University of Kentucky
Procurement Services

INVITATION FOR BIDS

CCK-2543.0-1-25

CAER Carbon Fiber Development
Project # 2543.0
ADDENDUM # 2
09/16/2024

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY 09/25/2024 @ 3:00 P.M. LEXINGTON, KY TIME

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

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

Bidders are instructed to review and incorporate the enclosed Addendum #2 from Omni Architects into their offers.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

Corey W. Leslie

SIGNATURE

_____

_____
Typed or Printed Name

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

ADDENDUM NUMBER TWO

Bidders shall conform to the following changes, as same shall become binding on the Contract to be issued in response to this Invitation to Bid.

PROJECT INFORMATION

1. **Future Addenda and Bidder Questions** – The final addendum will be issued on Wednesday, September 18, 2024.

2. **Bidder Questions** – Any submitted questions not answered in this addendum, will be included in the final addendum.

PRODUCT INFORMATION

For all of the product information listed below, Bidders are reminded that the listing of a manufacturer in this document is in no way an endorsement or approval of the manufacturer's products, nor is it a waiver of any specified criteria. All bidders must comply with the criteria originally specified.

QUESTIONS & CLARIFICATIONS

3. **Reference Cover Sheet**: Contractor to follow site diagram which indicates project location, entrance to the job site, and contractor parking/lay down area.

CORRECTIONS / CHANGES

4. Reference Specification 11 5313 "Laboratory Fume Hoods", articles 2.4C "VAV Control": Revise the article with the article listed below.

2.4 FUME HOODS

A. Product Standards: Comply with SEFA 1, "Laboratory Fume Hoods - Recommended Practices." Provide fume hoods UL listed and labeled for compliance with UL 1805.

B. Constant Volume Fume Hoods: Provide constant volume fume hoods without bypass.
   1. Provide sufficient bypass capacity so that face velocity with sash opening of 6 inches does not exceed 3 times the face velocity with sash fully open.

5. Reference Specification 11 5313 "Laboratory Fume Hoods", article 3.6A.5 & 3.6B.5 "Ventilation Type": Revise article 3.6 A.5 "Ventilation Type" with the article below.

3.6 FUME HOOD SCHEDULE

A. Bench-Top Fume Hood:
   1. Exterior: Steel with chemical-resistant finish.
   2. Lining Assembly: Stainless steel.
   3. Nominal Width: 96 inches (2,438 mm).
   4. Nominal Depth: Manufacturer's standard.
   5. Ventilation Type: Constant Volume.

B. Floor-Mounted Fume Hood:
   1. Exterior: Steel with chemical-resistant finish.
   2. Lining Assembly: Stainless steel.
   3. Nominal Width: 96 inches (2,438 mm).
   4. Nominal Depth: 48 inches (1,219 mm).
   5. Ventilation Type: Constant Volume.
   6. Sash Configuration:

6. Refer to the Mechanical Specifications, Section 230200 – HVAC EQUIPMENT AND HYDRONIC SPECIALTIES: Refer to paragraph "2. Equipment". Provided contract drawing and specification requirements

are met, Car-Mon shall be considered an approved equal for the dust collection unit (subsection 2 B), Barrel Hood and Canopy Hoods (subsection 2 G), and Snorkel / Fume Arms (subsection 2 H).

7. Refer to the Plumbing Drawings, Sheet P2.0 – FIRST FLOOR PLUMBING PLAN: Added deck mounted emergency eye wash/drench hose, floor drain, cleanout, and associated plumbing piping. Refer to clouded revision on sheet. Revised tagging for better clarity. Refer to clouded revisions on sheet.

8. Refer to the Plumbing Drawings, Sheet P2.0A – FIRST FLOOR PLUMBING PLAN – ALT#1: Added deck mounted emergency eye wash/drench hose, floor drain, cleanout, and associated plumbing piping. Refer to clouded revision on sheet.

9. Refer to the Plumbing Drawings, Sheet P3.0 – PLUMBING DETAILS, SCHEMATICS, AND SCHEDULES: Refer to the "PLUMBING FIXTURE SCHEDULE": Revised fixtures "P-2" and "P-3" and added fixture "P-8". Refer to clouded revisions on sheet.

10. Refer to the Plumbing Drawings, Sheet P4.0 – SANITARY AND VENT RISER: Revised riser per the updates in this addendum. Refer to clouded revisions on sheet.

11. Refer to the Plumbing Drawings, Sheet P4.0A – SANITARY AND VENT RISER – ALT#1: Revised riser per the updates in this addendum. Refer to clouded revisions on sheet.

12. Refer to the Mechanical Drawings, Sheet UM2.0 – MECHANICAL SITE PLAN: Deleted sanitary manhole. Revised sanitary pipe routing and added exterior cleanouts. Revised tagging for better clarity. Refer to clouded revisions on sheet.

UK CAER-CARBON FIBER DEVELOPMENT FACILITY

UK Project Number: 2543.0
Omni Project Number: 2021
2540 RESEARCH PARK DR.
LEXINGTON, KY 40511

SCHEDULE OF DRAWINGS

GENERAL

C-0	COVER
SS01	SURVEY

SITE

L0.0	SITE LOGISTICS PLAN
L1.0	EPSC PLAN
L2.0	SITE CLEARING PLAN
L3.0	SITE GRADING & DRAINAGE PLAN
L4.0	SITE GRADING & DRAINAGE PLAN
L6.0	SITE DETAILS

STRUCTURAL

S1.1	GENERAL NOTES
S1.2	SPECIAL INSPECTIONS
S1.3	ISOMETRIC VIEWS
S2.1	FOUNDATION PLAN AND SECTIONS
S2.2	ROOF FRAMING PLAN AND SECTIONS
S3.1	TYPICAL FOUNDATION DETAILS
S4.1	TYPICAL FRAMING DETAILS
S5.1	STEEL COLUMN SCHEDULE
S6.1	TYPICAL COLD-FORMED STEEL FRAMING DETAILS
S6.2	TYPICAL COLD-FORMED STEEL ROOF TRUSS DETAILS

ARCHITECTURAL

A-0.1	GENERAL INFORMATION
A-0.2	TYPICAL MOUNTING HEIGHTS
A-0.3	GENERAL INFORMATION AND INTERIOR WALL TYPES
A-1.0d	DIMENSION PLAN
A-1.1	FLOOR PLAN
A-1.2	3D VIEWS
A-2.1	BUILDING ELEVATIONS & SECTIONS
A-4.1	WALL SECTIONS
A-5.1	ENLARGED RESTROOMS & INTERIOR ELEVATIONS
A-6.1	REFLECTED CEILING PLAN
A-7.1	ROOF PLAN
A-7.2	ROOF DETAILS
A-8.1	DOOR SCHEDULE, HOLLOW METAL, SPECIALTY OPENING & DETAILS
A-8.2	METAL WALL PANEL & MISC. DETAILS
A-9.1	MISCELLANEOUS DETAILS
A-10.1	EQUIPMENT PLAN

ELECTRICAL

E1.0	ELECTRICAL LEGEND
E2.0	FIRST FLOOR PLAN - POWER/SYSTEMS - NEW WORK
E2.1	ROOF PLAN - ELECTRICAL NEW WORK
E3.0	FIRST FLOOR PLAN - LIGHTING NEW WORK
E5.0	LUMINARE SCHEDULE @ ELECTRICAL DETAILS
E6.0	ONE-LINE DIAGRAM
E7.0	PANELBOARD SCHEDULES
UE1.0	ELECTRICAL SITE PLAN

MECHANICAL

M1.0	MECHANICAL LEGEND
M2.0	FIRST FLOOR MECHANICAL PLAN
M2.0A	FIRST FLOOR MECHANICAL PLAN - ALT #1
M3.0	ENLARGED MECHANICAL PLANS
M3.1	ENLARGED MECHANICAL PLANS
M4.0	MECHANICAL DETAILS
M5.0	MECHANICAL SECTIONS
M5.1	MECHANICAL SECTIONS
M6.0	MECHANICAL SCHEMATICS AND CONTROLS
M7.0	MECHANICAL SCHEDULES
UM1.0	MECHANICAL SITE DEMOLITION PLAN
UM2.0	MECHANICAL SITE PLAN

PLUMBING

P1.0	PLUMBING LEGEND
P2.0	FIRST FLOOR PLUMBING PLAN
P2.0A	FIRST FLOOR PLUMBING PLAN - ALT #1
P3.0	PLUMBING DETAILS, SCHEMATICS, AND SCHEDULES
P4.0	SANITARY AND VENT RISER
P4.0A	SANITARY AND VENT RISER - ALT #1
P5.0	NATURAL GAS RISER

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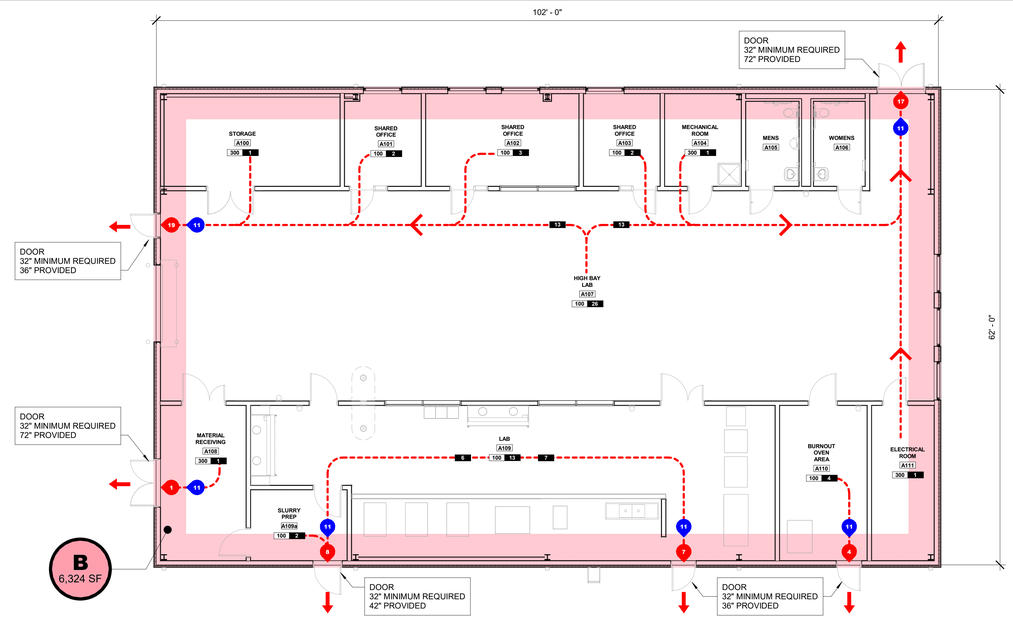


1 C-0 CODE REVIEW PLAN
1/8" = 1'-0"

BUILDING CODE ANALYSIS (2018 KBC)

THE PROJECT INCLUDES NEW CONSTRUCTION OF A ONE STORY ASSEMBLY BUILDING FOR THE UK CAER CAMPUS.

OCCUPANCY GROUP:	**B, BUSINESS**
CONSTRUCTION TYPE:	**TYPE II B, NONCOMBUSTIBLE**
NUMBER OF STORIES:	**1 OCCUPIED FLOORS**
SPRINKLER SYSTEM:	**NON-SPRINKLERED**
BUILDING HEIGHT:	**(1) STORIES @ 25"**
BUILDING AREA:	**FIRST FLOOR 6,324 SF**
	TOTAL 6,324 SF
	ALLOWABLE BUILDING AREA PER TYPE II B CONSTRUCTION (BUSINESS) NON-SPRINKLERED = 23,000 SF (PER TABLE 506.2)

OCCUPANT LOAD (1004.1.2)

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT:	**BUSINESS AREAS**	**100 GROSS**
	ACCESSORY STORAGE/ MECHANICAL	**300 GROSS**
APPROXIMATE AREAS: OCCUPANT AREA	**AREA / LOAD FACTOR**	**OCCUPANTS**
BUSINESS AREAS	**6,324 SF / 100 GROSS =**	**64**
ACCESSORY STORAGE / MECHANICAL	**6,324 SF / 300 GROSS =**	**21**
TOTAL OCCUPANT LOAD		**85**

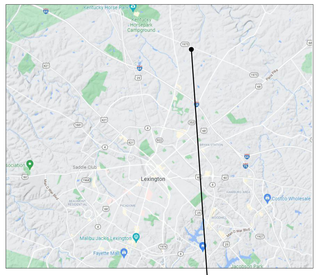
FIRE-RESISTANCE RATINGS REQUIREMENTS (TABLE 601)

BUILDING ELEMENTS FOR TYPE IIB CONSTRUCTION	HOURS
STRUCTURAL FRAME	
INCLUDING COLUMNS, GIRDERS, TRUSSES (EXCLUDES DIAGONAL BRACING FOR WIND LOADS)	0
SUPPORTING ROOF ONLY (EQUIPMENT PENTHOUSE COLUMNS)	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
INTERIOR WHERE SUPPORTING ROOF ONLY	0
NON BEARING WALLS AND PARTITIONS	
EXTERIOR (BASED ON FIRE SEPARATION DISTANCE GREATER THAN 30 FEET PER TABLE 602)	0
INTERIOR	0
FLOOR CONSTRUCTION	
INCLUDING METAL DECK, SUPPORTING BEAM, AND JOIST	0
ROOF CONSTRUCTION	
INCLUDING METAL DECK, SUPPORTING BEAM, AND JOIST	0
SPECIAL CONDITIONS	
SHAFT ENCLOSURES (PER 713.4)	0

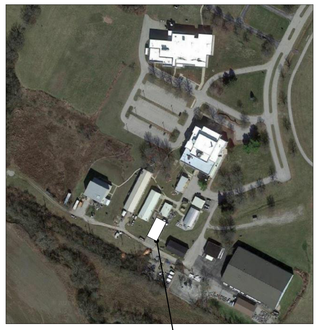
GRAPHIC LEGEND

- Z-# / ### SF — USE GROUP TAG / USE GROUP / GROSS SQUARE FOOTAGE
- USE GROUP - BUSINESS (B) PER CHAPTER 3
- 1-HOUR RATED FIRE BARRIER
- EGRESS TRAVEL DISTANCE
- EGRESS PATH
- XXX — EXIT ACCESS SEPARATION DISTANCE
- CUMULATIVE OCCUPANT LOAD DISCHARGE (EXTERIOR)
- CUMULATIVE OCCUPANT LOAD DISCHARGE (INTERIOR)
- ### — OCCUPANT LOAD DISCHARGE
- Room name / 101 / ### / ### — ROOM TAG: ROOM NUMBER; CALCULATED OCCUPANT LOAD FOR SPACE; ANTICIPATED OCCUPANT LOAD; VALUE FROM TABLE 1004.2 BASED ON SPACE FUNCTION
- EGRESS POINT
- OCCUPANT LOAD LIMIT SIGNAGE

VICINITY MAP 1



VICINITY MAP 2



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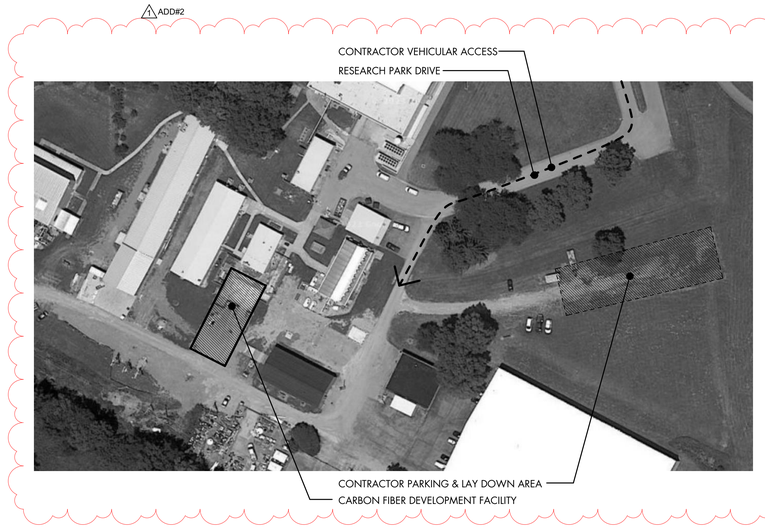

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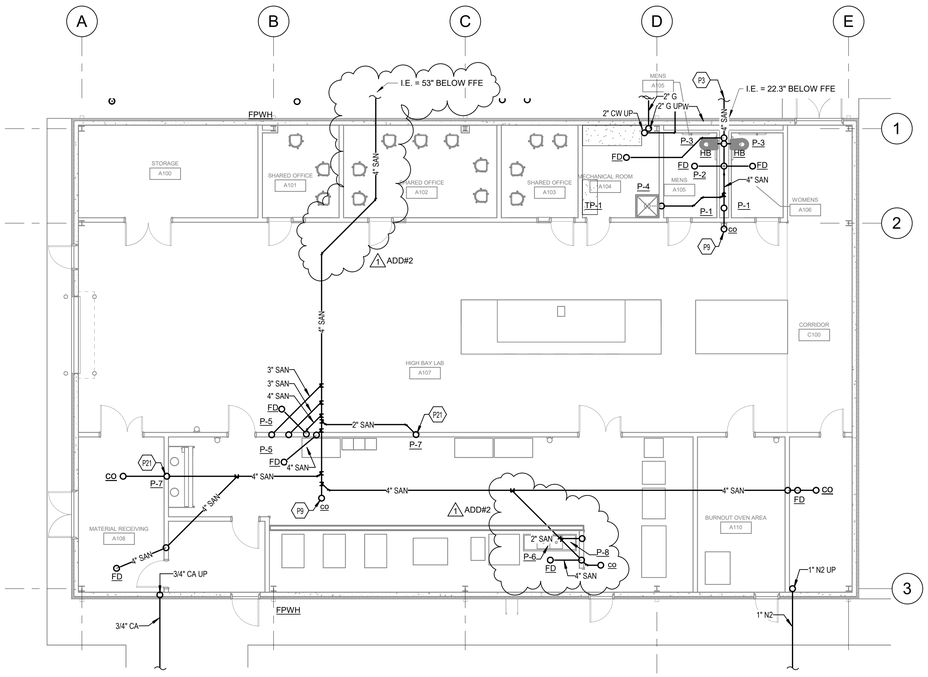
ERIC J. ZABLUDA — REGISTERED NO. 31203 — STATE OF KENTUCKY — ARCHITECT

LEXINGTON, KY
UNIVERSITY OF KENTUCKY
UK CAER - CARBON FIBER DEVELOPMENT FACILITY

100% CONSTRUCTION DOCUMENTS

TAGGED NOTES

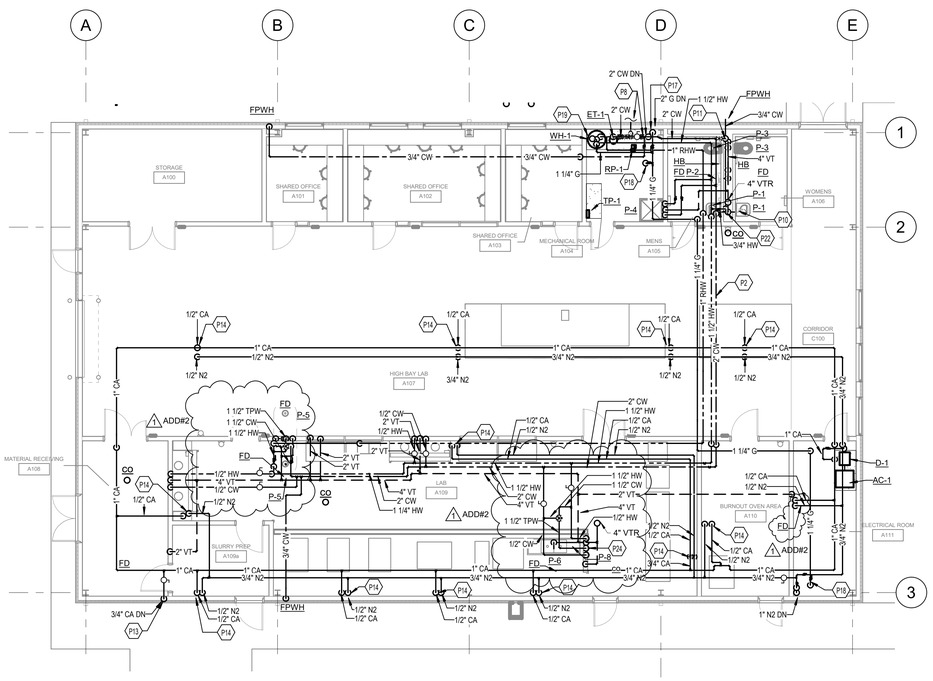
P2	ALL EXPOSED PLUMBING UTILITIES SHALL BE CANVAS WRAPPED AND PAINTED PER ARCHITECTURAL REQUIREMENTS. ROUTE DOMESTIC WATER PIPING AS HIGH AND TIGHT TO STRUCTURE AS POSSIBLE.
P3	REFER TO SITE PLAN FOR CONTINUATION.
P8	DOMESTIC WATER ENTERS BUILDING AT INDICATED LOCATION. PROVIDE WATTS 2" MODEL LF909 BACKFLOW PREVENTION DEVICE AT INDICATED LOCATION. PROVIDE 8" FUNNEL TO 4" PVC PIPE AND PIPE TO EXTERIOR OF THE BUILDING - REFER TO "DOMESTIC WATER ENTRANCE SCHEMATIC", SHEET P3.0.
P9	PROVIDE 4" CLEANOUT AT INDICATED LOCATION.
P10	PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREWS FOR ALL WATER SUPPLY AND WASTE PIPING EXITING A WALL TO CONNECT TO A FIXTURE, TYPICAL.
P11	2" DOMESTIC COLD WATER PIPING DOWN IN WATER WALL TO SERVE PLUMBING FIXTURES.
P13	ROUTE 3/4" COMPRESSED AIR PIPING TO DUST COLLECTION UNIT DC-1. PROVIDE COMPRESSED AIR PIPING AND ACCESSORIES PER MANUFACTURER REQUIREMENTS. REFER TO SHEETS M2.0 AND UM2.0.
P14	PROVIDE COMPRESSED AIR DROP AND NITROGEN DROP AT INDICATED LOCATION. COORDINATE EXACT LOCATION LENGTH OF EACH DROP WITH OWNER PRIOR TO PROVIDING. PROVIDE COMPRESSED AIR AND NITROGEN DROPS WITH SHUTOFF VALVE AND QUICK DISCONNECT.
P17	NATURAL GAS ENTERS BUILDING AT INDICATED LOCATION.
P18	PROVIDE NATURAL GAS TO SPLIT SYSTEM UNIT. TRANSITION SIZE AS REQUIRED AT UNIT TO MAKE CONNECTION.
P19	PROVIDE NATURAL GAS TO WATER HEATER. TRANSITION SIZE AS REQUIRED AT UNIT TO MAKE CONNECTION.
P21	NOTE: ACID NEUTRALIZATION KIT SERVING FUME HOOD SHALL BE INSTALLED UPSTREAM OF P-TRAP (I.E., P-TRAP SHALL BE CONNECTED TO OUTLET OF ACID NEUTRALIZATION KIT)
ADD#2 P22	3/4" DOMESTIC HOT WATER PIPING DOWN IN WATER WALL TO SERVE P-1 FIXTURES.
P24	ROUTE 1/2" CW, 1/2" HW, AND 1-1/2" TPW PIPING DOWN WITHIN WALL TO SERVE SINK AND DECK MOUNTED EYE WASHDRENCH HOSE. CONCEAL PIPING UNDER CASEWORK TO EACH PLUMBING FIXTURE.



2 FIRST FLOOR UNDERSLAB PLUMBING PLAN

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

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



1 FIRST FLOOR PLUMBING PLAN

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

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

TRUE PROJECT

PRINT DATE: 9/10/2024 2:49:41 PM

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UK CAER - CARBON FIBER DEVELOPMENT FACILITY

PROJECT NUMBER 2021

DATE 09/10/204

100% CONSTRUCTION DOCUMENTS

REVISIONS

1	BID CHANGES	DATE

FIRST FLOOR PLUMBING PLAN

P2.0

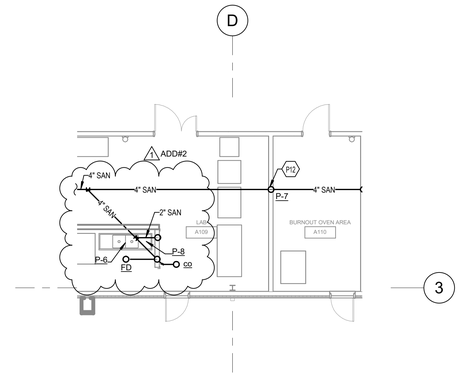
TAGGED NOTES

##

P12 ALTERNATE #1 SHALL INCLUDE THE ADDITION OF A 1/2" DOMESTIC COLD WATER, 1/2" DOMESTIC HOT WATER, 2" VENT PIPING, AND 4" SANITARY WASTE PIPING ROUTED TO FUTURE FUME HOOD TO BE LOCATED IN "BURNOUT OVEN AREA A110". PROVIDE WITH ACID NEUTRALIZATION KIT. KIT SHALL BE INSTALLED UPSTREAM OF P-TRAP (I.E., P-TRAP SHALL BE CONNECTED TO OUTLET OF ACID NEUTRALIZATION KIT). REFER TO, AND COORDINATE WITH, ARCHITECTURAL PLANS FOR EXACT LOCATION OF FUTURE FUME HOOD AND EXTEND ALL PIPING AS REQUIRED. ALL OTHER BASE BID SCOPE IN THE PROJECT SHALL BE INCLUDED IF THIS ALTERNATE IS ACCEPTED.

P14 PROVIDE COMPRESSED AIR DROP AND NITROGEN DROP AT INDICATED LOCATION. COORDINATE EXACT LOCATION LENGTH OF EACH DROP WITH OWNER PRIOR TO PROVIDING. PROVIDE COMPRESSED AIR AND NITROGEN DROPS WITH SHUTOFF VALVE AND QUICK DISCONNECT.

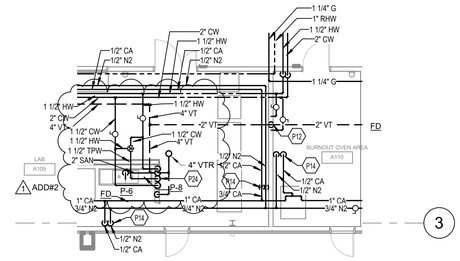
1 ADD#2 P24 ROUTE 1/2" CW, 1/2" HW, AND 1-1/2" TPW PIPING DOWN WITHIN WALL TO SERVE SINK AND DECK MOUNTED EYE WASH/DRENCH HOSE. CONCEAL PIPING UNDER CASEWORK TO EACH PLUMBING FIXTURE.



FIRST FLOOR UNDERSLAB PLUMBING PLAN - ALT#1

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

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



FIRST FLOOR PLUMBING PLAN - ALT#1

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

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

TRUE PROJECT

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UK CAER - CARBON FIBER DEVELOPMENT FACILITY

PROJECT NUMBER 2021

DATE 09/10/204

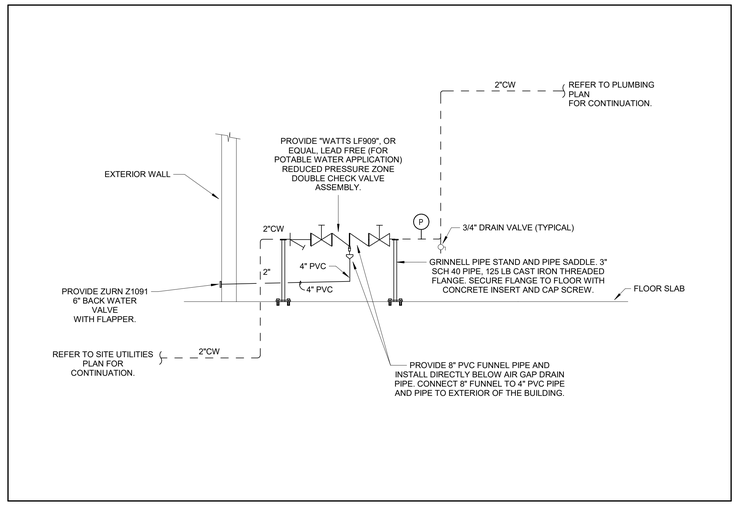
100% CONSTRUCTION DOCUMENTS

REVISIONS

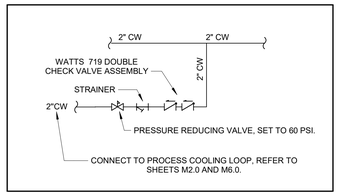
1	BID CHANGES	DATE

FIRST FLOOR PLUMBING PLAN - ALT#1

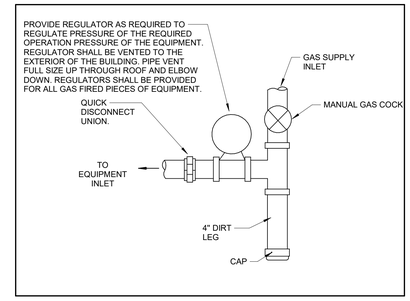
P2.0A



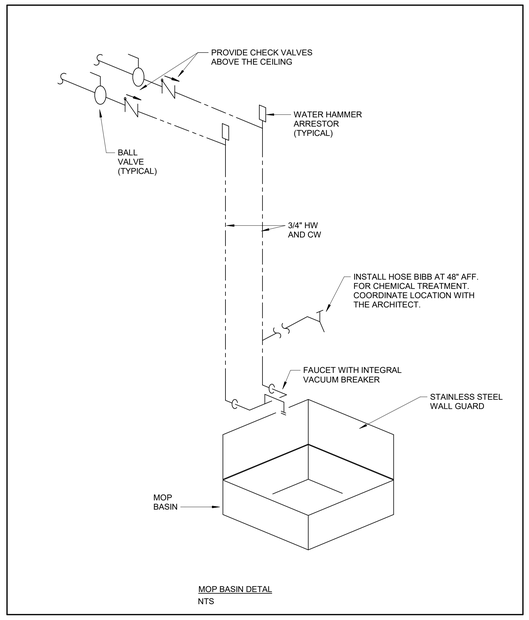
3 DOMESTIC WATER ENTRANCE SCHEMATIC
SCALE: NONE



7 HYDRONIC FILL SCHEMATIC
SCALE: NONE

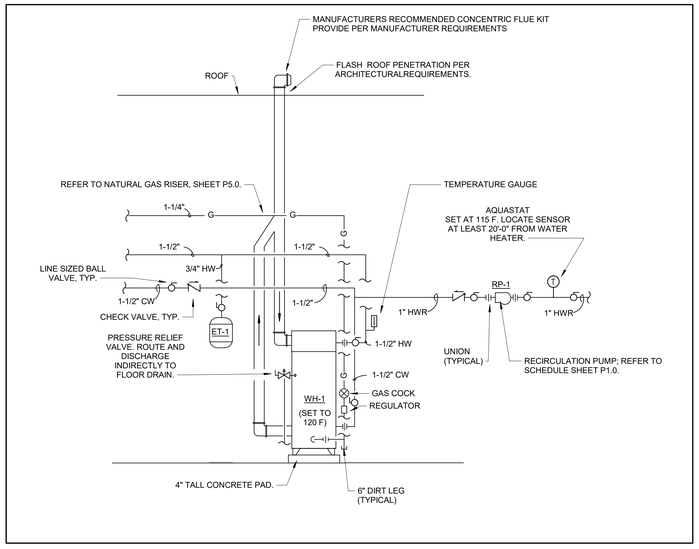


1 TYPICAL GAS CONNECTION DETAIL
SCALE: NONE

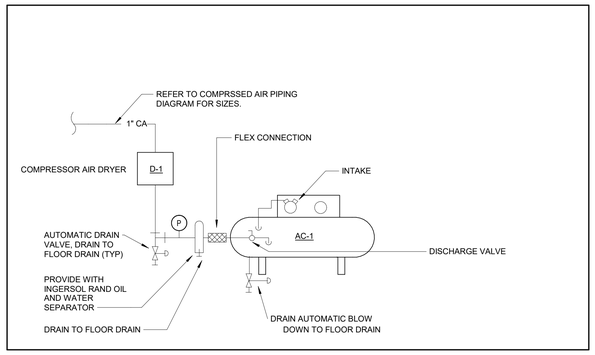


MOP BASIN DETAL
NTS

2 MOP BASIC DETAIL
SCALE: NONE



4 WATER HEATERS PIPING SCHEMATIC
SCALE: NONE



5 AIR COMPRESSOR SCHEMATIC
SCALE: NONE

EXPANSION TANK SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	PHYSICAL SIZE (IN) HEIGHT	PHYSICAL SIZE (IN) DIAMETER	CAPACITY TANK VOLUME (GALS)	CAPACITY ACCEPTANCE VOLUME (GALS)	CAPACITY AIR CHARGE PRESSURE (PSI)	REMARKS
ET-1	TACO	CA90-125B	WH-1	20	29	23.0	23.00	40.00	ALL

REMARKS:
1. PROVIDE WITH SIGHT GLASS.

AIR COMPRESSOR SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	DIMENSIONS (IN) WIDTH	DIMENSIONS (IN) HEIGHT	DIMENSIONS (IN) LENGTH	WEIGHT	TANK VOLUME (GAL)	SCFM @ 90PSI	DESIGN PRESSURE (PSI)	MAX. PRESSURE (PSI)	HP	VOLTAGE	PHASE	REMARKS
AC-1	CAMPBELL HAUSFELD	CE7051	DC-1, COMPRESSED AIR DROPS	42	78	35	410.00	80.0	17	90.00	175	5	208	3	ALL

REMARKS:
1. COORDINATE DISCONNECT REQUIREMENTS WITH ELECTRICAL DRAWINGS.
2. REFER TO DETAIL FOR ALL REQUIREMENTS.

COMPRESSED AIR DRYER SCHEDULE

MARK	MANUFACTURER	MODEL	DIMENSIONS (IN) LENGTH	DIMENSIONS (IN) WIDTH	DIMENSIONS (IN) HEIGHT	WEIGHT (LBS)	FLOW (CFM)	MAX RATED PRESSURE (PSI)	VOLTAGE (V)	PHASE	REMARKS
D-1	INGERSOLL RAND	D60IT	20	15.5	26	86	35	203	120	1	ALL

REMARKS:
1. COORDINATE DISCONNECT REQUIREMENTS WITH ELECTRICAL DRAWINGS.
2. REFER TO DETAIL FOR ALL REQUIREMENTS.

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	CW	HW	VENT	WASTE/DRAIN	VOLTAGE
FD	FLOOR DRAIN - 6" DIA. : ZURN, ZN-415 OR EQUAL FLOOR DRAIN WITH 6" DIAMETER TOP, TYPE "B" NICKEL BRONZE STRAINER, 4" DRAIN OUTLET AND TRAP PRIMER CONNECTION.	-	-	2"	4"	No
FPWH	FREEZE-PROOF WALL HYDRANT : ZURN 1300 OR EQUIVALENT, 3/4", ENCASED, FLUSH, NON-FREEZE WALL HYDRANT WITH KEY LOCK AND COMBINATION BACKFLOW PREVENTER/VACUUM BREAKER. MOUNT HYDRANT AT A MINIMUM OF 20" ABOVE FINISHED GRADE. REFER TO MECHANICAL SPECIFICATION FOR ADDITIONAL REQUIREMENTS.	3/4"	-	-	-	No
HB	HOSE BIBB : ZURN MODEL Z1350 OR EQUAL ENCASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL INSTALLATION. WITH ALL BRONZE BODY, ALL BRONZE INTERIOR PARTS, REPLACEABLE SEAT WASHER, LOOSE KEY OPERATED CONTROL VALVE. VACUUM BREAKER AND 3/4" MALE HOSE CONNECTION. ADJUSTABLE STAINLESS STEEL BOX FURNISHED WITH HINGED COVER CYLINDER LOCK AND "WATER" STAMPED ON THE COVER. MOUNTED WITH HOSE CONNECTION AT 18" ABOVE FINISHED FLOOR ELEVATION OF AREA SERVED.	1/2"	-	-	-	No
P-1	SINGLE COMPARTMENT SINK : SINGLE COMPARTMENT STAINLESS STEEL SINK, 19"X21" O.D., 14"X18" I.D., 61/2" DEEP, 18 GAUGE, WITH 8" CENTERS. PROVIDE WITH 8" RIGID SPOUT GOOSENECK FAUCET WITH 4" WRIST BLADE CONTROL HANDLES, REAR CENTERED CRUMB CUP STRAINER DRAIN, 3/8" ANGLE SUPPLIES WITH STOPS, KENTUCKY CODE P-TRAP, TAILPIECE AND ESCUTCHEONS.	1/2	1/2"	2"	2"	No
1 ADD#2 P-2	URINAL – WALL MOUNTED – MANUAL FLUSH VALVE: ZURN MODEL "Z5755-U" WALL MOUNTED LAVATORY. VITREOUS CHINA, SIPHON JET URINAL WITH 3/4" TOP SPUD INLET, EXTENDED SIDES, 2" I.P.S. OUTLET. PROVIDE WALL CARRIER AND ZURN MODEL "Z6000AV" 1.0 GPF MANUAL FLUSH VALVE, OR EQUAL. PROVIDE WITH WALL CARRIER. MOUNT WITH LIP AT 24" AFF.	3/4"	-	2"	2"	No
1 ADD#2 P-3	WATER CLOSET - WALL MOUNTED - MANUAL FLUSH VALVE – ADA COMPLIANT: ZURN MODEL "Z5617-BWL", OR EQUAL, WALL MOUNTED WATER CLOSET WITH "ZURNSHIELDTM" CERAMIC GLAZE. VITREOUS CHINA, ELONGATED BOWL, SIPHON JET, 11-1/2" TOP SPUD INLET, CHINA BOLT CAPS AND WHITE OPEN FRONT PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGES. PROVIDE WITH ZURN MODEL "Z6000AV" 1.6 GPF MANUAL FLUSH VALVE. PROVIDE WITH WALL CARRIER. MOUNT WITH RIM OF BOWL AT 18" AFF.	1-1/2"	-	2"	4"	No
P-4	MOP BASIN : 24"X24"X10" HIGH MOLDED STONE MOP SERVICE BASIN, IN WHITE DRIFT COLOR, 3" DRAIN, SERVICE FAUCET, HOSE AND HOSE BRACKET, VINYL BUMPERGUARD AND STAINLESS STEEL WALL GUARDS. THE DRAIN SHALL BE LOCATED 12" TO THE CENTER. PROVIDE A CHECK VALVE IN THE HOT AND COLD WATER SUPPLIES.	3/4"	3/4"	2"	3"	No
P-5	EMERGENCY SHOWER/EYE WASH : GUARDIAN EQUIPMENT G1950 OR EQUAL COMBINATION EYE WASH SAFETY SHOWER STATION. WITH 10" DIAMETER ORANGE ABS PLASTIC SHOWER HEAD, 1" STAY OPEN BALL VALVE WITH STAINLESS STEEL ACTUATING ARM AND PULL ROD, 11-1/2" STAINLESS STEEL EYE WASH BOWL WITH SPRAY HEADS FLIP TOP DUST COVERS. PROVIDE WITH GUARDIAN G6040 OR EQUAL THERMOSTATIC MIXING VALVE TM-5100-ST5TL-REC OR EQUAL WITH RECESSED STAINLESS STEEL CABINET.	1-1/4"	1-1/4"	-	-	Yes
P-6	DOUBLE COMPARTMENT SINK W/ GOOSENECK FAUCET : DOUBLE COMPARTMENT STAINLESS STEEL SINK, 20"X37" O.D., 14"X16" I.D., 18 GAUGE, 61/2" DEEP, REAR FAUCET LEDGE WITH 8" CENTERS. PROVIDE WITH CHROME PLATED GOOSENECK FAUCET WITH 4" BLADES AND SWING SPOUT. PROVIDE WITH CHROME SUPPLIES, STOPS, TAILPIECE, KENTUCKY CODE P-TRAP, CRUMB CUP STRAINER DRAINS, CONTINUOUS WASTE AND ESCUTCHEONS.	1/2"	1/2"	2"	2"	No
P-7	ACID NEUTRALIZATION SYSTEM: ZURN MODEL NO. Z9A-PHIX. ACID NEUTRALIZATION SYSTEM SHALL BE INSTALLED UPSTREAM OF P-TRAP.	-	-	2"	2"	No
1 ADD#2 P-8	DECK MOUNTED EMERGENCY EYE WASH/DRENCH HOSE: GUARDIAN EQUIPMENT G5022 - DECK MOUNTED, HAND-HELD EYEWASH/DRENCH HOSE WITH ½" IPS U.S. MADE CHROME-PLATED BRASS SQUEEZE VALVE WITH REPLACEABLE STAINLESS STEEL SEAT AND LOCKING CLIP, STAINLESS STEEL SQUEEZE HANDLE WITH PLASTIC COVER, NYLON HANDLE, NYLON DECK FLANGE WITH LOCATOR GUIDE, AND 8FT. PVC HOSE. UNIT SHALL HAVE (2) POLYPROPYLENE GS-PLUS™ SPRAY HEADS WITH INTEGRAL "FLIP-TOP" DUST COVERS, FILTERS AND 1.6 GPM FLOW CONTROL ORIFICES MOUNTED ON A CHROME-PLATED BRASS EYEWASH ASSEMBLY. PROVIDE WITH G6020 OR EQUAL THERMOSTATIC MIXING VALVE. UNIT SHALL INCLUDE ANSI COMPLIANT SIGN. UNIT SHALL BE FULLY FACTORY ASSEMBLED AND HYDROSTATICALLY TESTED TO MEET OR EXCEED ANSI Z358.1 – 2014, AND COME WITH A FULL 2-YEAR WARRANTY.	1/2"	1/2"	-	-	Yes
TP-1	TRAP PRIMER TYPE-1 : PRECISIONS PLUMBING PRODUCTS PRIME-TIME OR EQUAL ELECTRONIC TRAP PRIMING MANIFOLD, WITH ATMOSPHERIC VACUUM BREAKER, PRE-SET 24 HOUR CLOCK, MANUAL OVERRIDE SWITCH, 120 VOLT SOLENOID VALVE WITH 120V/3WIRE CONNECTION. PROVIDE IN 12" X 12" X 4" SURFACE MOUNTED METAL CABINET. PROVIDE WITH 10 OPENING MANIFOLD, UN-USED MANIFOLD OPENING SHALL BE CAPPED. INSTALL UNITED AS REQUIRED BY MANUFACTURER.	3/4"	-	-	-	Yes

DOMESTIC HOT WATER RECIRCULATION PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	GPM	PRESS DROP (FT HEAD)	MOTOR HP	VOLTAGE	PHASE	REMARKS
RP-1	BELL & GOSSETT	ECOCIRC XL 36-45	WH-1	3	13.00	0.166	115	1	1

REMARKS:
1. COORDINATE DISCONNECT REQUIREMENTS WITH ELECTRICAL DRAWINGS.

GAS FIRED WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL #	SERVICE	STORAGE (GAL)	RECOVERY @ 65°F RISE (GPH)	NATURAL GAS INPUT (MBH)	ALLOWABLE GAS PRESSURE RANGE (" WC)	REMARKS
WH-1	A.O. SMITH	BTH-150(A)	DOMESTIC WATER	100	276	150	3.5-14	ALL

REMARKS:
1. PROVIDE WITH NATURAL GAS REGULATOR.
2. PROVIDE MANUFACTURERS RECOMMENDED CONCENTRIC VENT / FLUE KIT.
3. NOTE: WATER HEATER REQUIRES 120 VAC, 1-PHASE, 15 A POWER SUPPLY.

TRUE PROJECT

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UK CAER - CARBON FIBER DEVELOPMENT FACILITY

PROJECT NUMBER **2021**

DATE **09/10/204**

100% CONSTRUCTION DOCUMENTS

REVISIONS

	BID CHANGES	DATE
1		

PLUMBING DETAILS, SCHEMATICS, AND SCHEDULES

P3.0

PRINT DATE: 9/10/2024 2:49:45 PM

TAGGED NOTES

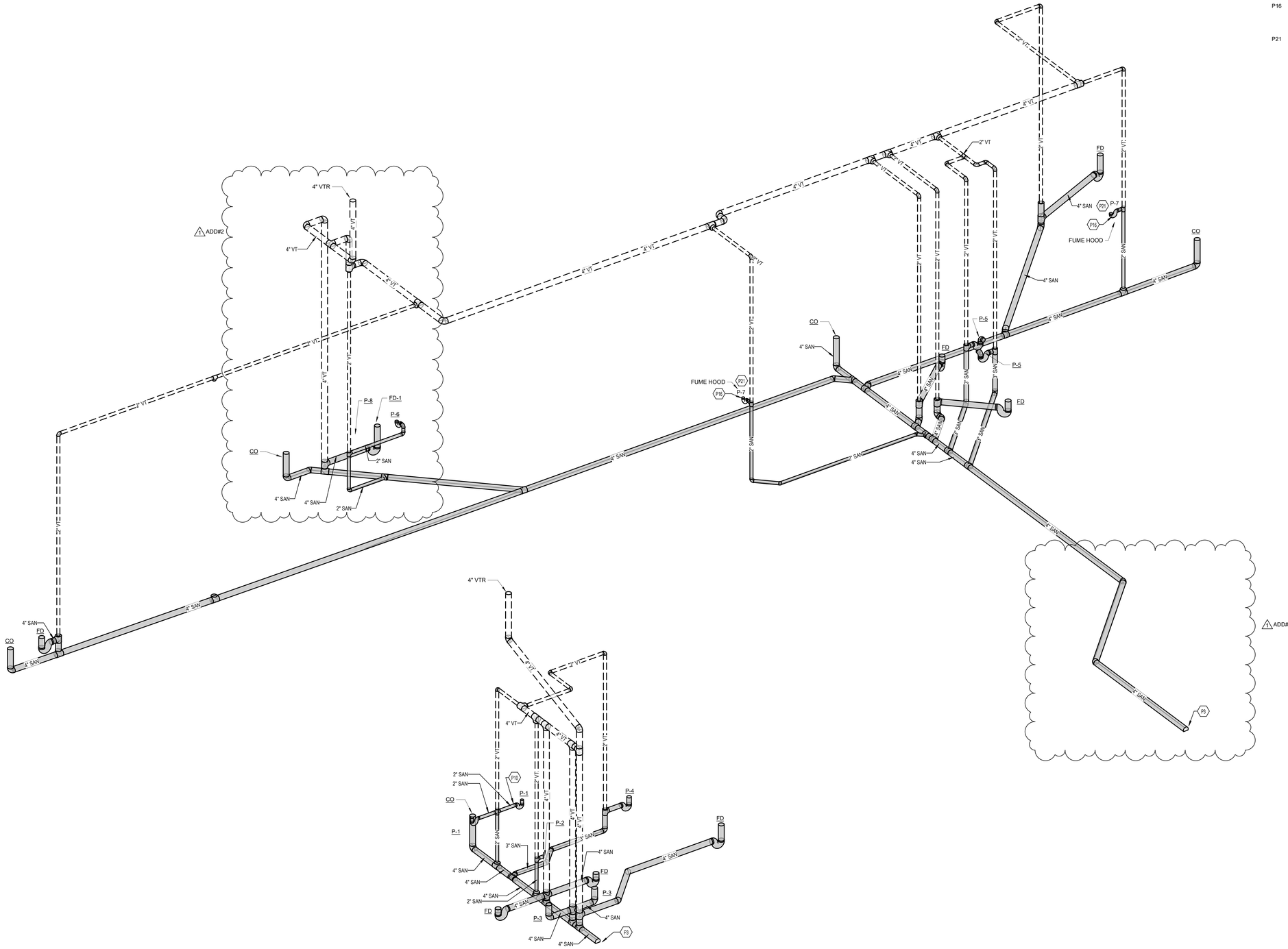
##

P3 REFER TO SITE PLAN FOR CONTINUATION.

P10 PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREWS FOR ALL WATER SUPPLY AND WASTE PIPING EXITING A WALL TO CONNECT TO A FIXTURE, TYPICAL.

P16 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FUME HOOD UTILITY CONNECTIONS AND EXTENDING DOMESTIC WATER, VENT, AND WASTE PIPING AS REQUIRED TO MAKE CONNECTION TO FUME HOOD PER MANUFACTURER REQUIREMENTS, TYPICAL.

P21 NOTE: ACID NEUTRALIZATION KIT SERVING FUME HOOD SHALL BE INSTALLED UPSTREAM OF P-TRAP (I.E., P-TRAP SHALL BE CONNECTED TO OUTLET OF ACID NEUTRALIZATION KIT)



1 PLUMBING RISERS

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

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	BID CHANGES	DATE

SANITARY AND VENT RISER

P4.0

TRUE PROJECT

TAGGED NOTES

##

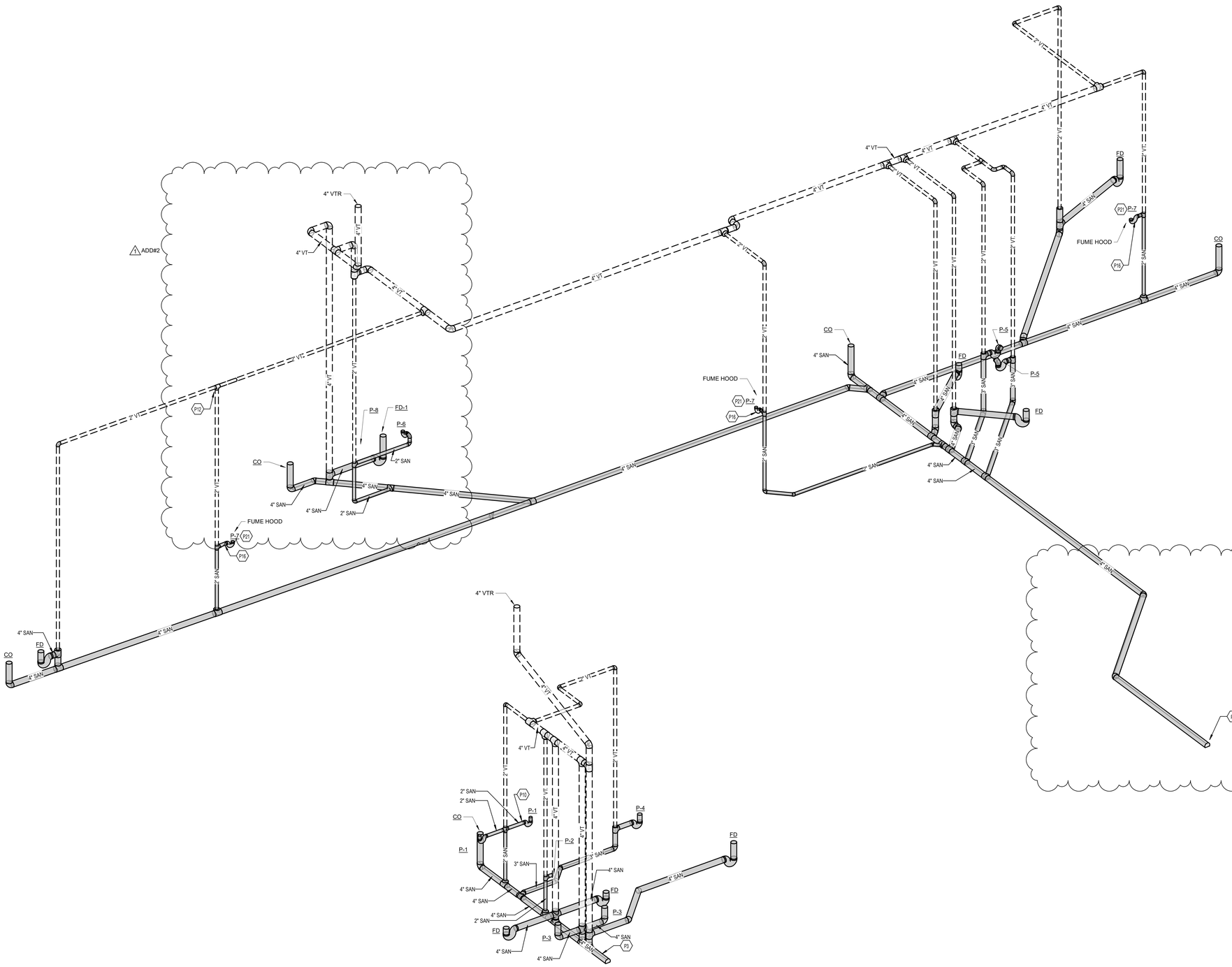
P3 REFER TO SITE PLAN FOR CONTINUATION.

P10 PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREWS FOR ALL WATER SUPPLY AND WASTE PIPING EXITING A WALL TO CONNECT TO A FIXTURE, TYPICAL.

P12 ALTERNATE #1 SHALL INCLUDE THE ADDITION OF A 1/2" DOMESTIC COLD WATER, 1/2" DOMESTIC HOT WATER, 2" VENT PIPING, AND 4" SANITARY WASTE PIPING ROUTED TO FUTURE FUME HOOD TO BE LOCATED IN "BURNOUT OVEN AREA A110". PROVIDE WITH ACID NEUTRALIZATION KIT. KIT SHALL BE INSTALLED UPSTREAM OF P-TRAP (I.E., P-TRAP SHALL BE CONNECTED TO OUTLET OF ACID NEUTRALIZATION KIT). REFER TO, AND COORDINATE WITH, ARCHITECTURAL PLANS FOR EXACT LOCATION OF FUTURE FUME HOOD AND EXTEND ALL PIPING AS REQUIRED. ALL OTHER BASE BID SCOPE IN THE PROJECT SHALL BE INCLUDED IF THIS ALTERNATE IS ACCEPTED.

P16 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FUME HOOD UTILITY CONNECTIONS AND EXTENDING DOMESTIC WATER, VENT, AND WASTE PIPING AS REQUIRED TO MAKE CONNECTION TO FUME HOOD PER MANUFACTURER REQUIREMENTS, TYPICAL.

P21 NOTE: ACID NEUTRALIZATION KIT SERVING FUME HOOD SHALL BE INSTALLED UPSTREAM OF P-TRAP (I.E., P-TRAP SHALL BE CONNECTED TO OUTLET OF ACID NEUTRALIZATION KIT)



1 PLUMBING RISERS - ALT#1

SCALE:

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1	ADD#2	

SANITARY AND VENT RISER - ALT#1

TRUE PROJECT

P4.0A

TAGGED NOTES

##

U1	REFER TO "FIRST FLOOR PLUMBING PLAN", SHEET P2.0, FOR CONTINUATION.
U2	DOMESTIC WATER ENTERS BUILDING AT INDICATED LOCATION. REFER TO "FIRST FLOOR PLUMBING PLAN", SHEET P2.0, FOR CONTINUATION.
U5	EXISTING DOMESTIC WATER PIPING FEEDING EXISTING CARBON FIBER BUILDING SHALL REMAIN.
U6	EXISTING DOMESTIC WATER PIPING FEEDING COAL PITCH BUILDING SHALL REMAIN.
U7	NATURAL GAS METER AND ASSOCIATED NATURAL GAS PIPING UPSTREAM OF THE METER SHALL BE PROVIDED BY COLUMBIA NATURAL GAS COMPANY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE UTILITY PROVIDER TO COORDINATE WORK ASSOCIATED WITH THIS ITEM PRIOR TO FABRICATING OR INSTALLING ANY NEW PIPING.
U8	CONNECT NEW 1" NITROGEN PIPING TO EXISTING 1" CAPPED NITROGEN PIPING LOCATED IN VALVE VAULT AT THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
U10	PROVIDE FLUE SIZED PER EQUIPMENT REQUIREMENTS. GOOSE NECK THE FLUE AT ROOF SURFACE.
U11	PROVIDE CONCENTRIC FLUE SIZED PER WATER HEATER MANUFACTURER REQUIREMENTS. FLUE SHALL BE AT LEAST 10'-0" AWAY FROM S-8 OUTSIDE AIR INTAKE.
U13	ALTERNATE#1 SHALL INCLUDE CHANGING EXHAUST FAN EF-2 TO EF-2-ALT#1. REFER TO MECHANICAL PLANS AND SCHEDULE FOR MORE INFORMATION, SHEETS M2.0A AND M6.0.
U14	ALTERNATE #1 SHALL INCLUDE CHANGING MAKE-UP AIR UNIT MAU-2 TO MAU-2-ALT#1. REFER TO MECHANICAL PLANS AND SCHEDULE FOR MORE INFORMATIN, SHEETS M2.0A AND M6.0.
U16	TIE NEW 4" SANITARY SEWER PIPING INTO EXISTING MANHOLE. PATCH AND REPAIR MANHOLE AS REQUIRED TO ENSURE WATER TIGHT SEAL.
U17	PROVIDE CONCENTRIC FLU FLUE FOR SPLIT SYSTEM UNIT PER MANUFACTURER REQUIREMENTS. AT THE CONTRACTORS OPTION, SEPARATE INTAKE / EXHAUSTS MAY BE PROVIDED. SIZE PER MANUFACTURER REQUIREMENTS. FLUE SHALL BE AT LEAST 10'-0" AWAY FROM L-2 OUTSIDE AIR INTAKE.
U18	PROVIDE CONCENTRIC FLU FLUE FOR SPLIT SYSTEM UNIT PER MANUFACTURER REQUIREMENTS. AT THE CONTRACTORS OPTION, SEPARATE INTAKE / EXHAUSTS MAY BE PROVIDED. SIZE PER MANUFACTURER REQUIREMENTS.
U19	THE CONTRACTOR IS RESPONSIBLE FOR PATCHING AND REPAIRING ALL SURFACES THAT ARE AFFECTED BY NEW WORK. THIS INCLUDES PATCHING AND REPAIRING PAVEMENT, ROADS, GRAVEL, AND RESEEDING GRASS.
U20	DO NOT ROUTE UTILITITES BELOW EQUIPMNET PADS.
⚠1 ADD#2 U21	PROVIDE EXTERNAL CLEANOUT AT INDICATED LOCATION.

1 MECHANICAL SITE PLAN

SCALE: 1/16" = 1'-0"

0 4' 8' 16' 32' 48' 64'

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MECHANICAL SITE PLAN

UM2.0