

# HVAC UPGRADES

## Goodman Parks - Building B

### 1402 Wingra Creek Parkway Madison, WI

Contract # 6870

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- H200 HVAC SCHEDULES & DETAILS
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- E100 ELECTRICAL PLAN & SCHEDULES

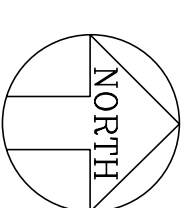
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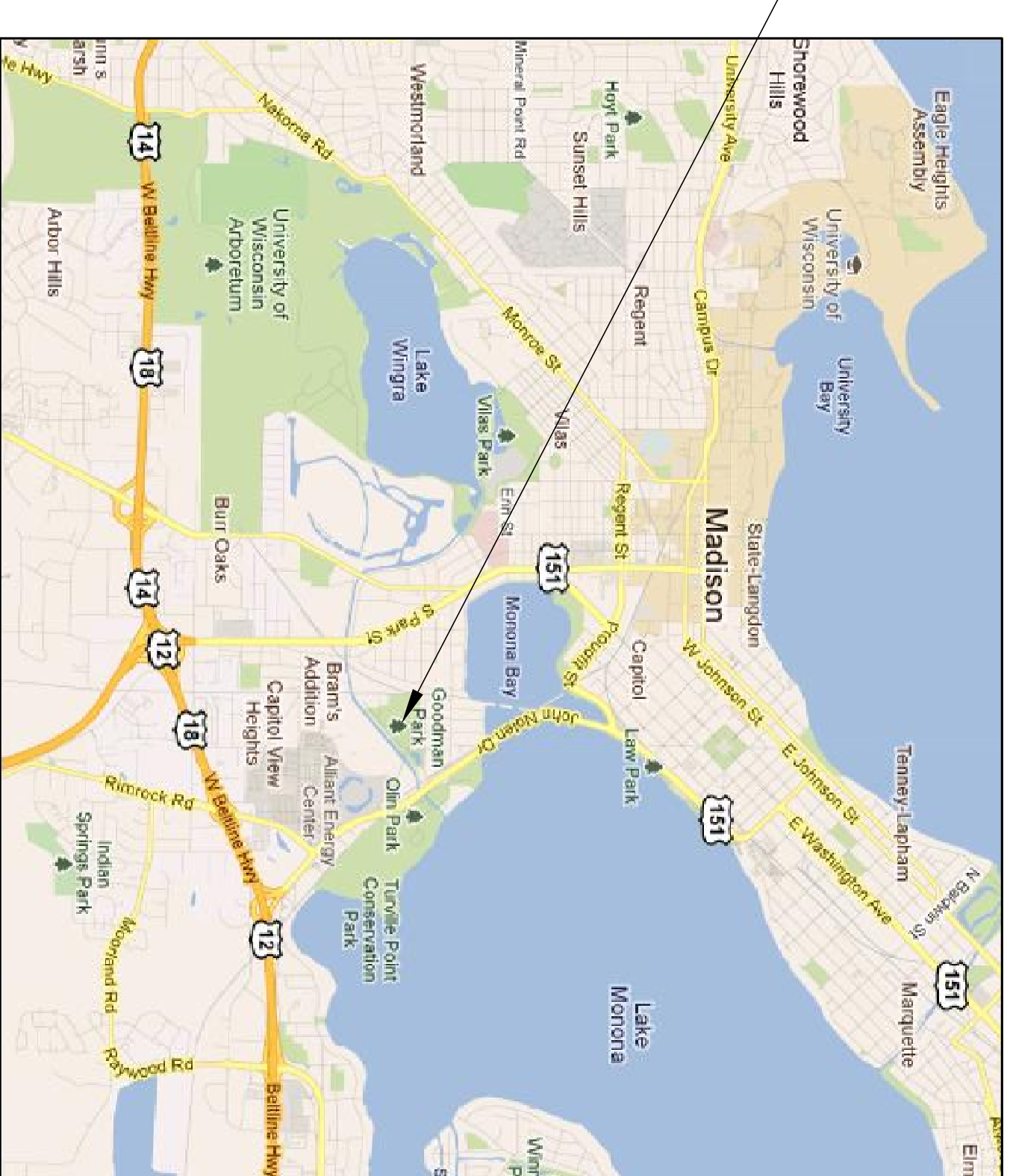
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SITE PLAN



SITE LOCATION



SITE AREA

PROJECT LOCATION



MADISON AREA

Project Title: <b>HVAC Upgrades</b> <b>Goodman Parks - Building B</b> <b>1402 Wingra Creek Parkway</b> <b>Madison, WI</b>		Sheet Title: TITLE SHEET		Consultants <b>HEIN Engineering Group</b> 319 N. BELTLINE HWY MADISON, WI 53713 Phone: (608) 288-9260 Fax: (608) 288-9282 E-MAIL: hein@chorus.net PROJECT NO. H1116		CONTRACT # 6870	
ISSUED FOR: FINAL REVIEW		DATE: 4-23-12		DECKED BY: MH		DRAWN BY: DAS	
		Sheet Number <b>TS100</b>					

Consultants

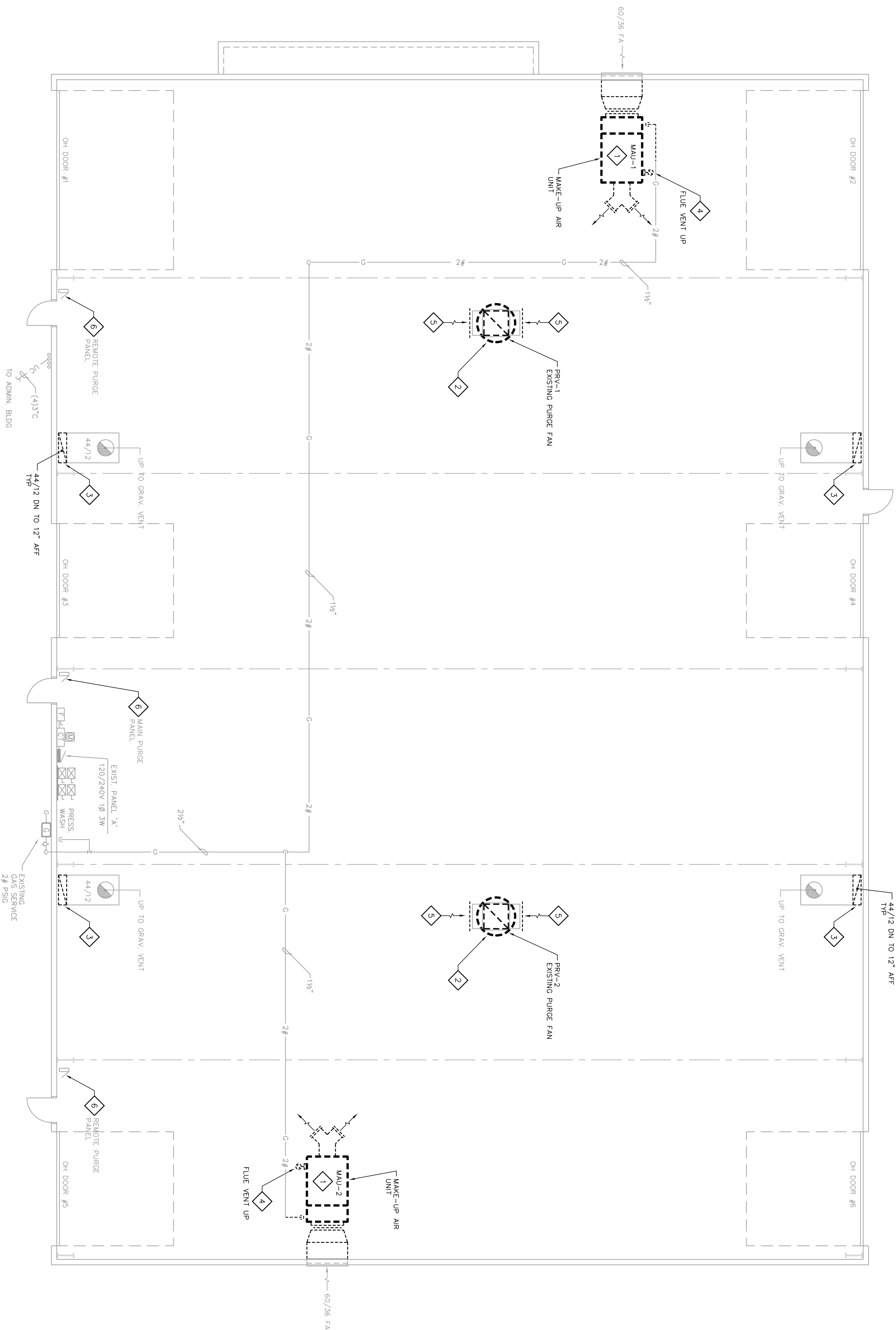
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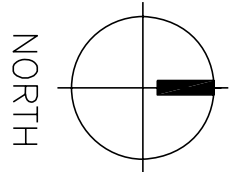
PROJECT NO. 11116

**CONTRACT # 6870**

- HVAC GENERAL DEMOLITION NOTES:**
- HVAC CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS. THE DEMOLITION DRAWINGS ARE INTENDED TO BE AN EXPRESSION OF THE DESIGN INTENT AND NOT ALL INCLUSIVE OF DEMOLITION WORK REQUIRED.
  - COORDINATE AND SCHEDULE ALL DEMOLITION WORK WITH THE OWNER'S GENERAL CONTRACTOR AND OWNER PRIOR TO STARTING WORK.
  - HVAC CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HVAC WORK TO MATCH ORIGINAL CONDITION.
- HVAC DEMOLITION PLAN NOTES:**
- DISCONNECT & REMOVE EXISTING MAKE-UP AIR UNIT. REMOVE EXISTING EXHAUST DUCT FROM ROOF. PATCH ROOF OPENING WITH ELECTRICAL THOGE. DISCONNECT & REMOVE GAS PIPING CONNECTION AND CAP PIPE.
  - DISCONNECT & REMOVE EXISTING POWER ROOF VENTILATOR (PURGE PANS) AND MOTORIZED BACKDRAFT DAMPER. PROTECT EXISTING CURB & DISCONNECT FOR REUSE WITH NEW FAN.
  - DISCONNECT & REMOVE EXISTING 44/12 GRAVITY EXHAUST DUCT FROM ELBOW DOWN TO FLOOR. PROTECT OPENING FOR REUSE WITH NEW FAN.
  - REMOVE EXISTING FLUE VENT THROUGH ROOF & PATCH ROOF OPENING TO MATCH EXISTING. INSULATE BELOW WITH RIGID BOARD (RIG).  
-see Roofing Note below.
  - TO MATCH EXISTING, PATCH MOUNTED MANUAL EXHAUST PURGE STOP/START NEW EXHAUST WIRE MESH.
  - TEMPERATURE CONTROL CONTRACTOR TO REMOVE EXISTING CONTROL COMPONENTS & PATCH MOUNTED MANUAL EXHAUST PURGE STOP/START SWITCHES & RUN UNITS.
- ROOFING NOTE:** The existing roof consists of a Firestone white EPDM membrane with 3 1/2" of polyisocyanurate foam insulation over an existing metal roof. Restore any holes in the roof to match these existing conditions.
- The contractor shall use manufacturer authorized contractors when making penetrations in the roof in order to maintain the roof's warranty. All work shall be pre approved by the roofing manufacturer.



**1 FLOOR PLAN - HVAC DEMOLITION**  
1/8" = 1'-0"



DESIGNED BY:	DATE:	ISSUED FOR:
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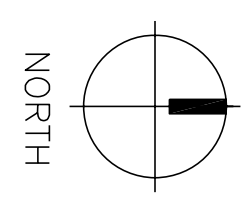


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**HVAC Upgrades**  
Goodman Parks - Building B  
1402 Wingra Creek Parkway  
Madison, WI  
Sheet Title:  
HVAC DEMOLITION PLAN

**HD100**



1 FLOOR PLAN - ELECTRICAL DEMOLITION  
1/8" = 1'-0"



- ELECTRICAL GENERAL NOTES:**
1. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FINAL EXISTING CONDITIONS.
  2. EXISTING RACEWAYS MAY BE REUSED IF CONFORMING TO NEW PLAN.
  3. COORDINATE ELECTRICAL CONDUIT ROUTING WITH OTHER TRADES.

- ELECTRICAL PLAN DEMOLITION NOTES:**
- DISCONNECT POWER TO EXISTING MAKE-UP AIR UNITS (MANU). DISCONNECT & REMOVE RACEWAYS AND CONDUCTORS BACK TO PANEL 'A'. REMOVE EXISTING 20/2 CIRCUIT BREAKER IN PANEL 'A'. COORDINATE WORK WITH HVAC TRADE. REUSE EXISTING RACEWAYS IF CONFORMING TO NEW PLAN.
  - DISCONNECT POWER TO EXISTING POWER ROOF VENTILATORS PRV-1 & 2. DISCONNECT & REMOVE RACEWAY & CONDUCTORS BACK TO MAIN PURGE PANEL (CONTRACTORS) & PANEL 'A'. COORDINATE WORK WITH HVAC TRADE. REUSE EXISTING RACEWAYS IF CONFORMING TO NEW PLAN.

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PROJECT NO. H116

CONTRACT # 6870

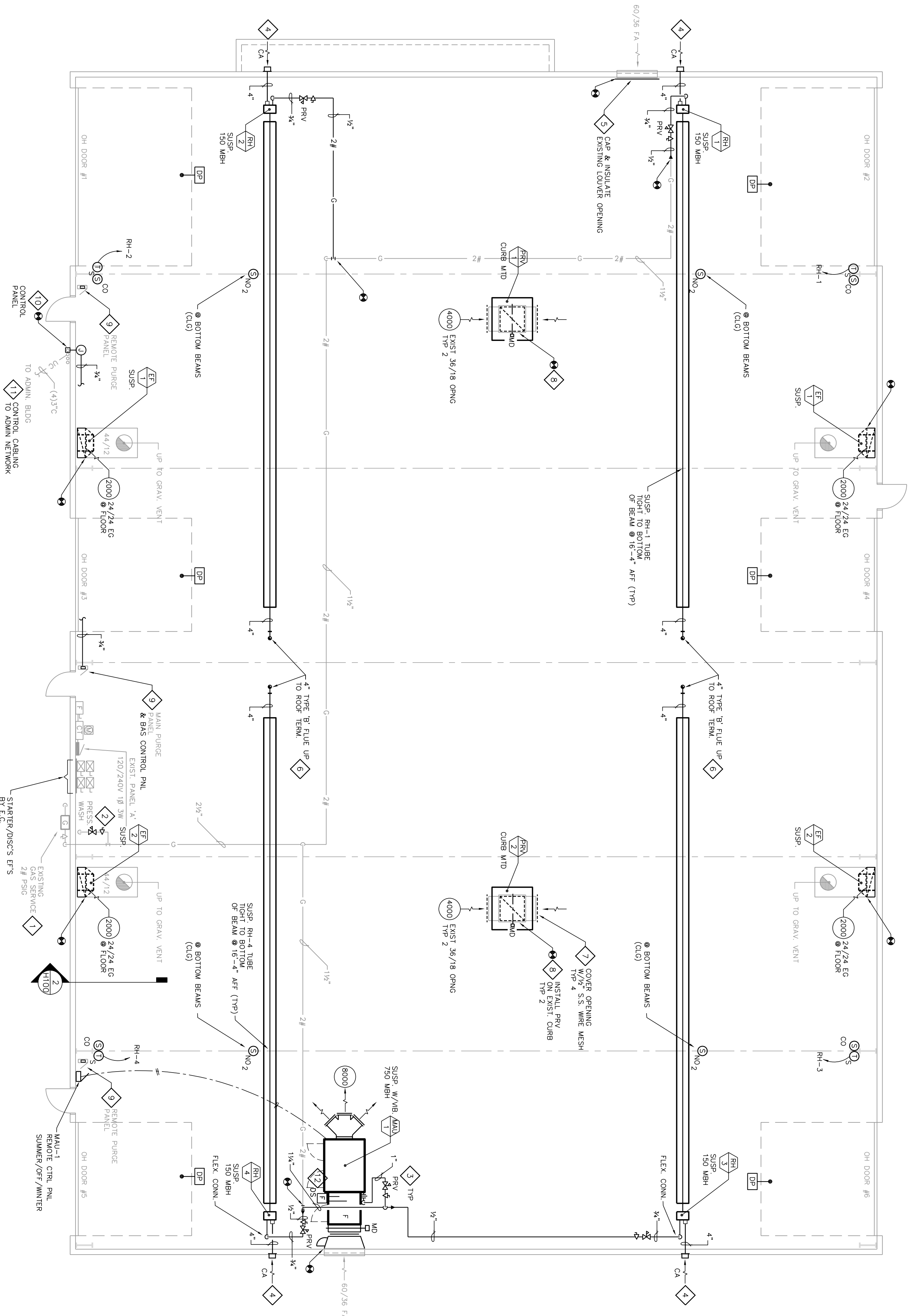
Project Title:  
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**Goodman Parks - Building B**  
1402 Wingra Creek Parkway  
Madison, WI  
Sheet Title:  
ELECTRICAL DEMOLITION PLAN



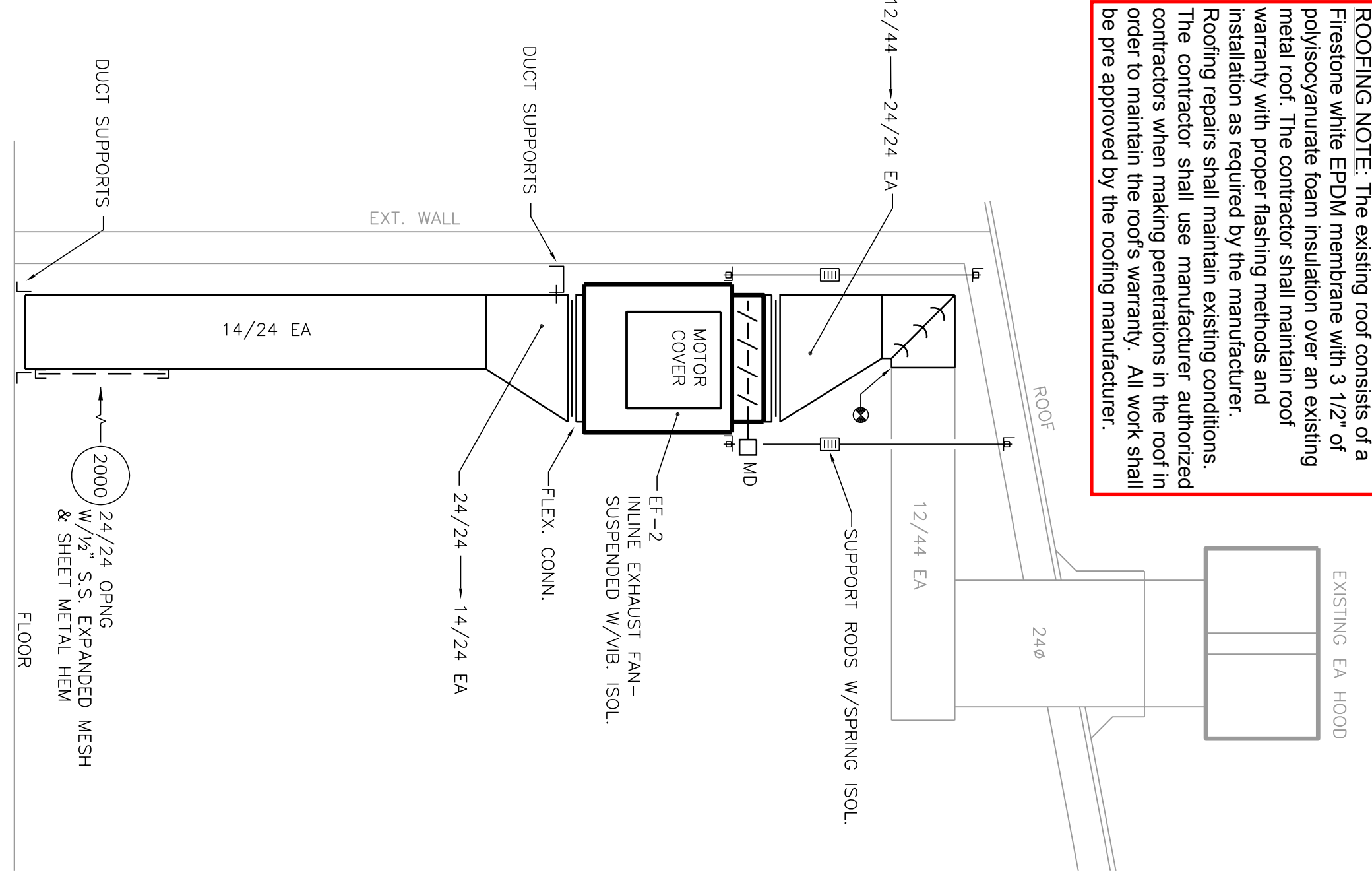
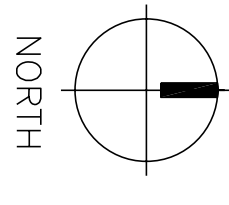
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MH	4-23-12	FINAL REVIEW
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Sheet Number

ED100



1 FLOOR PLAN - HVAC  
1/8" = 1'-0"



2 INLINE EXHAUST FAN - ELEVATION  
1/2" = 1'-0"

**ROOFING NOTE:** The existing roof consists of a Firestone white EPDM membrane over a 3 1/2" of polyisocyanurate foam insulation over an existing metal roof. The contractor shall maintain roof warranty with proper flashing methods and installation as required by the manufacturer. The contractor shall use manufacturer authorized contractors when making penetrations in the roof in order to maintain the roof's warranty. All work shall be pre approved by the roofing manufacturer.

- HVAC GENERAL NOTES:**
- HVAC CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS.
  - COORDINATE AND SCHEDULE ALL HVAC WORK WITH THE OWNER'S GENERAL CONTRACTOR AND OWNER PRIOR TO STARTING WORK.
  - HVAC CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HVAC WORK TO MATCH ORIGINAL CONDITION.
  - COORDINATE PIPING AND DUCTWORK ROUTING WITH OTHER TRADES.
  - ALL EXPOSED CONTROL WIRING BELOW 10 FT AFF TO BE IN EMF SHIELD PER DIV 16.
- HVAC PLAN NOTES:**
- OWNER WILL ARRANGE FOR GAS UTILITY (NGAS) TO REVERSE GAS SERVICE PRESSURE TO 2# CONTRACTOR TO CONFIRM INTEGRITY OF EXISTING GAS PIPING AND CHECK FOR LEAKS.
  - PROVIDE SHUTOFF VALVE AND PRESSURE REGULATOR VALVE FOR EXISTING APPROVED VENTLESS TYPE.
  - EXTEND EXISTING GAS PIPING TO NEW GAS-FIRED EQUIPMENT WITH ISOLATION GAS VALVE, PRESSURE REGULATING VALVE (PRV), DRIP LEG AND UNION, VENT PRV TO OUTSIDE, UNLESS APPROVED VENTLESS TYPE, PROVIDE FLEXIBLE GAS PIPING AT RADIAN HEATER BURNERS.
  - CUT AND PATCH EXTERIOR WALL FOR NEW 4" FRESH DUCT AND WALL CAP INTAKE.
  - CAP EXISTING FRESH AIR INTAKE WITH SHEETMETAL AND INSULATE 2" RIGID BOARD INSULATION (R01).
  - CUT AND PATCH EXTERIOR ROOF TO RECEIVE NEW 4" TYPE 'B' VERTICAL FLEUE VENT WITH FLASHINGS PER TERMINATION DETAIL. SEAL OPENING WATERIGHT. SEE ROOFING NOTE BELOW.
  - COVER EXISTING EXHAUST DUCT OPENINGS (26" x 48") WITH 16 GAUGE STAINLESS STEEL 304 EXPANDED MESH (08 FA) COVER ALL SHARP EDGES WITH SHEETMETAL HEW AND SECURE WITH REMOVABLE SHEETMETAL SCREWS.
  - ATTACH NEW POWER ROOF VENTILATOR (PRV) TO EXISTING CURB (EST. 40" x 40") MODIFY EXISTING CURB AS NECESSARY. PROVIDE CURB ADAPTOR TO FIT NEW CURB HOUSING.
  - CONTROL CONTRACTOR TO RENOVATE EXISTING PURGE PANELS TO MEET SEQUENCE OF OPERATION AND CONTROL OPERATION AS REQUIRED. EXISTING PUSHBUTTON STOP/START BUTTONS AND RUN LIGHT FOR PURGE FANS ARE TO REMAIN ON PANEL FACE FOR MANUAL OVERRIDE OPERATION. PROVIDE COUNTDOWN TIMER (30 MIN. ADJ.) TO AUTOMATICALLY TURN-OFF MANUAL OPERATION.
  - CONTROL CONTRACTOR TO EXTEND EXISTING PVC CONDUIT BACKWAY TO BUILDING INTERIOR WITH JOY BOXES. SEAL EXTERIOR WALL PENETRATION WITH BUSHINGS.
  - CONTROL CONTRACTOR TO EXTEND NETWORK CABLING TO ADMIN. BLDG DDC NETWORK (HONEYWELL BAS) FOR BLDG 'B' CONTROLS.
  - DUCT SMOKE DETECTOR PROVIDED BY MAU SUPPLIER FOR FIELD MOUNTING IN DUCTWORK AND WIRING BY HVAC CONTRACTOR.

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CONTRACT # 6870

Project Title:  
**HVAC Upgrades**  
Goodman Parks - Building B  
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HVAC PLAN



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PROJECT NO. H116

CONTRACT # 6870

Project Title:  
**HVAC Upgrades**  
 Goodman Parks - Building B  
 1402 Wingra Creek Parkway  
 Madison, WI  
 Sheet Title:  
 ELECTRICAL PLAN & SCHEDULES



ISSUED FOR:	FINAL REVIEW
DATE:	4-23-12
DECKED BY:	MH
DRAWN BY:	DAS

Sheet Number  
**E100**

- ELECTRICAL GENERAL NOTES:**
1. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FINAL EXISTING CONDITIONS.
  2. EXISTING RACEWAYS MAY BE REUSED IF CONFORMING TO NEW PLAN.
  3. COORDINATE ELECTRICAL CONDUIT ROUTING WITH OTHER TRADES.
- NOTE: ALL CIRCUITS NOTED FROM PANEL 'A'.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EQUIPMENT AND WIRING		SWITCHES
	DIRECT EQUIPMENT CONNECTION		SINGLE POLE
	MOTOR CONNECTION-SEE EQUIP. SCHEDULE FOR TYPE, WIRING, ETC.		THREE WIRE
	JUNCTION BOX-CONCEALED IN FINISHED AREAS, UNFINISHED AREAS IN UNFINISHED AREAS		RECEPTACLE IN TWO GANG BOX
	FUSE HOLDER W/1/2" AMP AND TOGGLE SWITCH (1/2" HP MOTORS AND DOLBY) COMBINATION STARTER/CONNECTION STARTER/SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK-M.P. INDICATES FUSED UNLESS INDICATED BY "F" - MANUAL STARTER		RECEPTACLE
	MANUAL STARTER		DUPLEX W/GROUND FAULT INTERLOCK PROTECTION
	ELECTRICAL POWER PANEL		DUPLEX SURFACE @ CEILING

**EQUIPMENT**

MU=MAKE-UP AIR UNIT  
 PR=POWER ROOF VENTILATOR  
 EF=EXHAUST FAN  
 RH=RADIANT HEATER

**NOTE:** ALL VENTING HEIGHTS ARE TO CENTER LINE OF SERVICE REFER TO PLANS FOR OTHER HEAD HTG. HEIGHTS.

**ELECTRICAL MOTOR/EQUIPMENT SCHEDULE**

TAG	PANEL	NO.	PHASE	VOLT	HP (KW)	FLA (MCA)	STARTER TYPE	SIZE	BY	CONTROL	TYPE	BR	DISCONNECT	TYPE	SIZE	FUSE	REMARKS
	A	40.42	3/4"	230	230	8.0 (10.0)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	MAKE-UP AIR UNIT	
	A	4.6	1/2"	230	230	8.0 (10.0)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	POWER ROOF VENT. PRV-1	
	A	12.14	1/2"	230	230	8.0 (10.0)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	POWER ROOF VENT. PRV-2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	
	A	15	1/2"	230	230	7.2 (9)	EXIST. CONTROLLER w/ FUSED PANEL	1	H.C.	CONTROL PNL *	DMS	B/S	NEMA 1	60	15	EXHAUST FAN TYP 2	

**FLOOR PLAN - ELECTRICAL**

1/8" = 1'-0"

