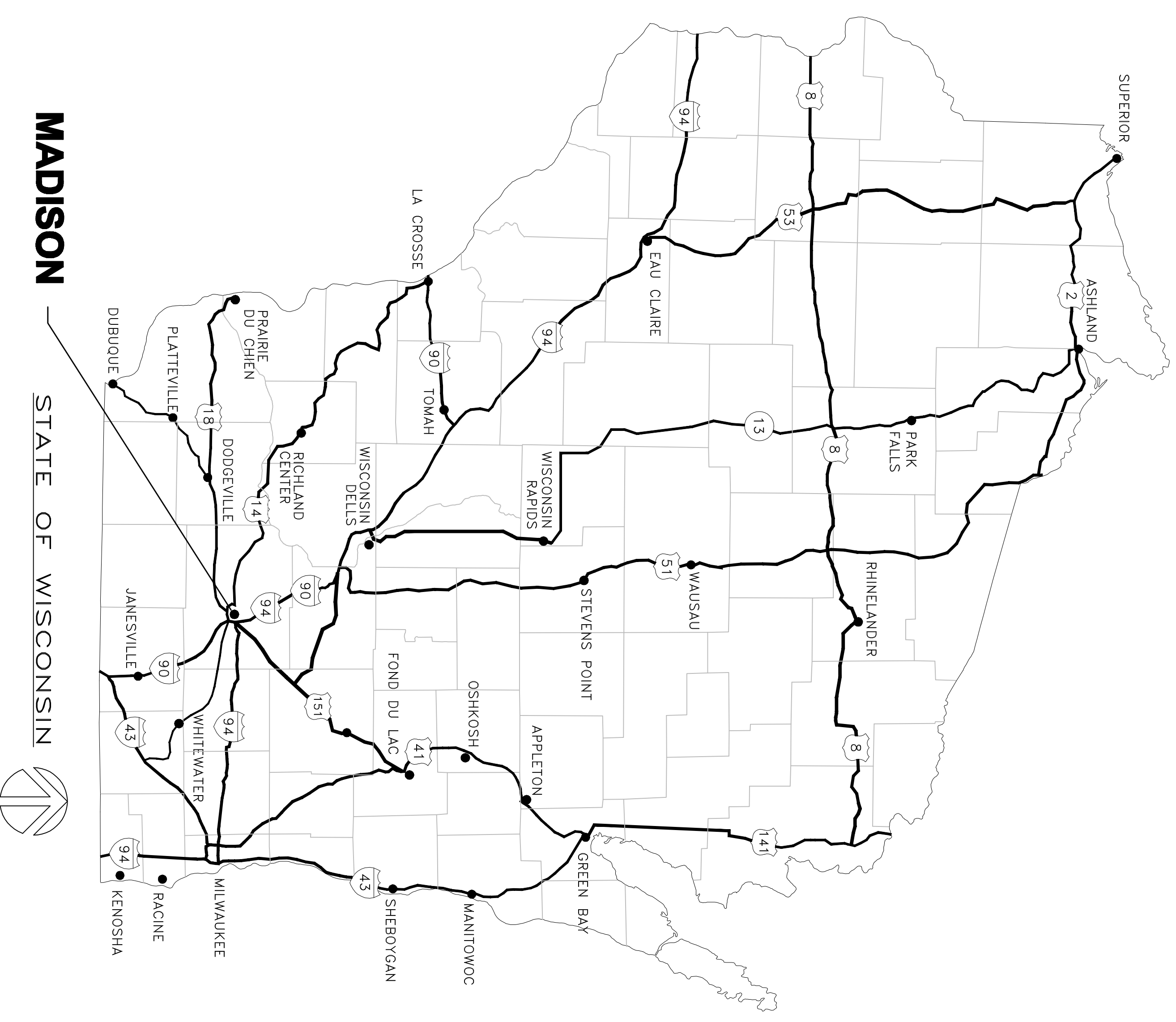
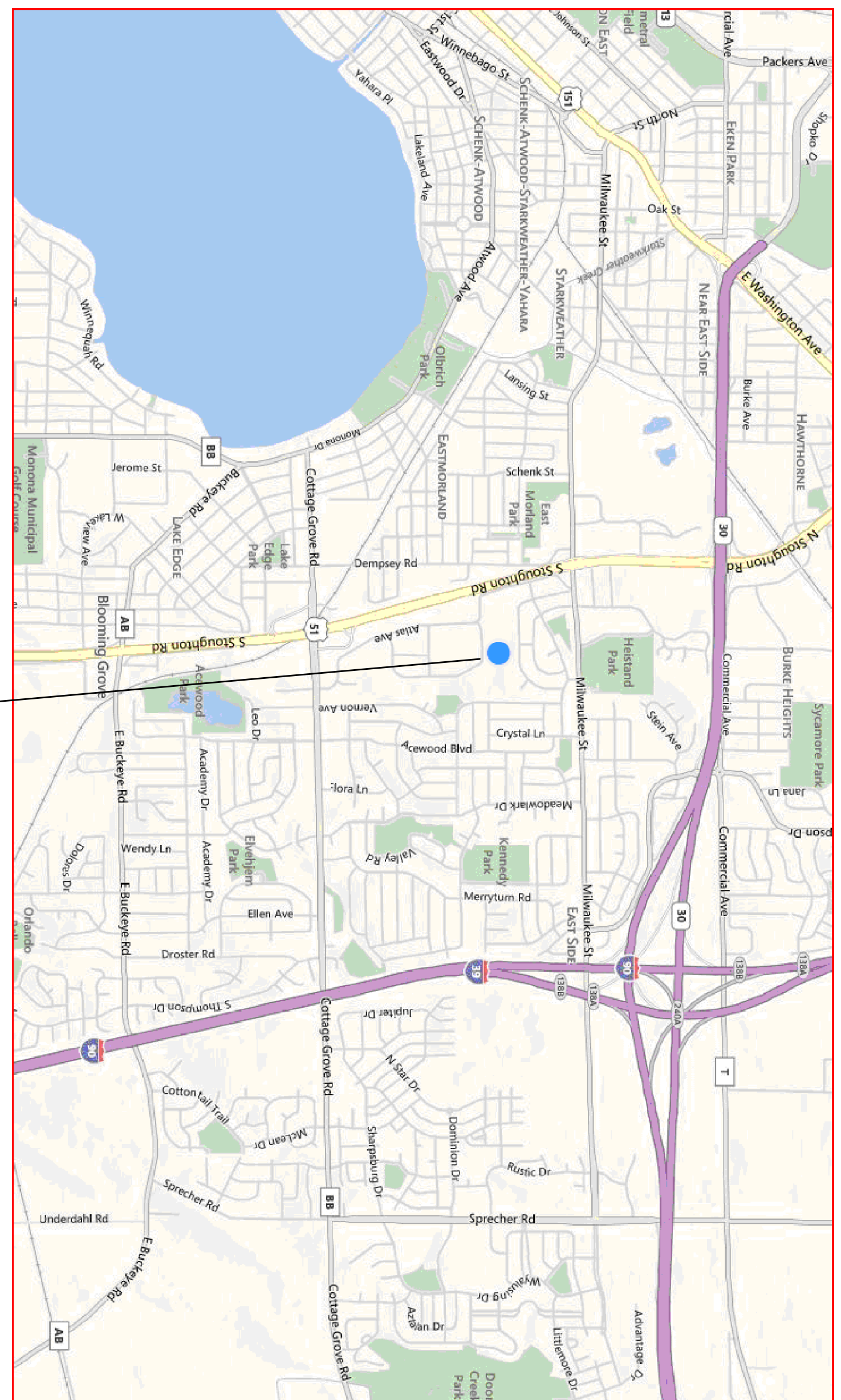


DANE COUNTY PARKS OPERATIONS FACILITY

CNG DETECTION, VENTILATION & FIRE ALARM SYSTEM- ROBERTSON RD 4318 ROBERTSON RD, MADISON, WI 53714



MADISON
 STATE OF WISCONSIN



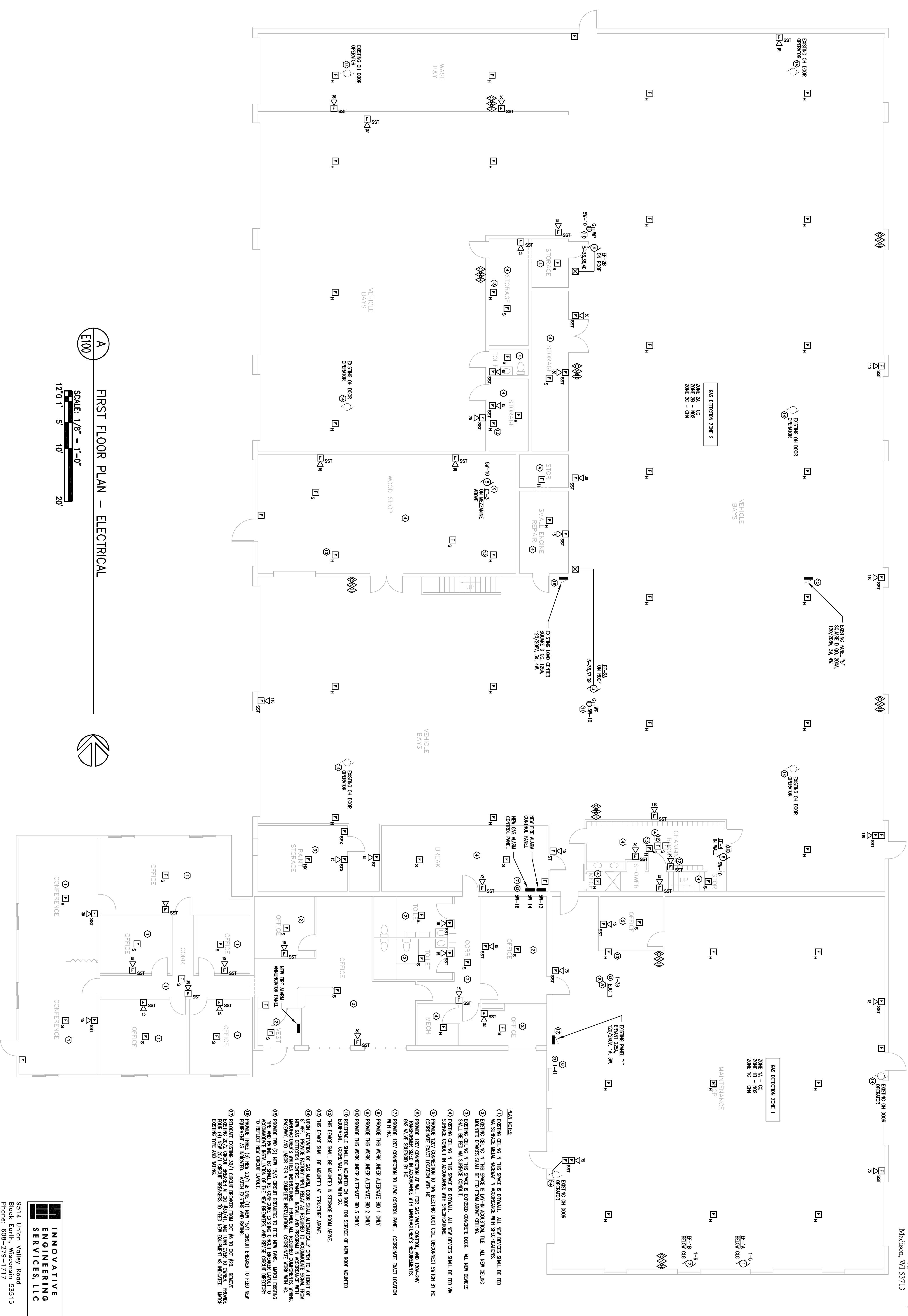
**4318 ROBERTSON RD.
 MADISON WI**

SHEET INDEX

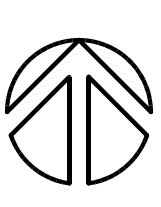
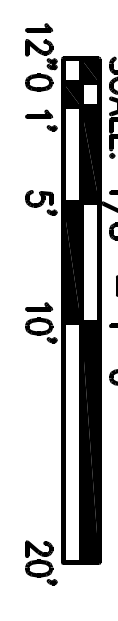
- HVAC**
- T100** TITLE SHEET
- M100** FIRST FLOOR PLAN - HVAC
- M101** MEZZANINE LEVEL, DETAILS, SCHEDULES AND DRAWING NOTES
- E100** FIRST FLOOR PLAN - ELECTRICAL
- E101** SYMBOLS, DETAILS AND SCHEDULES - ELECTRICAL

DANE COUNTY PARKS OPERATIONS FACILITY
CNG DETECTION, VENTILATION & FIRE ALARM SYSTEM
 4318 ROBERTSON ROAD, MADISON, WI 53714

- EXHAUSTS**
- EXISTING CEILING IN THIS SPACE IS DRYPALL. ALL NEW EXHAUSTS SHALL BE FED VIA SURFACE METAL RACEWAY IN ACCORDANCE WITH SPECIFICATIONS.
 - EXISTING CEILING IN THIS SPACE IS LAY-IN ACoustICAL TILE. ALL NEW CEILING MOUNTED DEVICES SHALL BE FED FROM ABOVE CEILING.
 - EXISTING CEILING IN THIS SPACE IS EXPOSED CONCRETE DECK. ALL NEW DEVICES SHALL BE FED VIA SURFACE CONDUIT.
 - EXISTING CEILING IN THIS SPACE IS BRICKWALL. ALL NEW DEVICES SHALL BE FED VIA SURFACE CONDUIT IN ACCORDANCE WITH SPECIFICATIONS.
 - PROMOTE 120V CONNECTION TO LOW ELECTRIC DUCT COIL, DISCONNECT SWITCH BY H.C. COORDINATE EXACT LOCATION WITH H.C.
 - PROMOTE 120V CONNECTION AT WALL FOR GAS VALVE CONTROL AND 120V-240V TRANSFORMER SEEN IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 - PROMOTE EXACT LOCATION WITH H.C.
 - PROMOTE 120V CONNECTION TO HVAC CONTROL PANEL, COORDINATE EXACT LOCATION WITH H.C.
 - PROMOTE THIS WORK UNDER ALTERNATE BID 1 ONLY.
 - PROMOTE THIS WORK UNDER ALTERNATE BID 2 ONLY.
 - PROMOTE THIS WORK UNDER ALTERNATE BID 3 ONLY.
 - EQUIPMENT SHALL BE MOUNTED ON ROOF FOR SERVICE OF NEW ROOF MOUNTED EQUIPMENT. COORDINATE WORK WITH H.C.
 - THIS DEVICE SHALL BE MOUNTED IN STORAGE ROOM ABOVE.
 - UPON ACTIVATION OF GAS ALARM, DOOR SHALL AUTOMATICALLY OPEN TO A HEIGHT OF 8' AFF. PROVIDE FACTOR NUTRI RELAY AS REQUIRED TO ACCOMMODATE SIGNAL FROM NEW GAS DETECTION CONTROL PANEL. INSTALL AND PROGRAM IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. PROVIDE ALL NECESSARY ELECTRICAL, COORDINATE WORK WITH H.C. AND LABOR FOR A COMPLETE INSTALLATION. COORDINATE WORK WITH H.C. TO REFLECT NEW CIRCUIT LAYOUT.
 - PROMOTE TWO (2) NEW 15A/1 CIRCUIT BREAKERS TO FEED NEW PANE, UNDER EXISTING TIE AND BRING EC SHALL RE-CONFIGURE EXISTING CIRCUIT BREAKER LAYOUT TO ACCOMMODATE INSTALLATION OF THE NEW BREAKERS, AND REVERSE CIRCUIT DIRECTION TO REFLECT NEW CIRCUIT LAYOUT.
 - PROMOTE THREE (3) NEW 20/1 & ONE (1) NEW 15/1 CIRCUIT BREAKERS TO FEED NEW EQUIPMENT AS INDICATED. MATCH EXISTING AND PANE.
 - RELOCATE EXISTING 30/1 CIRCUIT BREAKER FROM OCT #8 TO OCT #20. RELOCATE EXISTING 20/2 CIRCUIT BREAKER AT OCT #29/31, AND TURN OVER TO OWNER. PROVIDE NEW 20/2 CIRCUIT BREAKER PANELS TO FEED NEW EQUIPMENT AS INDICATED. MATCH EXISTING TIE AND PANE.



FIRST FLOOR PLAN - ELECTRICAL



REVISIONS:

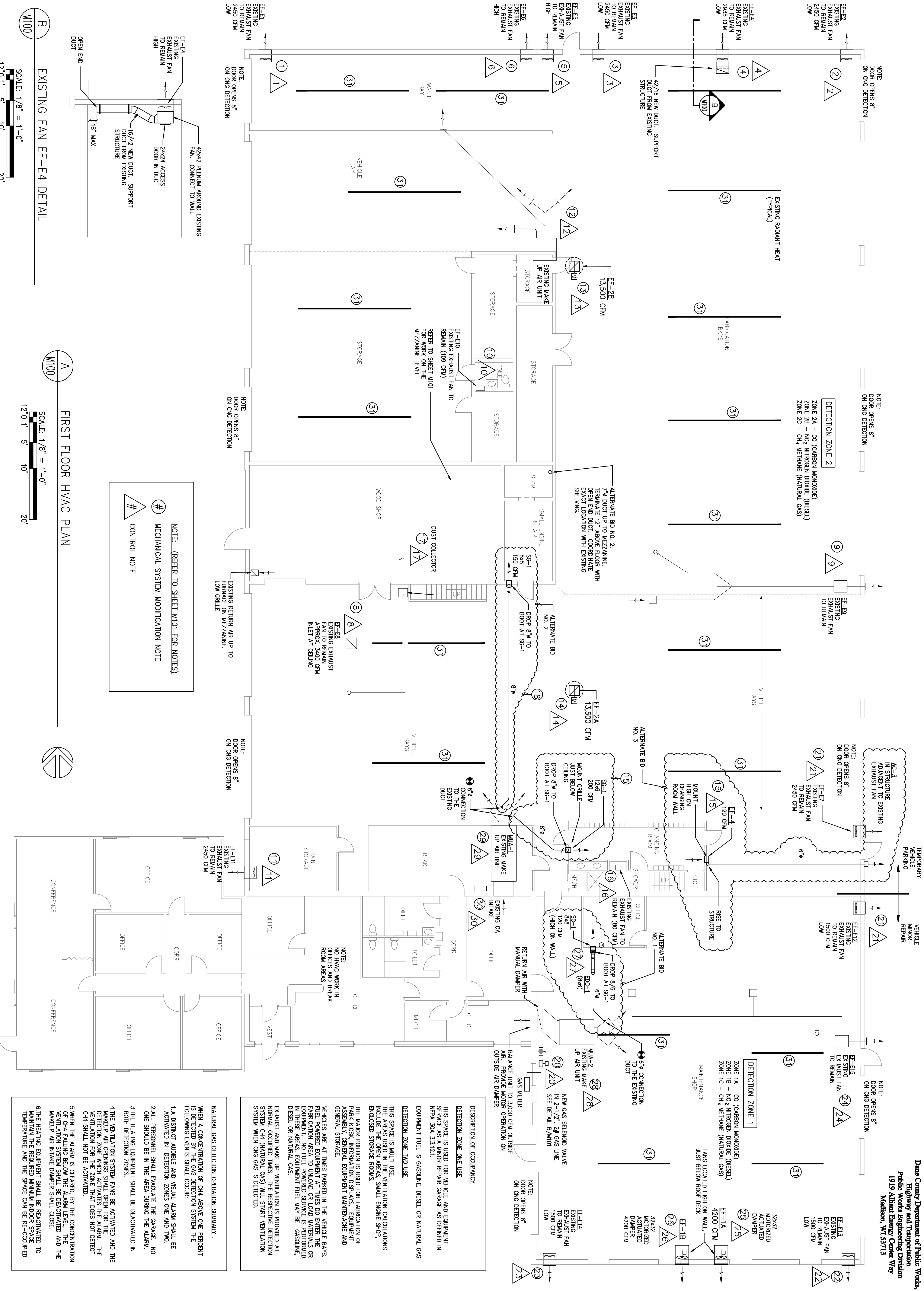
NO.	DATE	DESCRIPTION

INNOVATIVE ENGINEERING SERVICES, LLC

9514 Union Valley Road
 Black Earth, Wisconsin 53515
 Phone: 608-279-1717
 Email: dhilli.es@ids.net

DANE COUNTY PARKS OPERATIONS FACILITY
CNG DETECTION, VENTILATION & FIRE ALARM SYSTEM
 4318 ROBERTSON ROAD, MADISON, WI 53714

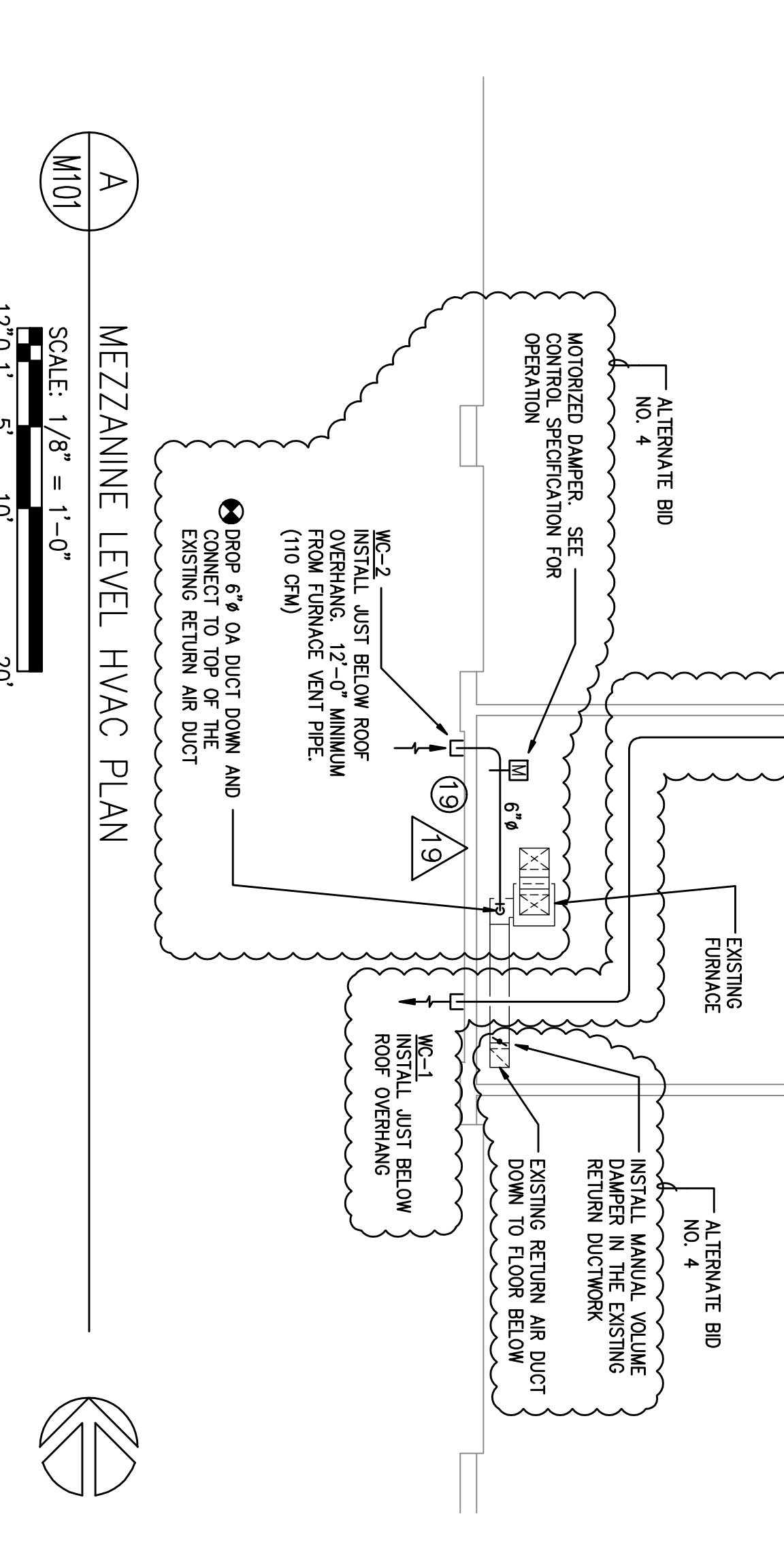
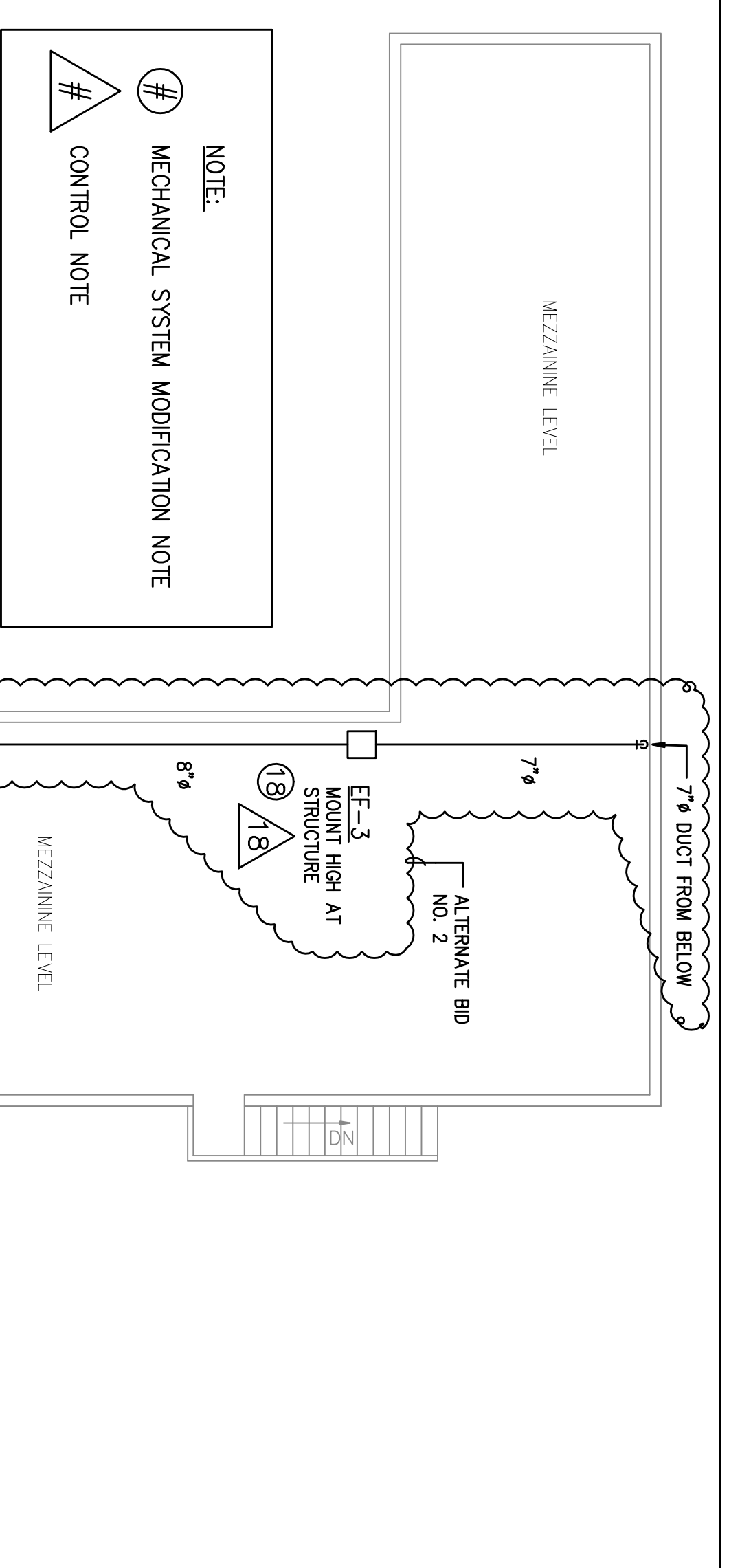
FIRST FLOOR PLAN - HVAC



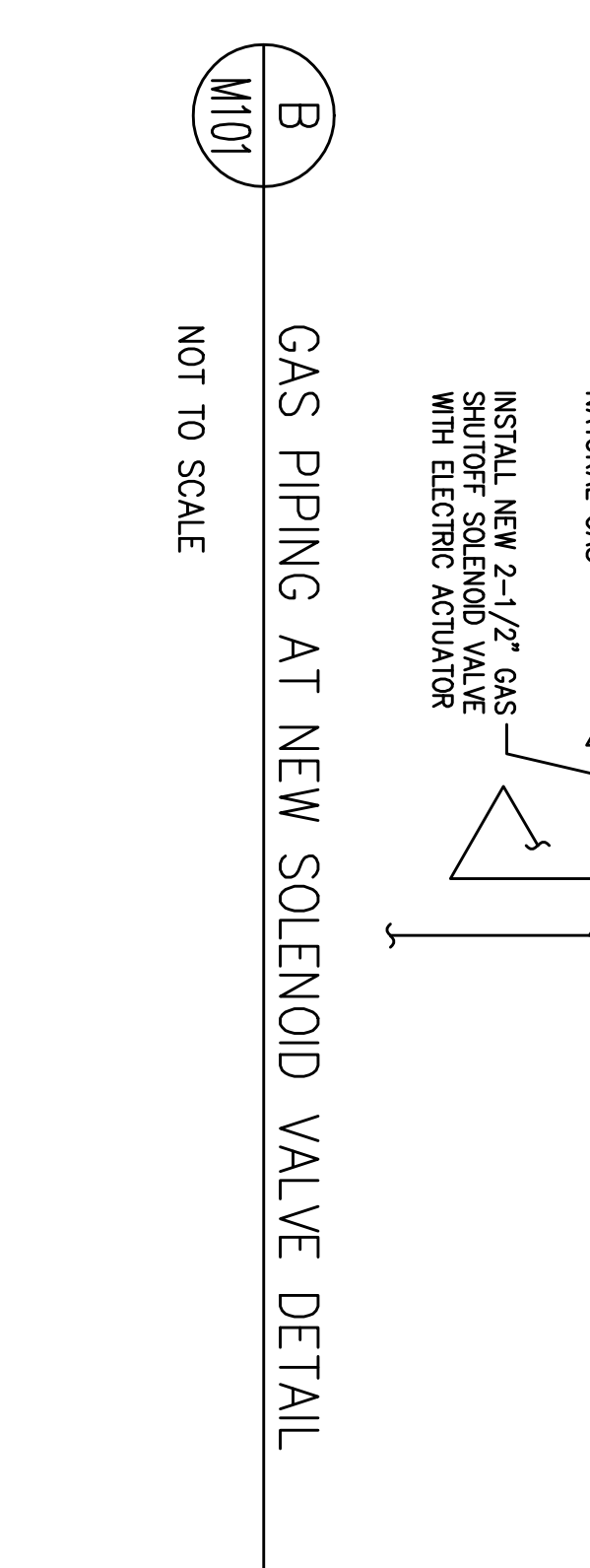
NOTE: (REFER TO SHEET M101 FOR NOTES)
 # MECHANICAL SYSTEM MODIFICATION NOTE
 # CONTROL NOTE

FIRST FLOOR HVAC PLAN
 SCALE: 1/8" = 1'-0"
 12'0" 1" 5" 10" 20'

EXISTING FAN EF-E4 DETAIL
 SCALE: 1/8" = 1'-0"
 12'0" 1" 5" 10" 20'



MARK	MANUFACTURER	MODEL	HEATER TYPE	CONTROL	ELECTRICAL VOLTAGE	PHASE	STAGES	CHM	DUCT SIZE W X H	HEATER SIZE W X H	AIR PD W.C.	REMARKS	
ECC-1	WARREN	GBK	SLIP IN - OPEN COIL	See Notes	1	120	1	1	120	6 X 6	6 X 6	0.05	1, 2, 3, 4



MARK	LOCATION	MANUFACTURER	MODEL NO.	FAN PERFORMANCE (CFM)	FAN DATA (TYPE)	DRIVE TYPE	FRM	TIP SPEED	VFD	BHP	HP	VOLTS / PHASE	REMARKS
EF-1A & B	WALL	GREENHECK	SBCE-3H00-4	4,200	0.3	PROP. AIRROL	777	6099	NO	0.42	1/2	120/1	1, 2, 4, 5, 6, 7
EF-2A & B	ROOF	GREENHECK	GB-48-15	13,500	0.25	PRV. BI ALUMI	275	3471	NO	1.46	1 1/2	208/3	1, 2, 5, 9, 10, 11, 12
EF-3	MEZZANINE	GREENHECK	SO-60-D	150	0.5	INLINE BI ALUMI	1,508	4293	NO	0.05	1/12	120/1	5, 13, 17
EF-4	CHANGE	GREENHECK	SFA-200	120	0.4	WALL/CEILING	798		NO	48 watts @ 43 amps		120/1	13, 14, 15, 16, 18

MARK	MANUFACTURER	MODEL NO.	DESCRIPTION	SIZE	MATERIAL	MOUNTING	AIR PATTERN	CFM	DAMPER	APD W.C.	ACCESSORIES	REMARKS
SG-1	CARNES	R8DBH	DOUBLE DEFLECTION	SEE PLAN	STEEL	WALL	22-1/2 DEGREE	SEE PLAN	SEE NOTE	0.05	1	

MARK	MANUFACTURER	MODEL NO.	DESCRIPTION	SIZE	MATERIAL	MOUNTING	AIR PATTERN	CFM	DAMPER	APD W.C.	ACCESSORIES	REMARKS
1	REMARKS		PROVIDE BALANCING DAMPER IN SUPPLY DUCT									

Room Name & Location	Length (ft)	Width (ft)	Height (ft)	Floor Area (SF)	Room Volume (CF)	CFM @ Law	CFM @ High	Air Changes	CFM @ Low (1, 2)	CFM @ High (5)	Notes	
South	70.67	62.67	21.843	4,429	96,740	2,214	0	0	0	0	8,400 3, 4, 6, 7	
North	145.8	118	18.5	17,294	318,281	8,602	0	0	26,523	26,523	12,735	27,000 3, 4, 6, 7
East & West												

REVISIONS:	DATE	DESCRIPTION
1	NOVEMBER 25, 2013	CONCEPT & 20% BLUE PRINT
2	NOVEMBER 25, 2013	50% PERMITS
3	NOVEMBER 25, 2013	100% PERMITS
4	NOVEMBER 25, 2013	CONSTRUCTION