

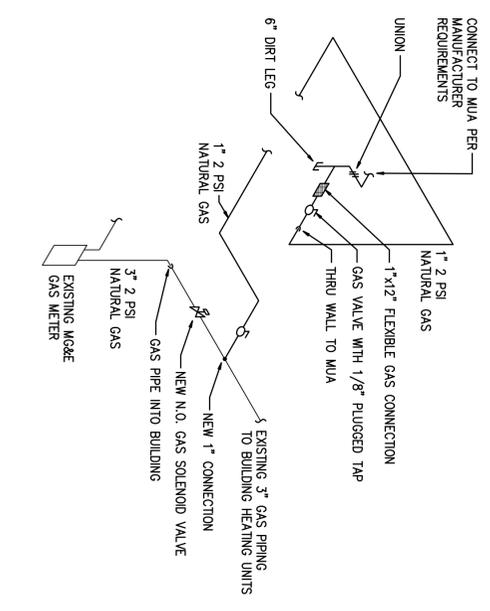
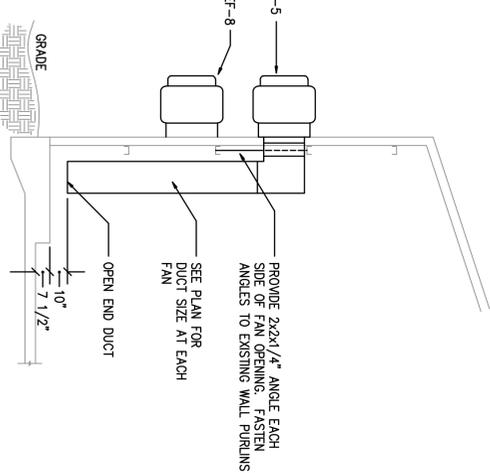
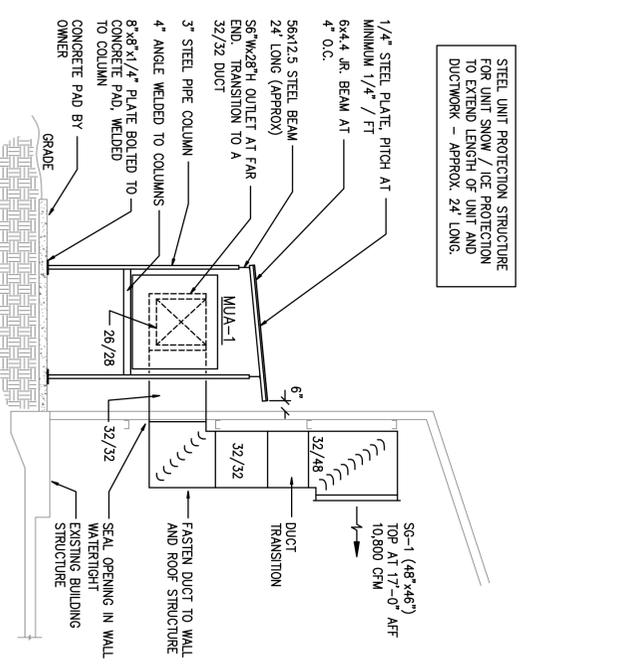
**A BLUE SHED FLOOR PLAN - VENTILATION & DETECTION**  
 SCALE: 1/8" = 1'-0"

**DETECTOR LEGEND**

- ◇ CO - CARBON MONOXIDE - MOUNT @ 60" ABOVE FLOOR
- ◇ NO2 - NITROGEN DIOXIDE - MOUNT @ 60" ABOVE FLOOR
- ◇ CH4 - METHANE (NATURAL GAS - NG) MOUNT 6" MINIMUM / 12" MAXIMUM BELOW HIGH POINT OF CEILING

**HVAC KEYED NOTES (DRAWING H100):**

- 1 DUCT DOWN TO 10" ABOVE FLOOR AT WALL, 18" ABOVE VEHICLE FLOOR.
- 2 EXISTING GAS FIRED RADIANANT HEATING UNIT WITH OUTSIDE DUCTED COMBUSTION AIR. UNIT TO BE DISABLED ON DETECTION OF CH4.
- 3 PROVIDE 12X12 12" SLEEVE DOWN FROM BOTTOM OF OA DUCT. PROVIDE OPPOSED BLADE MANUAL DAMPER IN SLEEVE.
- 4 30"x24"x16" DEEP INSULATED PLENUM AT REAR OF LOUVER 14"x16" OA DUCT. PROVIDE ELBOW & TRANSITION TO MAIN INLET SIZE. MOUNT TOP OF LOUVER AT SAME HEIGHT AS EXISTING LOUVER.
- 5 MAKE 1" GAS CONNECTION TO EXISTING 3" 2 PSI GAS PIPE. SEE DETAIL B/M100.
- 6 INSTALL 3" GAS, NORMALLY OPEN SOLENOID VALVE IN EXISTING PIPE UPSTREAM OF CONNECTION SERVING MUA-1.
- 7 DROP 1" GAS INSIDE BUILDING & OFF SET TO MUA. SEE DETAIL B/M100.
- 8 REMOVE EXISTING EXHAUST FAN. PROVIDE 2"x2" ANGLES VERTICAL AT EACH CORNER AND HORIZONTAL AT EACH END. EXISTING STEEL CHUBBIE TO BE REMOVED. PROVIDE 20" PLATE ON EXISTING CURB, SIZED FOR MOUNTING EXISTING EF-6 & EF-7. VERIFY EXISTING CURB DIMENSIONS.
- 9 DOOR TO OPEN 24" ON ACTIVATION OF EF-6 & EF-7. REFER TO ELECTRICAL DRAWING AND SPECIFICATION.
- 10 VENTILATION CONTROL & GAS DETECTION CONTROL PANELS
- 11 CO & NO2 SENSORS
- 12 COORDINATE SENSOR LOCATION WITH ELECTRICAL PANELS.
- 13 CH4 SENSOR
- 14 DOOR TO OPEN 12" ON ACTIVATION OF EF-9 (ALTERNATE BID). REFER TO ELECTRICAL DRAWING AND SPECIFICATION.
- 15 MAINTAIN MINIMUM 10'-0" BETWEEN EF-8 & L-1
- 16 12" x 12" ACCESS DOOR.
- 17 MOUNT FAN WITH BOTTOM OF INLET JUST ABOVE AND PURLIN ABOVE DOOR. PROVIDE 22X24 ANGLE EACH SIDE OF FAN OPENING. FASTEN ANGLES TO EXISTING WALL PURLINS ABOVE & BELOW.



**D SECTION AT MUA & PROTECTION STRUCTURE**  
 NOT TO SCALE

**C TYPICAL WALL FAN SECTION**  
 SCALE: 1/4" = 1'-0"

**B GAS PIPING DETAIL**  
 NOT TO SCALE

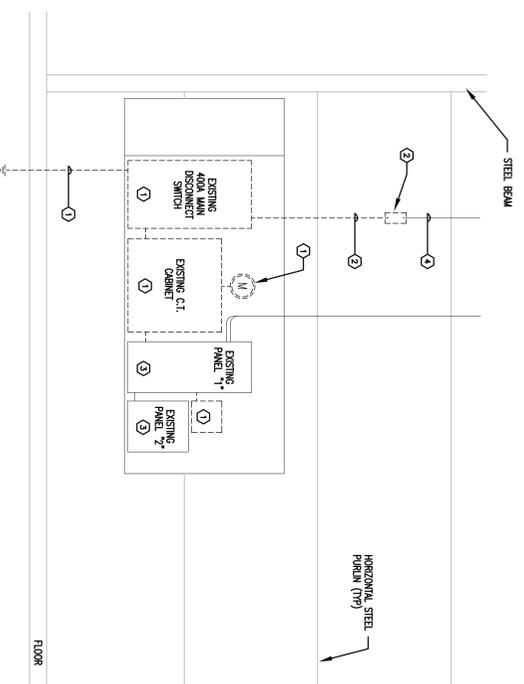
- 1 DUCT DOWN TO 10" ABOVE FLOOR AT WALL, 18" ABOVE VEHICLE FLOOR.
- 2 EXISTING GAS FIRED RADIANANT HEATING UNIT WITH OUTSIDE DUCTED COMBUSTION AIR. UNIT TO BE DISABLED ON DETECTION OF CH4.
- 3 PROVIDE 12X12 12" SLEEVE DOWN FROM BOTTOM OF OA DUCT. PROVIDE OPPOSED BLADE MANUAL DAMPER IN SLEEVE.
- 4 30"x24"x16" DEEP INSULATED PLENUM AT REAR OF LOUVER 14"x16" OA DUCT. PROVIDE ELBOW & TRANSITION TO MAIN INLET SIZE. MOUNT TOP OF LOUVER AT SAME HEIGHT AS EXISTING LOUVER.
- 5 MAKE 1" GAS CONNECTION TO EXISTING 3" 2 PSI GAS PIPE. SEE DETAIL B/M100.
- 6 INSTALL 3" GAS, NORMALLY OPEN SOLENOID VALVE IN EXISTING PIPE UPSTREAM OF CONNECTION SERVING MUA-1.
- 7 DROP 1" GAS INSIDE BUILDING & OFF SET TO MUA. SEE DETAIL B/M100.
- 8 REMOVE EXISTING EXHAUST FAN. PROVIDE 2"x2" ANGLES VERTICAL AT EACH CORNER AND HORIZONTAL AT EACH END. EXISTING STEEL CHUBBIE TO BE REMOVED. PROVIDE 20" PLATE ON EXISTING CURB, SIZED FOR MOUNTING EXISTING EF-6 & EF-7. VERIFY EXISTING CURB DIMENSIONS.
- 9 DOOR TO OPEN 24" ON ACTIVATION OF EF-6 & EF-7. REFER TO ELECTRICAL DRAWING AND SPECIFICATION.
- 10 VENTILATION CONTROL & GAS DETECTION CONTROL PANELS
- 11 CO & NO2 SENSORS
- 12 COORDINATE SENSOR LOCATION WITH ELECTRICAL PANELS.
- 13 CH4 SENSOR
- 14 DOOR TO OPEN 12" ON ACTIVATION OF EF-9 (ALTERNATE BID). REFER TO ELECTRICAL DRAWING AND SPECIFICATION.
- 15 MAINTAIN MINIMUM 10'-0" BETWEEN EF-8 & L-1
- 16 12" x 12" ACCESS DOOR.
- 17 MOUNT FAN WITH BOTTOM OF INLET JUST ABOVE AND PURLIN ABOVE DOOR. PROVIDE 22X24 ANGLE EACH SIDE OF FAN OPENING. FASTEN ANGLES TO EXISTING WALL PURLINS ABOVE & BELOW.

**BLUE SHED GAS DETECTION AND VENTILATION  
 HIGHWAY STORAGE FACILITY  
 2302 FISH HATCHERY ROAD, MADISON, WI 53713**

**FIRST FLOOR PLAN - HVAC**

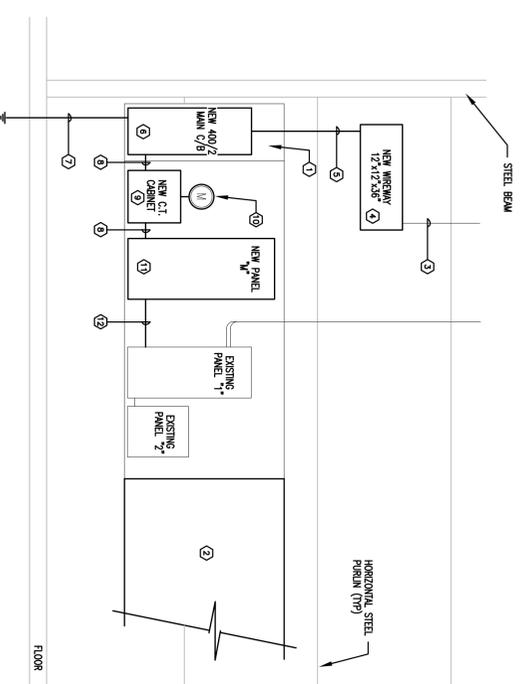






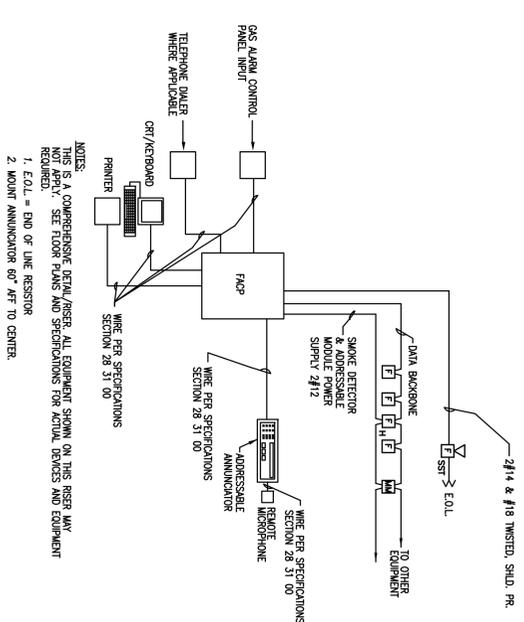
**A**  
**E101**  
**POWER RISER DIAGRAM – DEMOLITION**  
NO SCALE 120/240V, 1Ø, 3W

- POWER RISER DEMOLITION NOTES:**
- REMOVE EXISTING MAIN DISCONNECT SWITCH, GROUNDING, C1 CABINET, METER SOCKET, AND EXHAUST FAN CONTROL EQUIPMENT.
  - REMOVE EXISTING 3" GAS COUPLING AND CONDUIT BETWEEN COUPLING AND EXISTING DISCONNECT SWITCH. EXISTING #500 MCM CONDUCTORS TO BE REUSED.
  - EXISTING PANELBOARD OR LOAD CENTER TO REMAIN.
  - EXISTING 3 #500 MCM CONDUCTORS IN 3" GAS CONDUIT TO REMAIN.



**B**  
**E101**  
**POWER RISER DIAGRAM – NEW WORK**  
NO SCALE 120/240V, 1Ø, 3W

- POWER RISER DEMOLITION NEW WORK NOTES:**
- PAINT THIS SECTION OF EXISTING PLYWOOD BACKBOARD WITH FIRE RETARDANT PAINT.
  - PROVIDE NEW PLYWOOD BACKBOARD - REFER TO FLOOR PLAN SHEET E100.
  - EXISTING #500 MCM, 3" GAS C.
  - PROVIDE NEW GALVANIZED STEEL WIREWAY WITH HANDED LOCKABLE COVER, AT APPROPRIATE LOCATION TO INTERCEPT EXISTING 3" GAS CONDUIT AT TOP.
  - INTERCEPT EXISTING SIGNAL CONDUCTORS AT NEW WIREWAY, AND PROVIDE #500 MCM, 4" GAS C, FROM WIREWAY TO MAIN CIRCUIT BREAKER.
  - PROVIDE NEW 400A, 2P ENCLOSED MAIN CIRCUIT BREAKER. REFER TO SPECIFICATIONS.
  - PROVIDE #1/2" BARE COPPER GROUNDING ELECTRODE CONDUCTORS AND GROUND RIGS IN ACCORDANCE WITH WIRE REQUIREMENTS.
  - #500 MCM, 1Ø, 4" C.
  - PROVIDE NEW C1 CABINET IN ACCORDANCE WITH MAKE REQUIREMENTS.
  - PROVIDE NEW 400A METER SOCKET AND 1" GAS CONDUIT, IN ACCORDANCE WITH MAKE REQUIREMENTS. METER PROVIDED BY MAKE.
  - PROVIDE NEW 400A PANELBOARD. REFER TO PANEL SCHEDULE AND SPECIFICATIONS.
  - RE-FEED EXISTING PANEL 1", 3Ø/Ø, 1Ø, 2 1/2" C.



**C**  
**E101**  
**FIRE ALARM SYSTEM WIRING DIAGRAM**  
NO SCALE

- NOTES:**
- A COMPREHENSIVE DETAIL/RISER FOR ALL EQUIPMENT SHOWN ON THIS RISER MAY NOT APPLY. SEE FLOOR PLANS AND SPECIFICATIONS FOR ACTUAL DEVICES AND EQUIPMENT REQUIRED.
  - E.O.L. = END OF LINE RESISTOR
  2. MOUNT ANNUNCIATOR 80" AFF TO CENTER.

MOTOR SCHEDULE							
NO.	EQUIPMENT	HP/MVA	VOLTS	CIRCUIT FEEDER	BREAKER	REMARKS	
1	EF-1	3/4 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
2	EF-2	3/4 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
3	EF-3	3/4 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
4	EF-4	1/4 HP	120	3Ø/120V, 1Ø/240V	1Ø/1	PROVIDE NEW 1 MANUAL STARTER AT UNIT	
5	EF-5	1/2 HP	120	3Ø/120V, 1Ø/240V	1Ø/1	PROVIDE NEW 1 MANUAL STARTER AT UNIT	
6	EF-6	2 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
7	EF-7	2 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
8	EF-8	1/20 HP	120	3Ø/120V, 1Ø/240V	1Ø/1	PROVIDE NEW 1 MANUAL STARTER AT UNIT	
9	EF-9	3/4 HP	240, 1Ø	3Ø/120V, 1Ø/240V	1Ø/2	PROVIDE NEW 1 COMBINATION STARTER/DISCONNECT SWITCH AT UNIT	
10	MHA-1	2-1/2 HP	240, 1Ø	1Ø/120V, 2Ø/240V, 3Ø/480V	4Ø/2	STARTER AND DISCONNECT SWITCH FINISHED BY MC, MIBED BY EC	

**MOTOR SCHEDULE NOTES:**

- ALTERNATE 8Ø ONLY.

PANEL SCHEDULE									
PANEL NO.	VOLTS	BUS	BRK	BREAKERS			CABINET TYPE	ROOM	REMARKS
				1 POLE AMP QTY	2 POLE AMP QTY	3 POLE AMP QTY			
1	120/240V 1Ø, 3W	400	MDO	15	3	15	6		
2	120/240V 1Ø, 3W	400	MDO	20	9	45	1		
3	120/240V 1Ø, 3W	400	MDO	225	1				

**SCHEDULES AND DETAILS - ELECTRICAL**

**BLUE SHED GAS DETECTION AND VENTILATION  
HIGHWAY STORAGE FACILITY**  
2302 FISH HATCHERY ROAD, MADISON, WI 53713