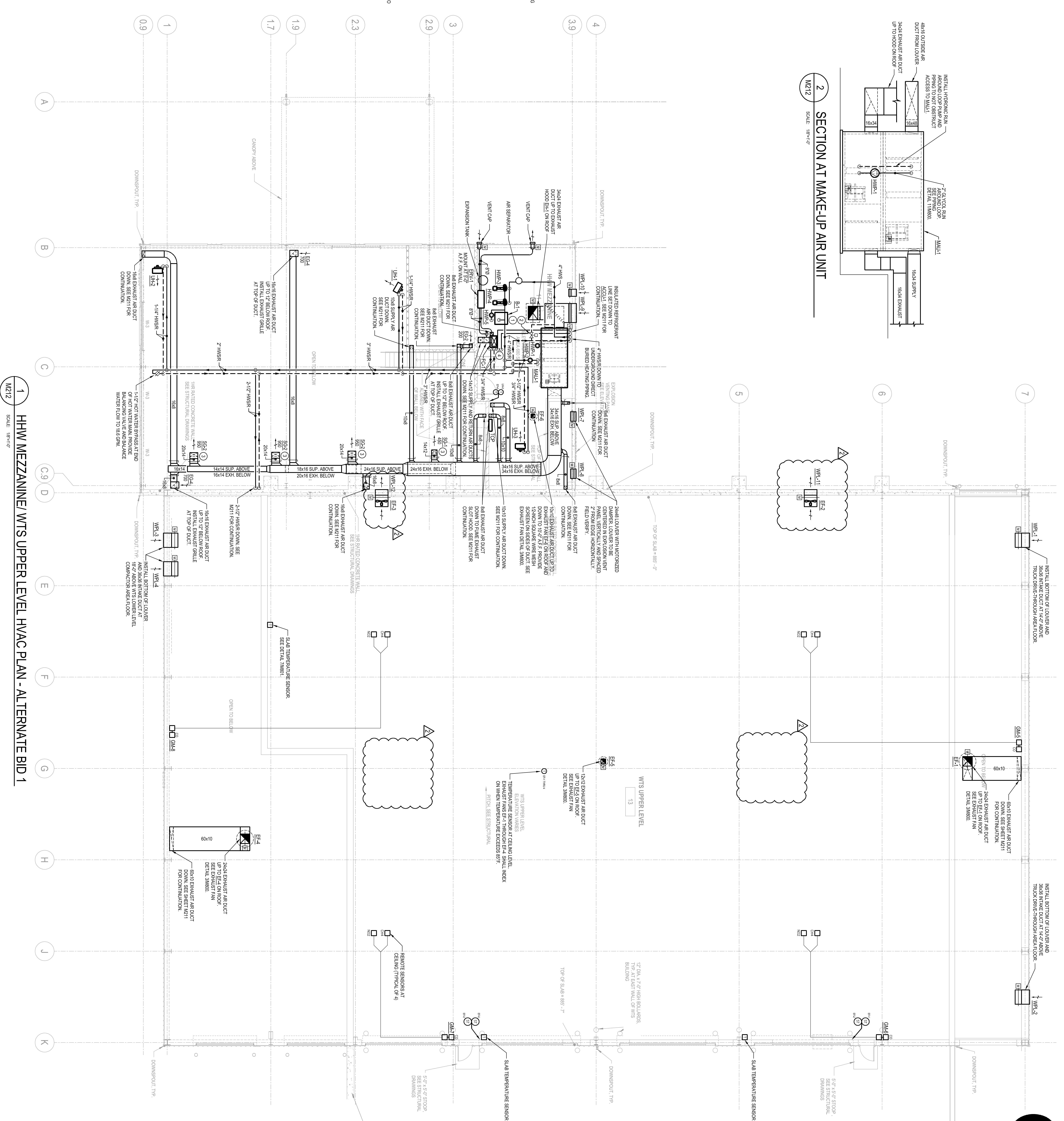


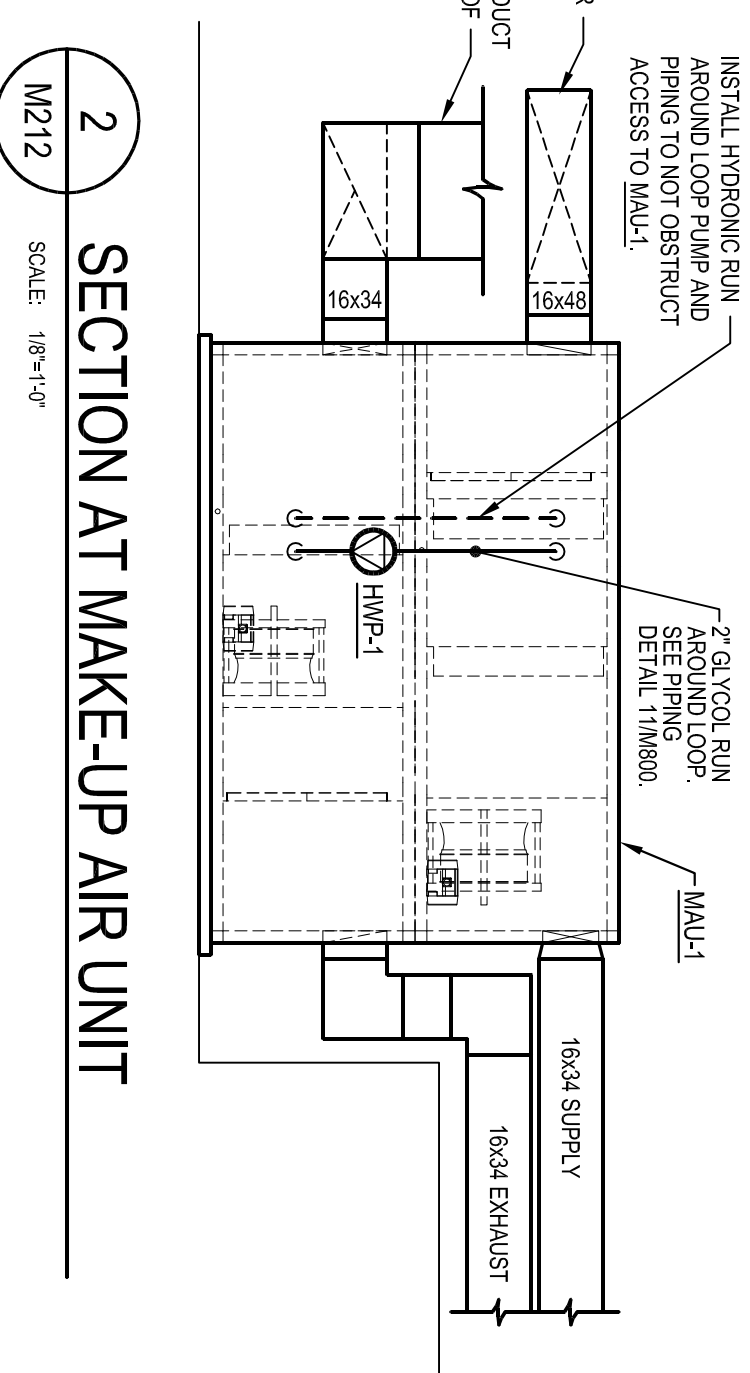
- GENERAL NOTES:**
- COORDINATE CONSTRUCTION PHASING WITH CONSTRUCTION MASTER.
 - VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE.
 - BALANCE ALL GRILLES AND DIFFUSERS TO QUANTITIES INDICATED.
 - IF IS NOT THE INTENTION OF THE DRAWINGS TO INDICATE ALL NECESSARY PRINCIPAL WORK PASSES AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE STRUCTURE, MAJOR OBSTRUCTIONS WHETHER OR NOT SPECIFICALLY INDICATED, MAINTAIN CLEARANCES AND PROVIDE ALL PILING WORKMANSHIP ARRANGEMENT FAILURE TO DO SO WILL NOT CONSTITUTE EXTRA WORK.
 - INDICATE ALL WORK WITH OTHER TRADES.
 - COORDINATE ALL WORK WITH OTHER TRADES.

- KEYED NOTES THIS SHEET:**
- PROVIDE FUME EXHAUST SLOPE HOOD. SEE DETAIL M210. PROVIDE 8x8 EXHAUST AIR DUCT UP. SEE M212 FOR CONTINUATION. THE CONTRACTOR SHALL BALANCE FUME EXHAUST PIPING TO 500 CFM.

1 HHW FIRST FLOOR/WTS LOWER LEVEL HVAC PLAN - ALTERNATE BID 1
SCALE: 1/8"=1'-0"



SECTION AT MAKE-UP AIR UNIT



- GENERAL NOTES:**
- COORDINATE CONTRACTOR PIPING WITH CONSTRUCTION MANAGER.
 - VERIFY ALL SIZES AND QUANTITIES INDICATED.
 - IT IS NOT THE INTENTION OF THE DRAWINGS TO INDICATE ALL NECESSARY PIPING AND DUCTWORK OFFSETS AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE INSTALLATION IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE AND OBSTRUCTIONS WHENEVER NOT SHOWN.
 - WORKMANSHIP, LIKE ARRANGEMENT FAILURE TO DO SO WILL NOT CONSTITUTE EXTRA CHARGES.
 - INSTALL ALL DUCTWORK, EQUIPMENT, AND PIPING AS HIGH AS POSSIBLE.
 - COORDINATE ALL WORK WITH OTHER TRADES.

- KEYED NOTES THIS SHEET:**
- PROVIDE 4" CONCRETE UNDERSEILING AND FLOOR ALL FLOOR MOUNTED EQUIPMENT (MOUNTED TO FLOOR, B-1, HMR-1, HMR-2, EXPANSION TANK).
 - REMOVE 4" FLOOR POSITION GENERATORS NEXT TO EXPANSION PRESS CONTROL VALVE BETWEEN HOT WATER SUPPLY AND RETURN PIPING. SEE SPECIFICATIONS FOR SCHEDULE OF OPERATION.
 - INSTALL SUPPLY GALLEY ON 22 DEGREE SLOPE DOWN TOWARDS FLOOR. ADJUST SUPPLY REGISTER BLADES FOR 22 DEGREE HORIZONTAL AIRFLOW DEFLECTION.
 - REMOVE 3/4" CONDENSATE DRAIN PIPE FROM FAN COIL AND ROUTE TO PLUMBING RAB DRAIN IN FLOOR. REFER TO PLUMBING DRAWINGS.

HHW MEZZANINE/ WTS UPPER LEVEL HVAC PLAN - ALTERNATE BID 1

M212

One Honey Creek Corporate Center
125 South 94th Street, Suite 401
Milwaukee, WI 53214-1489
414 / 259 7500
414 / 259 0037 / fax

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CONSULTANTS:

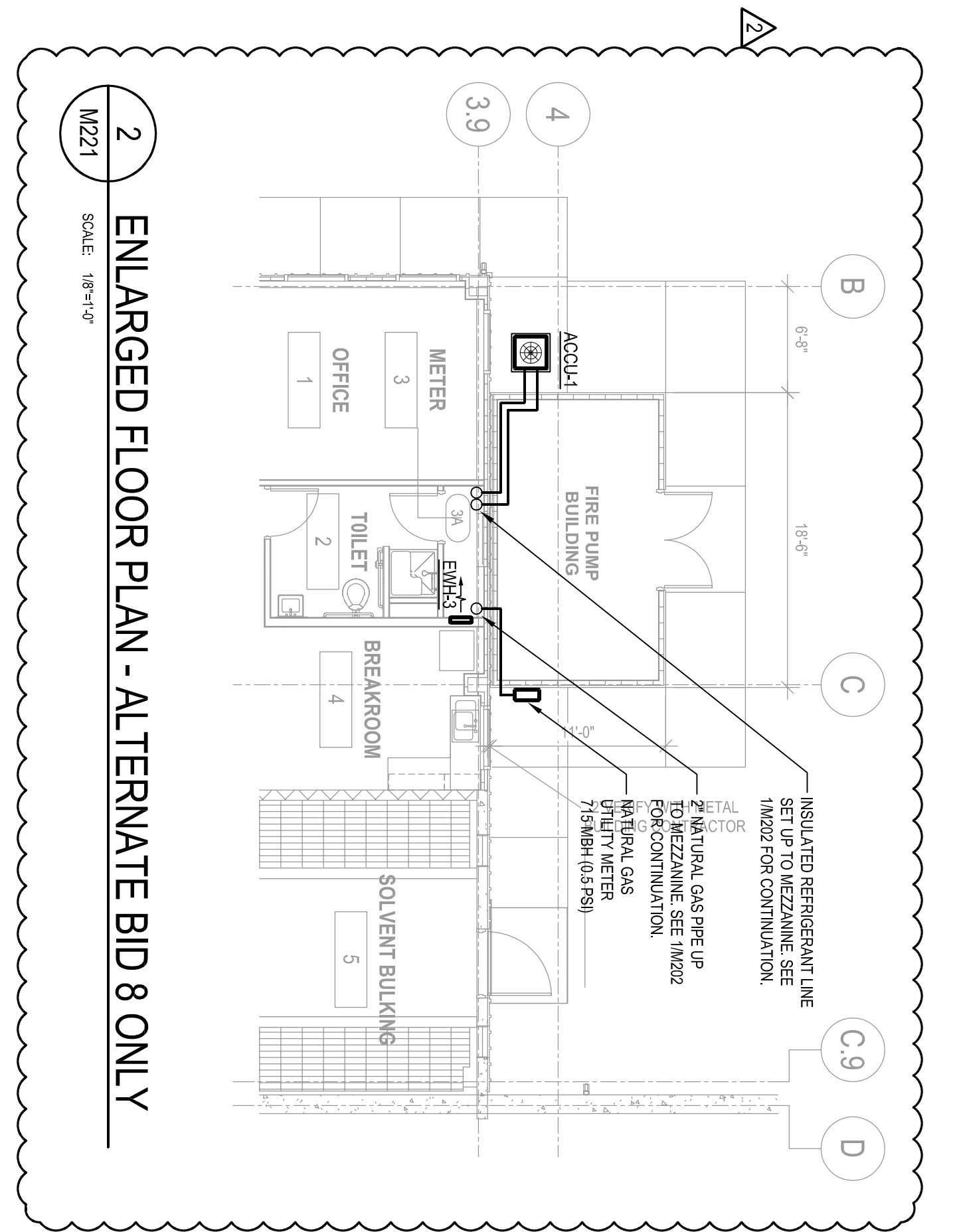
PROJECT TITLE:
DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODFIELD LANDFILL

ISSUE:
2 04-06-2012 ADDENDUM NO. 2

PROJECT INFORMATION:
PROJECT NUMBER: 2009-0328-02
DATE: 03-12-2012
DRAWN BY: NTK
CHECKED BY: NTK
APPROVED BY: PDZ
SCALE: AS NOTED

SHEET TITLE:
HHW FIRST FLOOR/
WTS LOWER LEVEL HVAC PLAN
- ALTERNATE BID 2

SHEET NUMBER:
M221



- GENERAL NOTES:**
- COORDINATE CONSTRUCTION PHASING WITH CONSTRUCTION MASTER.
 - VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE.
 - BALANCE ALL GRILLES AND DIFFUSERS TO QUANTITIES INDICATED.
 - IF IS NOT THE INTENTION OF THE DRAWINGS TO INDICATE ALL NECESSARY PRINCIPAL DUCTWORK PRESSURES, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE NECESSARY PRESSURES COMPONENT TO THE STRUCTURE, MAINTAIN CLEARANCES AND PROVIDE ALL PIPING AND DUCTWORK OFFSETS AS REQUIRED TO PRODUCE A NEAT WORKMANSHIP ARRANGEMENT. FAILURE TO DO SO WILL NOT CONSTITUTE EXTRA WORK.
 - INDICATE ALL PIPING, INSULATION, AND PENS AS HIGH AS POSSIBLE.
 - COORDINATE ALL WORK WITH OTHER TRADES.

KEYED NOTES THIS SHEET:

- PROVIDE FUME EXHAUST SLOTTED HOOD. SEE DETAIL M200. PROVIDE 848 EXHAUST AIR DUCT UP. SEE M222 FOR CONTINUATION. THE CONTRACTOR SHALL BALANCE FUME EXHAUST PRESSURE TO 0.50 IN. HG.



1 HHW FIRST FLOOR/WTS LOWER LEVEL HVAC PLAN - ALTERNATE BID 2
SCALE: 1/8"=1'-0"

One Honey Creek Corporate Center
125 South 84th Street, Suite 401
Minnetonka, MN 55214-1489
414 / 299 1500
414 / 299 0037 / 18x

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CONSULTANTS:

PROJECT TITLE:
DAKE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODFIELD LANDFILL

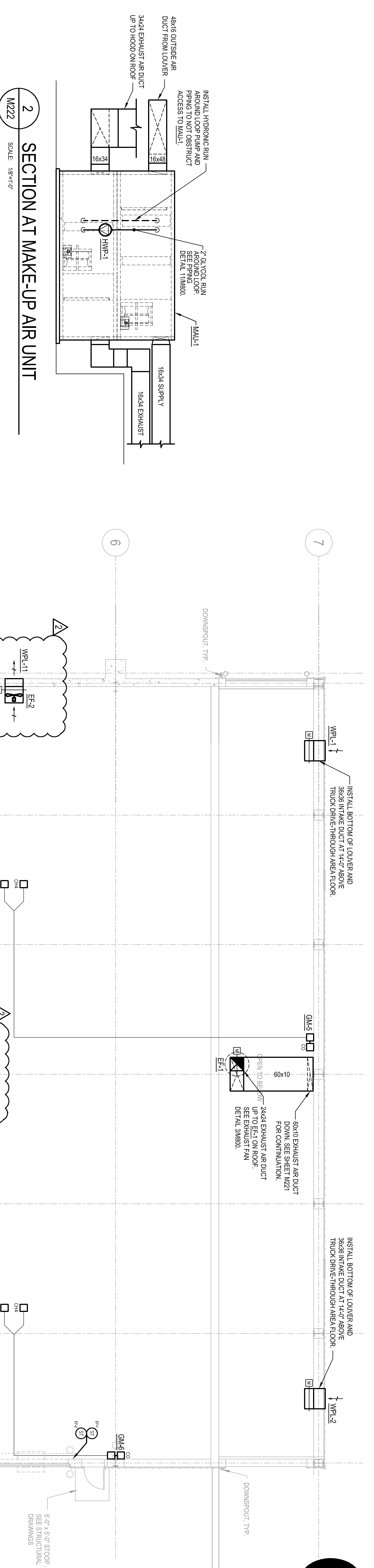
ISSUE:
2 04-06-2012 APPENDUM NO. 2

PROJECT INFORMATION:
PROJECT NUMBER: 2009-0328.02
DATE: 03-12-2012
DRAWN BY: NTK
CHECKED BY: NTK
APPROVED BY: PDZ
SCALE: AS NOTED

SHEET TITLE:
HHW MEZZANINE/
WTS UPPER LEVEL HVAC PLAN
- ALTERNATE BID 2

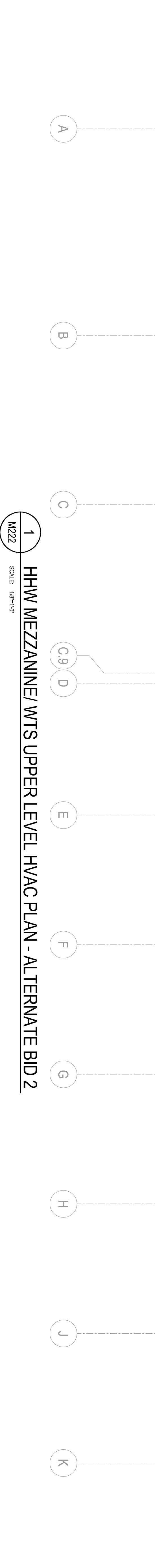
SHEET NUMBER:

M2222



- GENERAL NOTES:**
- COORDINATE CONSTRUCTION PHASING WITH CONSTRUCTION MANAGER
 - VERIFY ALL DIMENSIONS AND QUANTITIES INDICATED
 - BALANCE ALL GRILES AND DIFFUSERS TO QUANTITIES INDICATED
 - IF IT IS NOT THE INTENTION OF THE DRAWINGS TO INDICATE ALL NECESSARY PIPING AND DUCTWORK OFFSETS AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE THE INSTALLATION IN SUCH A MANNER AS TO AVOID COLLISIONS WITH OTHER MECHANICAL, ELECTRICAL, AND DUCTWORK OFFSETS AS REQUIRED TO PRODUCE A NEAT WORKMANSHIP AND ARRANGEMENT FAILURE TO DO SO WILL NOT CONSTITUTE EXTRA CHARGES.
 - INSTALL ALL DUCTWORK EQUIPMENT AND PIPING AS HIGH AS POSSIBLE
 - COORDINATE ALL WORK WITH OTHER TRADES

- KEYED NOTES THIS SHEET:**
- PROVIDE 2" CONCRETE ENCASEMENT FOR ALL FLOOR MOUNTED EQUIPMENT UNITS, FC-1, 1-1/2" WWSR, EXPANSION TANK.
 - PROVIDE 2" TWO POSITION GENERATOR HEAT EXCHANGER BRASS CONTROL VALVE BETWEEN HOT WATER SUPPLY AND RETURN PIPING. SEE SPECIFICATIONS FOR SCHEDULE OF OPERATION.
 - INSTALL SUPPLY GRILE ON 45 DEGREE ELBOW ANGLED DOWN TOWARDS FLOOR. ADJUST SUPPLY REGISTER BLADES FOR 22 DEGREE HORIZONTAL AIRFLOW DIRECTION.
 - PROVIDE 3/4" COMPENSATE DRAIN PIPE FROM PAN COIL, FC-1, AND ROUTE TO PLUMBING HUB DRAIN IN FLOOR. REFER TO PLUMBING DRAWINGS.



1 HHW MEZZANINE/ WTS UPPER LEVEL HVAC PLAN - ALTERNATE BID 2
SCALE: 1/8"=1'-0"
M2222

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 125 South 34th Street, Suite 401
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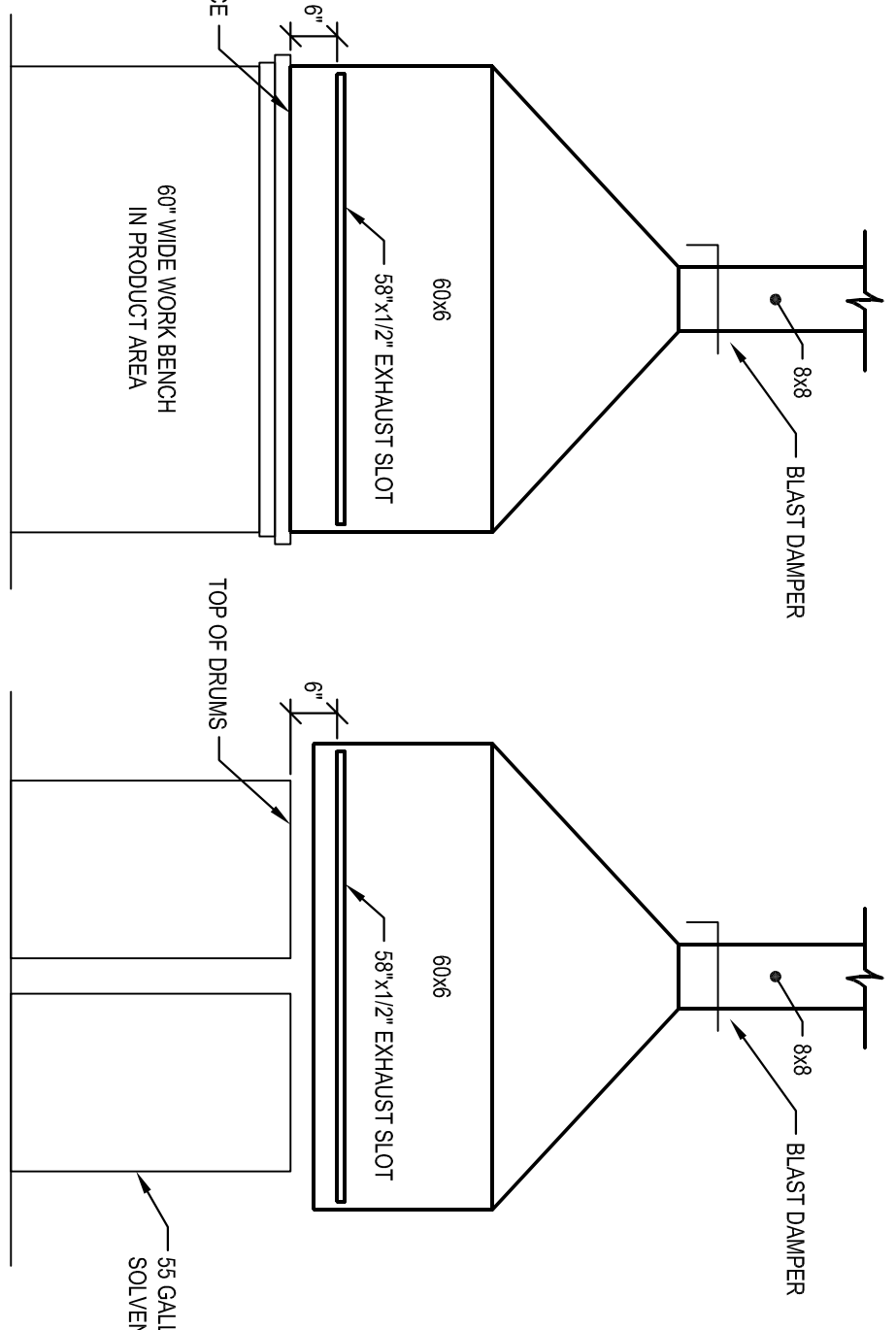
CONSULTANTS:

PROJECT TITLE:

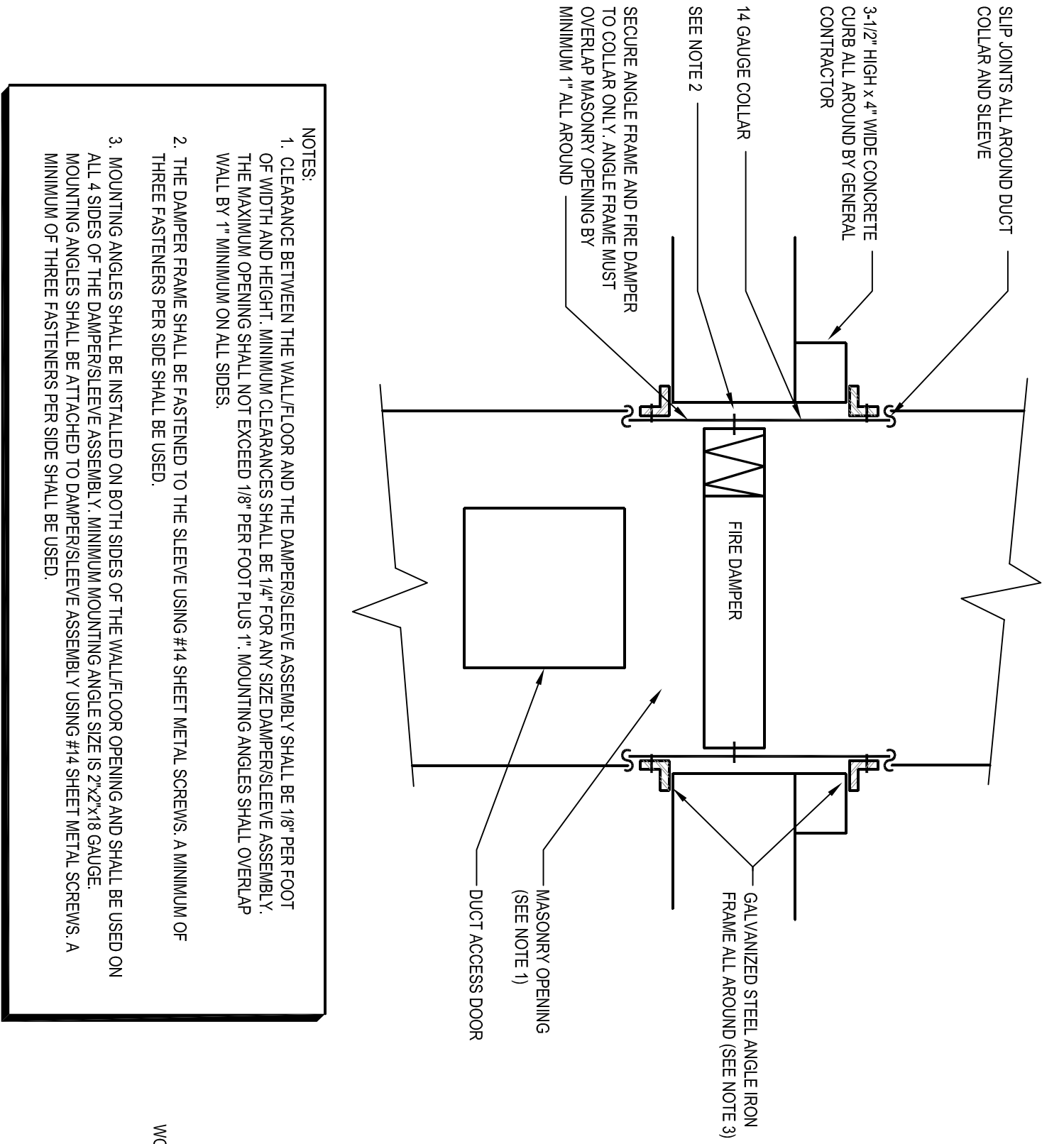
DANE COUNTY
 WASTE TRANSFER STATION
 AND HOUSEHOLD HAZARDOUS
 WASTE FACILITY
 ROEDFELD LANDFILL

ISSUE:
 2 04-06-2012 ADDENDUM NO. 2

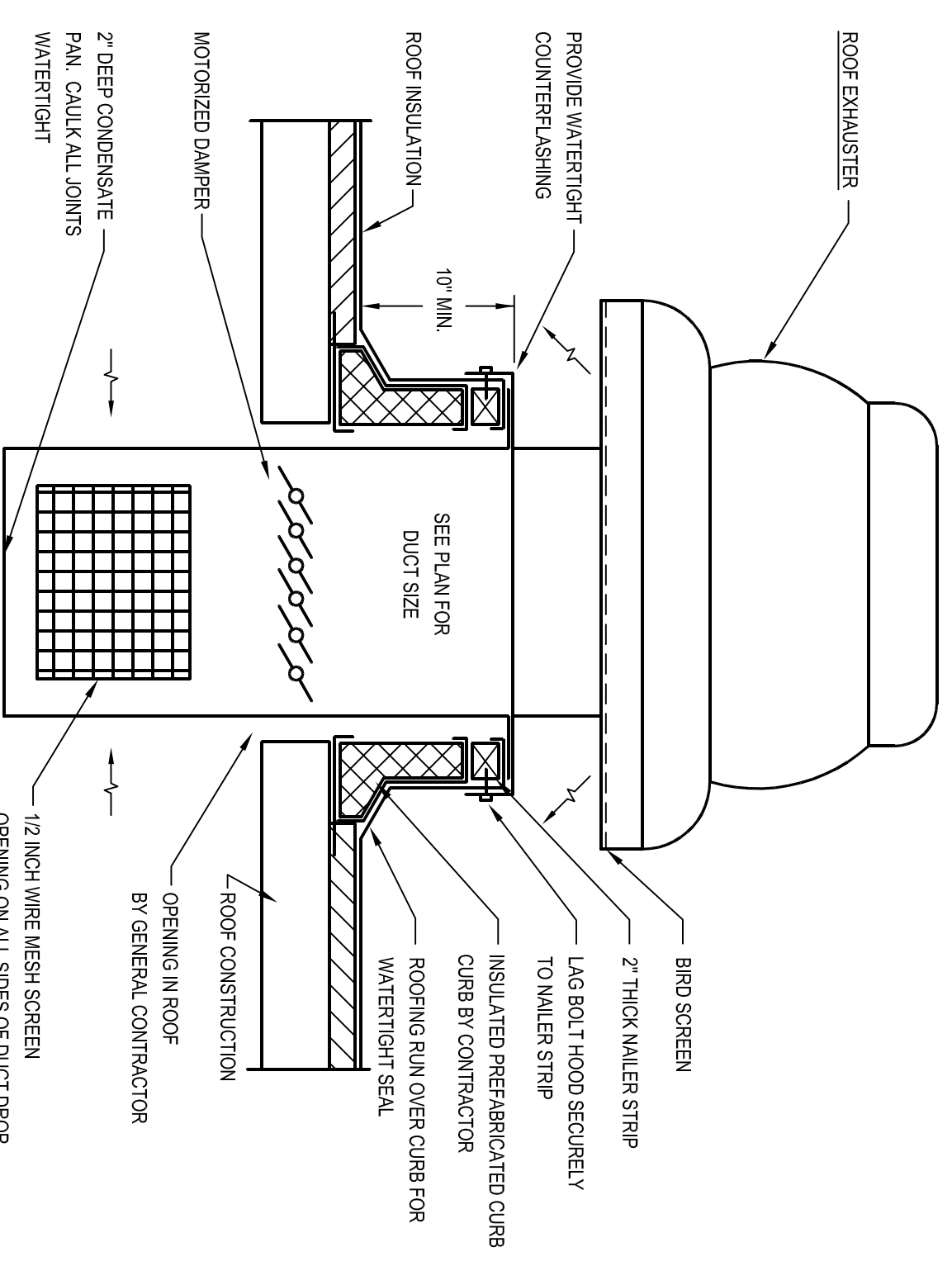
1 FUME EXHAUST SLOT HOOD DETAIL
 SCALE: NONE



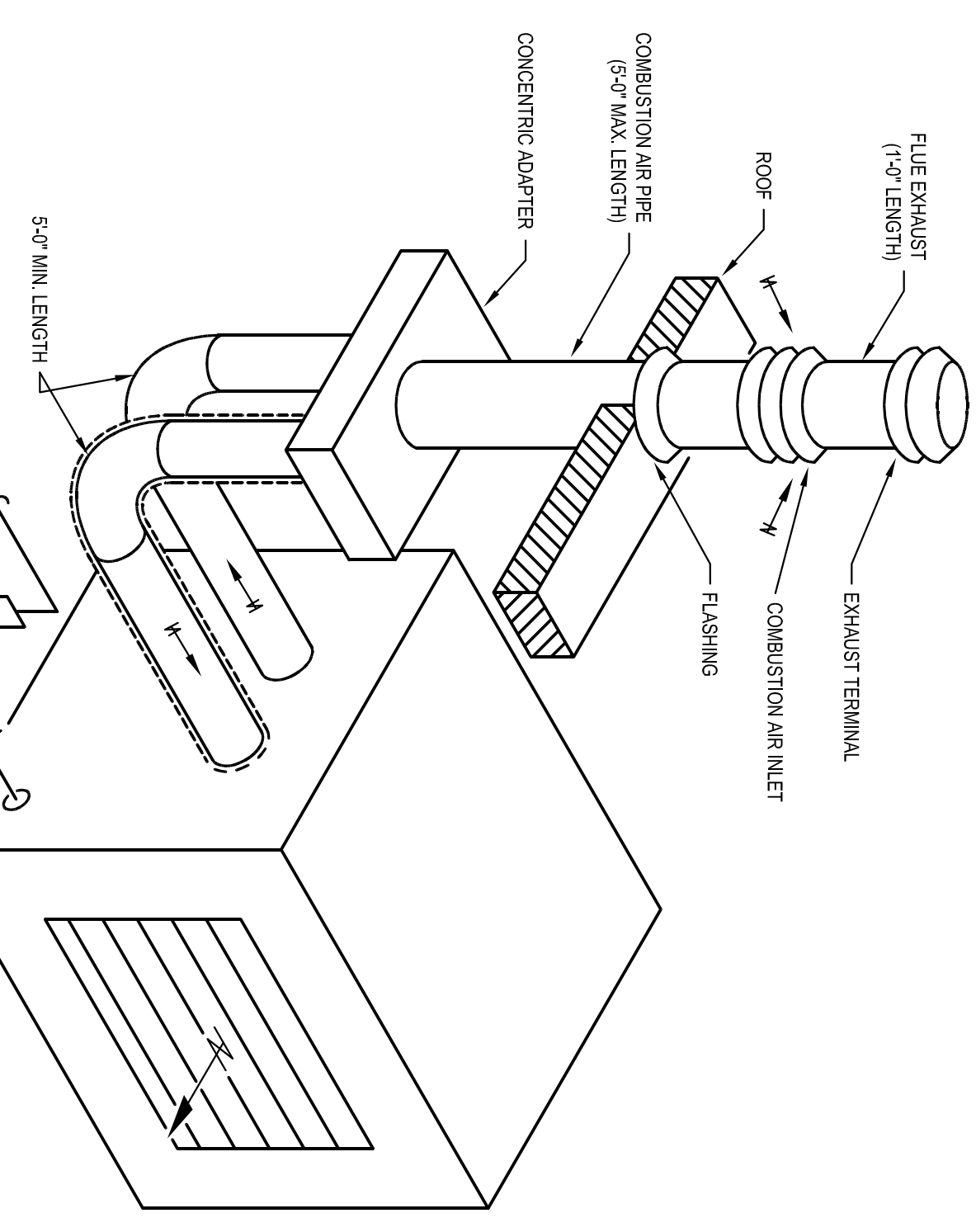
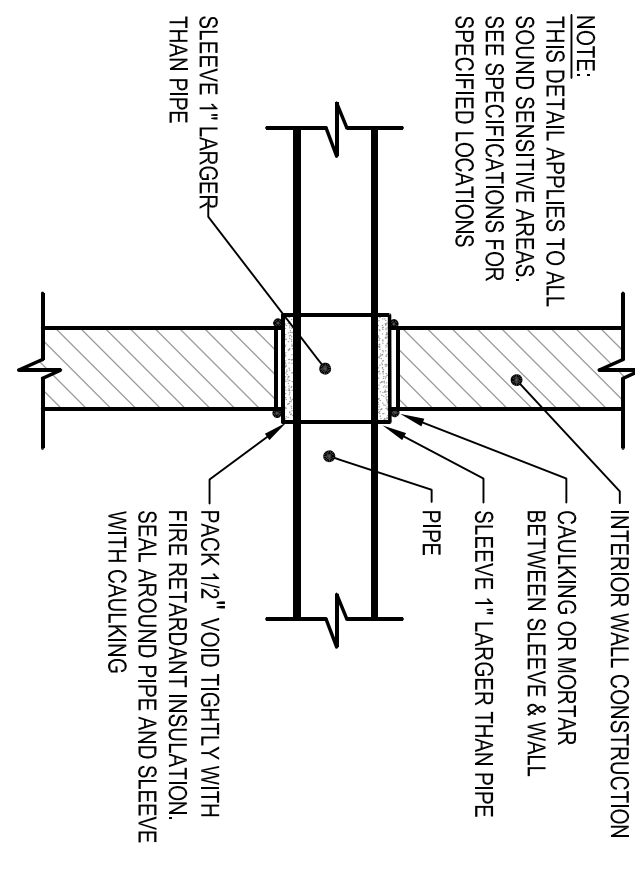
2 FIRE DAMPER FOR DUCTS THROUGH FLOORS
 SCALE: NONE



3 TYPICAL ROOF EXHAUSTER DETAIL WITH CONDENSATE PAN
 SCALE: NONE



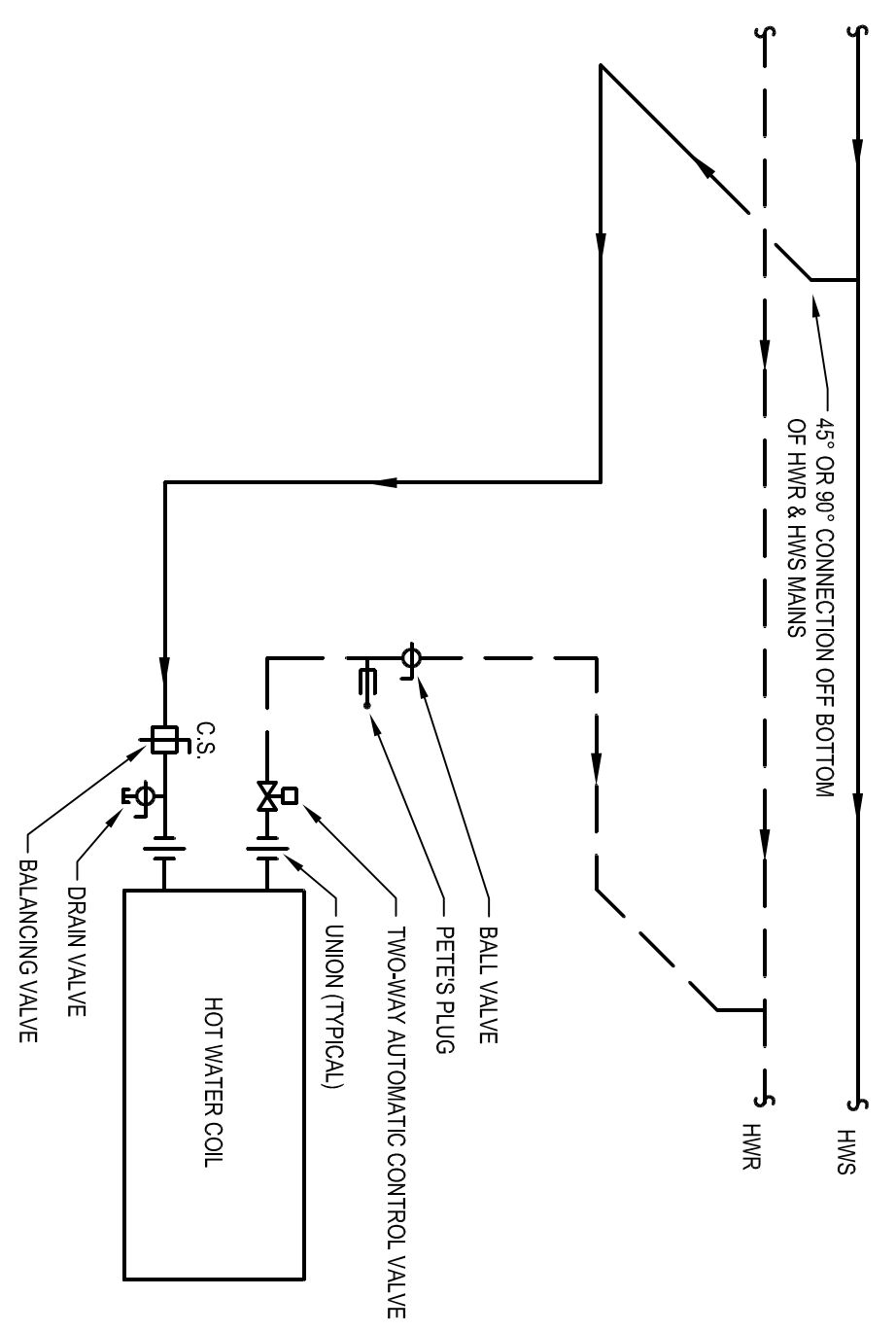
4 PIPES THROUGH WALLS DETAIL
 SCALE: NONE



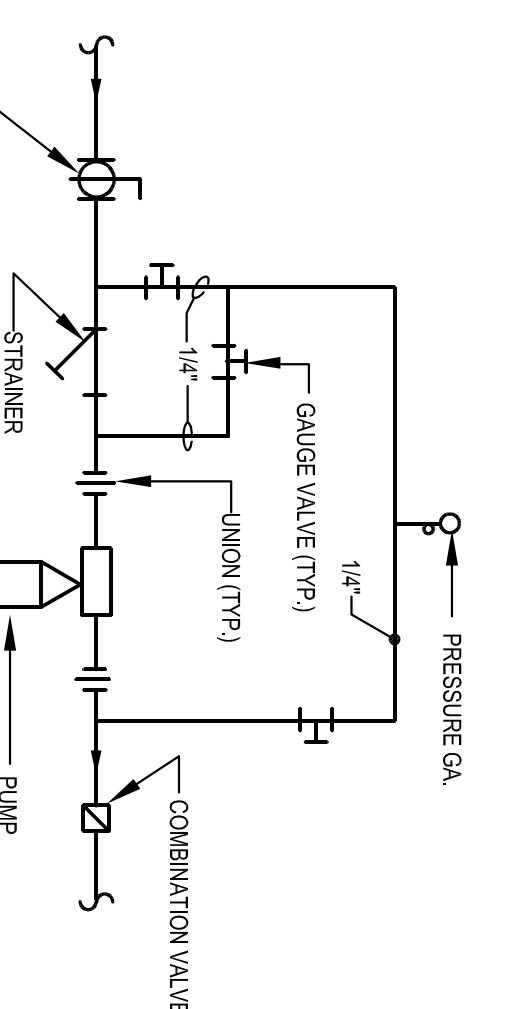
8 GAS FIRED UNIT HEATER DETAIL (BASE BID ONLY)
 SCALE: NONE

NOTES:
 1. INSTALL UNIT AND INLINE EXHAUST PIPING PER MANUFACTURER'S RECOMMENDATIONS
 2. SEPARATED COMBUSTION GAS FIRED UNIT HEATER, HANG UNIT FROM MINIMUM OF #2" A.F.F.

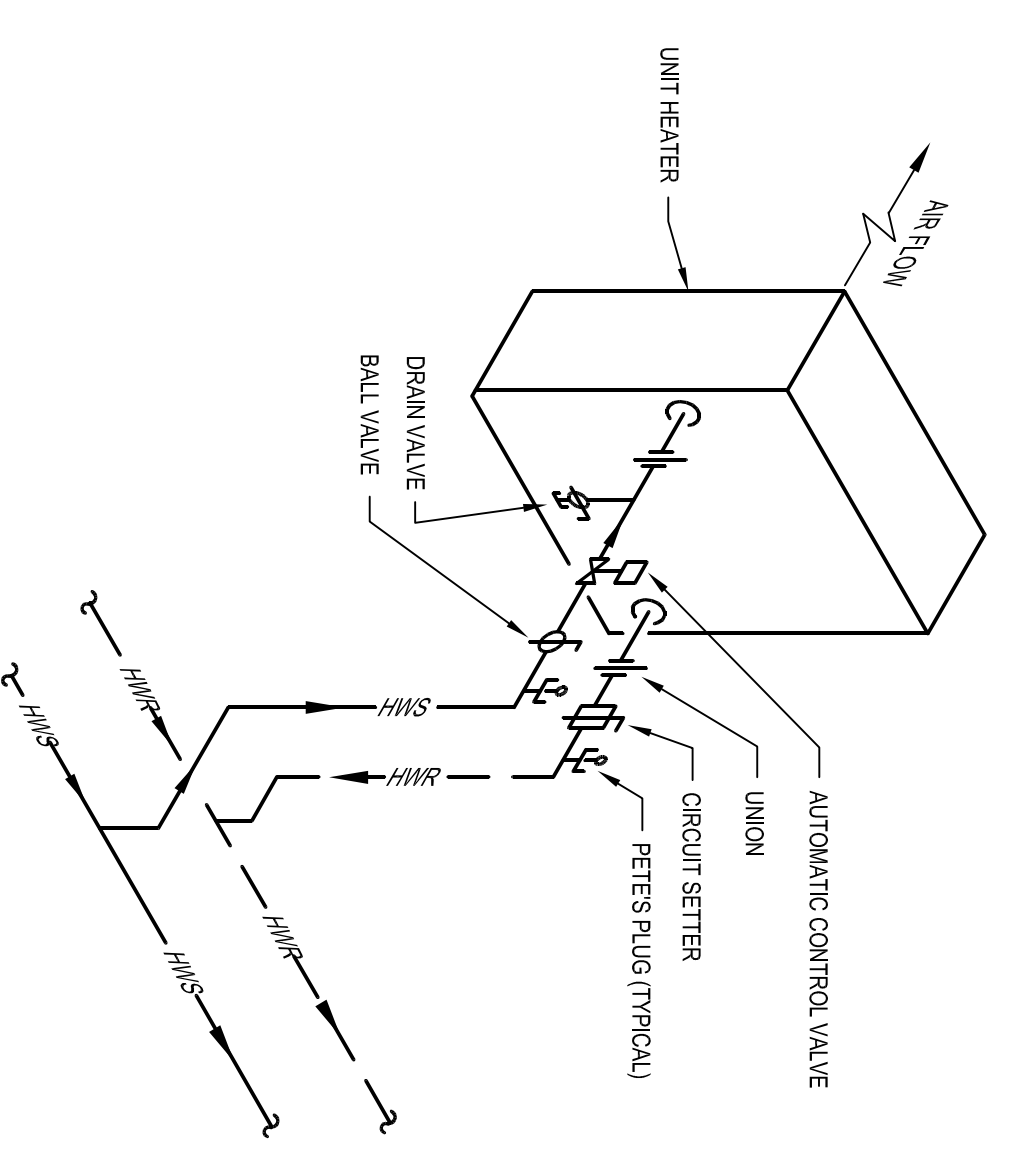
7 HOT WATER FAN COIL PIPING DETAIL (ALT. BID 1 & 2 ONLY)
 SCALE: NONE



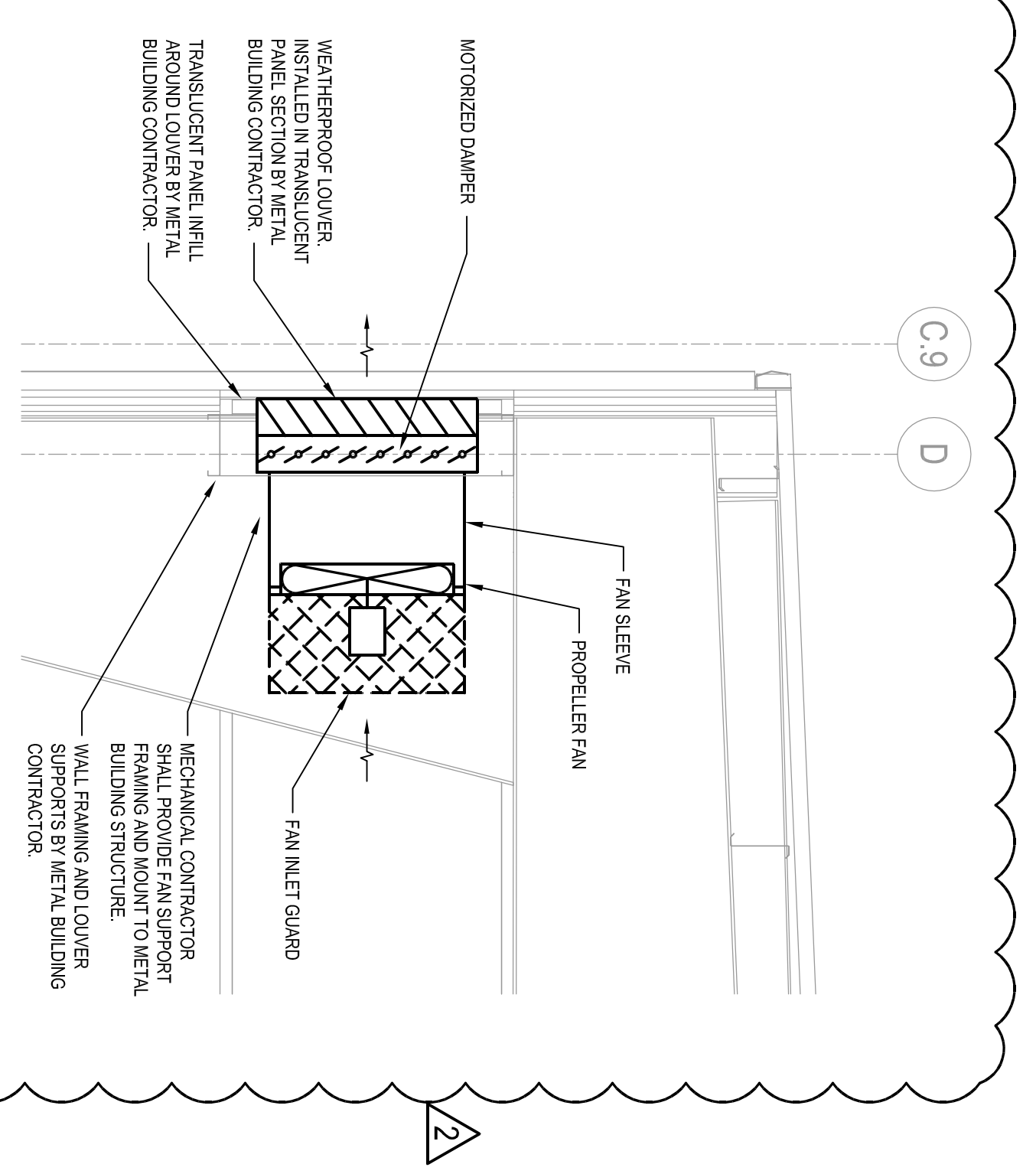
6 INLINE PUMP DETAIL
 SCALE: NONE



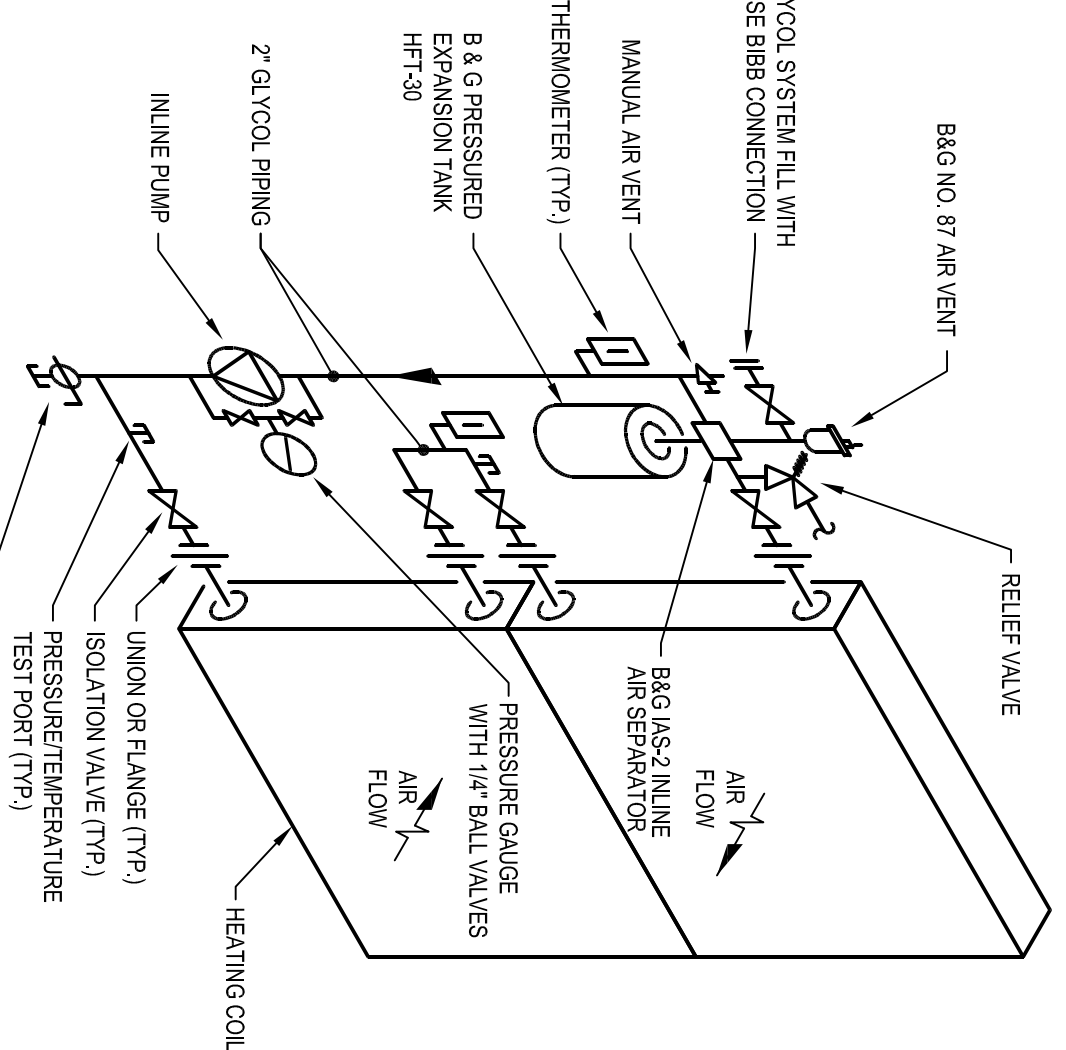
5 HOT WATER UNIT HEATER PIPING DETAIL (ALT. BID 1 & 2 ONLY)
 SCALE: NONE



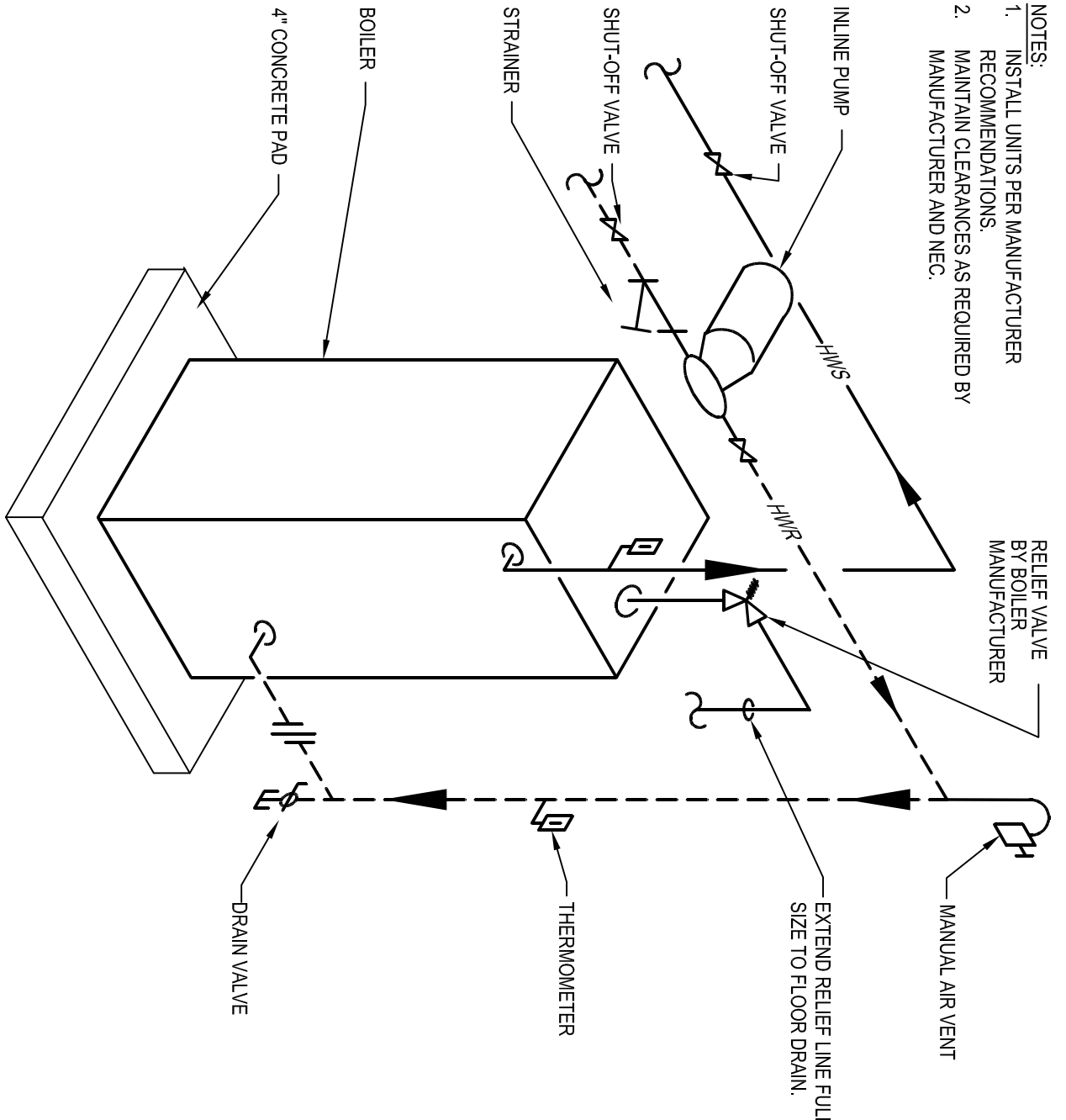
12 TYPICAL SIDEWALL PROPELLER FAN DETAIL
 SCALE: NONE



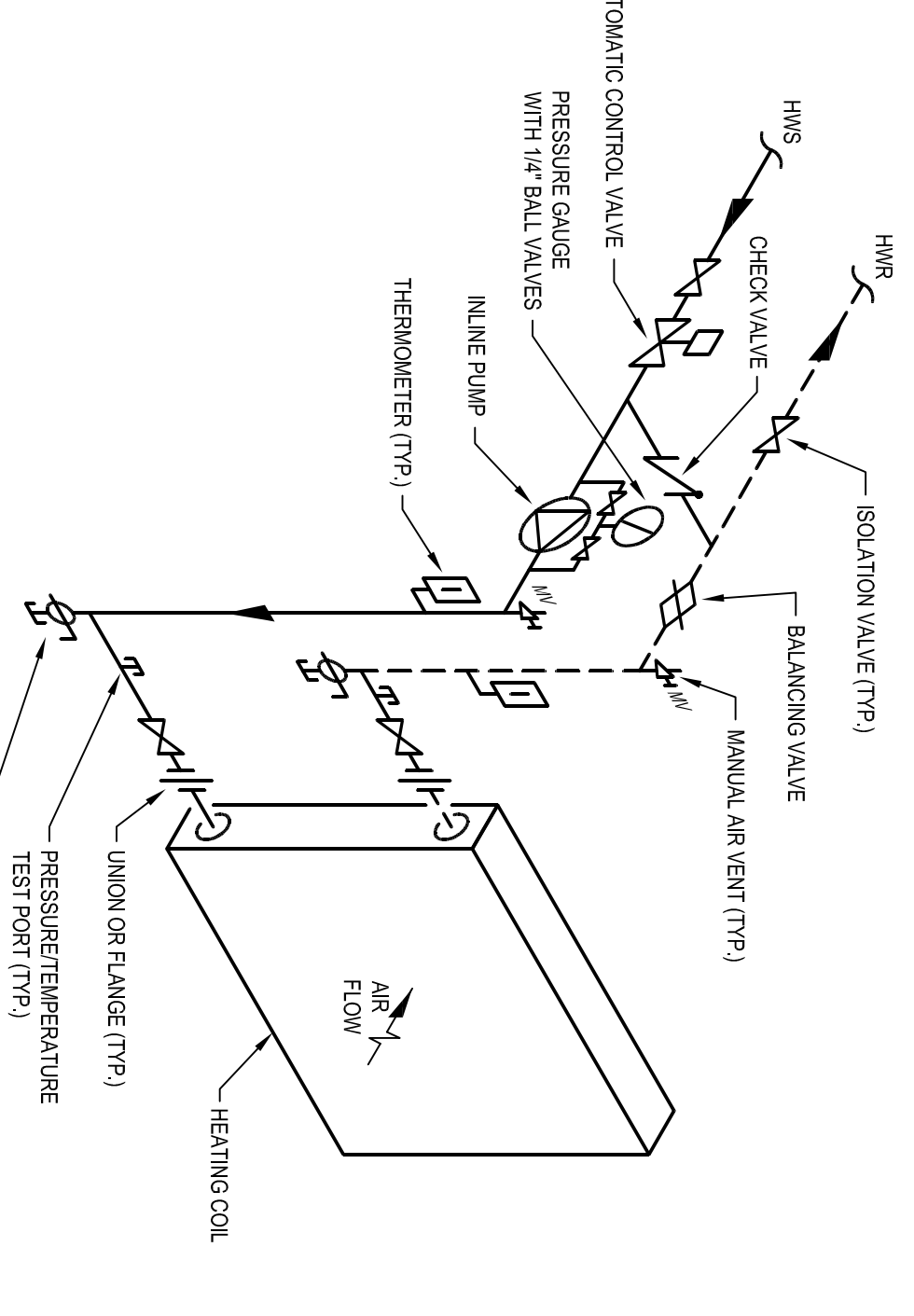
11 MAU-1 HEAT RECOVERY COIL PIPING DETAIL (ALT. BID 1 & 2 ONLY)
 SCALE: NONE



10 ELECTRIC HOT WATER BOILER PIPING DETAIL (ALT. BID 1 & 2 ONLY)
 SCALE: NONE

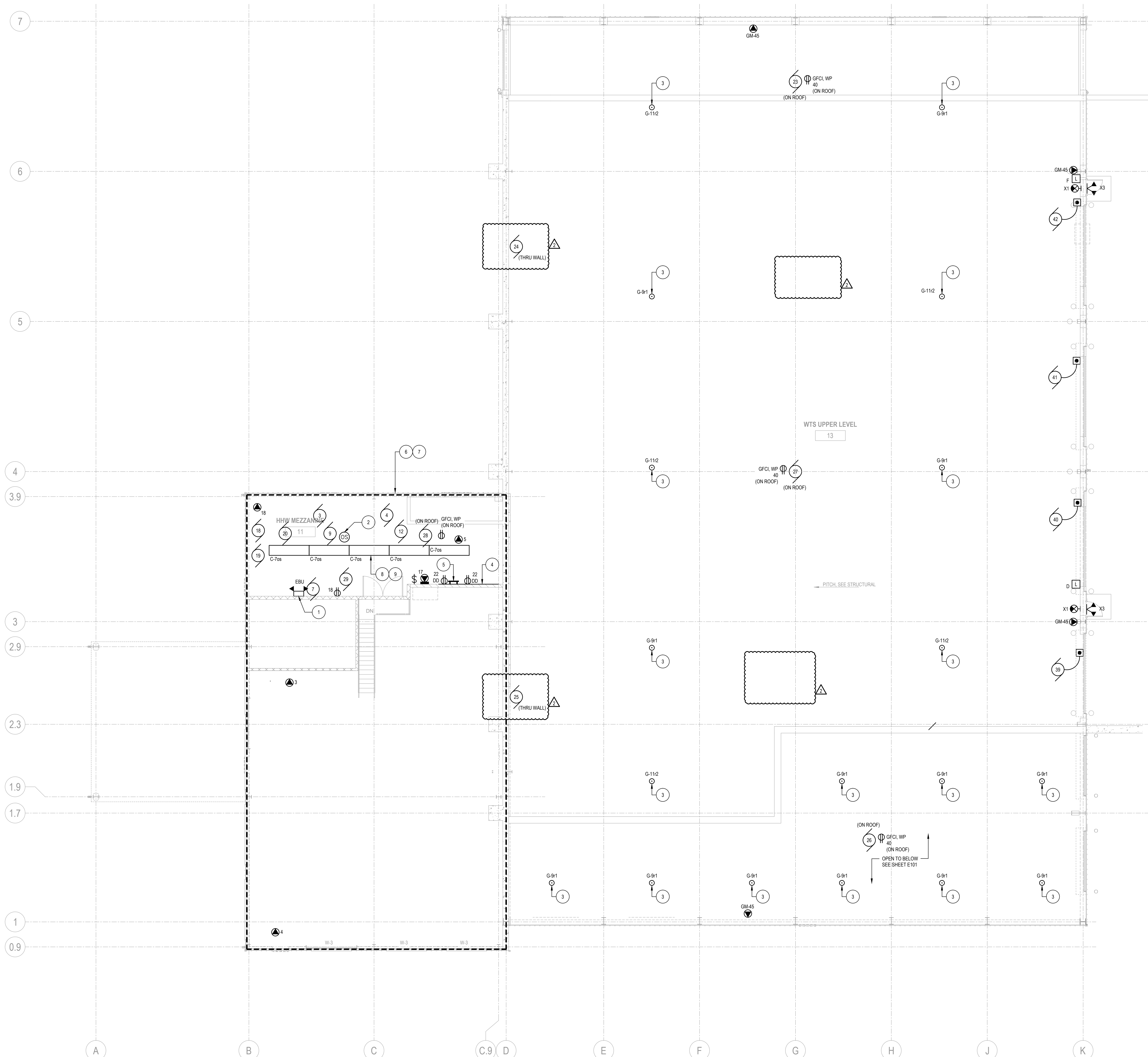


9 MAU-1 PUMPED HOT WATER HEATING COIL DETAIL (ALT. BID 1 & 2 ONLY)
 SCALE: NONE



SHEET TITLE:
 MECHANICAL DETAILS
 SHEET NUMBER:
M800

PROJECT INFORMATION:
 PROJECT NUMBER: 2009-0328-02
 DATE: 03-12-2012
 DRAWN BY: NTK
 CHECKED BY: NTK
 APPROVED BY: PDZ
 SCALE: AS NOTED



GENERAL NOTES:

- 1) ALL LIGHTING CIRCUITS TO BE FED FROM LP/A UOI, SEE SHEET E101 FOR PANEL LOCATION.
- 2) ALL RECEPTACLE CIRCUITS TO BE FED FROM RPIA, OUI, SEE SHEET E101 FOR PANEL LOCATION.
- 3) EC TO WIRE EXIT SIGNS AND EMERGENCY BATTERY UNITS TO UNSWITCHED LEG OF CIRCUIT FEEDING LIGHTING IN ROOM.
- 4) FEED REMOTE EMERGENCY LIGHTING UNITS TYPE 'X3' FIXTURES FROM NEAREST EXIT SIGN OR EBU.

SHEET NOTES:

- 1 MOUNT EMERGENCY BATTERY UNIT IN HHW MEZZANINE AREA 8'-0" AFF.
- 2 SEE LIGHTING CONTROL WIRING DIAGRAM DETAIL 1E500.
- 3 SEE DETAIL 4E500 FOR FURTHER REQUIREMENTS.
- 4 EC TO PROVIDE FIRE RATED TELEPHONE BACKBOARD, SEE DETAIL 9E500 FOR FURTHER REQUIREMENTS.
- 5 EC TO PROVIDE GROUND BAR ERICO MODEL: EBG14420 OR APPROVED EQUAL.
- 6 SEE SHEET E112 FOR ALTERNATE BID #1.
- 7 SEE SHEET E112 FOR ALTERNATE BID #2.
- 8 FIXTURES TO BE SURFACE MOUNTED TO BOTTOM OF STRUCTURE.
- 9 EC TO COORDINATE LAYOUT WITH MECHANICAL AND PLUMBING EQUIPMENT LAYOUT.

PROJECT INFORMATION:

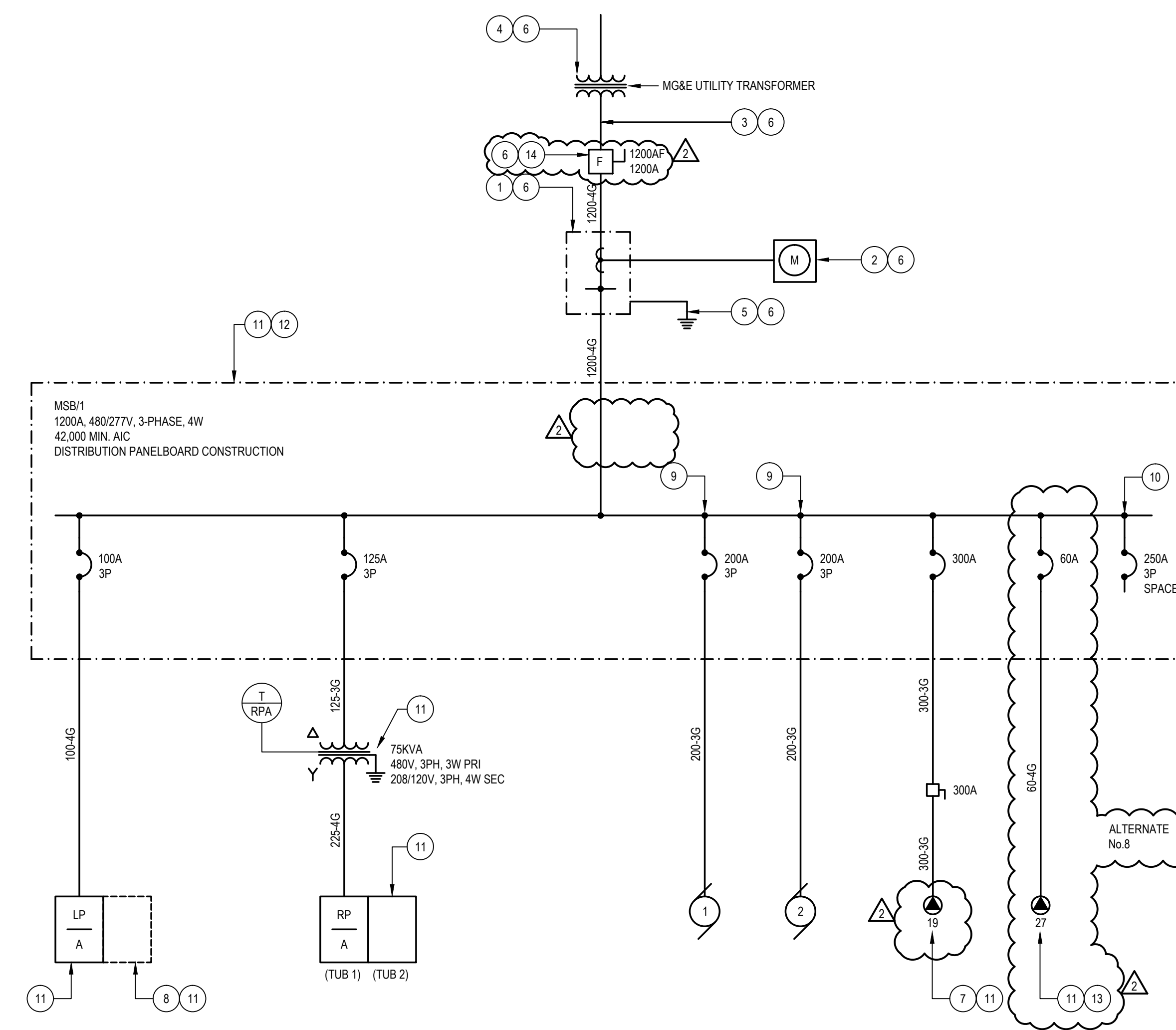
PROJECT NUMBER: 2009-0328.02
DATE: 03-12-2012
DRAWN BY: TKA
CHECKED BY: AAS
APPROVED BY: JHK
SCALE: AS NOTED

SHEET TITLE:

HHW MEZZANINE / WTS UPPER LEVEL ELECTRICAL PLAN - BASE BID

SHEET NUMBER:

E102



ONE LINE DIAGRAM NOTES:

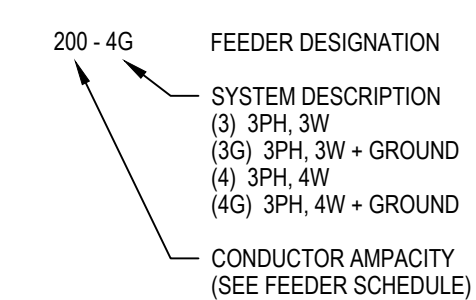
- 1 EC TO PROVIDE 1200V, 480/277V, 3-PHASE, 4-WIRE TRANSOCKET ERICKSON CT-124 MGE OR APPROVED EQUAL.
- 2 EC TO PROVIDE TRANSFORMER RATED METER SOCKET ERICKSON W-340 OR APPROVED EQUAL.
- 3 PROVIDE (3) 4"-INCH CONDUITS FROM UTILITY TRANSFORMER TO TRANSOCKET.
- 4 EC TO PROVIDE CONCRETE EQUIPMENT PAD FOR UTILITY TRANSFORMER.
- 5 PROVIDE GROUNDING PER MGE REQUIREMENTS AND NEC.
- 6 EC TO COORDINATE EXACT REQUIREMENTS WITH ELECTRICAL UTILITY, MGE.
- 7 PROVIDE CIRCUIT BREAKER AND FEED SERVING SPO #17 FOR ALTERNATE BID #1 AND #2. SEE SPECIAL PURPOSE OUTLET SCHEDULE FOR FURTHER REQUIREMENTS.
- 8 PROVIDE SECOND PANEL WITH FEED THROUGH LUGS FOR ALTERNATE BID #1 AND #2.
- 9 EC TO PROVIDE INVERSE TIME BREAKER FOR COMPACTORS.
- 10 PROVIDE (5) ADDITIONAL 250 AMP, 3 POLE SPACES.
- 11 PROVIDE NEMA 3R12 ENCLOSURE FOR ELECTRICAL DISTRIBUTION EQUIPMENT.
- 12 PROVIDE GROUNDING PER DETAIL SE-900.
- 13 PROVIDE CIRCUIT BREAKER AND FEED SERVING SPO #27 FOR ALTERNATE No. 8. SEE SPECIAL PURPOSE OUTLET SCHEDULE FOR FURTHER REQUIREMENTS.
- 14 EC TO PROVIDE 1200V, 480VOLT, 3-PHASE, 4-WIRE FUSED DISCONNECT.

FEEDER SCHEDULE

FEEDER AMPACITY	CONDUCTOR SIZE (kcmil)		CONDUIT SIZE	
	PH AND N	GRD	(3) AND (3G)	(4) AND (4G)
50	#8	#10	3/4"	1"
60	#6	#10	1-1/4"	1-1/4"
70	#4	#8	1-1/4"	1-1/4"
80	#4	#8	1-1/4"	1-1/4"
100	#3	#8	1-1/4"	1-1/4"
110	#2	#6	1-1/4"	1-1/2"
125	#1	#6	1-1/2"	2"
150	#1/0	#6	1-1/2"	2"
175	#2/0	#6	2"	2"
200	#3/0	#6	2"	2-1/2"
225	#4/0	#4	2"	2-1/2"
250	#250	#4	2-1/2"	3"
300	#350	#4	3"	3"
350	#500	#3	3"	3-1/2"
380	#500	#3	3"	3-1/2"
400	(2) #3/0	(2) #3	(2) 2"	(2) 2-1/2"
450	(2) #4/0	(2) #2	(2) 2"	(2) 2-1/2"
500	(2) #250	(2) #2	(2) 2-1/2"	(2) 3"
600	(2) #350	(2) #1	(2) 3"	(2) 3"
700	(2) #500	(2) #1/0	(2) 3"	(2) 3-1/2"
800	(2) #600	(2) #1/0	(2) 3-1/2"	(2) 4"
1000	(3) #400	(3) #2/0	(3) 3"	(3) 3-1/2"
1200	(3) 600	(3) #3/0	(3) 3-1/2"	(3) 4"
1600	(4) 600	(4) #4/0	(4) 3-1/2"	(4) 4"
2000	(5) 600	(5) #250	(5) 3-1/2"	(5) 4"

GENERAL NOTES:

1. ABOVE FEEDER SCHEDULE IS SCHEDULE OF TYPICAL FEEDERS AND SOME SIZES MAY NOT BE UTILIZED.
2. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310-16 OF NEC FOR COPPER CONDUCTOR TYPE THW / THWN.
3. FEEDER SIZES SHOWN ON RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR DERATING FACTORS REQUIRED BY CODE AND / OR ARE OVERSIZED FOR VOLTAGE DROP.



PROJECT INFORMATION:

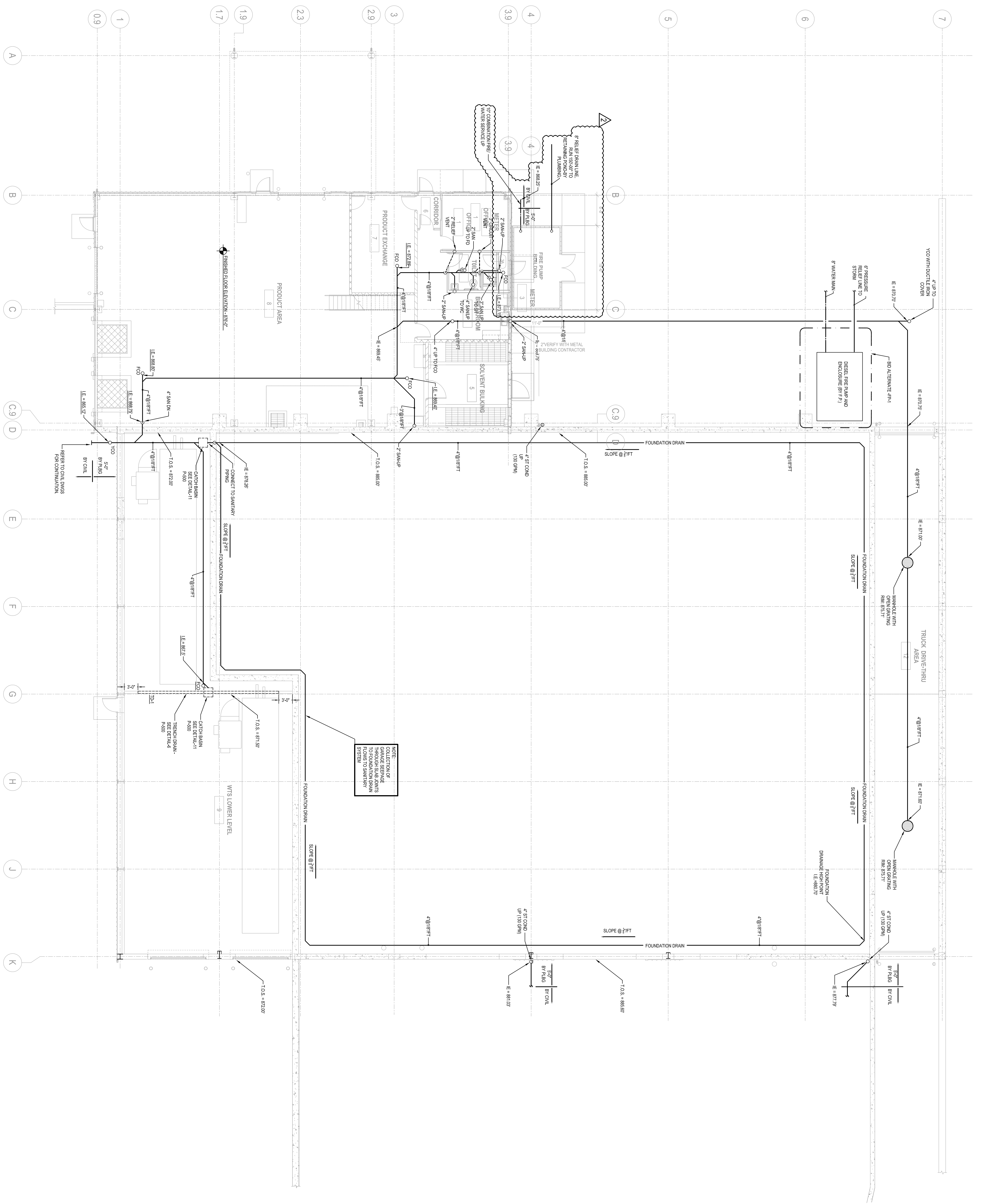
PROJECT NUMBER: 2009-0328.02
DATE: 03-12-2012
DRAWN BY: JAH
CHECKED BY: AAS
APPROVED BY: JHK
SCALE: AS NOTED

SHEET TITLE:

ONE-LINE DIAGRAM

SHEET NUMBER:

1 HHW FIRSTWTS LOWER LEVEL BELOW SLAB PLUMBING PLAN
1/8" = 1'-0"
0" 4" 8"



NOTE: PROVIDE GARAGE SERVICE THROUGH SLAB JOINTS TO SANITARY SYSTEM.

CONSULTANTS:

PROJECT TITLE:
 DANE COUNTY
 WASTE TRANSFER STATION
 AND HOUSEHOLD HAZARDOUS
 WASTE FACILITY
 RODEFIELD LANDFILL

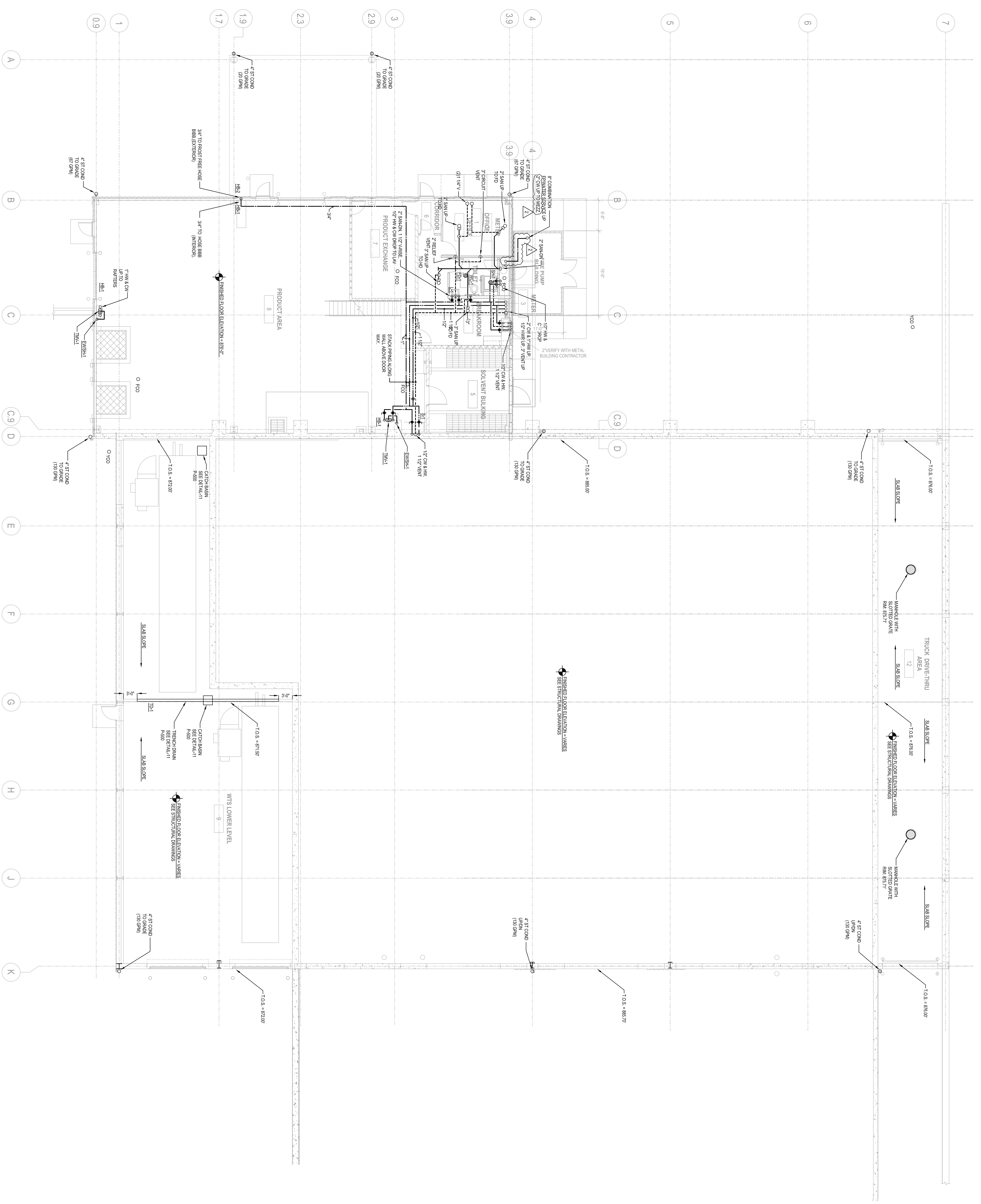
ISSUE:
 2 04-06-2012 ADDENDUM No. 2

PROJECT INFORMATION:
 PROJECT NUMBER: 2009-0328.02
 DATE: 03-12-2012
 DRAWN BY: EME
 CHECKED BY: RAK
 APPROVED BY: JHK
 SCALE: AS NOTED

SHEET TITLE:
 HHW FIRST FLOOR/WTS LOWER
 LEVEL PLUMBING PLAN

SHEET NUMBER:
P101

1 HHW FIRST FLOOR/WTS LOWER LEVEL PLUMBING PLAN



CONSULTANTS:

PROJECT TITLE:
DANE COUNTY
WASTE TRANSFER STATION
AND HOUSEHOLD HAZARDOUS
WASTE FACILITY
RODFIELD LANDFILL

ISSUE:
2 04-06-2012 ADDENDUM No. 2

PROJECT INFORMATION:
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SCALE: AS NOTED

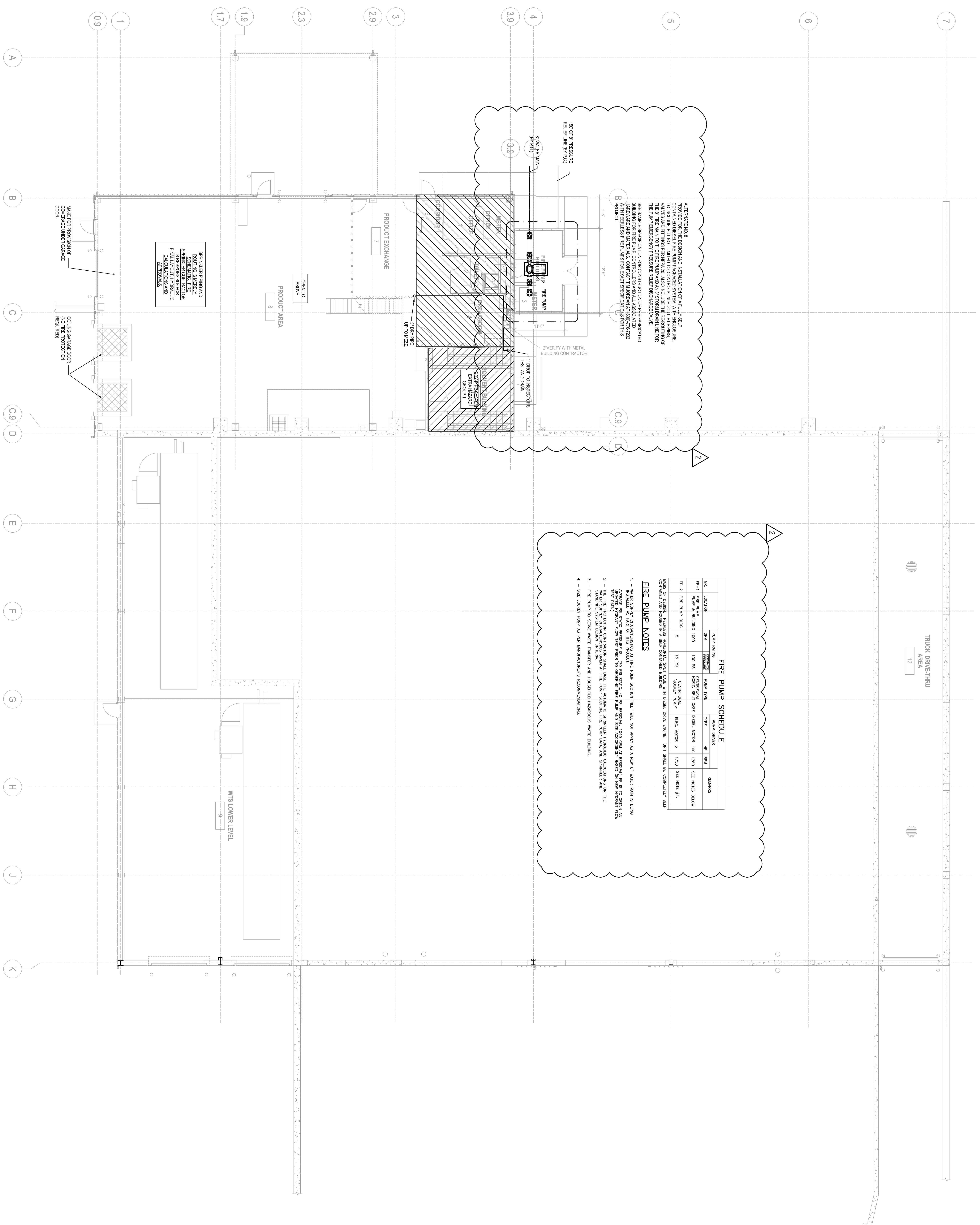
SHEET TITLE:
HHW FIRSTWTS LOWER LEVEL FIRE PROTECTION PLAN

SHEET NUMBER:

FP101

1 18-11-12
HHW FIRSTWTS LOWER LEVEL FIRE PROTECTION PLAN

GENERAL NOTE:
THE DESIGNER SHALL BE RESPONSIBLE TO DESIGN THE SYSTEM FOR ALL MATERIALS STORED ON THE SITE INCLUDING CONTAINERS, BOXES, ETC ON SITE.



ALTERNATE NO. 8
PROVIDE FOR THE DESIGN AND INSTALLATION OF FULLY SELF-CONTAINED DIESEL FIRE PUMP PACKAGED SYSTEM WITH ENCLOSED VALVES AND FITTINGS PER NFPA 20. ALSO INCLUDE THE REQUIREMENT OF THE 6" FIRE MAIN TO THE FIRE PUMP AND AN 8" STORAGE LINE FOR THE PUMP. ELECTRICAL PRESSURE RELIEF DISCHARGE VALVE.
SEE SAME SPECIFICATION FOR CONSTRUCTION OF PRE-FABRICATED BUILDING FOR THE FIRE PUMP CONTAINER AND ALL ASSOCIATED PIPING AND FITTINGS PER NFPA 20. ALSO INCLUDE THE REQUIREMENT OF THE 6" FIRE MAIN TO THE FIRE PUMP AND AN 8" STORAGE LINE FOR THE PUMP.
SEE SAME SPECIFICATION FOR CONSTRUCTION OF PRE-FABRICATED BUILDING FOR THE FIRE PUMP CONTAINER AND ALL ASSOCIATED PIPING AND FITTINGS PER NFPA 20. ALSO INCLUDE THE REQUIREMENT OF THE 6" FIRE MAIN TO THE FIRE PUMP AND AN 8" STORAGE LINE FOR THE PUMP.

1. WATER SUPPLY CHARACTERISTICS AT FIRE PUMP SUCTION (WELL) WILL NOT APPLY AS A NEW 6" WATER MAIN IS BEING ADDED. FIRE STATIC PRESSURE IS 170 PSIG AT 40 PSI RESIDUAL, 1040 GPM AT RESIDUAL. P.P.S. TO OBTAIN AN ADDITIONAL 100 GPM FROM TEST PUMP TO OBTAIN FIRE PUMP AND SIZE ACCORDINGLY BASED ON NEW TRUCKER FLAW TEST AND

2. THE FIRE PROTECTION CONTRACTOR SHALL BASE THE AUTOMATIC SHUTTLER HYDRAULIC CALCULATIONS ON THE SHUTTLER SYSTEM DESIGN CRITERIA.

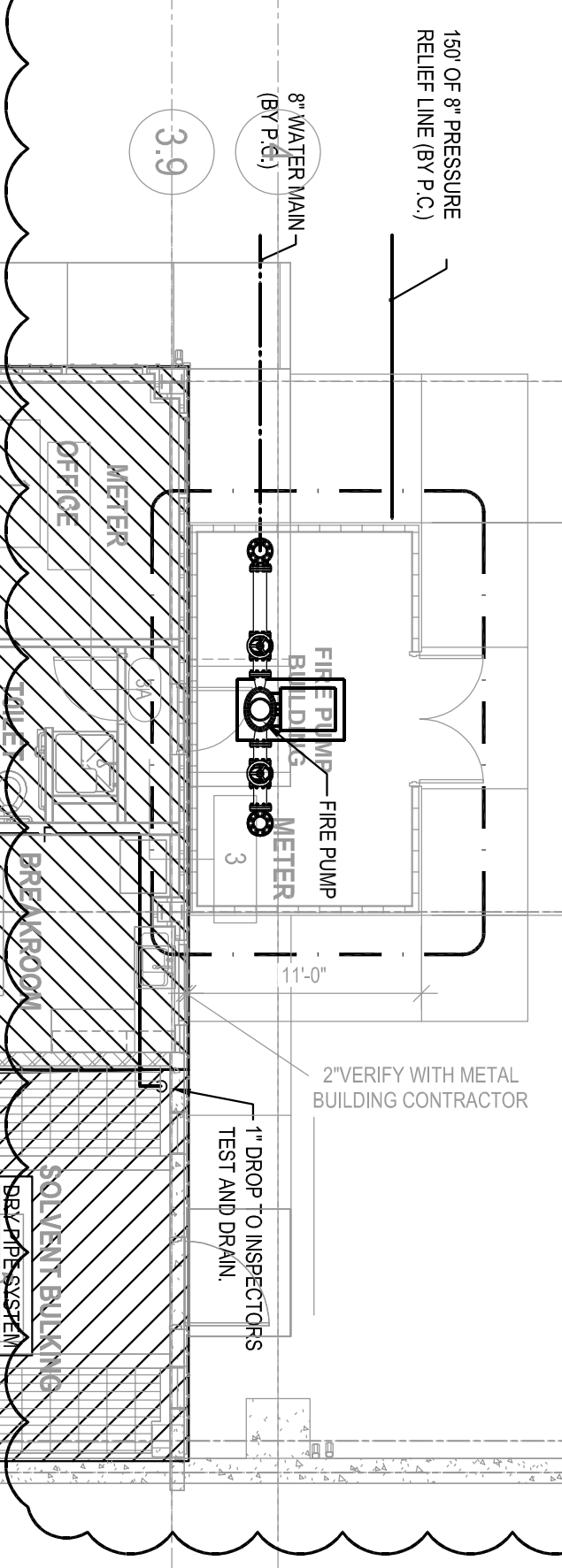
3. FIRE PUMP TO SERVE WASTE TRANSFER AND HOUSEHOLD HAZARDOUS WASTE BUILDING.

4. SIZE CHECK PUMP AS PER MANUFACTURERS RECOMMENDATIONS.

STANDARD FINISH AND SCHEMATIC FIRE SPRINKLER CENTER LINE SHALL BE USED FOR ALL HYDRAULIC CALCULATIONS AND SCHEDULES.

MAKE PROVISION FOR CONFORMANCE UNDER GARAGE DOOR.

COILING GARAGE DOOR (NO FIRE PROTECTION REQUIRED)



1" DROP TO 1" TEST AND DRAIN

3" FIRE PUMP

3" FIRE MAIN

3" FIRE PUMP

3" FIRE MAIN

3" FIRE PUMP

3" FIRE MAIN

3" FIRE PUMP

3" FIRE MAIN

3" FIRE PUMP

3" FIRE MAIN

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