number	XCOD19
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Approved By	GMB
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Revisions:
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-
-
-

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

EP-601

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STRUCTURAL BEAMS AND COLUMNS SHALL NOT BE CUT, NOTCHED, DRILLED THROUGH, OR OTHERWISE DAMAGED FOR PASSAGE OF M.E.P. ITEMS UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER ON A CASE-BY-BASIS OR UNLESS SHOWN AS BEING MODIFIED IN THE STRUCTURAL DOCUMENTS (S-SERIES SHEETS).

TAGGED NOTES

##

- S1 ALL DEVICES IN THIS AREA TO BE EXTERIOR WEATHERPROOF.
- S23 CONNECTION TO FIRE/SMOKE DAMPER. REFER TO MECHANICAL SHEETS FOR ADDITIONAL INFORMATION.
- S27 COORDINATE DEVICE INSTALL WITH FABRIC WALL PANEL. PROVIDE BOX DEPTH, EXTENSION RING AS NECESSARY FOR COORDINATION.

ELECTRICAL FIRE ALARM NOTES

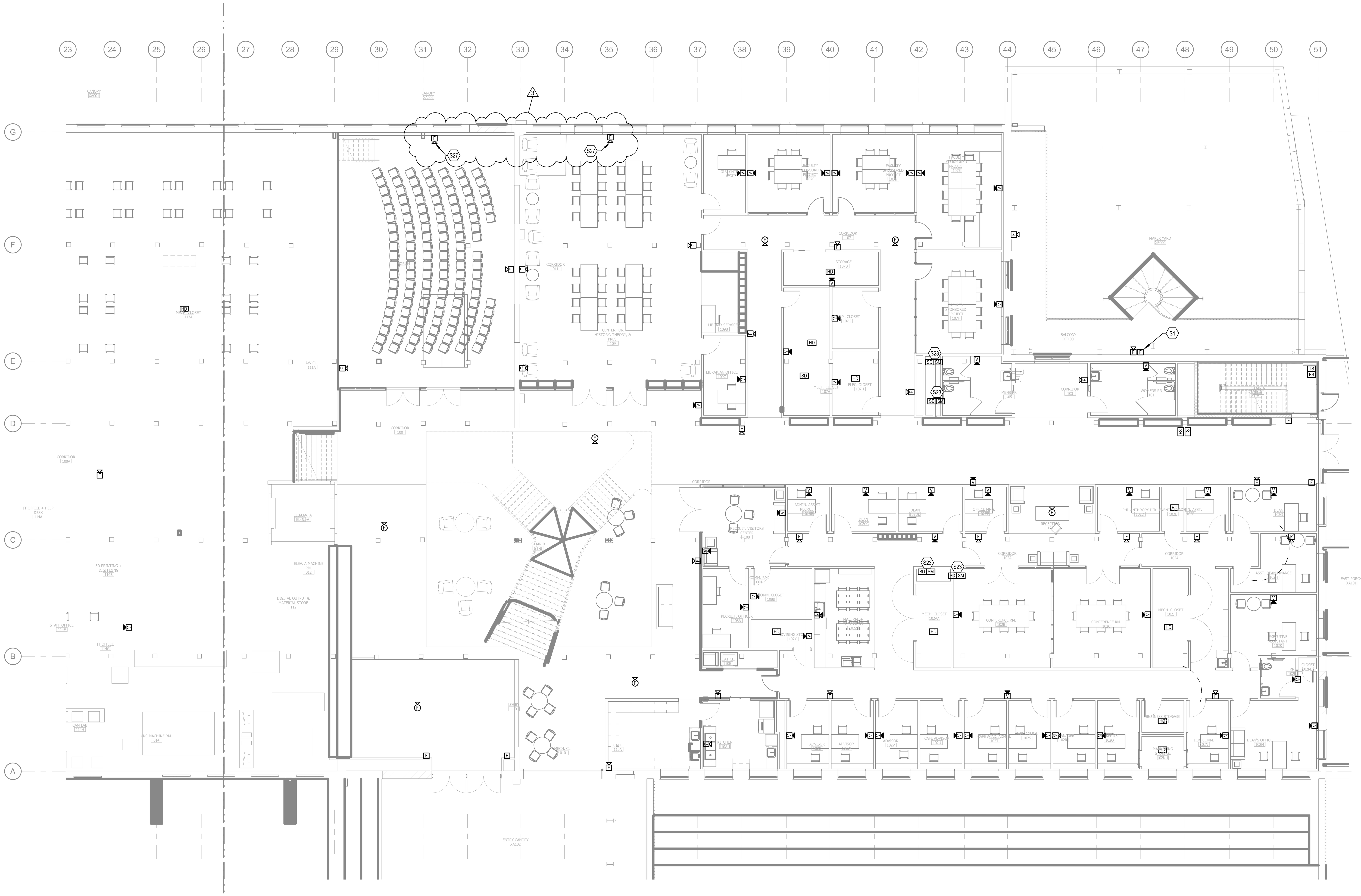
- A THIS RISER IS PARTIAL. ALL THE DEVICES CONNECTED TO THE "FACP" UNITS ARE NOT SHOWN. THE CONTRACTOR SHALL REFER TO THE ELECTRICAL FLOOR PLANS FOR THE COMPLETE FIRE ALARM SYSTEM.
- B THE EXTENT OF ALL FIRE ALARM SYSTEM WORK IS INDICATED OR IMPLIED ON THE CONTRACT DRAWINGS.
- C FIELD VERIFY THE EXACT 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.

ELECTRICAL FIRE ALARM NOTES

- 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.

ELECTRICAL FIRE ALARM NOTES

- 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.



1 MIDDLE LEVEL EAST - FA

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

0 2' 4' 8' 16' 24' 32'

NORTH

N

PROJECT NORTH

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K NORMAN BERRY ASSOCIATES ARCHITECTS

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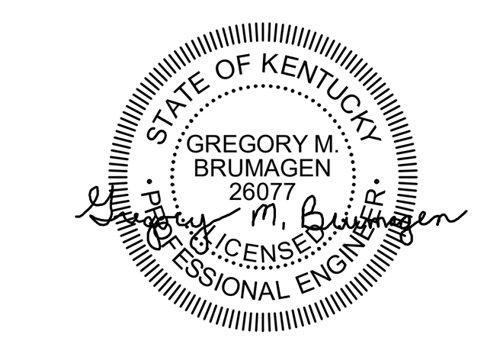

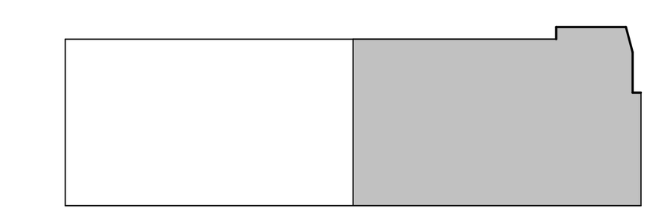

KEY PLAN

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Sheet Title:

Middle Level East - Fire Alarm

Project Number	XCOD19
Drawn By	ILA
Approved By	GMB
Date	04-15-2022

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- 6/02/2022 ADDENDUM 2

FA-101B

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STRUCTURAL BEAMS AND COLUMNS SHALL NOT BE CUT, NOTCHED, DRILLED THROUGH, OR OTHERWISE DAMAGED FOR PASSAGE OF M.E.P. ITEMS UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER ON A CASE-BY-BASIS OR UNLESS SHOWN AS BEING MODIFIED IN THE STRUCTURAL DOCUMENTS (S-SERIES SHEETS).

TAGGED NOTES

(##)

S3 COORDINATE DATA DROP LOCATION WITH FIRE ALARM CONTROL PANEL (FACP) PRIOR TO ROUGH IN.

S9 CABLE TRAY TO BE MOUNTED 10' AFF ACROSS ENTIRE LOWER LEVEL. SHALL SLOPE UP WITH FLOOR ON THE WEST END. TRAY SHALL BE 24"W4"D, SOLID BOTTOM STYLE.

S15 WIRELESS ACCESS POINT SHALL BE INSTALLED ON EXTERIOR OF BUILDING AT 8'-0".

S25 COORDINATE DATA DROP WITH METER EQUIPMENT LOCATION. COORDINATE IP SUBNET WITH UK SUCH THAT METERS ARE ON THE SAME SUBNET AS THE BAS.

S26 COORDINATE DATA DROP WITH METER IN MAIN ELECTRICAL GEAR 'MDP' AS REQUIRED BY UK.

3

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.

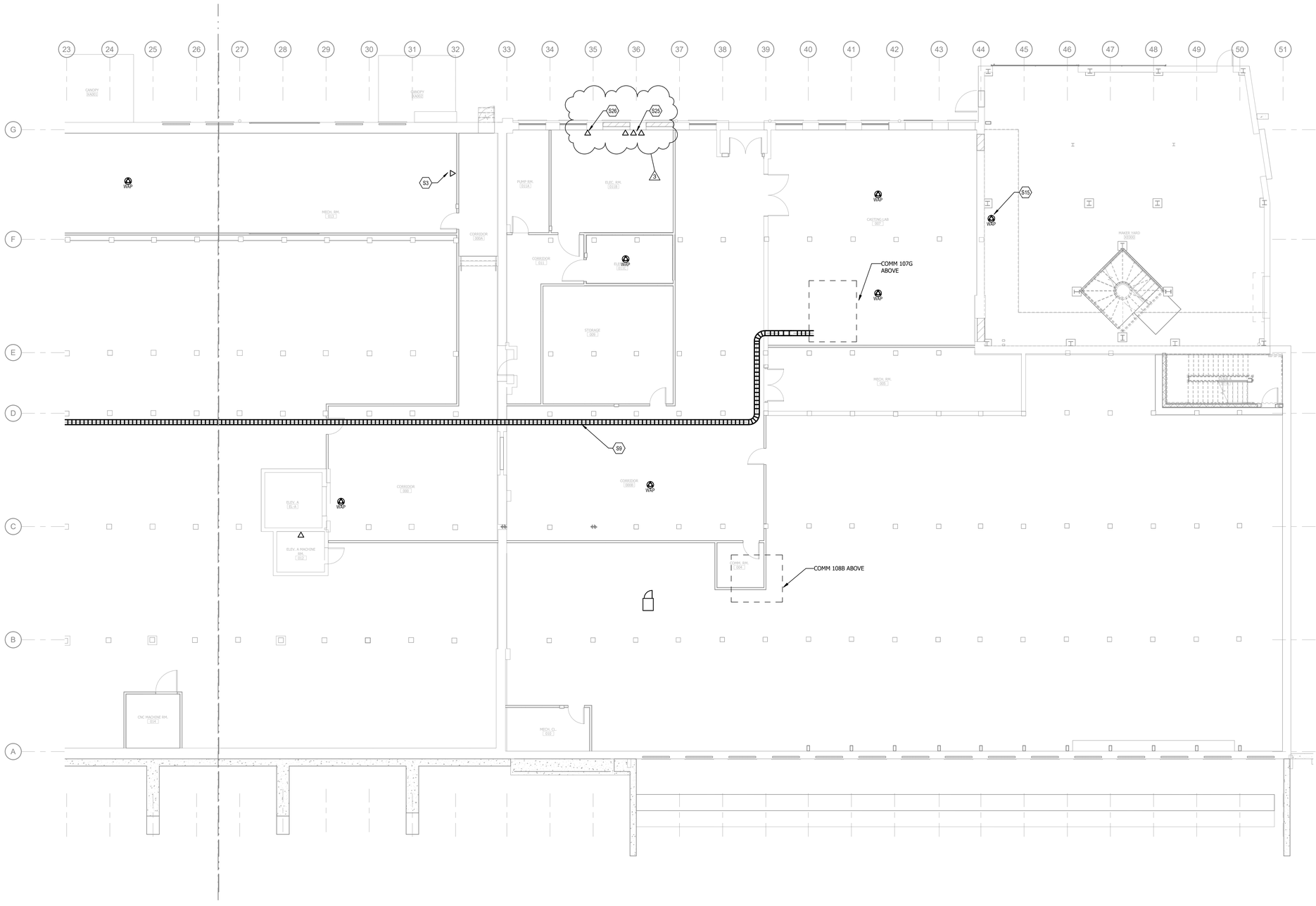
B CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS 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 REFER TO "SYSTEM INSTALLATION MATRIX" (ON SYSTEMS LEGEND SHEET) AND SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS OF EACH SYSTEM.

E 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.

F 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.



1 LOWER LEVEL EAST - SYSTEMS
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32'

N NORTH
N PROJECT NORTH

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Sheet Title:
Lower Level East - Systems Plan

Project Number	XCOD19
Drawn By	ILA
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Date	04-15-2022

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IT-100B

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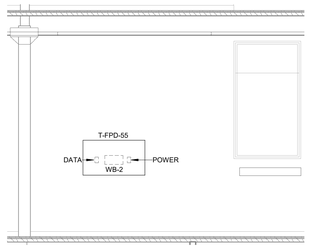
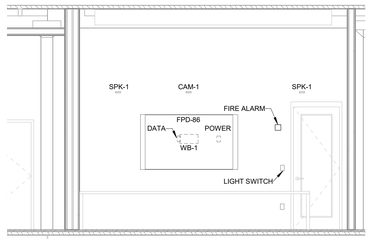
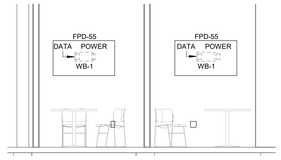


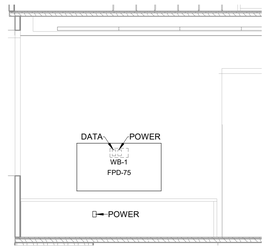
1 CORRIDOR 100C DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



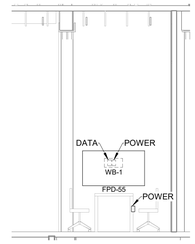
2 CLASSROOM 114K FRONT WALL ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



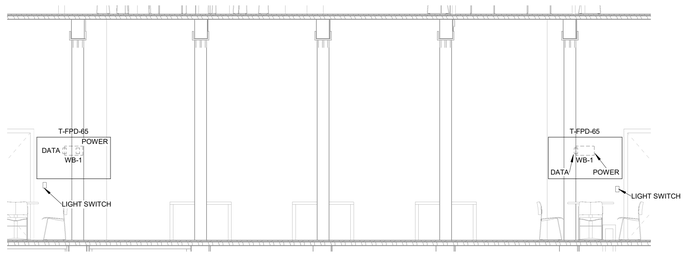
3 HUDDLE ROOMS 123 & 125 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



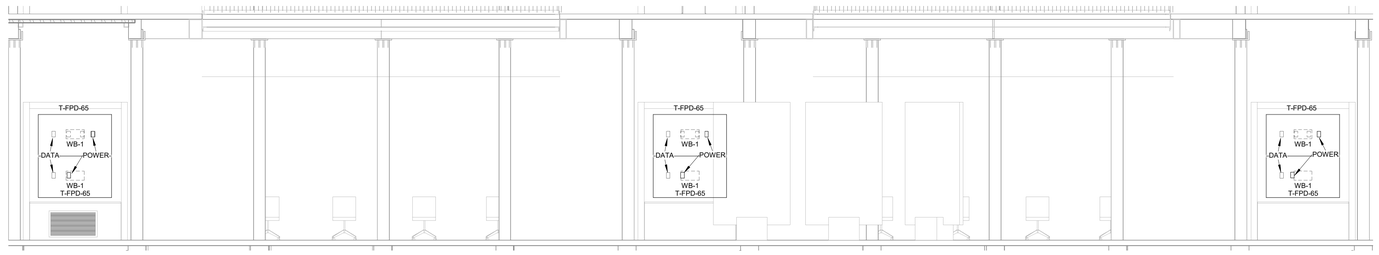
4 FACULTY COMMONS 127E DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



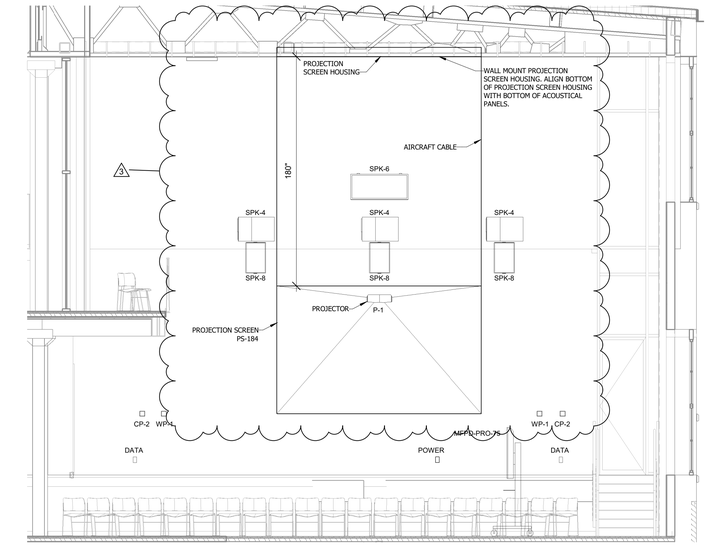
13 BREAKOUT ROOM 128 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



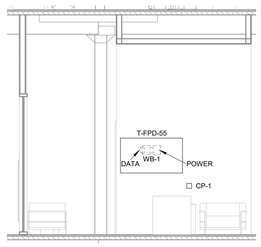
5 ASSEMBLY 114 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



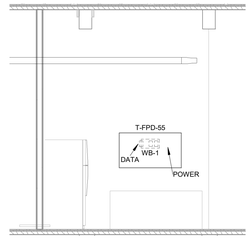
6 STUDIO 113 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



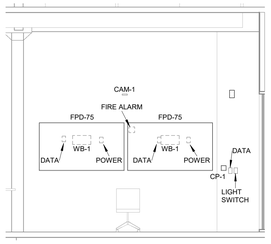
7 FORUM 111 PROJECTOR ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



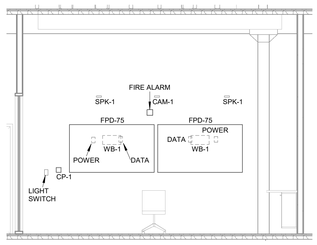
8 RECEPTION 102 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



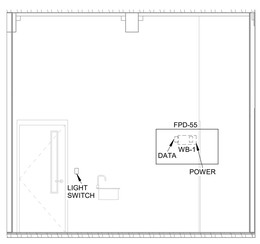
MAIL ROOM 102Z DIGITAL SIGNAGE ELEVATION
9 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



CONFERENCE ROOM 102B DISPLAY ELEVATION
10 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



CONFERENCE ROOM 102C DISPLAY ELEVATION
11 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



DEAN'S OFFICE 102M DISPLAY ELEVATION
12 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'

ALL AUDIOVISUAL EQUIPMENT, CABLING, PROGRAMMING AND SOFTWARE IS NOT IN THIS CONTRACT AND WILL BE OWNER PROVIDED VIA A FUTURE TRADE PACKAGE. THIS DRAWING IS INCLUDED TO COMMUNICATE DESIGN INTENT AND COORDINATION INFORMATION TO HELP INFORM THIS TRADE PACKAGE'S BID. REFER TO ELECTRICAL, ARCHITECTURAL AND LOW VOLTAGE PLANS FOR INFORMATION ON INFRASTRUCTURE TO SUPPORT FUTURE AUDIOVISUAL TRADE PACKAGE.

University of Kentucky
Reynolds Building #2511.2

349 Scott Street
Lexington, KY 40508

K NORMAN BERRY ASSOCIATES ARCHITECTS

Studio Gang

STATE OF KENTUCKY
GREGORY M. BRUMAGEN
26077
LICENSED PROFESSIONAL ENGINEER

06/03/22	ADDENDUM #02
04/15/22	100% CDS FOR BIDDING
01/07/21	100% CDS FOR ESTIMATING - N.F.C.
12/18/20	75% CONSTRUCTION DOCUMENTS
11/20/20	50% CONSTRUCTION DOCUMENTS
10/30/20	25% CONSTRUCTION DOCUMENTS
08/28/20	100% DESIGN DEVELOPMENT
04/24/20	100% SCHEMATIC DESIGN
DATE	DESCRIPTION

Architect of Record:
K. NORMAN BERRY ASSOCIATES ARCHITECTS PLLC
815 W. Market Street, Ste. 502
Louisville, KY 40202
502.582.2500

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Engineer:
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Lexington, KY 40503
859.253.0892

Structural Engineer:
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Lexington, KY 40505
859.543.0933

Civil Engineer/Landscape Architect:
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859.254.9803

Acoustics Consultant:
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859.240.1350

Lighting Consultant:
PRITCHARD PECK
389 Clementina Street
San Fransisco, CA 94103
415.323.5540

Sheet Title:
Audiovisual Elevations

Project Number	XCOD19
Drawn By	WT
Approved By	MS
Date	04-15-2022

Revisions:
- 6/02/2022 ADDENDUM 2
-
-
-

04-15-2022 100% CONSTRUCTION DOCUMENTS - ISSUED FOR BIDDING

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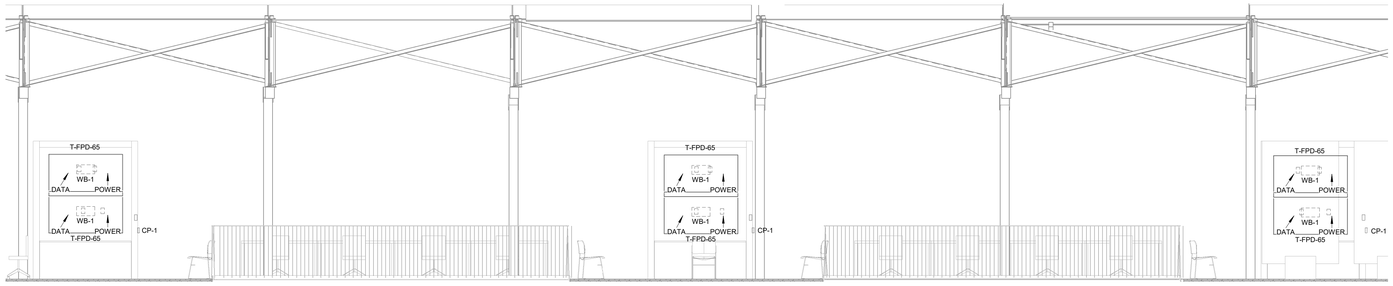
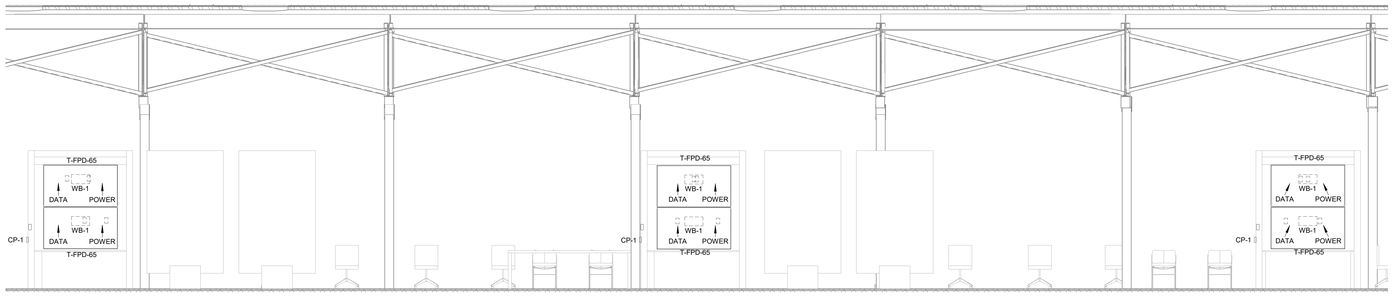
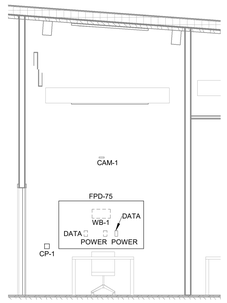


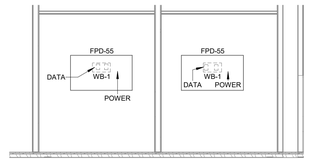
1 STUDIO 213 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



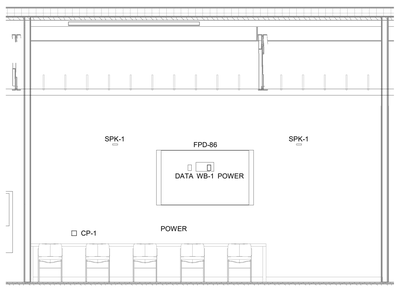
2 STUDIO 214 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



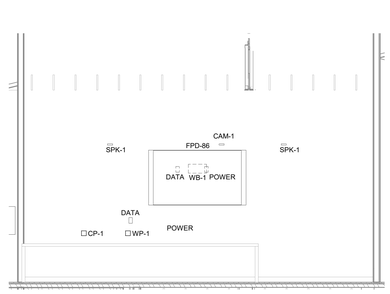
3 BREAKOUT ROOM 226 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



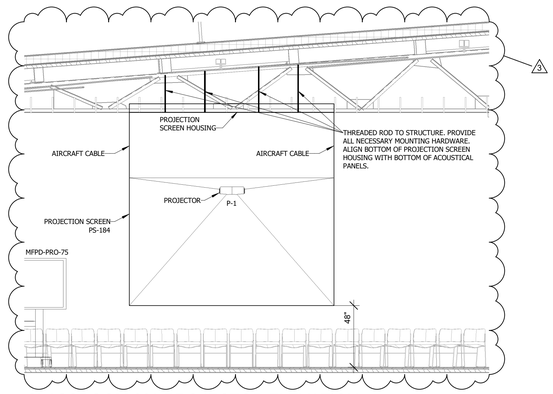
BREAKOUT ROOMS 223 & 225 DISPLAY ELEVATION
4 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



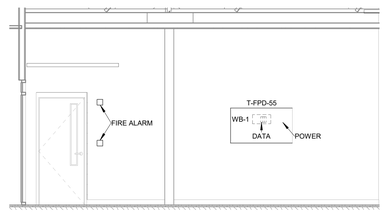
5 CLASSROOM 215 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



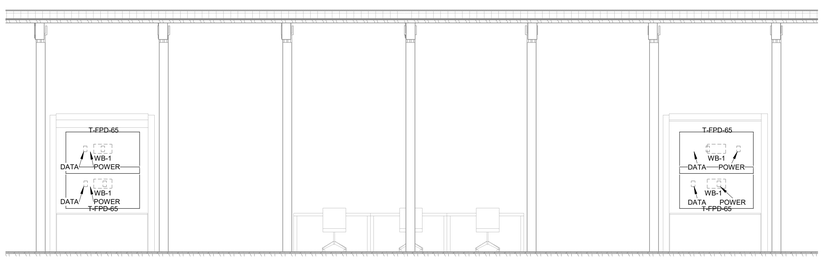
6 CLASSROOM 218 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



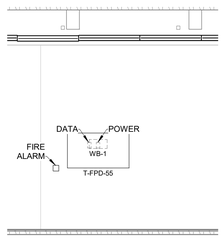
7 CLASSROOM 209 PROJECTOR ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



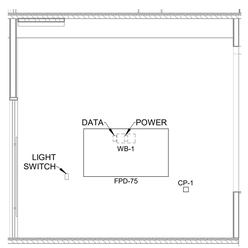
8 CORRIDOR 200B DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



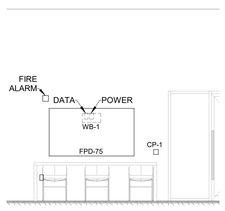
9 STUDIO 202 DIGITAL SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



10 LOBBY 110 DISPLAY ELEVATION
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



TYPICAL FACULTY SPONSORED PROJECT ROOM DISPLAY ELEVATION
11 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'



FACULTY CONFERENCE ROOM 227E DISPLAY ELEVATION
12 SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8' 12' 16'

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Revisions:
- 6/02/2022 ADDENDUM 2
-
-
-

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